# ON THE PATH TO MARKET MATURITY

**BY PEOPLE. WITH PEOPLE. FOR PEOPLE.**

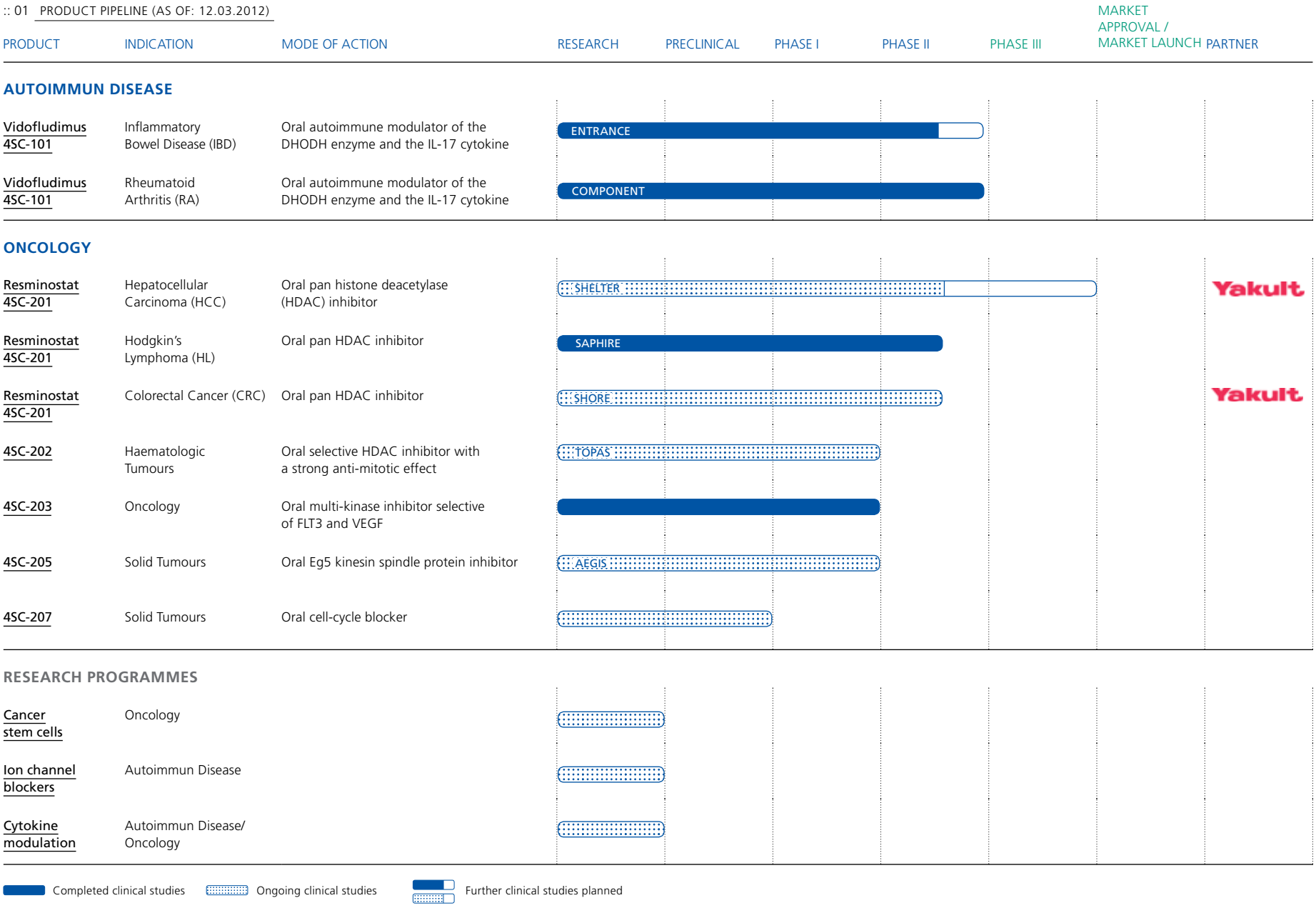
:: BY PEOPLE. WITH PEOPLE. FOR PEOPLE.

4SC researches and develops innovative, orally administered small-molecule drugs for autoimmune diseases and cancer – indications with a high unmet medical need and excellent marketing potential. The well-balanced clinical pipeline and constant focus on new, intrinsically valuable research programmes enables the targeted development of the business. It was this kind of targeted development that led to the achievement of lasting progress for the key compounds of 4SC in 2011.

Together with its employees, partners and shareholders, 4SC works continuously towards its goals of relieving suffering and improving the quality of life for people with illnesses.

# :: 4SC AT A GLANCE

:: 01 PRODUCT PIPELINE (AS OF: 12.03.2012)



:: Tab. 01 FIVE-YEAR OVERVIEW – KEY FIGURES AT A GLANCE

| in € 000's | 2011 | 2010 | 2009 | 2008 | 2007 |
|---|---|---|---|---|---|
| Revenue | 780 | 989 | 1,861 | 2,969 | 1,376 |
| Operating profit/loss | - 18,793 | - 20,271 | - 16,437 | - 12,695 | - 8,303 |
| Net profit/loss for the year | - 19,071 | - 20,075 | - 16,107 | - 11,854 | - 8,130 |
| Equity | 23,533 | 31,210 | 50,909 | 37,158 | 19,616 |
| Equity ratio | 73.9% | 89.9% | 94.4% | 90.4% | 88.9% |
| Total assets | 31,838 | 34,731 | 53,903 | 41,094 | 22,063 |
| Cash flows from operating and investing activities | - 9,216 | - 30,565 | - 658 | - 32,196 | - 11,762 |
| Cash flows from financing activities | 11,080 | 0 | 28,833 | 29,207 | 19,575 |
| Net change in cash and cash equivalents | 1,864 | - 30,565 | 28,175 | - 2,989 | 7,813 |
| Cash and cash equivalents | 6,820 | 4,956 | 35,521 | 7,346 | 10,335 |
| Cash balance/funds | 15,820 | 17,607 | 35,621 | 21,846 | 17,193 |
| **EMPLOYEES** | | | | | |
| Number of employees and Management Board members (annual average) | 96 | 94 | 91 | 80 | 64 |
| **THE 4SC SHARE** | | | | | |
| Earnings per share (basic and diluted) (in €) | - 0.46 | - 0.52 | - 0.54 | - 0.51 | - 0.57 |
| Number of shares issued (annual average, in 000's) | 41,455 | 38,503 | 29,753 | 23,436 | 14,225 |
| Free float on balance sheet date according to Deutsche Börse | 26,4% | 19,4% | 19,0% | 29,4% | 30,1% |
| Annual high (Xetra) (in €) | 4.89 | 3.51 | 3.50 | 3.80 | 3.98 |
| Annual low (Xextra) (in €) | 1.20 | 2.67 | 2.60 | 2.50 | 2.53 |
| Closing price on balance sheet date (in €) | 1.23 | 3.51 | 2.96 | 3.09 | 3.43 |
| Market capitalisation on balance sheet date (in €000's) | 51,621 | 135,145 | 113,968 | 88,073 | 65,176 |
| Average daily trading volume (Xetra) (shares) | 26,307 | 10,050 | 7,274 | 5,041 | 11,867 |

# :: MILESTONES

**ON THE PATH TO MARKET MATURITY,** 4SC HAS ACHIEVED KEY MILESTONES IN 2011, ENHANCED THE INTRINSIC VALUE OF THE COMPANY AND ACHIEVED LASTING PROGRESS IN THE COMPOUND PROGRAMMES.

## Q1

### JANUARY 2011

:: Commencement of Phase I/II SHORE trial with resminostat in colorectal cancer

### FEBRUARY 2011

:: Successful completion of **capital increase** of €11.74 million
:: Presentation of **final study results** from Phase IIa ENTRANCE trial with vidofludimus in inflammatory bowel disease: **primary trial endpoint reached**

## Q2

### APRIL 2011

:: Start of Phase I TOPAS trial with 4SC-202 in advanced haematological cancer indications
:: Conclusion of **development and marketing partnering agreement with Yakult Honsha** for resminostat in Japan

### JUNE 2011

:: Announcement of **top-line results from Phase IIb COMPONENT trial** with vidofludimus in rheumatoid arthritis: **primary trial endpoint not reached**

## Q3

### JULY 2011

:: For liver cancer treatment resminostat receives Orphan Drug status from the FDA for the US and Orphan Medicinal Product status from the EMA for Europe

### SEPTEMBER 2011

:: Resminostat reaches **primary endpoint in Phase II SAPHIRE trial** in Hodgkin's lymphoma

### SEPTEMBER/OCTOBER 2011

:: For Hodgkin's lymphoma treatment, resminostat receives Orphan Drug status from the FDA for the US and from EMA for Europe

## Q4

### NOVEMBER 2011

:: Key patent awarded for resminostat in Japan
:: Management decision to temporarily focus on resminostat, vidofludimus and 4SC-202 to prolong the financial scope well into the first quarter of 2013

### DECEMBER 2011

:: **Formation of 4SC Discovery GmbH** for the commercialization of innovative drug research

THE COMPANY



04

**STRATEGY**

# On the Path to Market Maturity

:: **ROADMAP**
:: **THE DRUG DEVELOPMENT PROCESS AND THE CURRENT STATUS OF 4SC'S COMPOUNDS**
:: **4SC'S VALUE DRIVERS: THE FOUR STRATEGIC PILLARS ON THE PATH TO MARKET MATURITY**

08

38



## GROUP MANAGEMENT REPORT





## ANNUAL CONSOLIDATED FINANCIAL STATEMENTS (IFRS) AND CONSOLIDATED NOTES



76

# :: LETTER OF THE MANAGEMENT BOARD

**DR ULRICH DAUER |**
**CHIEF EXECUTIVE OFFICER**

- :: DOCTOR OF CHEMISTRY
- :: BORN IN 1965
- :: FOUNDING MEMBER
- :: CHIEF EXECUTIVE OFFICER SINCE 1999
- :: COMPANY DEPARTMENTS: INVESTOR & PUBLIC RELATIONS, HUMAN RESOURCES, BUSINESS DEVELOPMENT, STRATEGIC PLANNING AND MARKETING, QUALITY ASSURANCE

**DR BERND HENTSCH |**
**CHIEF DEVELOPMENT OFFICER**

- :: DOCTOR OF BIOLOGY
- :: BORN IN 1960
- :: MANAGEMENT BOARD MEMBER SINCE 2008
- :: COMPANY DEPARTMENTS: CLINICAL AND PRECLINICAL DEVELOPMENT, PHARMACEUTICAL DEVELOPMENT, DRUG SUPPLY

**ENNO SPILLNER |**
**CHIEF FINANCIAL OFFICER**

- :: DEGREE IN BUSINESS ADMINISTRATION (DIPLOM-KAUFMANN)
- :: BORN IN 1970
- :: MANAGEMENT BOARD MEMBER SINCE 2005
- :: COMPANY DEPARTMENTS: ACCOUNTING, CONTROLLING, PURCHASING, CORPORATE LAW

**DR DANIEL VITT |**
**CHIEF SCIENTIFIC OFFICER**

- :: DOCTOR OF CHEMISTRY
- :: BORN IN 1968
- :: FOUNDING MEMBER
- :: MANAGING DIRECTOR OF 4SC DISCOVERY GMBH SINCE 2012
- :: COMPANY DEPARTMENTS: TRANSLATIONAL PHARMACOLOGY, CHEMISTRY, INTERNAL SERVICES, PATENT AND INTELLECTUAL PROPERTY, INFORMATION TECHNOLOGY

# DEAR SHAREHOLDERS, DEAR FRIENDS AND PARTNERS OF 4SC,

For 4SC, 2011 was an eventful, not always easy and yet successful year.

We have not only made great progress in our drug development programmes but also successfully overcome a setback. Despite difficult conditions in the industry and the capital markets, we achieved several key milestones in terms of both company financing and the commercialisation of our products. In addition, by taking forward-thinking decisions we have laid the groundwork for the further value growth of our enterprise. This has further strengthened 4SC's successful business model.

4SC and its products have made decisive progress in 2011:

:: We successfully completed three clinical Phase II trials.
:: We acquired over €11 million in corporate financing as part of a capital increase and strengthened our shareholder base by adding new investors from the USA, Scandinavia and the Benelux countries.
:: We acquired a distinguished initial partner for our cancer drug resminostat.

**OUR VISION: ON THE PATH TO MARKET MATURITY ::** Our key goal is to successfully bring our innovative and advanced drugs to the market. Over the past year, we have passed a number of key milestones on the long and stony road that is typical of biopharmaceutical drug development. For our main products, vidofludimus and resminostat, we have provided clear evidence of their safety and efficacy as part of Phase II trials. In so doing, we have set the stage for tackling the next major developmental steps towards value creation together with strong partners: a Phase IIb trial with vidofludimus in inflammatory bowel disease and a registration trial with resminostat in liver cancer. This is also the reason for presenting the current annual report under the title "On the Path to Market Maturity". We develop innovative, targeted agents with a high therapeutic benefit for the treatment of cancer and autoimmune diseases. This enables us to offer better therapy options for affected patients, as well as sustainable value for our shareholders, partners and employees.

**KEY PROGRESS MADE ON THE PATH TO MARKET MATURITY ::** We were successful in 2011 in both fields of therapy we address. In the field of cancer therapies, we achieved considerable progress with our main product resminostat, a pan-histone deacetylase (HDAC) inhibitor with an epigenetic mechanism of action of great therapeutic potential. We are now using a Phase II study programme to develop this agent in the three indications of colorectal cancer, lymph node cancer (Hodgkin's lymphoma) and liver cancer (HCC). Our first success came in April 2011, with the license agreement for the development and commercialisation of resminostat with Yakult Honsha, the Japanese market leader for gastrointestinal cancer therapies. This partnership not only brought an up-front payment of €6 million, thus making a key contribution to the financing of our operating business; the deal also entitles us to further milestone payments of up to €127 million in the years to come, as well as double-digit percentage royalty payments. For us, this first, regional partnership – Japan constitutes around 10% of the global oncology market – is an important validation of the great overall commercial potential of resminostat.

We recorded our second highlight with resminostat in September 2011, with the publication of the top-line results from our Phase II SAPHIRE trial in Hodgkin's lymphoma. In this trial, resminostat returned impressive data as a monotherapy for heavily pretreated patients with advanced tumour disease and attained the primary efficacy endpoint. We reported our third major success with resminostat shortly after the end of the reporting period. In the Phase II SHELTER trial, which is investigating resminostat as a monotherapy and in combination with the cancer drug sorafenib in patients with advanced liver cancer – and who no longer respond to treatment with sorafenib alone – we have achieved the primary efficacy endpoint in both study arms ahead of schedule.

**ON THE PATH TO MARKET MATURITY**

:: **SUCCESSFUL COMPLETION OF THREE PHASE II STUDIES**
:: **CAPITAL INCREASE OF €11 MILLION**
:: **FIRST PARTNER FOR RESMINOSTAT**

**HUGE MARKET POTENTIAL FOR OUR LEAD COMPOUNDS RESMINOSTAT AND VIDOFLUDIMUS**

We also enjoyed successes in the area of autoimmune diseases in 2011, bringing the Phase IIa ENTRANCE trial in patients with inflammatory bowel disease to a successful conclusion in February with vidofludimus, a substance whose anti-inflammatory mechanism of action is unique. With a highly positive response rate of 88.5%, we achieved the primary trial endpoint, showing that the agent can help patients suffering from Crohn's disease and ulcerative colitis – a population previously reliant on cortisone preparations, whose limited efficacy is also complicated by numerous side effects.

However, with vidofludimus, we also had to overcome a setback in 2011. In June, we published the top-line results from our Phase IIb COMPONENT trial in the indication of rheumatoid arthritis. While this data set showed treatment with vidofludimus to be superior to the comparable treatment in terms of all parameters measured, we were unable to demonstrate this superiority to the required degree of statistical significance. Accordingly, we failed to reach the defined trial endpoint. This was a disappointing result – not merely for us, but certainly also for you, our shareholders, friends and partners. It was a setback for 4SC and was also reflected directly in a strong decline experienced by our share price. Nonetheless: A difficult situation such as this ably demonstrates the robustness of a business strategy. Thanks to our broad-based, risk-balanced clinical product pipeline – containing several drug programmes in numerous indications and trials – we were without a doubt better positioned to overcome this setback than companies in our industry with a more narrowly-focused development portfolio. Looking back as we do today, we are therefore especially pleased to see how the steadily positive development of our business over the last few months – and the encouraging results from resminostat in liver cancer in particular – have compensated this setback comparatively well. Happily, this is also reflected in 4SC's market capitalisation figure at the point in time this Annual Report went to press.

Following a detailed analysis of the Phase II data, we have decided to develop vidofludimus further along the path to market maturity in the inflammatory bowel disease indication. While the commercial potential in this indication is smaller than in rheumatoid arthritis, a peak sales potential of over €1 billion nonetheless offers vidofludimus the chance to develop into a blockbuster – and all the more so since the competitor situation is far more favourable.

**INCREASING THE FOCUS ON OUR STRATEGIC VALUE DRIVERS ::** In light of the tense situation in the capital markets, 2011 was not an easy year for the biotech sector as a whole. As a result, we made the decision in autumn 2011 to take the tactical step of concentrating our resources for the time being on the further development of those drug candidates that offer the greatest potential for adding value to the company: our main products vidofludimus and resminostat as well as the cancer drug 4SC-202. In so doing, we extend our financial leeway by a significant margin – into the first quarter of 2013.

At the end of 2011, we concentrated our early-stage research activities in the newly founded 4SC Discovery GmbH. We intend to use our new subsidiary to generate additional revenue by means of research collaborations with pharmaceutical companies and the marketing of our early-stage research and discovery programmes. This strategy shall reduce our dependence on capital market funding and make the value of our research programmes more transparent to the markets while also strengthening our overall business model.

**OUTLOOK 2012 – A FOCUS ON VALUE CREATING DEVELOPMENT GOALS ::** We have made decisive progress in the past year towards achieving our goal of market maturity for our lead compounds. We are now making a concerted effort in the direction of the next major value-creating development steps:

:: We are in talks with potential partners to prepare a Phase IIb trial with vidofludimus in inflammatory bowel disease. This is the penultimate stage of clinical development on the way to approval in increasingly common disorders such as Crohn's disease.

:: Following the outstanding Phase II trial data with resminostat in advanced liver cancer presented in January 2012, we are now holding talks with regulatory agencies and potential partners to prepare a registration trial in this indication. We are working towards market approval for the treatment of patients who no longer respond to therapy with sorafenib. Since no drug has been approved here, this is an area of urgent medical need with excellent economic potential.

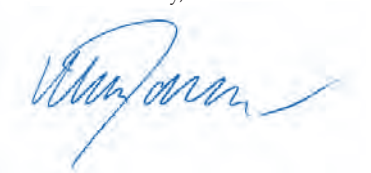
:: We are also pursuing our other development programmes systematically and thus strengthening our pipeline. We expect to receive interim results in 2012 from the Phase I/II SHORE trial with resminostat in colon cancer. We want to conclude the ongoing Phase I trials with the cancer compounds 4SC-202 and 4SC-205 in 2012. We are also following the commercialisation activities of our research subsidiary 4SC Discovery with great interest. We are confident that we will be reporting our first successes here in 2012.

**SUPERBLY POSITIONED IN AN INTACT ENVIRONMENT ::** An exciting year lies before us. The basic conditions affecting the biotech sector will nonetheless continue to apply in the medium to long term. We do business in a dynamic environment that presents us with major opportunities. These opportunities arise from the challenges faced by the pharmaceutical industry – such as patent expiry of blockbuster drugs, fewer product approvals and high cost pressures – which force it to remain reliant on sources able to replenish its drug portfolio. On the other hand, we also stand to benefit from the trend towards personalised medicine, which goes hand in hand with the increasingly stringent and nuanced approval and cost reimbursement criteria specified by regulatory agencies and healthcare systems. In the future, market approval will be possible on the basis of more stratified and markedly smaller patient populations – and thus require less financial outlay. This offers huge potential for integrated research- and development-focused biotech companies such as 4SC, which operate in a highly flexible, responsive manner and are therefore very efficient in bringing small-molecule compounds to market maturity.

We are looking forward to the months to come, in which we will be making every possible effort to build on the successes we achieved last year. We want to assure you, our shareholders, friends and partners, of the quality of our research and development by communicating further positive news from our research.

On behalf of my colleagues on the Management Board, I would like to offer my heartfelt thanks for your trust, your loyalty and your constructive support over the past year. My final thanks are reserved for our employees at 4SC, who make such a decisive contribution to our company's success.

Yours sincerely,



Dr Ulrich Dauer, CEO

**OUTLOOK 2012**

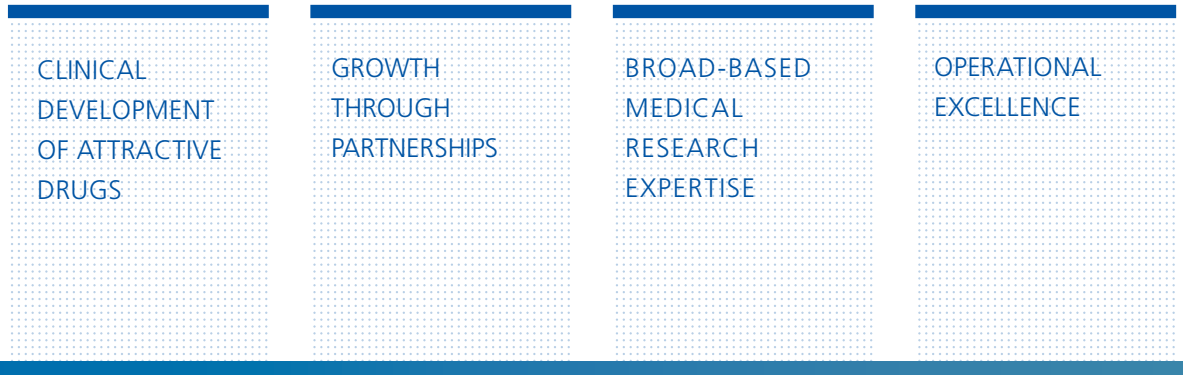
:: **PREPARATIONS FOR PHASE IIB STUDY WITH VIDOFLUDIMUS IN IBD ARE ONGOING**

:: **PIVOTAL STUDY FOR RESMINOSTAT IN HCC IS IN PLANNING**

:: **FURTHER PHASE I/II STUDY RESULTS ARE EXPECTED**

## :: STRATEGY

4SC's strategy consists of the continuous, target-oriented and focused development of its drug programmes along the path to market maturity. In order to achieve this objective, the Company applies a systematic, four-pillar strategy: clinical development of drugs with a high unmet medical need; growth through partnerships; a high level of medical research expertise; and a focus on operational excellence and efficiency. In the past few years, 4SC has developed into a sustainable, risk-diversified and high-potential enterprise. In 2011, the Company made further, decisive progress in the pursuit of our strategy. In the months and years to come, 4SC will engage in major developments to increase value.



## 2000–2010

### **DEVELOPMENT ::** A SUSTAINABLE ENTERPRISE EMERGES

:: Strong research base:
built on a proprietary technology platform

:: Focusing on attractive therapeutic fields:
cancer and autoimmune diseases

:: Sustainable shareholder structure established:
Santo Holding as anchor investor forms core of a strong investment base

:: Growth opportunities exploited:
acquisition of Nycomed oncology portfolio

:: Risk diversified, corporate success secured:
broad and well-balanced clinical pipeline with five compounds in a total of eight studies

:: Two lead compounds with blockbuster potential in ongoing Phase II programmes:
vidofludimus and resminostat

## 2011

### **MILESTONES ::** CLINICAL AND COMMERCIAL SUCCESSES ACHIEVED

:: Proof-of-concept established with vidofludimus in inflammatory bowel disease (IBD):
success in Phase IIa ENTRANCE study

:: Financing strengthened, shareholder base expanded:
successful capital increase with new US and European shareholders

:: First partnering deal signed:
resminostat license agreement with Yakult Honsha in Japan

:: Development success achieved with resminostat:
encouraging Phase II data in Hodgkin's lymphoma (HL) and liver cancer (HCC)

:: Market position improved for resminostat:
key patent awarded in Japan, orphan drug status in HCC and HL granted in the US and Europe

:: Strengthened business model:
formation of 4SC Discovery GmbH to generate revenue from early-stage research work

## 2012 +

### **ON THE PATH TO MARKET MATURITY ::** CREATING SUSTAINABLE VALUE

:: **WORKING WITH STRONG PARTNERS TO DEVELOP INNOVATIVE AND EFFECTIVE DRUGS TOWARDS MARKET MATURITY**
- :: Preparations underway for Phase IIb trial with vidofludimus in inflammatory bowel disease (IBD)
- :: Registration trial in preparation with resminostat in liver cancer (HCC)

:: **IMPROVING FINANCIAL FLEXIBILITY THROUGH NEW SOURCES OF FUNDING**
- :: Commercialisation through global development and marketing partnerships
- :: Research collaborations with pharma companies in early-stage research and drug discovery

:: **ENHANCING OPERATIONAL EXCELLENCE AND EFFICIENCY BY FOCUSING RESOURCE DEPLOYMENT ON VALUE DRIVERS**
- :: Sustained and continuous growth in enterprise value

# :: THE DRUG DEVELOPMENT PROCESS AND THE CURRENT STATUS OF 4SC'S COMPOUNDS

**4SC DISCOVERY GMBH** | **4SC AG**

## RESEARCH

:: Drug discovery
:: Research of underying mechanisms of signal pathways in disregulated cells
:: Research of diagnostic methods and biomarkers
**:: Biomarkers**
**:: Signal transduction**
**:: Translational medicine**

**CANCER STEM CELLS**

**CYTOKINE MODULATION**

**ION CHANNEL BLOCKING**

## PRECLINICAL

:: Efficasy tests *in vitro* and *in vivo*

**4SC-207**

Statistical probability of a market launch:
**~ 10%**

## CLINICAL TESTS PHASE I

:: First evaluation in humans
:: Use of biomarkers
:: Tests on safety and tolerability

**4SC-203**

**4SC-205**

**4SC-202**

Statistical probability of a market launch:
**~ 30%**

## PHASE II

:: Dermining the dose
:: Evaluation efficacy

**RESMINOSTAT**

**VIDOFLUDIMUS**

Statistical probability of a market launch:
**~ 70%**

Time to market: 10–15 years

**SUPPORTIVE RESEARCH: BIOMARKERS, SIGNAL TRANSDUCTION, TRANSLATIONAL MEDICINE**

## PHASE III

:: Statistical proof-of-concept
:: Evaluating interactions with other therapeutics

## MARKET APPROVAL/ MARKET LAUNCH

:: Filing the application
:: Evaluation and approval by regulatory authorities
:: Phase IV trials
:: Further evaluations for side effects

Statistical probability of a market launch:
**~ 90%**

Quantity of compounds — Drug

The DRUG DEVELOPMENT PROCESS starts with the search for a new compound and target molecules. Once a target has been identified, relevant databases and molecular libraries are screened for suitable molecules. Once a new compound has been found, it is assessed in initial preclinical testing for both efficacy and safety. If the 'green light' is given, first clinical tests are started in man.

In PHASE I, the drug is evaluated in a few people, usually in healthy volunteers. In oncology however, it is frequently tested directly in cancer patients. Primarily this provides the first evaluation of the body's reaction to the drug. This includes data on safety and pharmacokinetics, which measures the drug's absorption, its distribution in the body, its biochemical metabolisation as well as its excretion.

In PHASE II, the drug is evaluated in a selected, still relatively small number of patients. The aim is to obtain the first medical proof-of-concept and determine the effective and safe dose parameters.

This is followed by PHASE III, the last phase prior to the filing of an application for approval of the drug. It is at this point that the drug's effect is tested in a larger, statistically significant number of patients.

These studies vary, depending on the indications, the regulatory agencies' requirements and competitors' studies. This phase is designed to provide the determining proof-of-concept data, with the risk/benefit analyses, the drug's safety and its interaction with other drugs being further points of interest.

# → MARKET APPROVAL

The application for MARKET APPROVAL of the drug cannot be filed until successful completion of all three phases. Phase IV studies are used to explore rare side effects that can only be detected in larger patient populations. These studies take place after successful approval of a new drug.

# :: 4SC'S VALUE DRIVERS: THE FOUR STRATEGIC PILLARS ON THE PATH TO MARKET MATURITY

## 1 CLINICAL DEVELOPMENT OF ATTRACTIVE DRUGS FOR THE TREATMENT OF CANCER AND AUTOIMMUNE DISEASES

**AT A GLANCE ::** 4SC develops innovative, targeted – and thus more efficacious and better tolerated – drugs along the path to market maturity. The Company also possesses a high level of expertise in clinical development, particularly in the areas of oncology and autoimmune disease therapy. 4SC focuses its work on indications that have an urgent medical need and substantial economic potential and for which only a limited number of treatment options are available. Any setbacks and delays in development work can be effectively mitigated thanks to the Company's balanced and robust development pipeline, which comprises numerous drugs.

**CURRENT DEVELOPMENTS ::** 4SC has made substantial progress in developing its lead compounds – resminostat and vidofludimus – towards market maturity in 2011/12 and has already achieved the primary study goal in the following three Phase II trials:

:: SAPHIRE study with resminostat in Hodgkin's lymphoma (HL)
:: SHELTER study with resminostat in liver cancer (HCC)
:: ENTRANCE study with vidofludimus in inflammatory bowel disease (IBD)

**OUTLOOK/GOALS ::** For resminostat and vidofludimus, 4SC has thus met the prerequisites for initiating discussions with authorities and partners to prepare the next development steps in the value creation process:

:: A registration trial with resminostat in advanced HCC
:: A Phase IIb trial with vidofludimus in IBD patients

## 2 GROWTH THROUGH PARTNERSHIPS: MARKETING THE PRODUCTS

**AT A GLANCE ::** 4SC intends to take a targeted approach to developing its clinical and preclinical drug candidates along the path to market maturity by establishing development and marketing partnerships with strong partners from the pharmaceutical and biotech industry. This will enable the Company to increase the pace of development while reducing associated risk. 4SC is also securing its share of the future development success of its programmes by means of milestone and royalty payments, for example, and generates positive cash flows that make substantial contributions to its funding.

**CURRENT DEVELOPMENTS ::** 4SC signed its first groundbreaking partnership with the Japanese pharmaceutical company Yakult Honsha in 2011. Key details are as follows:

:: Yakult Honsha receives an exclusive license to develop and market resminostat in Japan
:: 4SC receives an immediate up-front payment of €6 million
:: 4SC receives future performance-based milestone payments of up to €127 million, as well as substantial royalty payments

**OUTLOOK/GOALS ::** On the path to market maturity for its development programmes, 4SC is pursuing the following specific pharmaceutical partnerships for 2012 and beyond:

:: Worldwide licensing agreements for its lead drugs resminostat and vidofludimus
:: Early-stage partnering deals for programmes in early phases of research

## 3 BROAD-BASED MEDICAL RESEARCH EXPERTISE: STRENGTHENING 4SC'S BUSINESS MODEL AND ENHANCING ITS SUSTAINABILITY

**AT A GLANCE ::** 4SC possesses many years of expertise backed by its proprietary computer-based technology platform for the discovery and optimisation of small-molecule substances. The Company has developed in-depth knowledge of supportive research that is key to pharmaceutical drug development – such as analytics or the evaluation of biomarkers, for example. In addition, 4SC's pharmacological expertise in relation to autoimmune diseases and cancer enables it to derive a continuous stream of new compounds for clinical development from its research work in drug discovery.

**CURRENT DEVELOPMENTS ::** 4SC AG formed 4SC Discovery GmbH as a 100% subsidiary in 2011, laying the groundwork for further strengthening the Company's research and intensifying its commercialisation. The concentration of early-stage research in the new subsidiary delivers numerous benefits:

:: 4SC makes the value of its research work more transparent to the market
:: 4SC becomes a more versatile partner for collaborative research ventures with pharmaceutical companies
:: 4SC strengthens its business model through additional revenue

**OUTLOOK/GOALS ::** The start of operations at 4SC Discovery GmbH on 1 January 2012 has strengthened 4SC's business model in the following key areas:

:: Generating revenue from research services for and research cooperations with pharmaceutical partners
:: Marketing the Company's own drug programmes at an early stage of development
:: Replenishing 4SC's clinical development pipeline

## 4 OPERATIONAL EXCELLENCE: AN EFFECTIVE ORGANISATION AND EFFICIENT STRUCTURES

**AT A GLANCE ::** 4SC has established professional, effective and efficient structures in order to deploy its resources with maximum efficacy and guarantee a high level of benefit for its products and services. More than 70% of the Company's workforce are engaged in research and development – a percentage that places 4SC at the very forefront of its industry. Lean management and flat hierarchies combined with short lines of communication and rapid decision-making ensure great flexibility, enabling the Company to operate successfully in the pharmaceutical environment. 4SC is also focused squarely on cost optimisation.

**CURRENT DEVELOPMENTS ::** In light of the tense situation in the capital markets, 4SC at the end of 2011 adopted a temporary strategy to focus its resources as outlined below:

:: Concentrating on the development of products with the greatest potential to increase 4SC's enterprise value (resminostat, vidofludimus, 4SC-202)
:: Considerably extending liquidity into the first quarter of 2013 as a result of related cost savings

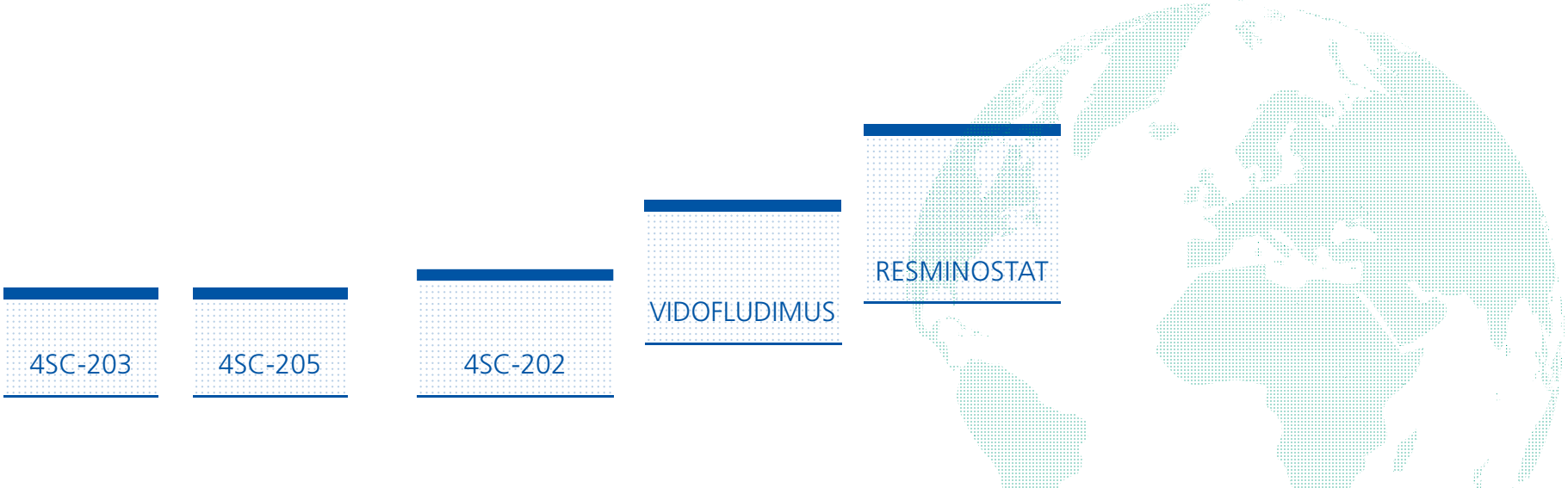
**OUTLOOK/GOALS ::** The Company is systematically pursuing its path of operational excellence throughout 2012 and beyond:

:: 4SC is continuously increasing the efficiency of its resource utilisation
:: 4SC is pursuing targeted development of its value drivers along the path to market maturity
:: 4SC is working towards automation for selected processes and striving continuously for optimising its output and quality, both in administration and R&D

## :: MARKETS AND PRODUCTS

The 4SC product pipeline comprises five compounds in clinical development and multiple drug programmes in preclinical and early research phases. All programmes are dedicated to the treatment of autoimmune diseases and cancers – indications with a high medical need for therapeutic solutions and huge economic potential.

The focus of clinical development is currently on the three compounds resminostat, vidofludimus and 4SC-202. This way, 4SC is targeting precisely those value drivers that the Company believes offer the greatest potential to grow value for the entire Company in 2012 – for example by entering into new commercialisation partnerships or achieving major clinical milestones on their path to market maturity.



# :: VIDOFLUDIMUS

## Vidofludimus – A promising drug candidate for treating autoimmune diseases

Vidofludimus is the Company's lead compound for treating autoimmune diseases. With its innovative dual mechanism of action, its anti-inflammatory activity proven in clinical trials and its good tolerability, the oral small-molecule compound offers great potential for broad-based application in autoimmune diseases.

Vidofludimus inhibits the expression of selected pro-inflammatory cytokines, including interleukin-17 (IL-17A and IL-17F) and interferon-gamma (IFN-γ) that are supposed to have crucial roles in the pathogenesis of a variety of autoimmune diseases. The compound also inhibits dihydroorotate dehydrogenase (DHODH), a key enzyme of the pyrimidine biosynthesis. This halts the proliferation of activated immune cells, T and B cells, which are involved in the pathology of autoimmune disorders.

With vidofludimus, 4SC in 2011 has successfully concluded its Phase IIa ENTRANCE trial in the indication of inflammatory bowel disease (IBD). With a response rate of 88.5% and the achievement of the primary endpoint, the trial demonstrated that the drug has the potential to be used both as therapy for remission maintenance and disease stabilisation and as a means of relieving patients from further flare-ups of the disease. Furthermore, a clinical trial in the indication of rheumatoid arthritis confirmed the anti-inflammatory activity of vidofludimus. The anti-inflammatory activity of vidofludimus has also been proven in preclinical studies for other autoimmune diseases such as multiple sclerosis, lupus erythematosus, psoriasis, and also for organ transplant rejection.

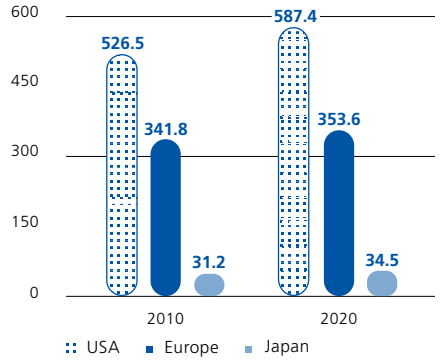
## IBD – chronic bowel disease with high medical need

**INLAMMATORY BOWEL DISEASE ::** The term inflammatory bowel disease (IBD) is a collective term for a group of inflammatory conditions of the gastrointestinal tract, in which acute phases alternate with phases where the patient is free of symptoms. According to the latest research, IBD is caused by a deregulated response of the body's own immune system against the intestinal mucosa. Here, the body's own pro-inflammatory mediators interleukin-17 (IL-17A and IL-17F) – which are successfully inhibited by vidofludimus – play a key role in the pathogenesis of IBD. IBD patients suffer from abdominal pain, rectal bleeding, diarrhoea, weight loss, fatigue and other extra-intestinal symptoms. The currently available therapy options for the main types of IBD – Crohn's disease and ulcerative colitis – are generally limited to anti-inflammatory steroids such as cortisone, immunosuppressants and TNFα antibodies. However, the efficacy of these types of therapy is limited, and they often have severe side effects.

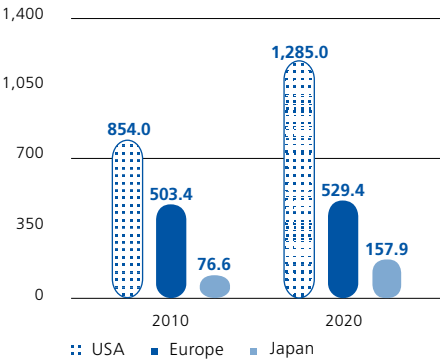
**CROHN'S DISEASE ::** The disease is characterised by an inflammatory affliction of either part of or the whole of the digestive tract and is currently incurable. Approximately 0.9 million people in the seven largest industrial countries currently suffer from Crohn's disease and mostly contract the disease between the ages of 20 and 40. Crohn's disease leads to a considerable reduction in quality of life and may also involve severe complications requiring immediate surgery.

**ULCERATIVE COLITIS ::** The disease primarily afflicts the large intestine, causing characteristic ulcers or open sores. Ulcerative colitis currently affects around 1.4 million patients in the seven largest industrialised countries.

:: 02 EXPECTED DEVELOPMENT OF PATIENT FIGURES OF CROHN'S DISEASE (CD) :: IN 000'S

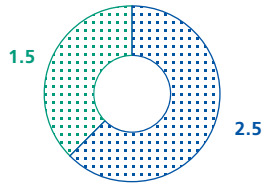



:: 03 EXPECTED DEVELOPMENT OF PATIENT FIGURES OF ULCERATIVE COLITIS (UC) :: IN 000'S




Source: Datamonitor 2010

:: 04 VIDOFLUDIMUS – WORLDWIDE, ANNUAL MARKET VOLUME :: IN BILLION US-$




:: Crohn's Disease :: Ulcerative Colitis

Source: Datamonitor 2010

## Promising market potential for vidofludimus

The market potential in the area of IBD is large and will continue to grow in the years to come. No later than 2016, around 4 million people will be affected by IBD worldwide. By 2019, the market is estimated to reach a volume of almost US-$6 billion. Accordingly, vidofludimus has blockbuster potential for the indication of IBD alone. Above and beyond this, the numerous additional therapy options for autoimmune diseases also have great economic potential.

## Alternative treatment option for IBD

4SC is initially concentrating on developing vidofludimus as a therapeutically and commercially attractive treatment for IBD, based specifically on the excellent clinical Phase IIa data in this indication and the compound's attractive market potential. As a second-line therapy, vidofludimus is intended to be an option for those patients who are suffering from a moderate to serious form of Crohn's disease or ulcerative colitis. Over the course of their illness, around 90% to 95% of these patients receive conventional forms of therapy, such as traditional immunosuppressants. In the future, therefore, vidofludimus could offer a chance of an attractive therapeutic option particularly for those patients who require long-term remission maintenance therapy and for whom no sufficiently effective and safe drug has been available to date.

## Further development to market maturity

On the basis of the excellent Phase IIa data from the ENTRANCE trial and in consideration of the comparatively favourable competitor profile, the next step on the path to market maturity will be for 4SC to focus its efforts on a Phase IIb trial in the indication of IBD. The regulatory data package has been compiled and discussions with regulatory agencies and potential partners are already ongoing. The Phase IIb trial would constitute the penultimate clinical development step before potential market approval of vidofludimus in this blockbuster indication.

In an additional Phase IIb trial with vidofludimus in a second autoimmune indication, rheumatoid arthritis, the primary efficacy endpoint was not achieved. Accordingly, 4SC will not proceed to develop the compound in this indication without a partner.

# :: RESMINOSTAT

## Resminostat – Lead compound in oncology

Resminostat is an oral pan-histone deacetylase (HDAC) inhibitor with a new epigenetic mechanism of action that is of particular interest for therapeutic use. As a novel, targeted cancer therapy, resminostat can trigger cell differentiation and programmed cell death (apoptosis) through the epigenetically mediated modification of tumour cells' DNA structure. Resminostat therefore offers a mechanism of action that has the potential to halt tumour progression and induce tumour regression. Furthermore, resminostat also plays a key role in the so-called "re-sensitisation" of tumour cells to broadly applied standard cancer therapies. This generates enormous potential for use in combination therapy with other cancer drugs such as conventional chemotherapeutic agents or innovative tumour therapies using targeted approaches. As a result of the epigenetic modulations mediated by resminostat, tumour cells that have developed a "drug-tolerant" condition – i.e. they have developed initial (yet reversible) properties of resistance against conventional cancer drugs – can be restored to their original "drug-sensitive" condition. In this state, cancer drugs can once again achieve their full potency against the cells.

Resminostat is being developed by 4SC in Phase II trials in three oncological indications: liver cancer (hepatocellular carcinoma, HCC), colorectal cancer (CRC) and Hodgkin's lymphoma (HL), a type of lymph node cancer. To date, the compound has shown very good safety and tolerability and promising anti-tumour activity in all trials.

In the Phase II SAPHIRE trial, resminostat returned impressive data as a monotherapy for heavily pre-treated patients with advanced HL. In addition to showing excellent tolerability, resminostat exhibited a tumour response rate of 35.3% in this study and a clinical benefit – i.e. at least stabilisation of the disease – for 55.9% of the patients. The data from the Phase II SHELTER trial with HCC patients, published in early 2012 and based on an advanced data set, are also highly promising. In this study, the combination of resminostat and sorafenib (Nexavar®) led to a renewed stabilisation of the previously progressive disease in around 66.6% of the patients who were no longer responding to sorafenib, the current standard therapy for advanced HCC, when the study commenced. Also for around 33.3% of this very difficult-to-treat patient population, a resminostat monotherapy led to a stabilisation of their disease. Thus the study's primary efficacy endpoint was met in both treatment arms ahead of schedule.

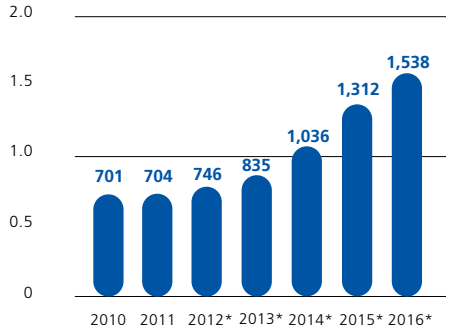
For the indications of HL and HCC, resminostat also has been granted the status of an Orphan Drug or Orphan Medicinal Product in the US and Europe, respectively. This status guarantees that – after a marketing approval for resminostat – no other drug with the same mechanism of action may be launched on the market for the two indications for a period of seven years (in the US) or ten years (in Europe). This has significantly improved resminostat's competitive position following potential regulatory approval.

## Numerous applications for resminostat

**HEPATOCELLULAR CARCINOMA (HCC) ::** HCC is the most common form of liver cancer, the fifth most common form of cancer worldwide and, with 700,000 deaths annually, the third leading cause of death by cancer. HCC is especially common in the Asia-Pacific region and in southern Europe. The cancer's pathogenesis also varies by region. While infection with the hepatitis B virus (HBV) is the major risk factor for HCC in Asia, the group most at risk for HCC in the Western world predominantly consists of persons with a hepatitis C virus infection (HCV) or cirrhosis of the liver (mostly resulting from alcohol abuse).

Over the course of the last ten years, advances in the diagnosis and treatment of the disease have brought about an improvement in the prognosis for HCC patients. Nonetheless, treatment options for patients with advanced HCC continue to remain highly limited, with only a single compound, sorafenib, approved for treatment to date. Fewer than 10% of HCC patients survive the first five years following the onset of the disease. In its advanced phase, HCC thus has one of the lowest survival rates worldwide for any cancer. For this patient group, and particularly for patients who no longer respond to sorafenib or no longer tolerate the drug, there is therefore an urgent medical need for innovative, systemic therapy options.

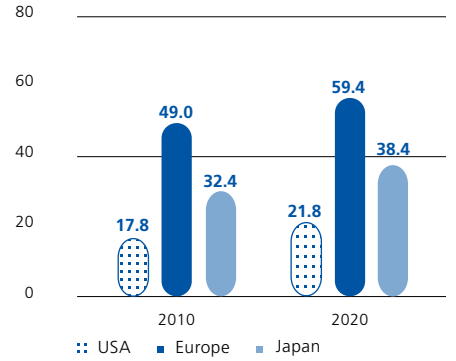
:: 05 PROJECTED ANNUAL MARKET VOLUME IN HCC:: IN M US-$




* based on an estimated CAGR of 16%

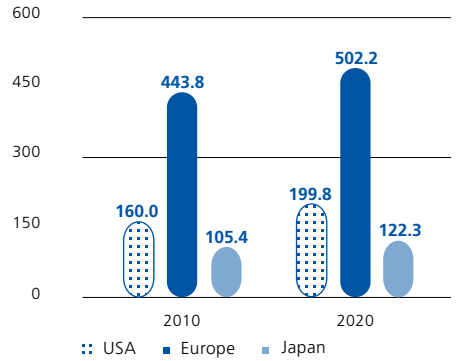
Source: Datamonitor

:: 06 EXPECTED DEVELOPMENT OF PATIENT FIGURES OF HEPATOCELLULAR CARCINOMA (HCC) :: IN 000'S

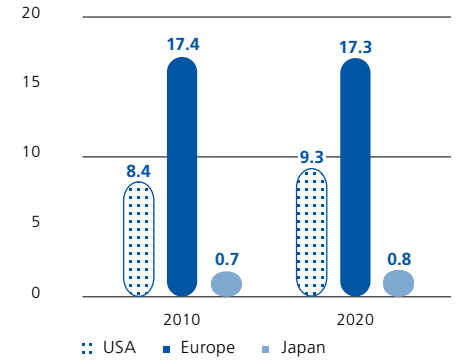



Source: GLOBOCAN, 2008

:: 07 EXPECTED DEVELOPMENT OF PATIENT FIGURES OF COLORECTAL CANCER (CRC) :: IN 000'S




:: 08 EXPECTED DEVELOPMENT OF PATIENT FIGURES OF HODGKIN'S LYMPHOMA (HL) :: IN 000'S




Source: GLOBOCAN, 2008

In this indication, the commercial potential for a new, effective and well-tolerated therapy option such as resminostat is correspondingly high. As a benchmark, annual sales of sorafenib solely in the indication of HCC are currently estimated at around US-$700 million.

**COLORECTAL CANCER (CRC) ::** Colorectal cancer is one of the most frequently diagnosed malignant tumours of the digestive system. In Western countries, the number of cases is steadily increasing and colorectal cancer is already the second leading cause of death from cancers. Less than 7% of patients suffering from advanced, metastasised colorectal cancer survive the first five years following diagnosis of the disease.

The treatment of advanced colorectal cancer is usually based on chemotherapy regimens, such as FOLFIRI and FOLFOX, in combination with antibodies such as bevacizumab (Avastin®), cetuximab (Erbitux®) or panitumumab (Vectibix®). These antibodies inhibit various growth factors or receptors that are involved in the progress of the cancer disease. Currently, these approaches focus on targeting the vascular endothelial growth factor (VEGF), an angiogenic signalling protein, or on inhibiting the epidermal growth factor receptor (EGFR). However, tumours can develop tolerances to these drugs in the form of defence mechanisms that then neutralise the efficacy of the medication. Such tolerances can be combated effectively by utilising resminostat as part of combination therapy. Resminostat's epigenetic mechanism enables it to re-sensitise tumours, thus ensuring they remain treatable by other drugs.

Furthermore, for CRC patients with K-ras mutated tumours in particular, there is a specific unmet medical need since therapy options that target EGFR – such as cetuximab – cannot be utilised for such patients. As a result, there is substantial medical and commercial potential for an innovative therapeutic approach such as resminostat, even as a second-line treatment option.

**HODGKIN'S LYMPHOMA (HL) ::** HL is a cancer of the lymphatic system, which is part of the immune system. It leads to the abnormal growth of lymphatic cells that compromise the immune system's ability to fight infection. Furthermore, the disease may also spread to other, non-lymphatic organs.

The incidence of HL in 2008 was 11,777 new cases in the European Union and 8,220 new cases in the US. The age distribution reveals that HL occurs particularly frequently in two distinct age groups: patients aged 15 to 30 and patients in their mid-60s.

HL is curable in many cases. However, not all patients respond to current standard therapy strategies and available treatments for this disease can have significant long-term toxicity. For patients whose tumours neither respond to first-line therapy in the form of chemotherapy and/or radiation nor to second-line therapy consisting of high-dosage chemotherapy with subsequent autologous stem cell transplantation (i.e. cells taken from the patient's own body) – or whose tumours reoccur following initially successful treatment – the five-year overall survival rate is only 17%. As a result of this fact, this niche indication of refractory/relapsed Hodgkin's lymphoma generates a particularly high unmet medical need for new therapy options – and opportunities for a drug such as resminostat.

## The versatility of resminostat opens up new therapy options

Resminostat represents a therapeutically and commercially attractive alternative option as a novel, targeted therapy for treating various types of cancer. To address markets with a high unmet medical need, the Company is positioning resminostat as a novel therapy option in the indications of HCC, CRC and HL – either as monotherapy or in combination with another targeted agent (e.g. sorafenib for HCC) or with standard chemotherapeutic agents (e.g. FOLFIRI for CRC). As a result of the favourable safety profile and the particular epigenetic mechanism of action of re-sensitising previously "drug-tolerant" tumour cells, the combination of resminostat and other approved therapeutic agents is a highly promising approach in a range of solid cancers.

## Further steps towards regulatory approval

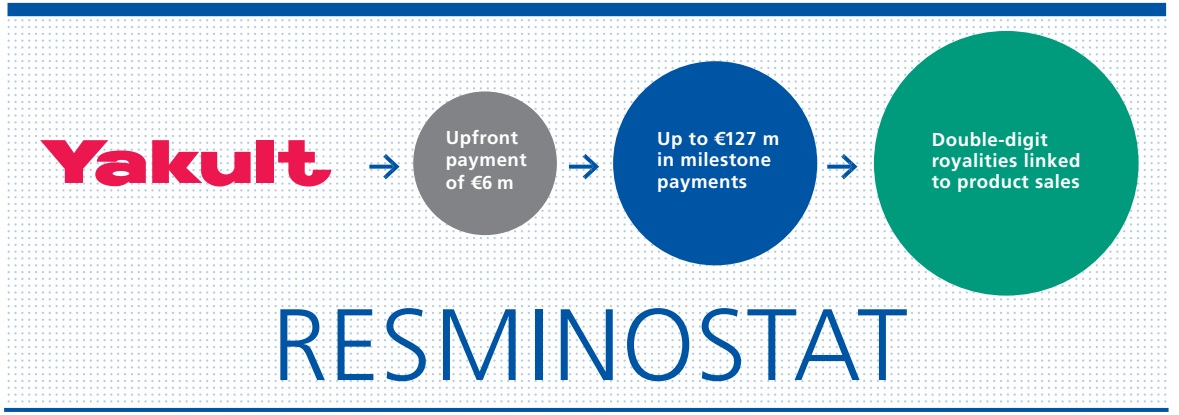
On the basis of the outstanding efficacy data from the SAPHIRE study, combined with the highly encouraging data from the SHELTER study, the next development steps for resminostat are being initiated. A pivotal trial for a tumour indication with a high medical need – such as liver cancer, for example – is under evaluation. By commencing such a study, 4SC would take a further and significant step towards its goal of achieving regulatory approval. The dosing data from the SHORE study in the indication of colorectal cancer are expected before the end of 2012 and will strengthen the profile for further development of the substance.

## Partnering

An exclusive licence agreement is in place between 4SC and the Japanese pharmaceutical company Yakult Honsha concerning the development and commercialisation of resminostat in Japan in the indications hepatocellular carcinoma and colorectal cancer plus other oncology indications.

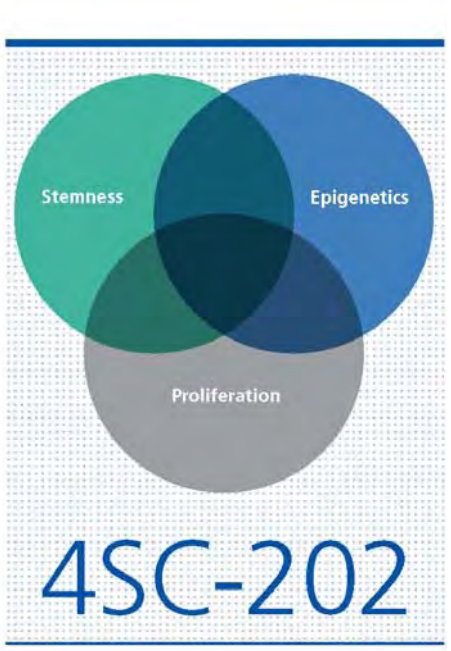
4SC benefits from this license agreement through an upfront payment of €6 million, which has already been made, as well as further payments of up to €127 million on achieving certain milestones, including clinical and regulatory events in Japan. In addition to milestone payments, Yakult Honsha will pay 4SC double-digit royalties linked to product sales of resminostat.

Beyond this, 4SC also plans to engage in other global development and marketing partnerships for its programmes. With the support of such partnerships, 4SC will be able to reduce the costs of development while enabling more rapid approval and market launch for its products.



## :: 4SC-202

### 4SC-202 – a class I deacetylase inhibitor with a triple anti-tumour mechanism




4SC-202 is an orally administered selective class I deacetylase (DAC) inhibitor with a triple, epigenetically regulated anti-tumour mechanism of action. In contrast to resminostat as a pan-HDAC enzyme inhibitor, this compound selectively inhibits only three deacetylase enzymes. It has shown to effectively block tumour growth in various model systems and comprises an especially strong inhibitory activity on a crucial tumour cell signalling network, the Wnt pathway. Furthermore, 4SC-202 is also highly effective at inhibiting cancer cell division and activates programmed cell death (apoptosis) within these cells.

One particular way in which 4SC-202 differs from other epigenetic compounds is the influence it exerts on the kinds of signalling network pathways associated with "cancer stem cells". This enables the substance to use gene regulation to block TCF/LEF, a transcription factor binding to β-Catenin and activated in many tumours. This, in turn, blocks the Wnt signalling pathway, whose mutated form is one of the most common causes of tumour development – such as in colorectal cancer, for example. The result of this blockade of TCF/LEF is that these cancers are hindered to progress, the tumour's invasive growth into neighbouring tissue is reduced, and, thus, the metastasising potential is suppressed.

As a second feature, 4SC-202 also binds to tubulin to regulate the cell cycle. Proliferating cells are prevented from cell division and, instead, undergo apoptosis, i.e. programmed cell death. 4SC-202's additional cell division inhibiting mechanism is familiar from Taxol and Taxol derivatives, for example.

The inhibition of the Wnt signalling pathway – which also impacts cancer stem cells – and the compound's cell division inhibiting mechanism enable 4SC-202 to launch a triple attack against malignant tumour cells. In terms of its mode of action and potential therapeutic applications, this behaviour sharply differentiates the compound from the most advanced 4SC cancer drug, the pan-HDAC inhibitor resminostat. 4SC-202 is therefore an ideal extension and complement to 4SC's clinical product pipeline. The compound may also prove especially suitable for the treatment of solid and/or haematological types of cancer, which exhibit a particularly high rate of cell division and are especially aggressive and prone to rapid growth and metastasis.

Currently, 4SC-202 is the subject of the Phase I TOPAS study, which investigates the safety, pharmacokinetics and clinical efficacy of the orally administered compound in patients with advanced haematological indications.

The results of this study are expected during 2012. So far, the substance has proven to be safe and well tolerated. Further activities for this project will then be planned on the basis of the final results. Alongside vidofludimus and resminostat, 4SC-202 is the third clinical study programme to which 4SC will prioritise the allocation of its resources during 2012.

# :: OTHER 4SC PRECLINICAL AND CLINICAL PROGRAMMES

## 4SC-203

4SC-203 is a novel multi-target tyrosine kinase inhibitor. In preclinical testing the compound has shown unique and strong selectivity against a set of kinases including FLT3, FLT3 mutants and VEGF receptors. With the inhibition of VEGF receptor tyrosine kinases, 4SC-203 may also inhibit angiogenic processes and could therefore also be an attractive option for treating solid cancer types, besides its potential for haematological malignancies associated e.g. with the FLT3 oncogene. Angiogenesis is the formation of vascular structures that provide nutrition for tumours enabling them to grow rapidly.

The molecule has successfully completed a Phase I study in healthy volunteers, which demonstrated the safety, tolerability and pharmacokinetics of this intravenously delivered compound.

To exploit the full potential of this substance, the Company will take the next step of defining the further development plan for this compound on the way to market maturity. This will also involve talks with potential development partners. According to current plans, no clinical trials are to be initiated with this programme in 2012.

## 4SC-205

4SC-205 is an oral small-molecule inhibitor of the human kinesin spindle protein Eg5, which is of crucial importance for cell division (mitosis) and is therefore estimated to play a key role in the growth of tumours. Mitosis inhibitors, such as taxol, are used successfully as first-line therapy in numerous cancers. As opposed to taxol, which is neurotoxic and therefore frequently has serious neurological side effects, 4SC-205 does not directly affect microtubules, but rather only targets the kinesin Eg5 which is only present during cell division.

After 4SC-205 proved capable of blocking the growth of tumour cells in preclinical studies, the compound, which is the only oral Eg5 kinesin inhibitor in clinical development, is being studied in the Phase I AEGIS trial in patients with solid tumours or lymphomas. A range of dosages and treatment regimens are being investigated to evaluate safety, tolerability, pharmacokinetics and pharmacodynamics. The results of the study are expected during 2012.

## 4SC-207

4SC-207 is a novel, orally available cell cycle blocker for the treatment of tumours resistant to chemotherapy. This compound inhibits the division of actively proliferating tumour cells. In completed preclinical studies, apoptosis was observed in dividing cancer cells only, rather than in non-proliferating cells. A prominent characteristic of 4SC-207 is its resistance breaking activity. 4SC-207 also affects cancer cells that have built up resistance to conventional chemotherapeutics such as taxanes and alkaloids. This resistance to chemotherapy is one of the most important causes for the lack of activity of repetitive treatments following a tumour relapse.

The Company is currently evaluating the future development plan for 4SC-207, also in association with potential partners. For the time being, no clinical trials are planned to commence in 2012.

**THREE FURTHER DRUG CANDIDATES ARE MAKING ADVANCES**

- **:: 4SC-203**
- **:: 4SC-205**
- **:: 4SC-207**

# :: ATTRACTIVE RESEARCH PROGRAMMES

## 4SC Discovery GmbH

Supplementing its expertise in advanced drug development, 4SC also has its own technology platform and possesses many years of know-how in the areas of drug discovery and optimisation. In addition, the Company's R&D department supports clinical trials with its comprehensive experience, for instance by identifying, defining and evaluating biomarkers or providing accompanying analysis. Research also involves the continuous discovery, investigation and refinement of new compounds. These processes serve to continuously expand the Company's clinical development pipeline. For many years now, the Company's research scientists have been working in attractive therapy fields with a promising future. In oncology, for example, these include both cancer stem cell and cancer immunotherapy research. In the field of autoimmune and inflammatory diseases, the focus is on the blocking of ion channels and the modulation of cytokines. At the beginning of 2012, the Company's research activities were transferred to 4SC Discovery GmbH, a wholly-owned subsidiary of 4SC AG. This improves the flexibility of research collaboration activities with pharmaceutical partners, while also accelerating the development and commercialisation of 4SC's own compound programmes that are in the early stages of development.

**CANCER STEM CELLS ::** Recent research results have shown that cells termed "cancer stem cells" play a fundamental role in the development and recurrence of tumour diseases. These cells have properties typical of stem cells, such as the ability for self-renewal and the potential to differentiate into a range of different tissue cell types. As a kind of "mother tumour", they ensure a continuous production of cancer cells. Since they divide far more rarely than conventional tumour cells, they are particularly well-protected against the kinds of cancer medications that block cell division, and are often resistant to both chemotherapy and radiation. Scientists also believe that cancer stem cells might be responsible for the recurrence of tumours and metastases following an apparently successful course of therapy.

4SC Discovery is researching a series of small-molecule substances that have the ability to selectively kill off cancer stem cells or force them to differentiate and thus become targets for conventional cancer therapeutics. Key points of focus here are the investigation of cell metabolism and SMO-independent inhibition of what is termed the "hedgehog signalling pathway". A malfunction of this SMO-activated pathway can also cause cancer diseases such as basal cell carcinoma.

**ION CHANNELS ::** Autoimmune diseases such as multiple sclerosis or rheumatoid arthritis are characterised by the continuous stimulation of a subset of immune cells known as "effector memory T cells". In contrast to all other immune cells, this subset of T cells is dependent on a specific ion channel – the Kv1.3 channel – for its proliferation. Misprogramming of the memory cells by continuous stimulation causes an outbreak of the autoimmune disease.

In this field, 4SC Discovery is researching small-molecule substances that selectively inhibit the Kv1.3 channel with the aim of stopping the activity of misprogrammed effector memory T cells without affecting the immune system as a whole. This presents a major advantage in contrast to the generally immunosuppressive substances that are currently used for treatment.

**CYTOKINES AND CANCER IMMUNOTHERAPY ::** Cytokines are regulatory proteins produced by the human body. As natural mediators, these proteins are responsible for controlling the immune response. The cells of the immune system use these mediators to coordinate their actions and orchestrate their joint defence against external assaults on the organism, such as those launched by viral or bacterial pathogens. These mediators are used to regulate cell growth and cell differentiation. A distinction is made between pro-inflammatory and anti-inflammatory cytokines. If the regulatory mechanism of these cytokines is defective, then this may lead to illnesses such as inflammatory and autoimmune diseases or cancers.

In this field, one focus of the research at 4SC Discovery is on small-molecule substances that selectively inhibit the release of the pro-inflammatory cytokines IL-17 and interferon-gamma (IFN-γ) and thus work to halt the advance of autoimmune diseases. A second focus is on compounds that activate the body's own immune defences against tumour illnesses and – via the release of cytokines – aid the immune system in identifying and killing off cancer cells.

## :: 4SC AT THE STOCK MARKETS

4SC AG successfully completed a capital increase in 2011 in spite of the difficult market conditions. The Company additionally increased its financial scope by the partnering deal with Yakult Honsha and by focusing its resources on the clinical value drivers. Going forward, it also aims at generating higher revenue from research collaborations and early-stage licensing deals to strengthen its financial basis. All this puts 4SC in a strong position to fully exploit its value potential in 2012 and beyond.

# :: A TURBULENT YEAR AT THE STOCK MARKETS

4SC AG shares began the reporting year on a strong note at €4.49 (Xetra) on 3 January 2011 before reaching an annual high of €4.89 on 6 January 2011. At the end of February 2011, 4SC succeeded in completing a capital increase in defiance of the challenging situation on the financial markets. The Company placed 3,452,647 new shares with new institutional investors mainly from the Benelux countries, Scandinavia and the United States in a move designed to broaden 4SC AG's shareholder structure. The new shares were sold at a price of €3.40 each, a discount of 5% on the Xetra closing price on the previous day. This capital increase netted 4SC funds of €11.03 million. At the end of the first quarter, the stock was quoted at €3.47.

The share price was given a boost by the announcement of the partnership with Yakult Honsha, through which 4SC received an upfront payment of €6 million and will be eligible to milestone payments of up to €127 million as well as royalties in a double-digit percentage range. One day after the news broke, 4SC AG shares were trading at €3.90 (15 April 2011), up 10.2% on the day preceding the press release. At the beginning of June, following the presentation of data from the COMPONENT study with vidofludimus in the indication rheumatoid arthritis, in which the primary endpoint of the study was not reached, the share price decreased notably and closed the first half of the year at just €2.00.

**NO TURNAROUND IN THE SECOND HALF OF THE YEAR ::** In the global competition for new funding, smaller biotech stocks in particular came under increased pressure in the second half of 2011. This was partly a consequence of the growing risk aversion among investors, who preferred to invest in larger, well-known companies with advanced product pipelines so as to minimise their financial risks. For this reason, smaller, mostly young companies with products in early stages of development and research had trouble securing sufficient capital. According to the Ernst & Young Global Biotechnology Report 2011, the gap between large, established companies and smaller biotech companies is widening.

4SC AG shares were therefore unable to recover the ground lost after publication of the data from the COMPONENT study in the course of the year. The expected rebound effect did not materialise. Various positive company releases by 4SC in the course of the year remained virtually unacknowledged by the markets. The news about excellent Phase II data with resminostat in Hodgkin's Lymphoma (HL) fizzled out, as did the news about 4SC receiving orphan drug status (in Europe and the United States) for resminostat in the HL and HCC indications. Accordingly, the third quarter did not bring about any improvement in the price of 4SC AG shares, which were trading at €1.70 at the end of September.

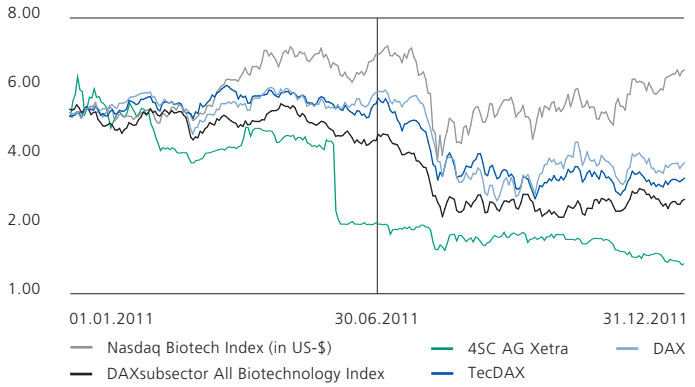
Due to the generally negative capital market sentiment as well as additional unfavourable industry reports about German biotech stocks in particular, the overriding mood on the capital markets in the last quarter of the year as well was one of scepticism. 4SC AG shares were not immune to this downtrend despite a number of positive reports, such as the award of an important resminostat patent in Japan, and fell to an annual low of €1.20 on 29 December 2011. The stock rallied slightly once again before closing 2011 at €1.23. By year-end, the share had thus lost 73% of its value compared with the beginning of the year.

**A HIGH PERFORMANCE START IN 2012 ::** 4SC AG shares started the year 2012 with new momentum. In a rebound effect the share price improved during the first two weeks of 2012 by some 15% to reach €1.48 on 18 January 2012, thus, partly offsetting the massive sell-out the share had experienced towards the end of 2011. Following the outstanding data with resminostat in the Phase II SHELTER study in advanced liver cancer published on 19 January 2012, the stock leaped enormously on the day of publication and during the following two weeks to achieve €3,03 on 3 February 2012; this marked the annual high in 2012 so far. In spite of some profit-takings the overall price trend remained positive. On 12 March 2012, the editorial deadline of this report, the share price was €2.80; thus, with an increase of 128% since the beginning of the year, 4SC AG share has been one of the best performing stocks in the Prime Standard of Deutsche Börse in 2012 so far.

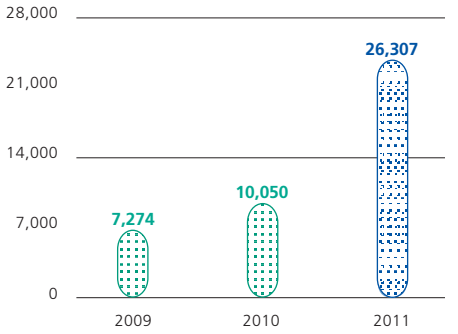
:: Tab. 02 KEY FIGURES OF THE 4SC AG SHARE AS AT 31.12.2011

| | |
|---|---|
| German SIN | 575381 |
| ISIN | DE0005753818 |
| Stock exchange symbol | VSC |
| Type of shares | Bearer shares |
| Number of shares | 41,968,304 |
| Market segment | Prime Standard |
| Stock exchange | Xetra and all German stock exchanges |
| Designated sponsors | Close Brothers Seydler AG, equinet AG |
| First day of trading | 15 December 2005 |
| Earnings per share (basic and diluted) (in €) | - 0.46 |
| Number of shares issued (annual average) | 41,455,379 |
| Free float | 26.4% |
| Annual high (Xetra) (in €) | 4.89 |
| Annual low (Xetra) (in €) | 1.20 |
| Closing price on reporting date (Xetra) (in €) | 1.23 |
| Daily trading volume (Xetra, annual average) | 26,307 |

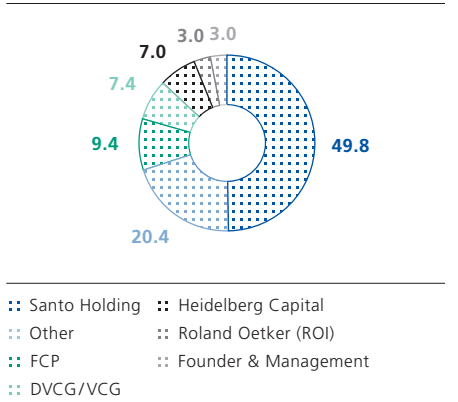
:: 09 SHARE PRICE :: IN €, INDEXED ON 4SC AG




:: 10 AVERAGE TRADING VOLUME PER DAY (XETRA) :: 2009–2011




:: 11 SHAREHOLDINGS :: IN % BASED ON INFORMATION AVAILABLE ON 12.03.2012




**NEW STRATEGY FOR MAINTAINING INNOVATIVE STRENGTH ::** Given the strained situation on the capital markets, 4SC decided in autumn 2011 to temporarily focus on developing the drugs that the Company believes will add the most value (vidofludimus, resminostat and 4SC-202). The resulting cost savings will ensure funding for the Company well into the 1st quarter of 2013, longer than previously communicated. In addition, the Company set up a wholly owned subsidiary to intensify the commercialisation of its innovative drug research and to make positive contributions to the Company's financing through generating additional sales. This measure is intended to make 4SC's business model more sustainable and – in addition to generating the anticipated revenues – make the Company less dependent on capital market financing. Over and above this, concentrating research activities in 4SC Discovery GmbH will enable the subsidiary to position itself more independently on the market and create greater flexibility for research collaborations with partners in the pharmaceutical industry.

**TRADING VOLUME MORE THAN DOUBLED ::** The volume of 4SC AG shares traded rose significantly in 2011. The average trading volume across all exchanges in 2011 was 43,211 shares per day. Of this figure, 26,307 shares were traded on average each day on Xetra alone. This compares with an average daily trading volume on Xetra of 10,050 shares in 2010, an increase of 161.8%. The favourable share price performance at the beginning of 2012 lifted the average trading volume to 56,466 shares per day (Xetra) until 12 March 2012.

**SOLID SHAREHOLDER STRUCTURE ::** The capital increase changed 4SC AG's shareholder structure slightly during 2011 compared with the previous year. In February 2012, 4SC AG also received notification about a new major shareholder – Roland Oetker – with a voting share marginally above 3.0%. Management understands that the current shareholder base is therefore composed as follows as at 12 March 2012. The largest shareholder is still Santo Holding AG, which holds around 49.8% of the shares. FCP holds 9.4% and therefore remains the Company's second-largest shareholder, followed by DVCG/VCG (7.4%), Heidelberg Capital Asset Management AG (7.0%) and Roland Oetker and the founders and management of 4SC AG (3.0% each).

The free float as defined by Deutsche Börse rose from 19.4% to 26.4%, mainly as a result of the capital increase in 2011. This made the stock more attractive to a broader group of investors.

**ACTIVE CORPORATE COMMUNICATION ::** Last year, 4SC continued its active, transparent communication with all stakeholders, particularly its shareholders and the capital markets. The corporate strategy, the Company's current situation, and the development andprospects of the clinical products were communicated through a number of different channels such as one-on-one meetings, road shows, capital market conferences and teleconferences. In 2011, the Company also began to make increased use of events such as the presentation of clinical study data at scientific conferences for specifically targeting investors on these platforms. This further increased the visibility of the Company and its products among the most important target groups. 4SC therefore believes it is very well positioned to realise its full value potential and communicate this to the relevant target groups in 2012 and beyond.

For 4SC, successful corporate communication means continuous dialogue with all stakeholders such as investors, potential partners and its employees. The Company will continue to pursue this strategy in the future.

In 2011, 4SC attended a number of investor conferences, including:

:: JP Morgan H & Q Annual Healthcare Conference, San Francisco
:: Credit Suisse Healthcare Conference, London
:: Kempen & Co. 4th Healthcare/Life Sciences Conference, Brussels
:: BioEquity Europe, Paris
:: Jefferies & Co. Global Healthcare Conference, New York
:: DZ Bank German Healthcare Conference, Zurich
:: Jefferies Global Healthcare Conference, London
:: German Equity Forum, Frankfurt

Analysts from the following banks and broker firms in particular covered 4SC AG in 2011: Edison Research (London, UK), equinet (Frankfurt am Main, Germany), Kempen (Amsterdam, The Netherlands) and M.M. Warburg (Hamburg, Germany).

**INTERNATIONAL AWARDS ::** 4SC AG is pleased to have its strategy of open, transparent corporate communication as part of its annual reporting confirmed one further time. For the second year in a row, 4SC AG won the gold award in the "Non-Traditional Annual Report: Biotechnology" category of the Annual Report Competition (ARC).

In the reporting year, the Company also received another gold award from the League of American Communications Professionals (LACP) for its 2010 annual report in the biotech category. 4SC AG's report was among the top 100 annual reports in LACP's worldwide ranking.

**REPEATED AWARDS**

:: LACP 2009 | 2010
PLATINUM | GOLD
:: ARC 2009 | 2010
2 X GOLD

:: CORPORATE GOVERNANCE

Corporate governance comprises the entire system of responsible management and control of a company aimed at the sustainable creation of value. For this reason, good, transparent corporate governance is a top priority for 4SC, which is committed to the German Corporate Governance Code with respect to its goals, values and processes.

# :: CORPORATE GOVERNANCE REPORT

In preparing the 2011 consolidated financial statements, 4SC AG's Management Board and Supervisory Board again considered the recommendations of the Code's most recent version from 26 May 2010. 4SC has actively implemented most of the standards and regulations of the German Corporate Governance Code.

Since the requirements of the Code remained unchanged in 2011 and the Company also maintained its position on the issues, no adjustments were required, in contrast to the report for the previous year.

4SC continuously works on making the work of the Supervisory Board more professional, as recommended in the Code. To this end, the first training events were organised on the topics of "responsibility" and "liability of the Supervisory Board members".

4SC complies with the majority of the Code's recommendations. Only in a few cases did the Company decide after careful deliberation not to adhere to the Code. These exceptions apply predominantly to recommendations which are intended for large corporations. The specific deviations from the Code will be outlined and justified in the following declaration of compliance by the Management Board and Supervisory Board.

The Company's Corporate Governance Report describes the fundamental principles of its management and control structure, its corporate management and the rights of 4SC AG's shareholders. The report follows the recommendations of the German Corporate Governance Code and contains the required information and explanations pursuant to sections 315(4) and 289a of the German Commercial Code (HGB) as well as the declaration of compliance pursuant to section 161 of the German Stock Corporation Act (AktG). Sections of the report that are also part of the Group management report are indicated as such at the start of the chapter in question.

## Statement on Corporate Governance pursuant to section 289a of the German Commercial Code (Part of the Group management report)

**DECLARATION OF COMPLIANCE PURSUANT TO SECTION 161 OF THE GERMAN STOCK CORPORATION ACT (AKTG) ::** The Management Board and Supervisory Board last issued a Declaration of Compliance in accordance with Section 161 AktG on 25 February 2011. This declaration was based on the German Corporate Governance Code version dated 26 May 2010. The German Corporate Governance Code was not revised in 2011. The currently valid version is still the one dated 26 May 2010.

The Management Board and Supervisory Board of 4SC AG state, in accordance with Section 161 AktG, that 4SC AG has complied and will continue to comply with the recommendations of the German Corporate Governance Code based on the 26 May 2010 version, with the exceptions stated below:

:: 1) D&O insurance policy for the Supervisory Board
(Sec. 3.8, para. 3 of the Code):
Since 1 July 2010, the Company's current D&O insurance policy for the Management Board has contained the deductible required by law. The Company's current D&O insurance policy for the Supervisory Board, as previously, specifies a deductible in the maximum amount of US-$ 50 thousand per case. This only relates to cases of damage in the USA. No specific deductible was stipulated for the insured members of the Supervisory Board because the Management Board and the Supervisory Board agree that all members of the Company's corporate bodies are required to show responsibility as a matter of course. A deductible is not necessary especially because major shareholders are represented on the Supervisory Board.

The law as well as the Company's Articles of Association impose strict limitations on the Supervisory Board's ability to influence the business activities of a public company. Under Section 76, para. 1 AktG the Management Board is responsible for managing the Company on its own. Aside from participating in the determination of the parameters of the Company's corporate strategy, the Supervisory Board's ability to influence its implementation or the Company's operating business is limited. This also applies to measures designed to avert damages for the Company. 4SC AG does not intend therefore to stipulate a significant deductible in the D&O insurance for the members of the Supervisory Board in future.

:: 2) Stock Option Programme for the Management Board
(Sec. 4.2.3, para. 2 and 3 of the Code):
The current variable remuneration components for the Management Board are based on an annual success based Bonus I as well as longterm performance-oriented remuneration – which took effect retroactively to 1 January 2010 following the resolution on the new director's contracts in June 2010 – in the form of a three-year Bonus II and stock options. The current Stock Option Programmes for the Management Board and employees are based on binding shareholder resolutions adopted at the Company's Annual General Meeting. These options can only be exercised in the event of clearly defined share price increases. 4SC AG believes that these programmes are ideally tailored to the Company. In connection with the Stock Option Programme, the Company thus deliberately foregoes the limitation for extraordinary and unforeseeable developments recommended in the Code (Cap) and referring the stock options to reference parameters (e.g. share indices).

:: 3) Nomination committee within the Supervisory Board
(Sec. 5.3.3 of the Code):
The Supervisory Board has decided against establishing a Nomination Committee. The Supervisory Board of 4SC AG is of the opinion that the additional use of such a Nomination Committee will not render the Supervisory Board's work more efficient. This is why this function shall remain with the group Supervisory Board.

:: 4) Remuneration for Supervisory Board committees
(Sec. 5.4.6, para. 1 of the Code):
At present, there is no differentiation between the remuneration for Supervisory Board committee members and chairpersons. In practice it has been shown that all committee members assume work and organisation in equal measures.

:: 5) Performance-oriented remuneration for the Supervisory Board members
(Sec. 5.4.6, para. 2 of the Code):
At present, performance-oriented remuneration is not in place for the Supervisory Board members. Since 4SC is a research-intensive and development-oriented technology company, this recommendation of the Code does not appear appropriate at present and would create a disproportional administrative expense.

Planegg-Martinsried, 24 February 2012

| | |
|---|---|
| Dr Ulrich Dauer | Dr Jörg Neermann |
| For the Management Board | For the Supervisory Board |

**DISCLOSURES ON CORPORATE GOVERNANCE PRACTICES ::** The practices of 4SC in terms of corporate governance are based on statutory requirements. They are characterised by principles of fair and respectful conduct. Additional corporate governance practices are not required, given the Company's manageable size, sole main office and flat hierarchies as well as cordial relationships between the staff and the partners. The conduct of both the Company and its employees is rooted in moral and ethical values that ensure fair and respectful relationships in compliance with statutory requirements.

The Company is managed and supervised in accordance with German law, social standards and the vast majority of the guidelines of the German Corporate Governance Code.

## PROCEDURES OF THE MANAGEMENT BOARD AND THE SUPERVISORY BOARD ::

As stipulated by the AktG, 4SC AG has a two-tier governance system consisting of a Management Board and a Supervisory Board. Both corporate bodies collaborate closely to enhance the value of the Company in a sustainable manner. The Management Board coordinates the Company's strategic alignment with the Supervisory Board and discusses its implementation with the Supervisory Board. In doing so, the Management Board informs the Supervisory Board in a regular, timely and comprehensive manner of all issues relevant to the Company's planning, strategy, performance, finances, exposure to risk and risk management as well as its internal control system. If required, the Management Board provides reports between meetings, for instance by telephone or email. Urgent decisions may be discussed by way of conference calls and resolutions may be adopted by circular memorandum if required.

The Management Board's rules of procedure define the veto rights that the Supervisory Board may exercise with respect to significant business transactions. In addition, the Supervisory Board may also subject business transactions to a veto right in individual cases.

**MANAGEMENT BOARD ::** The Management Board of 4SC AG is comprised of four members, who are solely responsible for leading the Company with the goal of ensuring stable development and a sustainable increase in the Company's value. The members of the Management Board complement each other's skills and experience and have been managing the Company as a stable team for many years. The details of the Management Board's work are set out in rules of procedure for the Management Board. The areas for which the individual Management Board members are responsible are defined in the schedule of responsibilities, which is part of the rules of procedure. The individual Management Board departments liaise with each other, for example at the regular Management Board meetings generally held once a week. The full Board of Management passes resolutions with a simple majority of the members participating in the resolution. The Chairman of the Management Board shall cast the tiebreaking vote in the event of a tie.

**SUPERVISORY BOARD ::** The Supervisory Board consists of six members, who are elected at the Annual General Meeting. Chairman is Dr Jörg Neermann, Deputy Chairman Dr Thomas Werner. Other members are Dr Clemens Doppler, Günter Frankenne, Helmut Jeggle and Dr Manfred Rüdiger.

All members of the Supervisory Board have many years of experience in the pharmaceuticals and biotech industries and/or indepth skills in business and finance with publicly listed and private companies. Furthermore, Helmut Jeggle, Chairman of the Audit Committee, and Günter Frankenne, member of the Audit Committee, both are experienced, independent financial experts.

**COMMITTEES ::** In order to improve its efficiency, the Supervisory Board set up three committees: the Audit Committee, the Human Resources Committee and the Business Development Committee. All committees report to the full Supervisory Board on their work. For more information on this matter, please see table 04 on page 36 in the report of the Supervisory Board.

**SUPERVISORY BOARD'S EFFICIENCY REVIEW ::** The Supervisory Board came to the unanimous conclusion that collaboration is efficient and based on trust. This was resolved in a circular memorandum on 23 February 2012. Collaboration within the Supervisory Board and with the Management Board again received a positive assessment. Individual proposals for improvement, including those concerning the further professionalisation of the Supervisory Board's work, were discussed and have been implemented during the reporting year.

## OTHER DISCLOSURES ON CORPORATE GOVERNANCE

**OBJECTIVES OF THE SUPERVISORY BOARD WITH REGARD TO ITS COMPOSITION ::** Following the debate at its meeting on 3 December 2010, the Supervisory Board resolved in January 2011 to define concrete objectives for the future composition of the Supervisory Board.

**THREE COMMITTEES TO IMPROVE THE EFFICIENCY OF THE SUPERVISORY BOARD**

- :: AUDIT COMMITTEE
- :: HUMAN RESOURCES COMMITTEE
- :: BUSINESS DEVELOPMENT COMMITTEE

Annual report page 36

The entire Supervisory Board was re-elected at the Annual General Meeting in June 2010 and it is assumed that all members will remain in office for the full term until the 2013 Annual General Meeting. The Company's Supervisory Board agrees on the following objectives for the regular or possibly premature elections:

When proposing suitable candidates for the Supervisory Board in the future, care will continue to be taken to ensure that these have a broad range of expertise and relevant experience. In this connection, the Supervisory Board intends to increase the proportion of female members in the full Supervisory Board in the next elections and keep the experience of the Supervisory Board members focused on the international biotechnology and pharmaceutical industry. The current members of the Supervisory Board work or have worked at some stage in the biotech and pharmaceutical sector at an international level, have the relevant contacts and are familiar with the needs of this sector on the basis of their own experience. A mix of different qualifications in the entire Supervisory Board remains important – from experience in the fields of natural sciences and development to expertise in the application of accounting standards and the use of internal control systems. The demands on independent Supervisory Board members and the avoidance of conflicts of interest will continue to be taken into account. The age limit of 75 years laid down in the rules of procedure will continue to be observed. The proposals made by the Supervisory Board on the election of Supervisory Board members will also remain focused on the interests of 4SC.

Annual report page 85

## Directors' dealings, shareholders, disclosure and communication

**ANNUAL GENERAL MEETING AND SHAREHOLDERS ::** The Annual General Meeting is a central body of the Company. It adopts resolutions on key issues. It is responsible for decisions such as selecting the financial auditors, formal approval of the Management and Supervisory Boards' actions, election of Supervisory Board members, amendments to the Articles of Association, and measures to change the Company's capital. Moreover, the Management Board presents the consolidated financial statements to the Annual General Meeting.

The Annual General Meeting provides shareholders of 4SC AG with the opportunity to discuss the latest developments and decisions with members of the Management Board, to exercise their voting right, and to inform themselves about the Company in general. 4SC naturally wants to make it as easy as possible for all shareholders to exercise their rights. The Company will therefore provide authorised representatives to vote by proxy in accordance with the shareholder's instructions at the Annual General Meeting on 18 June 2012. The representatives can be contacted during the Annual General Meeting as well.

**EQUITY INVESTMENTS (THIRD-PARTY COMPANIES) ::** The disclosures on significant equity investments can be found in chapter 2.3 of the notes to the consolidated financial statements in accordance with IFRS.

:: Tab. 03 DIRECTORS' DEALINGS (REPORTABLE SECURITIES TRANSACTIONS PURSUANT TO THE GERMAN SECURITIES TRADING ACT)

| Date | Name | Function | Type of transaction | Market | Price in € | Number | Transaction volume in € |
|---|---|---|---|---|---|---|---|
| 12/8/11 | Dr Clemens Doppler | Supervisory Board | Purchase | Xetra | 1.58 | 5,000 | 7,900.00 |
| 28/12/11 | Dr Manfred Rüdiger | Supervisory Board | Purchase | Xetra | 1.268 | 4,000 | 5,072.00 |

**ACCOUNTING AND AUDIT OF FINANCIAL STATEMENTS ::** Since the financial year 2003, the IFRS financial statements of 4SC AG have been prepared in accordance with IFRS guidelines as adopted by the EU. They are prepared by the Management Board, audited by auditors and formally adopted by the Supervisory Board. The financial statements are released to the public within 90 days of the end of the financial year.

In the 2011 reporting period, the annual financial statements pursuant to the German Commercial Code and the IFRS financial statements were reviewed and approved by the Supervisory Board before being published. In addition, the Audit Committee discussed the quarterly and half-yearly financial reports prior to publication in the reporting period. Thus, 4SC followed the recommendations of the German Corporate Governance Code (sec. 7.1.2) in this regard as well.

**COMMUNICATING WITH THE PUBLIC ::** In order to inform its shareholders in good time, simultaneously and comprehensively, 4SC publishes all relevant information on its website at www.4sc.com. All reports are published in German and English within the period recommended by the German Corporate Governance Code and the stock exchange regulations. The Company also publishes all press releases and ad hoc announcements pursuant to section 15 of the German Securities Trading Act, as well as an up-to-date financial calendar, information on the Annual General Meeting, and other required announcements on its website in the News & Media and Investors sections.

# :: REPORT OF THE SUPERVISORY BOARD

**DR JÖRG NEERMANN**

- :: CHAIRMAN OF THE SUPERVISORY BOARD
- :: DOCTOR OF BIOTECHNOLOGY AND BUSINESS ADMINISTRATION
- :: BORN IN 1967
- :: IN THE SUPERVISORY BOARD OF 4SC SINCE 2000
- :: CHAIRMAN OF THE HUMAN RESOURCES COMMITTEE

## DEAR SHAREHOLDERS, LADIES AND GENTLEMEN,

2011 was a very eventful year for 4SC. The Company published final data on vidofludimus and resminostat in three Phase II clinical studies. 4SC also presented a regionally exclusive licensing deal with Yakult Honsha for the Company's lead oncology compound. The same compound was awarded orphan drug status in the United States by the FDA and designated an orphan medicinal product in Europe by the EMA for the hepatocellular carcinoma and Hodgkin's lymphoma indications. At the end of the year, the Company announced its plans to focus on its current value drivers. It also stated its intention to spin off 4SC Discovery GmbH with the goal of organising its research activities more independently in the future and generating substantial revenue from these.

We in the Supervisory Board believe that by taking these development steps the Company is still well on track to turning the individual research and clinical development programmes into marketable products. Licensing deals with the pharmaceutical and biotech industries are also expected to generate additional income in the future.

In our capacity as the Supervisory Board, we regularly advised and monitored the Management Board in the pursuit of its executive responsibilities and worked closely with it to support the Company's development in the past year – as we are required to do under law, the Company's Articles of Association and our rules of procedure.

In 2011, we continued to maintain a dialogue of trust and cooperation to thoroughly discuss and coordinate relevant issues and pending decisions of fundamental importance.

**NO CHANGE IN THE COMPOSITION OF THE SUPERVISORY BOARD ::** Besides myself in my capacity as Chairman and Dr Thomas Werner as Deputy Chairman, the Supervisory Board also comprised Dr Clemens Doppler, Günter Frankenne, Helmut Jeggle and Dr Manfred Rüdiger.

There were no changes in the composition of the full Supervisory Board or in the Supervisory Board committees during 2011. There were also no changes on the Management Board.

**GOOD COOPERATION WITH THE MANAGEMENT BOARD ::** The Management Board informed us in a continuous, timely and comprehensive manner of significant changes and developments. The Supervisory Board was thus involved at all times in all material decisions relevant to the Company.

At the Supervisory Board meetings, the Management Board reported to us on the Company's performance and explained any deviation from plans and targets. The Supervisory Board closely examined and asked questions about all topics presented to it and discussed these with the Management Board in the required level of detail. We exhaustively discussed strategic development opportunities as well as other relevant key topics with the Management Board. Legal transactions requiring our approval were always discussed with us and presented to us for approval both during and outside the Supervisory Board meetings.

In the 2011 financial year, the Supervisory Board continued to believe that there was no reason to conduct additional examinations, such as inspecting the Company's documentation or commissioning experts. No conflicts of interest arose in the Supervisory Board.

The Management Board also used monthly written reports, phone calls and e-mails on a regular basis to keep us informed in between Supervisory Board meetings. We adopted our resolutions by circular memorandum, as necessary, i.e. in writing, without meeting face to face.

**MEETINGS OF THE SUPERVISORY BOARD IN 2011 ::** Our meetings in 2011 focused on the results of the clinical studies as well as on possible and concrete partnering agreements for individual drug programmes. We were also involved in the negotiations ahead of the successful licensing deal with Yakult Honsha. In addition, we discussed the Company's further financing and strategic focus. We approved the establishment of 4SC Discovery GmbH and the associated increased visibility of the research activities with the goal of generating higher revenue from cooperation deals and licence agreements in this segment in the future. We also welcome the decision by 4SC's Management Board in view of the tense situation on the capital markets to sharpen the focus of the Company's financial resources in the 2012 financial year and initially concentrate development activities on the clinical programmes for which management sees the greatest value enhancement potential for the entire Company over the next twelve months.

The Supervisory Board held four ordinary meetings and one extraordinary meeting in 2011. Two teleconferences were also held. All members of the Supervisory Board attended these meetings – with individual exceptions. No one member missed more than half of the meetings.

All of the Management Board members also attended the quarterly meetings on 18 March, 4 July, 7 October and 2 December 2011. At each of these meetings, those present discussed all topics of relevance for the Company at length.

The main topics on the agenda of the first Supervisory Board meeting on 18 March 2011 were the approval of the Company's 2010 annual financial statements, the investment in Nexigen GmbH as well as corporate governance.

At the second meeting following the Annual General Meeting on 4 July 2011, we mainly discussed the subsequent evaluation of the results of the Phase IIb COMPONENT study with vidofludimus in the rheumatoid arthritis indication. Further partnering options for vidofludimus and resminostat were also debated.

At this meeting it was also decided to offer training courses to all Supervisory Board members ahead of future meetings. This aims to make the work of the Supervisory Board more professional, in accordance with the provisions of the German Corporate Governance Code.

The third meeting on 7 October 2011 centred on the Company's medium- to long-term strategic focus. At this meeting we primarily discussed the possibility of hiving off the research division into a wholly owned subsidiary of 4SC AG.

At the last regular meeting on 2 December 2011, discussion focused on the concrete structure of a spin-off of the Company's research activities into 4SC Discovery GmbH. In this connection, the final implementation of a spin-off was made subject to approval, which

**TOPICS OF THE MEETING ON 2 DECEMBER 2011**

- :: ACHIEVEMENT OF TARGETS SET FOR 2011
- :: APPROVING THE BUDGETS FOR THE YEARS 2012 TO 2014
- :: FORMATION OF 4SC DISCOVERY GMBH

**MEMBERS OF THE SUPERVISORY BOARD**

:: DR JÖRG NEERMANN
CHAIRMAN
:: DR THOMAS WERNER
DEPUTY CHAIRMAN
:: DR CLEMENS DOPPLER
:: GÜNTER FRANKENNE
:: HELMUT JEGGLE
:: DR MANFRED RÜDIGER

was given on 14 December 2011 through a circular resolution. We also approved the budgets for the years 2012 to 2014 and discussed the achievement of targets for the Company milestones set for 2011, which include the following:

:: Securing the Company's funding
:: Completing clinical Phase II studies with vidofludimus and resminostat, as well as various Phase I programmes
:: Partnering agreements for the Company's development compounds
:: Provision of new drug candidates for clinical development
:: Outperformance of the DAXsubsector Biotechnology Index

We then defined the new management goals for the 2012 financial year:

:: Signing further licensing partnerships
:: Securing the Company's funding and strengthening its capital base
:: Completing ongoing clinical studies as well as planning and preparing to initiate new trials with vidofludimus and resminostat to make these drugs marketable
:: Focusing on the Company's value drivers
:: Outperformance of the DAXsubsector Biotechnology Index

:: Tab. 04 COMMITTEES

| | Audit Committee | Human Resources Committee | Business Development Committee |
|---|---|---|---|
| Dr Jörg Neermann | | Chairman | |
| Dr Thomas Werner | | Member | Chairman |
| Günter Frankenne | Member | | |
| Dr Clemens Doppler | Member | | Member |
| Helmut Jeggle | Chairman | Member | |
| Dr Manfred Rüdiger | | | Member |

Prior to this last meeting in 2011, the first Supervisory Board training course was held as planned on two topics: "tasks and responsibilities of supervisory board members" and "liability issues in the context of a public company".

**THREE COMMITTEES MAKE THE SUPERVISORY BOARD'S WORK MORE EFFICIENT ::** In order to further increase the efficiency of our work, we formed three Supervisory Board committees – an Audit Committee, a Human Resources Committee and a Business Development Committee.

In our view, the Nomination Committee, which is recommended under the German Corporate Governance Code, does not further enhance our efficiency, which is why we decided not to establish it and carry out this function in the full Supervisory Board. The chairmen of the respective committees regularly reported to the Supervisory Board at its meetings on matters that had been discussed only in the committees.

The Audit Committee met six times via conference call, in part in the presence of KPMG AG, the auditor. The committee members also discussed the respective quarterly reports during the reporting year. The Audit Committee met in person on 16 November 2011 to discuss in detail the budget for the years 2012 to 2014. Of the Audit Committee members, the chairman Helmut Jeggle and Günter Frankenne in particular qualify as independent financial experts as defined by section 100(5) and section 107(4) of the German Stock Corporation Act (AktG) for they have the relevant expertise on the basis of their qualifications and professional experience.

The Business Development Committee met four times in 2011 in the form of conference calls. Discussions focused on the negotiation of the licensing deal with Yakult Honsha for the cancer drug resminostat, the strategic focus of business activities, as well as the initiation and consideration of further licensing partnerships with a view to making the development programmes ready for the market.

**APPROVED ANNUAL FINANCIAL STATEMENTS FOR 2011 ::** The Company's Annual General Meeting on 4 July 2011 elected KPMG AG Wirtschaftsprüfungsgesellschaft, Ganghoferstrasse 29, 80339 Munich, Germany, to serve as the auditor of the financial statements for the 2011 financial year. KPMG audited the annual single-entity financial statements of 4SC AG and the 2011 consolidated financial statements of the Group managed by 4SC AG prepared in accordance with requirements of the German Commercial Code (HGB) and with the International Financial Reporting Standards (IFRS), as well as the respective management reports, issuing an unqualified Auditors' report in each case. In light of the intended transfer of the Company's research activities to 4SC Discovery GmbH, consolidated financial statements were prepared in 2011 for the first time. The Management Board made these financial statements and management reports as well as the audit reports available to us in due time ahead of our meeting on 14 March 2012. The Audit Committee discussed and examined information on the current annual and consolidated financial statements with the auditor and the Company's Management Board in two conference calls prior to the aforementioned meeting and subsequently reported its deliberations to the Supervisory Board during its meeting on 14 March 2012. During this meeting, the Supervisory Board carried out its final discussion and examination of the financial statements and management reports. The assessments made by the Management Board in the management reports were consistent both with those previously communicated in its reports to the Supervisory Board and our own assessments. The auditor reported to the Audit Committee and the full Supervisory Board on the key findings of its audit and was available to answer further questions.

After this thorough examination and based on the recommendation of the Audit Committee, the Supervisory Board did not raise any objections to the financial statements and the management reports. Based on our assessment, all of these documents were in compliance with statutory requirements as well. We agreed with the auditor's findings on the audit of the annual financial statements and approved the annual financial statements as drawn up by the Management Board.

The financial statements are therefore adopted.

**IMPORTANCE OF CORPORATE GOVERNANCE ::** Finally, allow me to address the German Corporate Governance Code. 4SC takes its recommendations very seriously and mostly complies with them. In its most recent Declaration of Compliance dated 24 February 2012, the Management Board and the Supervisory Board stated that they were and are in compliance with the recommendations of the German Corporate Governance Code (GCGC) as amended on 26 May 2010 and intend to be in compliance in the future – with the exceptions mentioned in the Declaration of Compliance.

As no more adjustments were made to the Code in 2011, the Company did not see any further need for action within the Declaration of Compliance in accordance with Section 161 AktG. For more information, please see the "Statement on Corporate Governance" on page 61 in the management report.

Annual report page 61

The efficiency review of the Supervisory Board members' work recommended by the GCGC was conducted on the basis of a questionnaire that was developed especially for this purpose and had to be completed by all Supervisory Board members. It was discussed and adapted at the Supervisory Board meeting on 2 December 2011. The Supervisory Board analysed the results after this meeting. The 2011 efficiency review was adopted by the Supervisory Board by way of a circular memorandum on 23 February 2012.

An intensive financial year that was very rewarding is behind us, and we look forward to the next exciting challenges in actively making the Company's numerous research and development programmes marketable. On behalf of my colleagues on the Supervisory Board, I would like to thank the Management Board and the entire staff of 4SC for their dedication and successful work.

Planegg-Martinsried, March 2012

DR JÖRG NEERMANN
Chairman of the Supervisory Board

:: GROUP MANAGEMENT REPORT

# :: 1. THE COMPANY 4SC

## 1.1 CORPORATE STRUCTURE, LOCATIONS AND REPORTING

The 4SC Group discovers and develops targeted, small-molecule drugs for treating diseases with a high unmet medical need in various autoimmune and cancer indications. As at December 31, 2011, the Company had 96 employees, including four Management Board members.

4SC AG, a listed company under German law, is the parent company of the 4SC Group. It was recorded in the Commercial Register on 30 August 2000 as the successor of 4SC GmbH, which had been founded in 1997. The Company's shares have been traded in the Prime Standard segment of the German Stock Exchange since 15 December 2005.

Annual report page 70

The Company is domiciled in Planegg-Martinsried near Munich. It opened a branch office in Überlingen-Bonndorf on Lake Constance in early 2009.

Annual report page 46

To market its innovative drug research programmes and boost its revenue from research collaborations, 4SC AG acquired a wholly-owned subsidiary on 14 December 2011 through the purchase of a limited liability shelf company, which it renamed 4SC Discovery GmbH. This enterprise, 4SC Discovery GmbH, commenced operations in Planegg-Martinsried on 1 January 2012. In the process, 28 employees moved from 4SC AG to the subsidiary and almost all tangible and intangible assets resulting from activities in the early stages of drug research were transferred to the new company. For more information please refer to the report on events after the reporting period, section 8, on pages 70 to 71 of this Group management report.

The 4SC Group – referred to in this report as "4SC", "the Company" or "the Group" – comprises 4SC AG as the Group parent as well as the subsidiary 4SC Discovery GmbH. However, as the subsidiary did not start operations until after the reporting period had ended, the following disclosures mainly concern the operations of 4SC AG in the 2011 financial year. Where information in this report specifically refers to 4SC AG or 4SC Discovery GmbH, these will be explicitly referred to as "4SC AG" or "4SC Discovery GmbH".

:: Tab. 05 KEY FINANCIAL FIGURES

| in €000's | 2011 | 2010 |
|---|---|---|
| Revenue | 780 | 989 |
| Operating profit/loss | - 18,793 | - 20,271 |
| Jahresergebnis | -19,071 | - 20,075 |
| Equity | 23,533 | 31,210 |
| Equity ratio | 73.9% | 89.9% |
| Total assets | 31,838 | 34,731 |
| Cash flows from operating and investing activities | 9,216 | - 30,565 |
| Cash flows from financing activities | 11,080 | 0 |
| Net change in cash and cash equivalents | 1,864 | - 30,565 |
| Cash and cash equivalents | 6,820 | 4,956 |
| Cash balance/funds | 15,820 | 17,607 |

## 1.2 BUSINESS ACTIVITIES

4SC's field of business is the research and development of novel small-molecule drugs targeting the key indications of autoimmune diseases and cancer. These drugs are intended to provide innovative treatment options that are more tolerable and efficacious than existing therapies and can provide a better quality of life to patients. The Company's product pipeline encompasses a number of promising programmes in various phases of preclinical and clinical development, including resminostat – 4SC's lead oncology compound – and vidofludimus, the most highly advanced drug candidate in the field of autoimmune diseases. Both substances are currently in Phase II clinical development. The product portfolio also includes a range of innovative projects at early stages of research. For detailed information regarding the products and their respective development status, please see chapter 3.2 on page 46 of this Group management report.

## 1.3 CORPORATE STRATEGY AND GOALS

The Company's goal is to fund its own research and development programmes from the revenue generated from operations and to become profitable in the long term. The individual clinical and preclinical programmes will be specifically developed along the path to market maturity through development and marketing partnerships with strong partners from the pharmaceutical industry. This will enable the Company to strengthen its development activities and reduce the development risk. Positive cash flows will be generated from milestone payments and royalties and will thus make a substantial, effective and sustainable contribution to financing the Company. 4SC also aims to generate additional revenue from research collaborations with pharmaceutical and biotechnology companies.

By focusing on two indications with a high unmet medical need, conducting targeted research and using interdisciplinary project teams, 4SC with its comparatively lean structure and modest use of resources can implement several projects simultaneously and thereby ensure that its business model remains viable in the long term.

# :: 2. ECONOMIC ENVIRONMENT

## 2.1 GLOBAL ECONOMY: CONTINUED RISE IN GLOBAL ECONOMIC OUTPUT

The global economy continued growing in 2011, though at a much slower pace than in the previous year. The stability of global economic development was shaken by serious events such as the earthquake in Japan and its consequences, as well as by the sovereign debt crisis in several Europe countries, which intensified further in the second half of the year in particular, dragging down the global financial markets. Nevertheless, the global economy displayed a solid growth trend thanks to stable demand for goods from the emerging markets. According to projections by the research institutes – the figures given below refer to the 2011/12 ifo economic forecast – global production expanded by 3.8% in 2011, while international trade increased by 6.2%. China (+9.1%) and India (+7.5%) emerged as the growth engines. The economies of the newly industrialised countries grew by 6.6% on average, whereas in the industrialised nations' growth slowed substantially to an average of 1.4%. In Japan, the gross domestic product (GDP) contracted by 0.7% year-on-year in the aftermath of the earthquake. The United States and Europe (EU 27) ultimately recorded only moderate growth of 1.7% and 1.6%, respectively. These regions in particular felt the after-effects of the financial and economic crisis: Consumer spending declined, unemployment is high in a number of countries, public finances are subject to considerable consolidation pressure and there is still widespread uncertainty in the financial sector. The German economy managed to extricate itself from the weak EU-wide trend in 2011, expanding by 3% mainly on the back of robust exports and the strong consumer demand generated by the improved labour market situation.

## 2.2 FUNDAMENTALS FOR THE PHARMA AND BIOTECH INDUSTRY

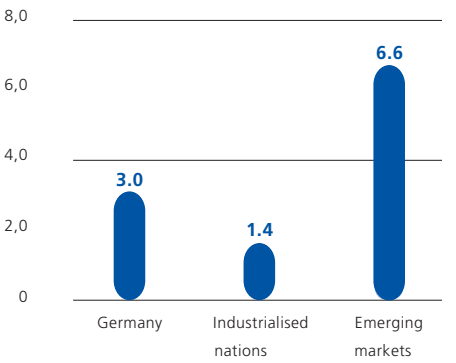
Biotechnology remained the driver of innovation in the healthcare sector in 2011. The industry's fundamentals are intact. Recent developments in the pharmaceutical industry show that companies are still affected by the expiry of the patents for numerous blockbuster drugs and the resulting threat of lost revenue. In 2011 alone, ten blockbuster drugs which previously had the potential to generate annual revenue of around $50 billion lost their patent protection. It is estimated that the expiry of patents could affect pharmaceutical revenue by up to $250 billion worldwide by 2015. Another sobering factor is that the number of drugs approved each year has been on the decline for years. As a consequence, the pharmaceutical industry is increasingly dependent on filling the gaps in its drug and development portfolios with products from specialised biotech companies. These industry-specific developments are expected to benefit the biotechnology industry in particular.

This especially applies to indications with a limited number of therapeutic options available as well as a high unmet medical need and innovation potential. Examples are cancer and autoimmune diseases – indications in which 4SC specialises. The development trend towards personalised medicine will also provide innovative biotech companies with growth opportunities in the future.

At the same time, it can be observed that pharmaceutical companies are increasingly scaling back their own research activities as a consequence of the high cost pressure and competitive pressure, sometimes outsourcing them in the form of research collaborations with biotechnology companies. For example, Pfizer, the world's largest pharmaceutical company, announced in 2011 that it was planning to cut its global R&D spend by 30% in the next two years. The Management Board of 4SC AG firmly believes that this will create new opportunities for specialised biotechnology companies like 4SC which could benefit from the outsourcing of research services by pharmaceutical companies.

2011 was nevertheless also dominated by factors in the field of healthcare policy in particular that could have an adverse effect on the industry in the medium and long term. Health insurance funds and government institutions applied additional pressure to reduce prices for medication.

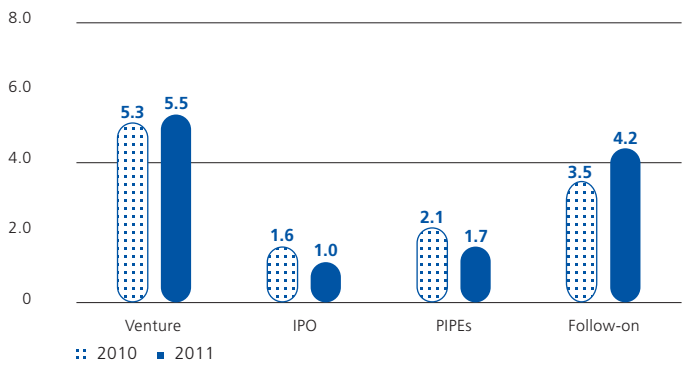
:: 12 AVERAGE ECONOMIC GROWTH IN 2011 :: IN %




Source: ifo economic forecast 2011/2012

Going forward, the benefit of medications will be measured with complex regulations, which will increase the administrative burden. In Germany, the Act for Sustainable and Socially Balanced Financing of Statutory Health Insurance entered into force on 1 January 2011 as part of the 2010 healthcare reform. The Federal Government expects this reform to deliver significant cost savings and quality improvements in the healthcare sector. The Act on the Reorganisation of the Drug Market (AMNOG), which also was implemented on 1 January 2011, is intended to help curb the rising trend in expenditure on medication by the statutory health insurance providers by reducing costs and intensifying competition. For all pharmaceuticals with new compounds, proof of the additional benefit for patients must be furnished when these products are being brought to market. A fixed price is determined for drugs that do not provide an additional benefit. This means that in the future pharmaceutical companies will no longer be able to set their own prices. In the United States, the US Supreme Court declared in November 2011 that the Obama administration's healthcare reform passed by Congress in 2010 would be subjected to a constitutional review. Prior to this, the reform had been ratified by several courts of appeals, though others had declared it inadmissible. A ruling by the US Supreme Court is expected in summer 2012. One of the aims of the reform, which is contentious in the United States, is to give health cover to 32 million previously uninsured Americans. This is designed to be a deep-seated reform of the United States' $2.5 trillion healthcare system.

:: 13 FUNDING OF THE BIOTECH SECTOR 2010 VS. 2011 :: IN US-$ BILLION




Source: BCIQ BioCentury Online Intelligence

## 2.3 DEVELOPMENTS IN THE PHARMA AND BIOTECH INDUSTRY

2011 was not an easy year for the biotech industry on the capital markets. After a promising start to the year – in the first quarter, biotechnology companies raised a total of $11.8 billion on the global markets, the highest quarterly figure since the first quarter of 2000 – the financing conditions for the sector deteriorated rapidly as the year progressed. As a result of the sovereign debt crisis in Europe and the weak US economy, investors' risk appetite progressively diminished, which generated growing uncertainty on the global financial markets. This also had a negative effect on growth sectors such as biotechnology in particular. Listed biotech companies raised only $2.8 billion in new funds in the third quarter, for instance, the lowest volume since the fourth quarter of 2008. The strained situation on the capital markets persisted in the last quarter of the year. A series of setbacks in drug development and partnering activities exacerbated the situation in the German biotechnology industry as well. According to the industry organisation BIO Deutschland, venture capital of just €141 million was raised in the biotechnology sector in 2011, compared with €650 million in the previous year.

The biotechnology industry worldwide was dominated by a large number of mergers and acquisitions in the year under review. One significant event for the sector was the acquisition of Genzyme by Sanofi-Aventis in February 2011, for $20.1 billion. In July, the US pharmaceutical group Pfizer announced plans to take over Icagen. Also in July, Roche took over the Heidelberg-based unlisted company mtm laboratories AG. Under the agreement, Roche will pay the shareholders of mtm around €130 million immediately and up to €60 million once certain performance-related milestones have been reached. In September, Jazz Pharmaceuticals announced a merger with the Irish company Azur Pharma. On 26 January 2012, shortly after the reporting period had ended, US pharmaceutical company Amgen finally announced its plans to take over biotechnology corporation Micromet, Inc. for around $1.2 billion. Both of these companies are listed on NASDAQ.

## 2.4 OVERVIEW OF CLINICAL DEVELOPMENTS IN THE SECTOR

One highlight in the field of autoimmune diseases was the approval of Benlysta by Human Genome Sciences for treatment of lupus. Biotest's licence agreement with US pharmaceutical and diagnostics corporation Abbott additionally caused a stir. The German company received an upfront payment of $85 million for the rights to the monoclonal CD4 antibody BT-061 for treatment of rheumatoid arthritis and psoriasis.

In April and September, the US pharmaceutical company Pfizer published positive Phase III trial data with the oral pan-Janus kinase (JAK) inhibitor tofacitinib in 717 patients with rheumatoid arthritis. After the announcement, Pfizer submitted an application for market approval in the USA, Europe and Japan. The Food and Drug Administration (FDA) accepted the application for review in December, scheduling the results of the review for August 2012.

One highlight in the field of oncology was the accelerated FDA approval in August 2011 of the antibody brentuximab (Acetris®) by Seattle Genetics for the treatment of patients with Hodgkin's lymphoma and systemic anaplastic large cell lymphoma (ALCL), which is fairly rare. Brentuximab is the first new approved therapy for HL since 1977 and the first-ever therapy for ALCL to be approved by the FDA.

Also in the field of HL, 4SC presented highly promising primary data from a Phase II trial with its compound resminostat in early September.

The US biotech company Syndax caused something of a sensation in November with its publication in a distinguished AACR (American Association for Cancer Research) journal of highly encouraging clinical efficacy data from a Phase II trial with the HDAC inhibitor entinostat in patients with metastatic lung cancer. This epigenetic therapy demonstrated significant clinical benefit in a difficult-to-treat patient population selected for solid tumours. This event has resulted in the HDAC inhibitor class of compounds – a class also including the resminostat compound developed by 4SC – attracting positive attention from scientific and clinical debate.

Alongside encouraging developments, there were also some setbacks. In one such case, the brivanib compound from Bristol-Myers Squibb did not attain its primary endpoint in a Phase III trial as a second-line treatment option for patients with advanced liver cancer (HCC) who no longer responded to treatment with sorafenib, the only approved first-line therapy in this indication. This result once again underlines the unmet medical need and the high level of commercial potential for this indication, in which 4SC is also developing its HDAC inhibitor resminostat.

# :: 3. BUSINESS PERFORMANCE

## 3.1 KEY EVENTS IN 2011

**SUCCESSFUL CAPITAL INCREASE OF €11.74 MILLION ::** At the beginning of the year, in February 2011, 4SC successfully concluded a capital increase. The Company placed 3,452,647 shares with new international institutional investors at a price of €3.40 per share. The gross issue proceeds amounted to approximately €11.74 million. This increased the number of no-par value bearer shares from 38,502,739 to 41,955,386.

Annual report page 70 ff.

**CLINICAL PHASE II TRIAL DATA ::** In the course of the 2011 financial year, 4SC published study data from several clinical Phase I and Phase II trials. Of especial relevance were the final data from the ENTRANCE study, which investigated vidofludimus, 4SC's lead autoimmune compound, in the indication of inflammatory bowel disease (IBD). These data once again confirmed the earlier top-line result from this Phase IIa trial presented in November 2010.

Further data on the compound vidofludimus were published by 4SC in June 2011. In the Phase IIb COMPONENT trial, vidofludimus was investigated in patients with rheumatoid arthritis (RA). While this study provided clear evidence for the substance's anti-inflammatory activity, the primary endpoint was not achieved.

In contrast, the top-line results from the Phase II SAPHIRE study published in early September were highly promising. This study investigated resminostat, 4SC's lead oncology compound, in the indication of Hodgkin's lymphoma (HL). The study's primary efficacy endpoint was achieved. The drug's positive safety and tolerability profile was also confirmed.

During the reporting year, the Company also reported positive interim data from the Phase II SHELTER trial with resminostat for the treatment of liver cancer (hepatocellular carcinoma, HCC) on two separate occasions. The first was in January 2011 at the ASCO Gastrointestinal Cancer Symposium in San Francisco, the other was during June 2011, at the ESMO 13th World Congress on Gastrointestinal Cancer in Barcelona. Shortly after the end of the reporting period, 4SC once again published a very impressive set of efficacy data from this trial on 19 January 2012, at the ASCO Gastrointestinal Cancer Symposium in San Francisco. For more details, please see chapter 8 on pages 70 and 71 of this Group management report.

**EXCLUSIVE LICENSING DEAL WITH YAKULT HONSHA ::** On 13 April 2011, 4SC and Yakult Honsha, the Japanese leader in gastrointestinal cancer therapeutics, signed an exclusive licensing deal for the development and commercialization of resminostat in Japan. This deal covers two indications: hepatocellular carcinoma and colorectal cancer. Furthermore, Yakult Honsha retains the rights to develop and commercialise resminostat in other oncology indications in Japan.

Under the agreement, 4SC received an upfront payment from Yakult Honsha of €6 million. On achievement of certain milestones, including clinical and regulatory events in Japan, total payments of up to €127 million are possible. In addition to these milestone payments, Yakult Honsha will also pay 4SC double-digit percentage royalties on revenues from the sale of resminostat.

**FDA AND EMA GRANT ORPHAN DRUG STATUS TO RESMINOSTAT ::** The regulatory position of the cancer drug resminostat was bolstered significantly during the reporting year. The US Food and Drug Administration (FDA) granted orphan drug status to resminostat in the indications of hepatocellular carcinoma (HCC) and Hodgkin's lymphoma (HL). Shortly afterwards, the EMA also recommended this compound in these indications in Europe as an orphan medicinal product.

Drugs with these classifications are granted advantages such as a seven-year period (in the USA) and ten-year period (in Europe) of market exclusivity from the date of approval. Such market exclusivity prevents competitors from launching similar drugs from the same class of compounds on the market during this period. Furthermore, the drugs benefit from simplified market approval and several advantages such as lower taxes and fees before and after market approval.

**KEY PATENT AWARDED FOR RESMINOSTAT IN JAPAN ::** In December 2011, the Japanese Patent Authority awarded 4SC a key patent for resminostat.

This patent (Japanese Patent No. 4856623) covers the composition of matter of resminostat, pharmaceutical compositions comprising resminostat and its therapeutic use in cancer and other therapeutic areas.

**CONTINUOUS DEVELOPMENT OF EARLY-STAGE RESEARCH PROGRAMMES ::** A systematic approach was also taken to developing the Company's early-stage clinical programmes during the reporting year.

At the start of the year, for example, 4SC announced the results of the Phase I trial with the multi-kinase inhibitor 4SC-203. This study investigated the safety and tolerability of the compound in healthy volunteers.

4SC announced the start of a clinical trial with the drug candidate 4SC-202 on 13 April 2011. This Phase I TOPAS trial will investigate the Class I deacetylase (DAC) inhibitor 4SC-202 in patients with advanced haematological indications.

**FOCUSING ON RELEVANT VALUE DRIVERS ::** At the beginning of the fourth quarter, 4SC decided to sharpen the focus of its activities and the associated financial and human resources and temporarily concentrate its development activities on selective continuation of the clinical programmes for which the Company sees the greatest value enhancement potential over the next twelve months. Among these value drivers are resminostat, vidofludimus and the anti-cancer compound 4SC-202. The ongoing clinical studies of all other compounds are expected to be completed on schedule. No additional clinical programmes will be initiated for the time being, however. The cost savings this will generate for the Company will safeguard its financing on the basis of the volume of funds at the end of 2011 in connection with current projections of further expense and revenue planning over the coming year and beyond.

**FORMATION OF 4SC DISCOVERY GMBH ::** On 14 December 2011, the Management Board and the Supervisory Board of 4SC AG resolved to transfer almost all of the Company's early-stage research activities to 4SC Discovery GmbH, the wholly-owned subsidiary acquired through the purchase of a corporate shell and subsequently renamed, with effect from 1 January 2012.

The Company expects that the new subsidiary will generate additional revenue from 4SC's activities in the early stages of drug research. The new subsidiary will focus on collaborations with pharmaceutical companies in the fields of drug discovery and drug optimization as well as on the commercialisation of 4SC's proprietary drug programmes in early-stage research phases. This is meant to strengthen the sustainability of 4SC's business model and to reduce the Company's dependence on financing over the capital markets and to make the value of 4SC's early-stage research programmes more transparent to the markets. Moreover, concentrating research activities in 4SC Discovery GmbH will enable the subsidiary to position itself more independently on the market and create greater flexibility for research collaborations with partners in the pharmaceutical industry. 4SC Discovery GmbH will continue to engage in the discovery and research of novel drug candidates for the further enhancement of 4SC AG's own clinical development pipeline.

**4SC DISCOVERY GMBH**

- :: STRENGTHEN THE BUSINESS MODEL BY GENERATING REVENUE FROM RESEARCH SERVICES AND COOPERATION
- :: COMMERCIALISE 4SC'S PROPRIETARY DRUG PROGRAMMES
- :: MAKE THE VALUE OF 4SC'S RESEARCH MORE TRANSPARENT TO THE MARKETS
- :: IMPROVE THE FLEXIBILITY OF RESEARCH COLLABORATION ACTIVITIES

Annual report page 70 ff.

4SC Discovery GmbH commenced operations at its place of business in Planegg-Martinsried on 1 January 2012, after the reporting period had ended. For more details, please see the report on events after the reporting period in chapter 8 on pages 70 and 71 of this Group management report.

The strategic focus of operations of 4SC AG, now the Group parent of 4SC Discovery GmbH, remains the clinical development and commercialisation of advanced drugs in two indications: autoimmune diseases and cancer.

### 3.2 DESCRIPTION OF THE PRODUCT PIPELINE

4SC has a broad-based, robust pipeline of drug candidates focused on treating autoimmune diseases and cancer. The Company's preclinical and clinical portfolio comprises six small-molecule compounds at different stages of development. Five of these are now being investigated in clinical trials. The sixth substance is currently at the advanced formal preclinical stage. In the areas of cancer and autoimmune diseases, the Company also possesses a range of attractive programmes currently in the early research stages of drug development.

**VIDOFLUDIMUS: A NEW THERAPY OPTION FOR CROHN'S DISEASE, ULCERATIVE COLITIS AND OTHER INDICATIONS ::** Vidofludimus, the Company's lead therapeutic compound in the field of autoimmune diseases, underwent further development in the reporting period for the treatment of patients with inflammatory bowel disease (IBD) and rheumatoid arthritis (RA).

The Company presented promising final data in the first quarter of 2011 from the Phase IIa ENTRANCE trial in the indication of IBD. For this indication, which essentially comprises the disease conditions of Crohn's disease and ulcerative colitis, virtually no safe and effective drugs are currently available to many patients, especially as part of remission maintenance therapy.

The data confirmed the outstanding top-line results of the study published in late 2010, which indicated that the primary efficacy endpoint had been met. The results showed that vidofludimus demonstrated a response rate of 88.5% in steroid-dependent IBD patients versus an average placebo response rate of approximately 20% across benchmark clinical trials. While 53.9% of patients (14 of 26) were complete responders, 34.6% (9 of 26) were partial responders and only 11.5% (3 of 26) were classified as non-responders.

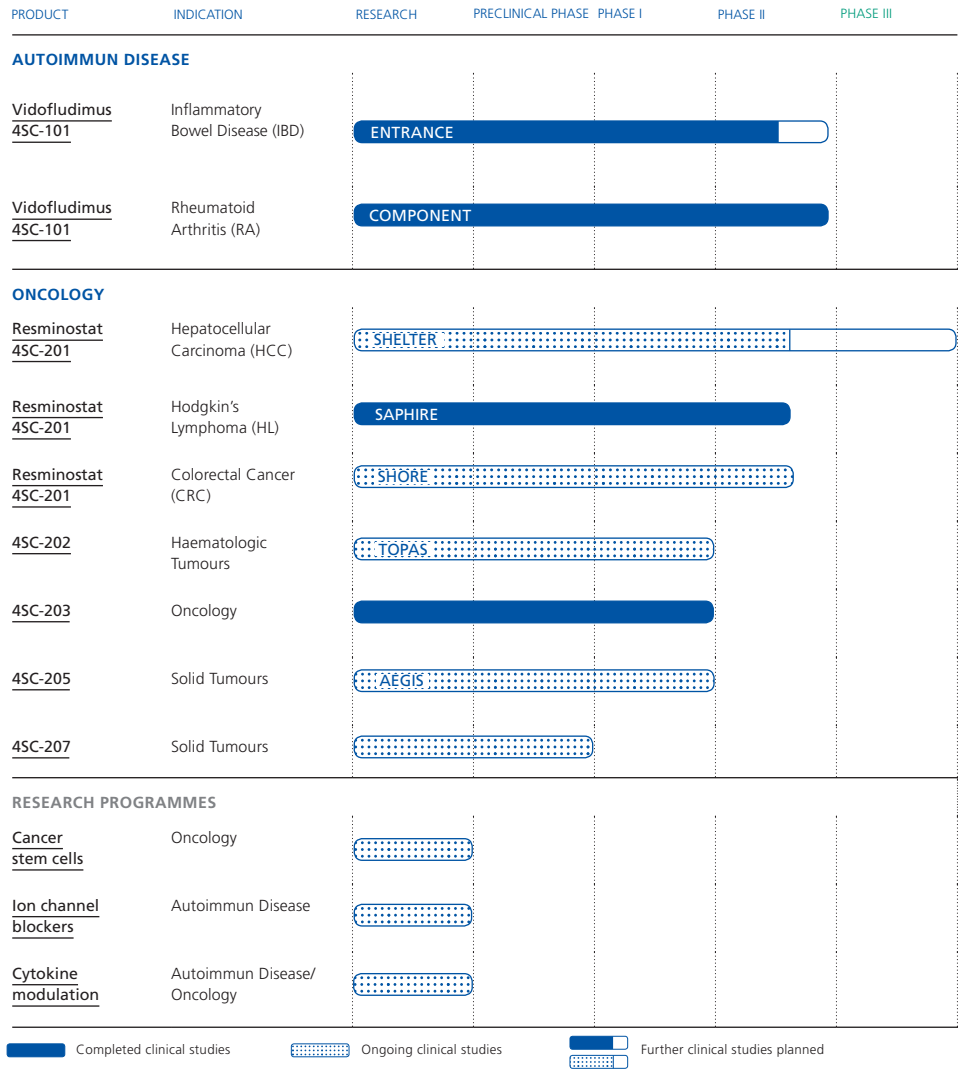
On 8 June 2011, 4SC published the top-line results of the Phase IIb COMPONENT study, which examined vidofludimus for treatment of patients with rheumatoid arthritis (RA). The final data were published on 7 November 2011 at the Annual Scientific Meeting of the American College of Rheumatology (ACR) in Chicago, USA.

The international, multi-centre, randomised and placebo-controlled study evaluated the efficacy of vidofludimus in combination with methotrexate (MTX) (treatment group), compared to MTX alone (placebo group), in 241 patients. Vidofludimus improved all ACR scores (ACR20, ACR50, ACR70), which are internationally accepted clinical standards to measure the efficacy of a drug in RA, but – with an improvement of 50.8% in the treatment group vs. 44.8% in the placebo group – missed the study's primary efficacy endpoint of improving ACR20 after 13 weeks with statistical significance.

However, final evaluation of the data in November 2011 revealed that vidofludimus showed a substantial anti-inflammatory activity in RA patients. This is in particular supported by decreases of objective inflammatory parameters in the vidofludimus treatment arm compared to placebo. These results strongly confirmed the broad anti-inflammatory potential of vidofludimus for the treatment of various autoimmune diseases. Vidofludimus was found to be safe and well tolerated in both RA and IBD.

Following the final evaluation of the results of the two Phase II trials in IBD and RA – and the excellent results of the ENTRANCE study in particular – 4SC decided that the next stage for vidofludimus would be to target IBD and pursue the goal of a market launch in this field. The Company is currently holding discussions with drug authorities and potential partners in preparation for an advanced international Phase IIb study in this indication. Without a partner, the Company will not be initiating any further studies in the indication RA.

:: 14 STATUS OF THE PRODUCT PIPELINE



**RESMINOSTAT – 4SC'S LEAD ONCOLOGY COMPOUND**

:: SUBSTANTIAL ANTI-TUMORAL ACTIVITY
:: GOOD SAFETY AND TOLERABILITY

Annual report page 70 ff.

**RESMINOSTAT: ONE CANDIDATE, THREE INDICATIONS ::** Resminostat is the Company's lead oncology compound. This pan HDAC inhibitor, which is suitable both for monotherapy and for combination therapy with other cancer drugs due to its epigenetic mode of action, is being investigated by 4SC in the following indications: hepatocellular carcinoma (HCC), the most common form of liver cancer; Hodgkin's lymphoma (HL), a disease of the body's haematopoietic system; and advanced colorectal cancer (CRC).

The Company published the top-line results from the Phase II SAPHIRE trial in September 2011. This open-label, single-arm, international study evaluated safety, pharmacokinetics, biomarkers, and efficacy of resminostat monotherapy treatment in, as of today, 34 evaluable patients with advanced HL. The patients participating in the study had suffered a relapse following high-dosage chemotherapy and/or autologous stem cell therapy, or were no longer responding to treatment. On average, patients had received six other courses of treatment prior to their participation in this trial. In 35.3% of patients, the tumour responded to the treatment and a clinical benefit was also established for over half of the patient population (55.9%). The primary trial endpoint was therefore achieved, and these data indicate a substantial anti-tumoral activity of resminostat. The compound also exhibited very good levels of safety and tolerability. Shortly after the end of the reporting period, the last patient left the trial, enabling the final stage of the study to be concluded successfully. This patient had opted for an additional 36-week course of treatment following the completion of the main study phase.

The Phase II SHELTER trial investigates resminostat as a second-line therapy for patients with advanced liver cancer (HCC). This group of patients exhibited radiologically proven tumour progression under first-line therapy with sorafenib (Nexavar®) prior to entering the study. This open-label, two-arm, study investigates the safety and efficacy of resminostat both as a monotherapy and in combination with sorafenib for this difficult to treat patient group, for which no approved treatment option is currently available.

Over the course of the reporting year, 4SC was also able to report initial positive interim data from the study on the tolerability and efficacy of resminostat at a number of conferences: first in January 2011 at the Gastrointestinal Cancer Symposium in San Francisco and then in June 2011 at the ESMO 13th World Congress on Gastrointestinal Cancer in Barcelona.

Shortly after the end of the reporting period, 4SC once again published highly promising data from this study on 19 January 2012. In accordance with the data presented at the Gastrointestinal Cancer Symposium in San Francisco and an advanced analysis made of these data, the trial's primary efficacy endpoint – namely, to halt further progression of this especially aggressive tumour disease for at least twelve weeks in at least 20% of the patients treated – was reached ahead of schedule for both the resminostat monotherapy and the combination therapy with sorafenib. For more details, please see the report on events after the reporting period in chapter 8 on pages 70 and 71 of this Group management report.

Furthermore, 4SC had also commenced a further Phase I/II trial to investigate the efficacy and tolerability of resminostat in a third target indication – colorectal cancer – at the beginning of the 2011 financial year. In this trial the compound is evaluated in combination with the FOLFIRI regimen, an established, frequently used form of chemotherapy, as a second-line treatment in patients with K-ras tumour mutations. This trial – designated "SHORE" – is a randomised, open-label, multi-centre two-arm study with 70 planned patients. The primary endpoint of the study is to determine the progression free survival (PFS). Initial data on dosage, safety and tolerability are expected during the course of 2012.

**4SC-202: A FURTHER CANCER DRUG AT THE CLINICAL PHASE I STAGE ::** In April 2011, 4SC announced the treatment of the first patient as part of the Phase I TOPAS trial with the compound 4SC-202. The compound is an orally administered selective class I deacetylase (DAC) inhibitor with a triple, epigenetically regulated anti-tumour mechanism of action. The

primary focus of the study, which is ongoing, is to investigate the safety, tolerability and pharmacokinetics of 4SC-202 in patients with advanced haematological tumour indications. The study also has a set of secondary goals that evaluate the substance's clinical efficacy and anti-tumoral activity – such as the tumour response rate, the duration of the response and patients' progression-free survival (PFS) – as well as relevant biomarkers.

The study is currently planned to enrol up to 36 patients in total. Depending on the observed pharmacokinetic profile and the tolerability of once daily doses of 4SC-202, alternative dosing schedules such as twice daily administration will also be evaluated. This study is expected to report results by the end of 2012.

**4SC-203 AND 4SC-205: OTHER CLINICAL PROGRAMMES WITH POTENTIAL ::** For 4SC-203, a small-molecule multi-kinase inhibitor, 4SC started the 2011 financial year by concluding a clinical Phase I trial with healthy volunteers. In this randomised, double-blind and placebo-controlled, Phase I dose escalation study the tolerability and pharmacokinetics of increasing doses of 4SC-203 was assessed in 60 healthy, male volunteers.

4SC-203 proved to be safe and was well tolerated by all subjects. Only a few patients experienced mild to moderate side effects; serious adverse events (SAEs) were not observed.

4SC will take the next step of defining the further development plan for this compound on the way to market maturity. This will also involve talks with potential development partners. In line with the decision to temporarily sharpen the focus of its development programmes taken at the end of 2011, there are currently no plans to initiate new clinical trials with this programme in 2012.

4SC-205 is yet another compound in 4SC's clinical oncology portfolio. It is an oral small-molecule inhibitor of the human kinesin spindle protein Eg5, which is of crucial importance for cell division (mitosis) and is said to play a key role in the growth of tumour cells.

For this drug candidate, the clinical Phase I AEGIS trial was started in 2010. This study examines the safety, tolerability, pharmacokinetics and pharmacodynamics of 4SC-205 in cancer patients, when administered orally and using a step-wise dose escalation regime.

The study is currently recruiting patients and is scheduled to be completed in 2012. In line with the decision to temporarily sharpen the focus of the Company's development programmes, a further clinical trial is not planned for this year.

**STRONG RESEARCH ::** Supplementing its expertise in advanced drug development, 4SC also has its own technology platform and possesses many years of know-how in the areas of compound discovery and optimisation. The Company also possesses extensive expertise in research work accompanying clinical trials. Such work is of great importance in developing a drug candidate along the path towards market maturity. Research also involves the continuous discovery, evaluation and fine-tuning of new compounds that support the continuous expansion of the Company's development pipeline. One example from 4SC's current product pipeline is the compound 4SC-207. This compound could well be the next candidate for clinical development. The Company's decision to temporarily sharpen its development focus does not however envisage scheduling a corresponding study during 2012. Following the purchase of a limited liability shelf company as a corporate shell, which was subsequently renamed, 4SC Discovery GmbH was established in December 2011 to generate higher revenue from 4SC's research activities again in the future, especially through research collaborations and the commercialisation of early-stage drug programmes. A wholly-owned subsidiary of 4SC AG, the Company has several attractive research programmes, currently at early stages of drug development, for the therapy areas of cancer and autoimmune diseases. Fields of study addressed by these programmes include cancer stem cells, ion channel blockers and cytokine modulation.

For more details, please see section 3.1 of this chapter and the report on events after the reporting period in chapter 8 on page 70 of this Group management report.

Annual report page 70

## 3.3 COMMENTS ON ACHIEVEMENT OF GOALS: ON THE PATH TO MARKET MATURITY

As an attractive partner for pharmaceutical and biotechnology companies in the field of autoimmune diseases and cancer, 4SC aims to use strong partnerships to achieve the goal of developing its proprietary drug candidates along the path to market maturity.

In the reporting year, 4SC again made decisive progress towards achieving this objective. Complementing the successful conclusion of an instrumental initial development and marketing partnership for resminostat with Yakult Honsha, the Japanese market leader for gastrointestinal cancer therapies, 2011 was characterised in particular by the publication of key study data from drug development work at the clinical Phase II stage. These study data are both a milestone on the path to market approval and a key factor affecting decisions made by potential license partners from the pharmaceutical and biotech sector.

The Company was able to successfully conclude Phase II trials for the two lead compounds vidofludimus and resminostat while also presenting generally impressive study data. 4SC has therefore laid the groundwork for initiating further major value-creating steps on the path to market maturity during the next phase of clinical development. After achieving very positive Phase IIa trial results with vidofludimus in IBD but falling short of achieving the primary study goal for the Phase IIb trial in RA, 4SC will focus further development efforts in autoimmune diseases on the indication of IBD. Here, the Company is now pursuing a Phase IIb trial – ideally in tandem with a partner – with the aim of making this study the last before a possible registration trial.

The Company published very positive top-line results from the Phase II SAPHIRE trial in September 2011. This study examined the compound resminostat in the indication HL. Shortly after the end of the reporting period, 4SC presented an outstanding set of efficacy data from the Phase II SHELTER trial with resminostat in the indication HCC on 19 January 2012. According to the advanced analysis made of these data, the study's primary endpoint was already achieved ahead of schedule. It is the Company's belief that the regulatory requirements for a registration trial with resminostat have now been met. 4SC will now meet with authorities and potential partners to prepare the initiation of such a study in the indication of liver cancer. To secure financing for the further development stages necessary and for a period significantly longer than formerly envisaged, in the fourth quarter of 2011 4SC resolved to focus its financial resources on those of its most promising value drivers, namely vidofludimus, resminostat and 4SC-202. Furthermore, with the formation of 4SC Discovery GmbH, the Company has laid the groundwork for using partnerships to accelerate the development of its own early-stage research projects along the path to market maturity, and to further underpin the Company's business strategy via additional revenue from joint research ventures with pharmaceutical partners. Following the receipt of the upfront payment of €6 million from Yakult Honsha in April 2011 and the successful capital increase in February 2011 with gross proceeds of €11.74 million, the Company is financially secure for at least the next twelve months, based on its volume of funds at the end of the reporting year and the current forecast of further expense and revenue planning.

# :: 4. FINANCIAL PERFORMANCE, CASH FLOWS AND FINANCIAL POSITION

## 4.1 FINANCIAL PERFORMANCE

**REVENUE ::** Revenue in 2011 declined from €989 thousand in 2010 to €780 thousand as a consequence of 4SC's continued focus on internal value-enhancing development programmes and the systematic scaling back of research collaborations, which generated revenue of just €45 thousand in the reporting period. An upfront payment of €6,000 thousand by Yakult Honsha in April 2011 under the resminostat licensing agreement generated further deferred income of €637 thousand. In addition, a delivery of the drug with a value of over €98 thousand has been made to Yakult Honsha.

**OPERATING EXPENSES ::** Operating expenses, comprising the cost of sales, distribution costs, research and development costs and administration costs, stood at €19,584 thousand in 2011, a decrease of 9% on the prior-year figure of €21,297 thousand.

Research and development costs are the largest block of expenses, accounting for 77% (previous year: 80%) of total expenditure. These amounted to €15,012 thousand in 2011 after €17,025 thousand in 2010. The year-on-year reduction by 12% is mainly attributable to the fact that four of the eight clinical phases running in parallel were completed during the reporting period.

Administrative costs rose from €3,625 thousand in 2010 to €3,962 thousand in 2011. This 9% increase resulted primarily from legal and consulting costs and higher staff costs. Distribution costs, which consist of the costs incurred by the Business Development and Public Relations units, also increased by 71%, from €285 thousand to €487 thousand. This substantial increase is largely due to higher legal and consulting costs as a result of the expansion of business development activities and workforce restructuring in the reporting period. The cost of sales fell, however. This is partly attributable to a year-on-year decline in revenue from research collaborations in 2011, while the deferral of income from the upfront payment by Yakult Honsha only generated a comparatively low cost of sales. This reduced the cost of sales by 66% year-on-year to €123 thousand (previous year: €362 thousand).

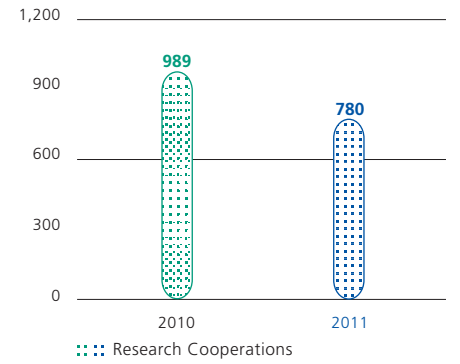
**OPERATING PROFIT/LOSS ::** The Company's operating loss improved by 7% from €20,271 thousand in 2010 to €18,793 thousand in 2011.

**NET FINANCE INCOME/LOSS ::** Net finance income climbed 82% to €309 thousand from €170 thousand in the previous year, mainly as a result of the slightly positive interest rate trend on the capital markets at the time the funds were invested as well as higher capitalisation. The share of the results of associates also rose by €2 thousand to €31 thousand.

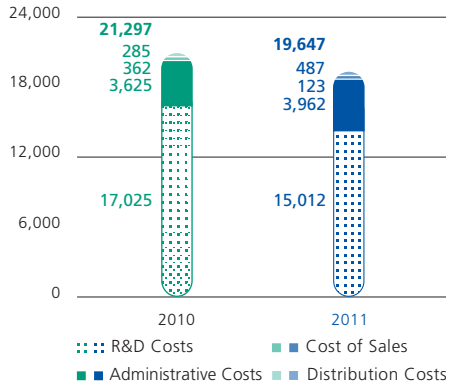
**PROFIT/LOSS FOR THE YEAR ::** On account of the developments described in connection with operating expenses, the loss for 2011 decreased as expected to €19,071 thousand, down from €20,075 thousand in the previous year. This represents a reduction of 5%. The loss for the year improved by 2% less than the operating loss due to the increase in income tax expense resulting from the Japanese withholding tax levied on licensing revenue from Yakult Honsha.

**EARNINGS PER SHARE ::** The capital increase implemented in early 2011 and the issuance of employee shares in May 2011 raised the average number of shares to 41,455,379 in the year under review (previous year: 38,502,739 shares). The higher number of shares and the reduction in the loss for the year accordingly brought down the loss per share to €0.46 from €0.52 in the previous year.

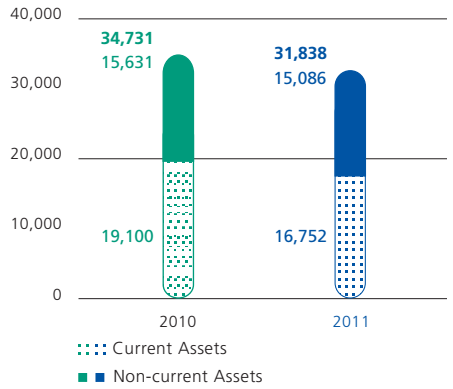
:: 15 REVENUE :: IN € 000'S



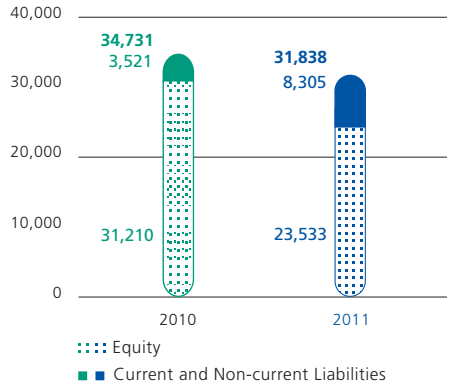

:: 16 OPERATING EXPENSES :: IN € 000'S



:: 17 ASSETS :: IN € 000'S




:: 18 EQUITY AND LIABILITIES :: IN € 000'S




## 4.2 FINANCIAL POSITION

**NON-CURRENT ASSETS ::** Non-current assets fell from €15,631 thousand as at 31 December 2010 to €15,086 thousand as at 31 December 2011. This decline is almost exclusively due to depreciation of property, plant and equipment and amortisation of intangible assets.

**CURRENT ASSETS ::** The steep fall in current assets from €19,100 thousand as at 31 December 2010 to €16,752 thousand as at the close of the financial year as expected was primarily attributable to the decrease in the cash balance/funds, which comprises the items cash and cash equivalents as well as other financial assets. In total, these two items decreased from €17,607 thousand to €15,820 thousand as a result of the operating loss incurred by 4SC.

**EQUITY ::** The decline in equity from €31,210 thousand as at 31 December 2010 to €23,533 thousand as at 31 December 2011 was influenced by a variety of factors. The capital measures implemented in the year's first half had a positive effect. The share capital rose by €3,465 thousand, from €38,503 thousand to €41,968 thousand. The share premium also increased by €7,615 thousand, from €67,836 thousand to €75,451 thousand. Similarly, the number of shares rose by 3,465,565, from 38,502,739 to 41,968,304. The net loss for the year of €19,071 thousand had a countervailing effect, lifting the accumulated deficit accordingly, from €76,447 thousand to €95,518 thousand.

The equity ratio declined by 16.0 percentage points, from 89.9% as at 31 December 2010 to 73.9% at the reporting date. This is due essentially to the deferred income item reported under other non-current and current liabilities, which was recognised in connection with the up-front payment by Yakult Honsha. The reduction in equity also had an effect here.

**CURRENT AND NON-CURRENT LIABILITIES ::** Non-current liabilities rose substantially from €60 thousand at the end of 2010 to €4,782 thousand as at 31 December 2011. Here, deferred income of €4,469 thousand was recognised for the upfront payment received from Yakult Honsha in the second quarter that is to be deferred over the assumed development period for resminostat and reversed as revenue on a straight-line basis. Current liabilities increased slightly from €3,461 thousand at the end of 2010 to €3,523 thousand at the end of the reporting period. Other liabilities, which principally comprise unbilled external services, amounted to €1,850 thousand (previous year: €2,419 thousand). The current portion of the deferred income amounting to €894 thousand that was recognised in connection with Yakult Honsha also contributed to the increase.

**TOTAL ASSETS/TOTAL EQUITY AND LIABILITIES ::** Total assets/total equity and liabilities amounted to €31,838 thousand as at 31 December 2011, down 8% on the end-of-year figure for the previous year (31 December 2010: €34,731 thousand).

## 4.3 CASH FLOWS

**CASH FLOWS FROM OPERATING ACTIVITIES ::** A total of €12,229 thousand was used for operating activities during the 2011 reporting period. The change compared with the negative earnings before taxes of €18,484 thousand is attributable to adjustments for non-cash items in the statement of comprehensive income (principally straight-line depreciation and amortization plus stock options), income tax payments (withholding tax) and also to changes in items in the statement of financial position that had a positive effect on cash flows, especially the increase in other liabilities due to the recognition of a liabilities item for the upfront payment of € 6,000 thousand received from Yakult Honsha. In the prior-year period, cash outflows from operating activities came to €17,562 thousand with a pre-tax loss of €20,101 thousand.

**CASH FLOWS FROM INVESTING ACTIVITIES ::** The cash inflows from investing activities in 2011 amounted to €3,013 thousand, compared with outflows €13,003 thousand in 2010. The Company invested €465 thousand (previous year: €28 thousand) in intangible assets and €168 thousand (previous year: €424 thousand) in property, plant and equipment during the reporting period. The acquisition of financial instruments in the amount of €17,500 thousand (previous year: €12,651 thousand) with a simultaneous cash inflow from the sale of financial instruments of €21,146 thousand (previous year: €100 thousand) resulted in net cash inflows of €3,646 thousand (previous year: outflows of €12,551 thousand).

**CASH FLOWS FROM FINANCING ACTIVITIES ::** The net cash flows of €11,080 from financing activities in the reporting period are due to the capital increase on 24 February 2011 and the issuance of employee shares as at 12 May 2011. No capital measure was executed in the prior-year period.

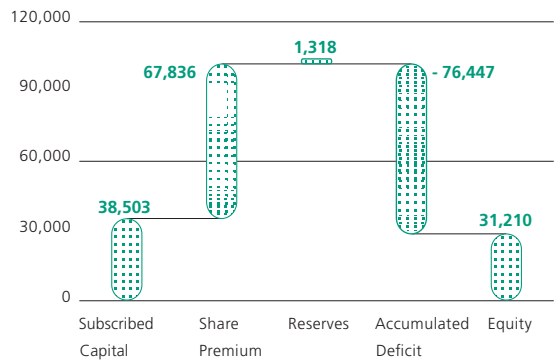
**FUNDS ::** Cash and cash equivalents amounted to €6,820 thousand at the end of the reporting period (previous year: €4,956 thousand). Additional funds in the amount of €9,000 thousand (previous year: €12,651 thousand) were invested in short-term fixed and variable-interest securities and fixed-term deposits. As at 31 December 2011, the Company had cash and available-for-sale securities totalling €15,820 thousand, compared with €17,607 thousand at the end of 2010.

## 4.4 GENERAL STATEMENT REGARDING THE COMPANY'S ECONOMIC SITUATION

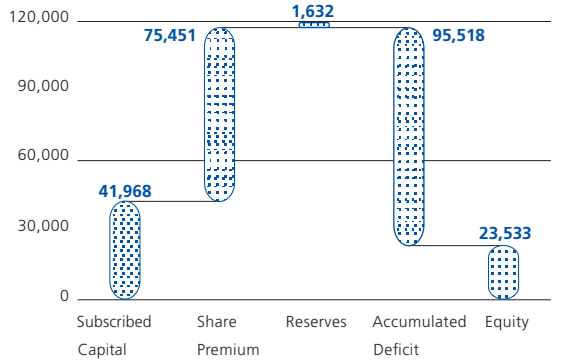
Expenses fell year-on-year in 2011, particularly due to the conclusion during the reporting period of four of the eight clinical trials being conducted in parallel. As expected, revenue also decreased owing to the scaling back of research collaborations in 2011, though at a lower amount than operating expenses. This enabled the loss in 2011 to be reduced as compared with the previous year. Although total assets, the equity base and funds as at 31 December 2011 were perceptibly lower than the comparative figures at the prior-year reporting date, the Company had sufficient liquidity at all times during the 2011 financial year. The financing of the programmes was not in jeopardy at any time. This was ensured in particular by the proceeds from the capital increase in February 2011 as well as by the inflow of funds from the licensing deal with Yakult Honsha in April 2011.

Up until the preparation of this Group management report, the Group's economic development in the 2012 financial year again proceeded according to plan.

:: 19 COMPOSITION OF EQUITY IN 2010 :: IN € 000'S




:: 20 COMPOSITION OF EQUITY IN 2011 :: IN € 000'S



# :: 5. NON-FINANCIAL PERFORMANCE INDICATORS

Several non-financial performance indicators such as employees, procurement, intellectual property rights and corporate governance are instrumental to the success of 4SC.

## 5.1 STAFF AND MANAGEMENT BOARD

4SC hired a small number of additional personnel during the reporting year. As at 31 December 2011, the Company had 92 employees and four Management Board members. Compared with the end of 2010, the workforce was expanded by two people (31 December 2010: 90 employees and four Management Board members).

:: Tab. 06 NUMBER OF STAFF BY DEPARTMENT

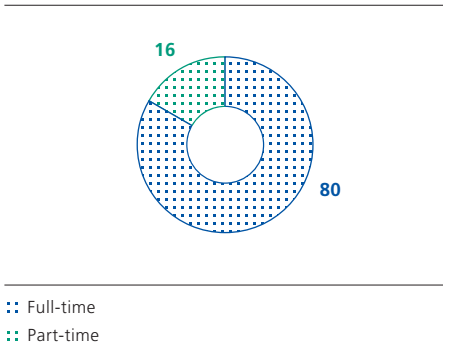
| | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| Research and Development | 69 | 70 | -1 |
| Administration and Sales | 24 | 21 | 14 |
| Information Technology | 3 | 3 | 0 |
| TOTAL | 96 | 94 | 2 |

Since 4SC is a biotechnology company that conducts research and development activities, close to 72% of its employees work in research and development. While this represents a decrease of 3 percentage points compared with the end of the previous year due to the hiring of additional administrative staff, it is still higher than the average for the industry as a whole.

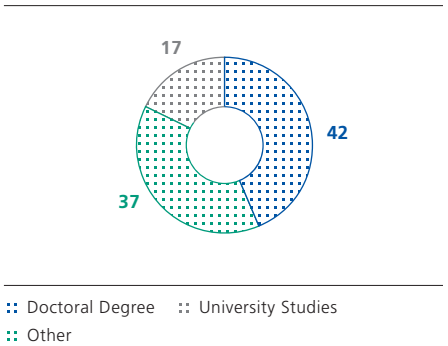
4SC takes steps to ensure a balanced personnel policy. It looks for the most skilled employees for the position in question. In particular, 4SC offers flexible working arrangements that enable its employees with children in particular to balance career and family. At 31 December 2011, 19% of the Company's female staff worked part time (31 December 2010: 18%). With a total headcount of 92 employees and four Management Board members, this translates into 80 full-time equivalents (FTEs) as at 31 December 2011 (31 December 2010: 80.5 FTEs).

Since 2008, 4SC has also acted as a vocational training provider and currently has one trainee chemical laboratory technician.

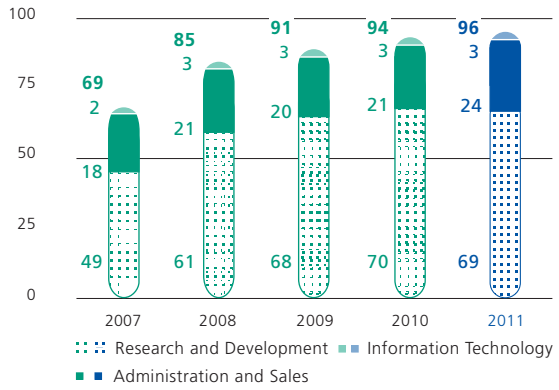
:: 21 NUMBER OF EMPLOYEES BY TYPE OF EMPLOYMENT
AS AT 31.12.2011 :: IN NUMBER




:: 22 NUMBER OF EMPLOYEES BY LEVEL OF EDUCATIONS
AS AT 31.12.2011 :: IN NUMBER




:: 23 NUMBER OF EMPLOYEES
AS AT 31.12.2011 :: IN NUMBER



**INCREASE IN STAFF COSTS ::** Compared to the previous year, the staff costs of 4SC rose by 4% to €6,679 thousand (2010: €6,418 thousand). This is due to the hiring of additional employees in 2011 and to the fact that employees who had been hired in 2010 were paid a full annual salary for the first time. Of these staff costs, €313 thousand (2010: €376 thousand) arose from non-cash expenses for stock option programmes.

**ISSUE OF FURTHER STOCK OPTIONS ::** The employees' base pay is determined by four factors: qualification, professional experience, performance and position. All base pay is reviewed annually by the Management Board, supervisors and representatives of the human resources department.

Because the Company will continue to rely on skilled and motivated employees, 4SC maintained its existing stock option programmes in the reporting year and issued a small tranche of new stock options from the "ESOP 2009" programme launched in 2009. Participants in this issue included new employees hired since the last issue and employees entitled to a larger number of options on account of an extension of their working hours or other success factors. No options were exercised during the reporting year under any of the Company's existing stock option programmes.

## 5.2 PROCUREMENT

**PROCUREMENT – CENTRALISED, INDEPENDENT AND FLEXIBLE ::** As in previous years, procurement, logistics and warehousing processes at 4SC are organised and handled by a central procurement department. These processes are defined and fixed. Close coordination between purchasing on the one hand and both bookkeeping and the research & development department on the other hand ensures that all processes – from obtaining an order to paying the invoice – run smoothly and cost-efficiently.

4SC places great value on maintaining a broad network of suppliers in order to ensure that it is not dependent on any one supplier. Suppliers are generally selected based on three criteria: quality, pricing and availability of the required goods. Despite the decrease in the purchasing volume, delivery terms were renegotiated at length and improved further in the 2011 reporting year. Furthermore, 4SC continued to play an active role in the purchasing association for the Munich biotech region in order to secure favourable delivery terms.

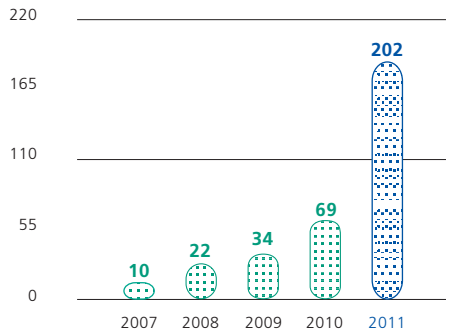
In research and development, the Company works with many service providers in areas such as pharmacology, toxicology, metabolism, analytics, production, clinical development, pharmacovigilance and statistics. The selection of partners is contingent on the requirements of the given project. In addition to price, quality and the observance of deadlines, the key selection criteria are their experience in the respective field and applicable regulatory parameters.

## 5.3 INTELLECTUAL PROPERTY RIGHTS

**NUMBER OF PATENTS HELD MORE THAN TRIPLED, VOLUME OF APPLICATIONS AT A STABLE LEVEL ::** For a research-based biotech company such as 4SC, the possession of a strong and broad-based patent portfolio is of paramount importance as it strengthens the competitive position of in-house development programmes on the path to market maturity while underpinning future market success. With its comprehensive and strong patent management, 4SC was able to further consolidate and enhance its existing portfolio in the reporting year. As at the close of 2011, 4SC held 202 patents and had filed 398 patent applications pending in 43 patent families worldwide. The number of patents granted thus more than tripled compared with the previous year.

By the end of 2011, a total of 11 patents had been granted for vidofludimus, the most advanced drug for the treatment of autoimmune diseases, including the crucial composition of matter patent in the United States, China, India, South Korea and Europe. For resminostat, 4SC's lead oncology compound, the Company currently holds eight patents. These include the US composition of matter patent and the Japanese patent granted in November 2011 – a particularly important patent in light of the collaborative venture with Yakult Honsha. At the end of the reporting year, 4SC also received the composition of matter patent for resminostat in Taiwan. In three further countries – South Korea, the Philippines and Israel – patent authorities have already indicated that patents will be granted in the very near future. To secure market position for these compounds, further patent applications have been submitted for vidofludimus and resminostat

:: 24 PATENTS GRANTED AS AT 31.12.2011



in connection with specific forms of delivery. Examples include resminostat's mesylate salt, which has already been deployed in clinical trials with resminostat. The patent authorities in Europe have also indicated that such patents will be granted. This approach provides a means of extending effective patent protection for the compounds.

Compared to the previous year, the number of patent applications pending has remained more or less constant. A benefit-oriented efficiency review of the current stock of patent applications resulted in a decision to withdraw a number of existing applications. These withdrawals were almost entirely compensated for by the submission of new applications, especially in the area of projects at early stages of research. This highlights the strength of 4SC's research programme, which uses a forward-thinking patent strategy to safeguard the development of future drugs. Besides its patents, 4SC also owns a variety of rights to word and word/picture marks.

## 5.4 CORPORATE RESPONSIBILITY/SUSTAINABILITY

**EMPLOYEE SAFETY AND ENVIRONMENTAL PROTECTION ::** 4SC takes issues of corporate responsibility seriously: The Company offers its employees the greatest possible degree of safety and protects the environment to the best of its ability. All steps critical to the protection of the employees and the environment are implemented on an ongoing basis in all processes. The Company's workplace safety committee is tasked with ensuring that this will be the case in future as well. It has the following members pursuant to German workplace safety laws: one chemical safety officer; one biology safety officer; one officer responsible for biological safety; an occupational safety expert; a company medical officer and a health and safety officer. The committee also ensured in the 2011 reporting year that all members of staff implement and comply with applicable statutory requirements in all areas.

External controls are also in place. The company Gesellschaft für Laborsicherheit mbH, Karlsfeld, (GLS) carried out a risk assessment in accordance with section 5 of the German Occupational Health and Safety Act (Arbeitsschutzgesetz). All lab employees are trained annually with respect to the handling of hazardous substances in accordance with applicable hazardous substance regulations. In addition, all chemicals used are documented in a register of hazardous substances and stored in hazardous materials cabinets. To reduce the risks arising from the operation of the laboratory, the inventory of chemicals is kept as small as possible and all chemicals are used with great caution and in the smallest possible quantities. Personal protective gear is also made available to each employee.

All safety equipment is inspected and serviced by external experts in compliance with applicable regulations. The operation of biological labs of security levels 1 and 2, as well as work in the radionuclide lab has been approved by the authorities.

And finally, the waste disposal concept also helps to protect the environment. 4SC complies with all limits and guidelines.

**ETHICAL RESPONSIBILITY ::** 4SC relies on data derived from animal testing in order to identify and develop new drugs. This serves both to achieve the requisite goals in scientific terms and satisfy statutory requirements. The Company is committed to reducing tests involving animals to the minimum and replace them to the extent possible with alternatives, such as cell culture testing. The few essential tests that 4SC performed on animals in 2011 were all subject to monitoring by an external animal protection officer and required governmental permits.

Contract research organisations are carefully selected and commissioned to perform a number of animal studies and clinical studies on people. In this context, 4SC places particular emphasis on compliance with official requirements as well as ethical and scientific quality standards.

# :: 6. EXPLANATORY REPORT BY THE MANAGEMENT BOARD ON THE DISCLOSURES IN ACCORDANCE WITH SECTION 315(4) OF THE GERMAN COMMERCIAL CODE

## 6.1 IN THE GROUP MANAGEMENT REPORT FOR THE 2011 FINANCIAL YEAR, THE MANAGEMENT BOARD MADE DISCLOSURES RELEVANT FOR TAKEOVERS IN ACCORDANCE WITH SECTION 315(4) GERMAN COMMERCIAL CODE (HANDELSGESETZBUCH – HGB) AND EXPLAINS THESE DISCLOSURES AS FOLLOWS

**SUMMARY OF SUBSCRIBED CAPITAL ::** The Company's share capital as at 31 December 2011 comprised 41,968,304 no-par value bearer shares which do not entail other rights nor do they have a preferred status.

**RESTRICTIONS ON VOTING RIGHTS OR ON THE TRANSFER OF SHARES ::** There are no limitations on voting rights or the transfer of shares.

**EQUITY INTERESTS EXCEEDING 10% OF VOTING RIGHTS ::** According to information currently available to the company, Santo Holding (Deutschland) GmbH, Stuttgart, with an equity stake of approx. 49.78% is the only important shareholders holding an equity stake in excess of 10% (information current as of the close of the 2011 Annual General Meeting).

**SHARES WITH SPECIAL RIGHTS CONVEYING POWERS OF CONTROL ::** There are no shares with special rights conveying powers of control.

**NATURE OF VOTING CONTROL WHERE EMPLOYEES HAVE AN EQUITY INTEREST AND DO NOT DIRECTLY EXERCISE THEIR CONTROL RIGHTS ::** Employees, who hold equity in the company via direct purchase of shares or employee stock option programmes, are not subject to binding voting rights.

**LEGAL REGULATIONS AND PROVISIONS OF THE ARTICLES OF ASSOCIATION ON THE APPOINTMENT AND DISMISSAL OF MEMBERS OF THE MANAGEMENT BOARD AND ON AMENDMENTS TO THE ARTICLES OF ASSOCIATION ::** The appointment and dismissal of Management Board members is governed by sections 84 and 85 German Stock Corporation Act (Aktiengesetz – AktG).

Pursuant to article 7(1) of the Articles of Association as amended on 4 June 2011, the Supervisory Board appoints the members of the Management Board for a maximum of five years. The appointment of members of the Management Board may be renewed, or the term of office extended, provided that the term of each such renewal or extension does not exceed five years. This shall require a further resolution by the Supervisory Board, which may be adopted at the earliest one year before a member's current term of office expires. The extension of a member's term of office may only be provided for without a new resolution by the Supervisory Board if the member has been appointed for less than five years, provided that, as a result of the extension, the total term of office does not exceed five years. Pursuant to article 7(3) of the Articles of Association, the Supervisory Board is responsible for concluding, amending or terminating the employment agreement of the Management Board member in question as well as withdrawing his or her appointment.

As a rule, any change in the Articles of Association requires a corresponding resolution on the part of the Annual General Meeting, pursuant to section 179 German Stock Corporation Act. Pursuant to article 13 of the Articles of Association, the Supervisory Board is also authorised to amend the Articles of Association in ways which only affect their wording.

### 6.1.1 AUTHORITY OF THE MANAGEMENT BOARD TO ISSUE AND BUY BACK SHARES

The issue of new shares by the Management Board requires resolutions by the Annual General Meeting.

**AUTHORISED CAPITAL 2011/I ::** Pursuant to article 5(7) of the Articles of Association and subject to the approval of the Supervisory Board, the Management Board is authorised to increase the Company's share capital until 3 July 2016, once or repeatedly, by up to €20,984,152.00 in return for contributions in cash or in kind by issuing, once or repeatedly, an aggregate total of up to 20,984,152 new no-par value bearer shares (Authorised Capital 2011/I). In this context, shareholders' subscription rights can be excluded with the approval of the Supervisory Board in certain cases as described in more detail in article 5(7) of the Articles of Association.

**2010 CONVERTIBLE BOND – CONDITIONAL CAPITAL V ::** On 21 June 2010, the Annual General Meeting authorised the Management Board to issue, once or repeatedly, until 20 June 2015, convertible bonds, bonds with warrants, participation rights or income debentures or any combination of these instruments (collectively "bonds") with or without limited maturity up to a total par value of €60 million, in return for contributions in cash or in kind to be determined by the aforementioned authorisation and to assume guarantees for bonds issued for subordinated Group companies with the Company's consent. The Management Board is also authorised to grant the holders or creditors of such bonds issued on the basis of the above-mentioned authorisation conversion rights or warrants on up to 7.5 million shares as stipulated in the bond terms.

The terms of the bonds may also provide for a conversion obligation. For this, the share capital has been conditionally increased by up to €7.5 million (Conditional Capital V, article 5(6) of the Articles of Association).

In this context, shareholders' subscription rights to the new bonds can be excluded with the approval of the Supervisory Board in certain cases as described in more detail in the authorisation by the Annual General Meeting.

### 6.1.2 OTHER CONDITIONAL CAPITAL IN CONNECTION WITH STOCK OPTION PROGRAMMES

**CONDITIONAL CAPITAL I ::** The Company's share capital has been conditionally increased by up to €30,500.00 through the issue of up to 30,500 new shares (Conditional Capital I, article 5(2) of the Articles of Association). The conditional capital increase serves the exclusive purpose of exercising options issued on the basis of the authorisation granted by the Annual General Meeting on 1 March 2001 to grant stock options to members of the Management Board and employees of the Company in accordance with the terms of the authorisation.

**CONDITIONAL CAPITAL II ::** The Company's share capital has been conditionally increased by up to €114,000.00 through the issue of up to 114,000 new shares (Conditional Capital II, article 5(2a) of the Articles of Association). The conditional capital increase serves the exclusive purpose of exercising options issued on the basis of the authorisation granted by the Annual General Meeting on 28 June 2006 to grant stock options to members of the Management Board and employees of the Company in accordance with the terms of this authorisation.

**CONDITIONAL CAPITAL III ::** The Company's share capital has been conditionally increased by up to €88,314.00 through the issue of up to 88,314 new shares (Conditional Capital III, article 5(3) of the Articles of Association). The conditional capital increase serves the exclusive purpose of exercising options issued on the basis of the authorisation granted by the Annual General Meeting on 28 July 2004 to grant stock options to members of the Management Board and employees of the Company in accordance with the terms of this authorisation.

**CONDITIONAL CAPITAL IV ::** The Company's share capital has been conditionally increased by up to €305,133.00 through the issue of up to 305,133 new shares (Conditional Capital IV, article 5(3a) of the Articles of Association). The conditional capital increase serves the exclusive purpose of exercising options issued on the basis of the authorisation granted by the Annual General Meeting on 28 June 2006 to grant stock options to members of the Management Board and employees of the Company as well as employees of affiliated companies in accordance with the terms of this authorisation.

**CONDITIONAL CAPITAL VI ::** The Company's share capital has been conditionally increased by up to €1 million through the issue of up to 1 million new shares (Conditional Capital VI, article 5(5) of the Articles of Association). Conditional Capital VI serves the exclusive purpose of exercising options issued on the basis of the authorisation granted by the Annual General Meeting on 15 June 2009 to grant stock options to members of the Management Board and employees of the Company as well as employees of domestic and international affiliated companies in accordance with the terms of this authorisation.

There are no authorisations to purchase treasury shares and the Company does not have any treasury shares.

### 6.1.3 KEY AGREEMENTS ENTERED INTO BY THE COMPANY PROVIDING FOR A CHANGE OF CONTROL FOLLOWING A TAKEOVER BID

The Company has not entered into any key agreements or compensation agreements providing for a change of control following a takeover bid.

### 6.1.4 COMPENSATION AGREEMENTS BETWEEN THE COMPANY AND MEMBERS OF THE MANAGEMENT BOARD OR EMPLOYEES CONCLUDED IN THE EVENT OF A TAKEOVER BID

For the Management Board members Dr Ulrich Dauer, Dr Daniel Vitt, Enno Spillner and Dr Bernd Hentsch, an agreement was signed in 2010 in the context of rearranging the Management Board's directors' contracts, stipulating that in the event of a takeover by a third party and when the Management Board is to be dissolved as a result, their salaries would be fully paid out for the remaining term of their contract, but for a minimum period of 15 months. Furthermore, in the event that a controlling interest is acquired in the Company the regulations on the expiry of stock options for the Management Board members are rescinded, i.e. all stock options issued to the members of the Management Board up to the termination date remain with the Management Board members regardless of the termination of their employment.

## 6.2 COMPENSATION REPORT OF 4SC

The compensation report, which is also part of the Group management report, discloses the basic elements of the compensation system for the Management Board and the Supervisory Board of 4SC. These compensation systems largely comply with the recommendations of the German Corporate Governance Code. They are designed to compensate the members of the Company's Management Board and Supervisory Board in line with their activities and responsibilities.

### 6.2.1 COMPENSATION OF THE MANAGEMENT BOARD

The compensation paid to the members of its Management Board serves to reward each member's personal performance, taking the Company's economic position and success into account. It is also aligned with standards customary to both the industry and the country as well as the Company's fortunes.

**DETERMINATION OF THE MANAGEMENT BOARD'S COMPENSATION ::** The proposal for the Management Board's compensation is drawn up by the Human Resources Committee, which subsequently presents it to the full Supervisory Board for approval. The provisions of the VorstAG were taken into consideration when the director's contracts were concluded in 2010. The compensation is reviewed annually by the Supervisory Board, taking the Company's economic situation and the performance of the individual Management Board member into account.

In addition, the Supervisory Board may reduce the Management Board compensation appropriately if the Company's situation deteriorates such that continuing to pay the remuneration would be unreasonable for the Company.

**AMOUNT AND STRUCTURE ::** The annual compensation of the Management Board members comprises three components: 1) fixed compensation (base salary), 2) two performance-based bonuses and 3) stock options.

The performance-based compensation comprises an annual bonus (bonus I) as well as a long-term bonus measured on the basis of the director's performance over three years (bonus II). Over and above the current remuneration components, the Supervisory Board may stipulate a special bonus at its own discretion if specific strategic corporate targets have been achieved.

Annual report page 109

**FIXED COMPENSATION ::** The amount of the fixed compensation is contingent on the given individual's position and responsibility as well as on parameters customary to both the industry and the market that are geared in particular towards listed small- and mid-cap companies from the biotechnology sector and related industries (e.g. MedTech). Fixed compensation is paid on a monthly basis.

Annual report page 29

**PERFORMANCE-BASED COMPENSATION ::** The Supervisory Board fixes the performance-based Bonus I following an appropriate annual performance review, exercising due discretion. Bonus I is based on the performance of 4SC and the degree to which predefined individual and general corporate goals have been achieved. These goals comprise different strategic topics from the clinical pipeline, investor relations, business development and general management and are weighted on the basis of their priorities for further business development.

Annual report page 109

In addition to his basic salary and the short-term bonus I, each Management Board member additionally receives a long-term salary component as a second bonus, measured over three years. This is aimed at promoting sustainable business development and is based on personal and company-specific goals that the Management Board and Supervisory Boards define together at the start of each financial year. Whether a Management Board member is entitled to payment of bonus II depends on whether these goals have been achieved during the three-year target achievement period defined. The first target achievement period therefore relates to 2010 to 2012, the second to 2011 to 2013, etc.

Annual report page 29

The Supervisory Board will resolve on the achievement of the targets at its last meeting prior to the end of the relevant three-year target achievement period, initially at the last meeting in the 2012 financial year.

Another compensation component with a long-term incentive effect is the ESOP (Employee Stock Option Programme), in which the Management Board and all employees participate. These stock options entitle their holders to acquire shares of 4SC. For more detailed information on the current options holdings, please see on page 109 in chapter 10.1 of the 2011 consolidated IFRS notes.

In regards to compliance with the recommendations of the German Corporate Governance Code as they relate to executive compensation, please see the disclosures in the chapter entitled, Declaration of Compliance by the Management Board and the Supervisory Board pursuant to section 161 German Stock Corporation Act, on page 29 of this corporate governance report.

**MANAGEMENT BOARD COMPENSATION FOR 2011 ::** Compensation of the Management Board of 4SC in the reporting period amounted €1,095 thousand), of which 68% were attributable to fixed and 32% to variable compensation. A detailed breakdown of the Management Board members' individual salaries can be found on page 109 in chapter 10.1 of the 2011 consolidated IFRS notes.

**D&O LIABILITY INSURANCE ::** Since 1 July 2010, the Company's current D&O insurance policy for the members of its Management Board has contained the deductible required by law. In regards to compliance with the recommendations of the German Corporate Governance Code as they relate to D&O insurance, please see the disclosures in the section entitled, Declaration of Compliance by the Management Board and the Supervisory Board pursuant to section 161 German Stock Corporation Act, on page 29 of the corporate governance report.

**SHAREHOLDINGS OF THE MANAGEMENT BOARD MEMBERS ::** As of 31 December 2011 the current members of 4SC AG's Management Board held a total of 706,720 stock options, entitling them to 683,920 shares. Furthermore, they held 924,242 shares, which represent 2.2% of the Company's total shares.

### 6.2.2 COMPENSATION OF THE SUPERVISORY BOARD

4SC is a biotech company that focuses on research and development that is not yet profitable at this time. It is for this reason that no performance-oriented compensation based on financial performance indicators will be paid to the members of the Company's Supervisory Board. The Company is of the opinion that the Supervisory Board in particular should be interested in the sustainable and successful long-term development of 4SC. For this reason, the Company believes that paying the members of its Supervisory Board fixed compensation is more effective. Besides, executing the recommendation contained in item 5.4.6 of the German Corporate Governance Code would give rise to substantial additional administrative costs that are disproportionate to the Company's current size.

**DETERMINATION OF THE SUPERVISORY BOARD'S COMPENSATION ::** The compensation paid to the members of the Supervisory Board is based on a resolution of the Company's Annual General Meeting on 5 June 2008.

**AMOUNT AND STRUCTURE ::** The basic annual compensation paid to each Supervisory Board member is €13 thousand, with the Chairman of the Supervisory Board receiving double this amount and his deputy receiving 1.5 times this amount. The Company pays €5 thousand to Supervisory Board members for each membership in a Supervisory Board committee. In a departure from the recommendation in item 5.4.6 of the German Corporate Governance Code however, it does not distinguish between chairmanship and regular membership because all work in the committees is more or less evenly distributed among all the members.

**SUPERVISORY BOARD COMPENSATION FOR 2011 ::** In financial year 2011, compensation paid to the members of the Supervisory Board totalled €139 thousand. A breakdown of the compensation of individual Supervisory Board members is provided on page 110 in chapter 10.2 of the 2011 consolidated IFRS notes.

Annual report page 110

**SHAREHOLDINGS OF THE SUPERVISORY BOARD MEMBERS ::** As at 31 December 2011, the members of 4SC's Supervisory Board held a total of 139,875 shares equivalent to an interest of 0.33% in the Company. As already in the previous year, two members of the Company's Management Board and Supervisory Board invested in the Company in 2011, as follows from the directors' dealings table on page 111 in chapter 10.2 of this Group management report.

Annual report page 111

### 6.3 STATEMENT ON CORPORATE GOVERNANCE

The statement on corporate governance pursuant to Section 289a of the German Commercial Code (Handelsgesetzbuch - HGB) has been published on the Company's website at http://www.4sc.com/corporate_governance_erklaerung/. It can also be found on pages 29 ff. of this annual report.

Annual report page 29 ff.

# :: 7. RISK AND OPPORTUNITIES REPORT

**4SC'S RISK MANAGEMENT AND INTERNAL CONTROL SYSTEM**

:: A COMPREHENSIVE COMPUTER-AIDED RISK MANAGEMENT SYSTEM
:: SIGNATORY POWERS, SOPS, WORK INSTRUCTIONS, EMPLOYEE TRAINING AND EMERGENCY PLANNING FOR ALL OPERATING UNITS

## 7.1 RISK MANAGEMENT SYSTEM

4SC has designed its risk management system with the aim of minimising risks and eliminating them through suitable measures. 4SC is exposed to certain business risks, just like any other company. The risks mainly relate to the research and development of drugs, the protection of intellectual property, the cooperation with partners and the Company's medium- and long-term financing. These risks must be assessed and managed so as to maximise the Company's opportunities.

As early as 2002, 4SC implemented a comprehensive computer-aided risk management system in compliance with the German Control and Transparency in Business Act (Gesetz zur Kontrolle und Transparenz im Unternehmensbereich - KonTraG). This system is an integral part of corporate management and monitoring. Following a defined process, the risk officers from the different business units identify, analyse and asses risks with regard to their probability of occurring, the potential loss amount, the period of time to which they relate and the existing and planned countermeasures. These risk officers regularly inform 4SC's risk management officer, who in turn informs the Company's management of the status of risks. Based on this, the Management Board and the Supervisory Board decide how the Company handles the identified risks.

The Company's internal control system (ICS) supplements the risk management system and works by employing such elements as signatory powers, standard operating procedures (SOPs), work instructions, the two-person integrity (TPI) principle, spot checks, employee training and emergency planning. They apply to all operating units.

SOPs and work instructions are an integral part of 4SC's quality assurance system and provide binding written instructions on the performance of work. Whilst SOPs are usually derived from laws and thus are of a more general nature, work instructions govern specific procedures. Signatory powers define which employees are authorised to sign orders and invoices. What is decisive in that regard is the amount of the order or invoice, whether it was budgeted and whether the signatory is a project staff person, project director or Management Board member.

Regular project meetings are conducted as part of the scientific projects in order to discuss these matters in detail. The "Project Portfolio Steering Committee" (PPSC) was set up for development programmes in 2008 and has since been merged with the Project Coordination Meeting (PCM) for the Joint Project Coordination Meeting (JPCM). The Meeting ensure close coordination between the research and development departments as well as with the Management Board. At the weekly JPCM, one project from the research department and another from the development department are presented and discussed. The JPCM is attended by members of the Management Board, the project managers from both departments, a representative of the Business Development unit and the owners of the sub-projects.

**RISK MANAGEMENT AND INTERNAL CONTROL SYSTEM IN THE ACCOUNTING PROCESS ::** The aforementioned components of the internal control system such as signatory powers, work instructions, the TPI principle, spot checks and emergency planning also apply especially to the accounting process. The finance team is engaged in an ongoing learning process in order to be able to fully implement constantly changing legal requirements in the Company.

4SC's controlling system rests on three pillars: planning, monitoring and reporting. 4SC prepares a three-year plan for internal steering and controlling purposes, taking the strategic planning into account. The necessary data related to steering and controlling are furnished to the Management Board every month based on both this plan and the current actual figures. Reports on such non-financial performance indicators as the progress of the projects, patents, human resources and public relations/investor relations are provided on a quarterly basis. These management tools allow both the Management Board and Controlling to identify, assess and address opportunities and risks early on.

Close coordination between the bookkeeping department and the Company's specialist departments as well as clearly defined and established processes ensure that the invoicing procedure from placement of the order all the way to payment of the invoice is smooth. Rules on inventory measurement, clear customer billing processes as well as clear processes for recording supplier services that have not yet been billed also ensure accurate recording of transactions that are handled by the specialist departments. The IFRS financial statements are also prepared in accordance with uniform rules and regulations. The manageable size of the bookkeeping team ensures uniform presentation of all like items.

Specific access rules apply within the enterprise resource planning system; any changes in these rights are subject to approval by the responsible members of the Management Board. This ensures the security of all postings and the respective separation of functions in the system as a whole.

### 7.2 THE COMPANY'S EXPOSURE TO RISK

Some of the individual risks set forth below are related to each other and can affect each other, in a positive or negative way. The occurrence of one or several risks could have negative effects on 4SC's product development; its financial position, cash flows and financial performance; and/or its enterprise value.

#### 7.2.1 INDUSTRY-SPECIFIC RISKS

**COMPETITION ::** Short technology cycles, long development cycles and substantial investments to achieve marketable products as well as high innovative power are the defining characteristics of the biotech industry. The risk for 4SC is that other technologies making it possible to develop new products more economically or rapidly in the indications addressed by the Company are brought to market, thus facilitating faster product launches.

In addition, competitors are developing products in indications that 4SC also addresses. The approval authorities could give preference to these competing compounds on account of their greater efficacy or tolerance or their side effect profile. Consequently, the products that 4SC is developing and plans to license might not be approved at all or only to a limited extent or might fail to gain a sufficiently strong or extended market position. In turn, this could make it impossible for 4SC to enter into licensing partnerships for its proprietary products or cause a cooperation or licensing partner to fail in its efforts to advance or market one of the Company's compounds. As a result, 4SC would not generate any milestone payments or licence fees (royalties) in future under the planned licensing agreements with pharmaceutical and biotech companies. There is a risk, therefore, that investments made in research and development will not pay off.

In addition, with regard to past and future licensing deals, 4SC is subject to both tax laws in Germany and the laws of the licensing partner's country of domicile. As a result, 4SC may have to pay taxes abroad that it cannot or can only partly credit in Germany due to its loss-making situation. This would have a negative effect on the Company's financial performance, cash flows and financial position.

**PRODUCT DEVELOPMENT (GENERAL) ::** The success of 4SC stands and falls with its research and development programmes. 4SC is subject to drug development risks because it is a product-focused biotechnology company. Development risks are particularly pronounced in the biotechnology industry owing to drug candidates' long development cycles. Typical risks include the following: Individual products are ineffective, have side effects or cannot be formulated or produced such that they cannot be successfully advanced, external service providers become insolvent, or the responsible authorities do not grant the requisite approvals at all or only with restrictions or after a delay.

REVENUES FROM AGREEMENTS WITH COOPERATION PARTNERS AND LICENSING AGREEMENTS

:: IN PLANNING: FURTHER RESEARCH COOPERATIONS
:: DIVERSIFICATION OF THE PARTNER PORTFOLIO

4SC has several drug candidates at present that are in preclinical and clinical development phases. A broad product pipeline can reduce the risk of or dependence on a single compound. Although the study results available to date have shown that the compounds are safe to use and well-tolerated, The Company cannot rule out that in pending studies they may turn out not to be sufficiently efficacious in treating patients, or side effects may emerge which are classed as relevant to safety. This could result in delays or even the discontinuation of clinical development, as was the case in the reporting year with vidofludimus in the rheumatoid arthritis indication.

**ADMINISTRATIVE PROCEEDINGS ::** The business operations of 4SC are subject to extensive legal regulations and controls. The development and marketing of new products can be hampered by administrative proceedings over which the Company has only limited control. For instance, 4SC requires approval from the authorities to carry out clinical studies and operate its own research facilities. The loss, expiry or withdrawal of such approval can lead to delays in the development of 4SC's research projects.

### 7.2.2 RISKS FROM THE COMPANY'S BUSINESS ACTIVITIES

**DEVELOPMENT AND LICENSING DEALS ::** 4SC is specialised in the research and development of small-molecule compounds. The Company must generate substantial revenue in order to achieve profitability, for instance from advance payments, milestone payments or royalties under licensing agreements with pharmaceutical and biotech companies as well as under cooperation agreements. To date, 4SC's revenue has not allowed the Company to finance itself and generate profits. In light of these facts, and also considering the future need to incur large research and development expenses, the Company will continue to post negative operating results for the time being. In order to become profitable in the medium term, 4SC has to enter into long-term agreements with the pharmaceutical industry or large biotechnology companies. The development of the respective products could be delayed and/or result in lower revenue if 4SC fails to gain such partners at all or if it can only do so at economically unfavourable terms. Should a cooperation or licensing partner fail to develop a 4SC compounds further or market it, 4SC could potentially not receive milestone payments or licensing fees in future.

**COOPERATION PARTNERS ::** 4SC currently generates most of its revenue from agreements with a few cooperation partners, for instance Yakult Honsha. Any decision by such a partner to terminate the agreement or cease making payments would have a negative effect on the Company's revenue. Going forward, the Company aims to generate higher revenue from activities in the earlier stages of drug research, something it hopes to achieve above all through research collaborations with pharmaceutical companies in the fields of drug discovery and optimisation. Failure by 4SC to find such cooperation partners could jeopardise the Company's attempts to boost its revenue, which in turn could have an adverse effect on its future financial performance and cash flows. 4SC is also seeking to diversify its portfolio of partners to prevent "large" partners from being able to exert a negative influence (for example in the form of a contract termination or delay in payment).

**PATENTS AND TRADEMARKS ::** 4SC protects its proprietary technologies and developments by establishing industrial property rights as well as through comprehensive patenting and licensing strategies. It cannot be ruled out that third parties may object to patent applications made by 4SC during the patent approval process or even challenge the validity of patents. It can also not be ruled out that 4SC may become involved in patent disputes with third parties. Any legal ruling against 4SC's patents – generally in lengthy and cost-intensive legal proceedings – could impede the Company's continued development. No such objections have been raised or are known to 4SC at this time.

### 7.2.3 PRODUCT DEVELOPMENT RISKS

**COLLABORATION WITH EXTERNAL SERVICE PROVIDERS IN RESEARCH AND DEVELOPMENT ::** 4SC does not own or operate any production facilities at present because it does not have the requisite governmental permit. As a result, the Company depends on subcontractors, i.e. so-called contract manufacturing organisations (CMOs). These furnish the pharmaceutical substances for the Company's products, produce them in clinical and commercial quantities and both formulate and produce the actual drug. Here, 4SC's dependence on such external suppliers and manufacturers exposes it to risks. In particular, this concerns timely and sufficient deliveries in terms of quantity or quality as well as compliance with governmental requirements and quality assurance standards. The occurrence of this risk could result in the termination of individual clinical studies with the attendant consequences for development and/or losses in revenue.

4SC is also dependent on contract research organisations (CROs) in connection with preclinical and clinical development. Any failure on the part of the cooperation partner in question to exercise due care could jeopardise the development of 4SC's compounds and possibly even cause the respective study to be discontinued. Moreover, the CROs must fulfil governmental requirements and quality assurance standards that 4SC can only influence to a limited degree even though the CROs are carefully selected.

**PATIENT RECRUITMENT ::** Aside from the aforementioned general product development risks that are typical for the industry – such as dependence on governmental approvals for clinical development and the possibility that ongoing studies might be subject to unexpected events – the development of drugs also gives rise to another risk. A sufficient number of suitable subjects and patients must be recruited for clinical studies. This can occur at a sluggish pace and encounter delays, given the complex medical circumstances that surround clinical studies. In addition, clinical study centres might be unable to recruit a sufficiently large number of patients for the clinical study in question because other clinical studies are being conducted concurrently. In turn, this could jeopardise the studies' timeline and execution and result in delays. To push forward with the studies, 4SC might be forced to include additional clinical centres in the ongoing studies, which in turn could result in significant cost increases.

### 7.2.4 CAPITAL MARKET RISKS

**ADDITIONAL FINANCING ::** 4SC will continue to need a large amount of capital in the medium to long term if it is to realise its corporate and development goals. Meeting this capital need requires the Company to generate enough revenue from licences or cooperation deals. However, if product development costs exceed such income, the Company would have to raise additional equity or borrowings. 4SC cannot guarantee that such financing would be available on time, in the amount required, on economically feasible terms, or at all. Failure to raise sufficient funds could force 4SC to reduce its research and product development expenses and/or discontinue the development of one or more of its products, which could also have a negative effect on the Company's financial performance, cash flows and financial position. There is also a risk that the Company's continued existence in the medium to long term will be jeopardised if additional cash inflows cannot be generated through outlicensing, cooperation deals or partnerships and/or through capital increases. The current volume of funds in connection with the current forecast of further expense and revenue planning will safeguard 4SC's financing for the next twelve months and beyond. If the Company raises additional capital by issuing new shares, existing shareholders could see a dilution of their shares.

**FIVE PRINCIPAL SHAREHOLDERS**

:: SANTO HOLDING
:: FCP
:: DVCG/VCG
:: HEIDELBERG CAPITAL
:: ROLAND OETKER

**GOING-CONCERN RISKS ::** In the 2011 financial year, the 4SC Group reduced its net loss on the back of revenue from the licensing agreement with Yakult Honsha as well as through lower research and development costs. Owing to the high costs it needs to incur for clinical research and development, however, 4SC has not yet been able to turn a profit.

The availability of funds in the medium term is therefore very important for the Company, also to ensure the continuation of development programmes. In this context, entering into one or several more licensing deals or development partnerships for the clinical product candidates is the main goal. The Company also plans to supplement its earnings in 2012 with higher revenue from the business of 4SC Discovery GmbH generated from research services, research collaborations and/or early partnerships. The Group's cost and revenue planning envisages a further payment in the first half of 2013 providing certain clinical milestones are reached.

The conclusion of a commercialisation agreement for one or more of the product candidates would significantly improve the Company's cash flows. 4SC continuously meets with potential licensees and development partners to discuss potential collaborations. The Management Board cannot predict with any certainty from today's standpoint when and at what terms such an agreement might be made because the ongoing clinical development of programme in question, the manufacturing terms and the marketing parameters must be negotiated along with the financial terms. The Management Board aims to ensure that the respective product candidate generates the greatest possible return for the Company.

Such measures could extend the Company's financial scope beyond the next twelve months.

There is a possibility, however, that the negotiations with a potential partner may last longer than the current scope of financing. Partners in the resminostat negotiations, for example, might not make a decision until final efficacy data have been published.

If the Company's operations fail to generate any further funds in this way or if the conditions on the capital markets are attractive, 4SC would have to or could try to raise funds through a capital increase, for instance. The Company is authorised to increase its share capital, with the approval of the Supervisory Board, by up to €20,984,152.00 by issuing up to 20,984,152 new no-par value bearer shares in return for contributions in cash and/or in kind once or repeatedly up to and including 03 July 2016 (Authorised Capital 2011/II). 4SC's existence as a going concern would be at risk if the Management Board, in contrast to its expectations, were unable to enter into a commercialisation agreement for a product candidate and/or raise additional capital via the capital market. In this case, 4SC might be unable to satisfy its payment obligations and/or become overindebted from the second quarter of the 2013 financial year.

**INFLUENCE EXERTED BY A FEW PRINCIPAL SHAREHOLDERS ::** As defined by section 21 of the German Securities Trading Act (Wertpapierhandelsgesetz – WpHG) in conjunction with section 25 of the WpHG, 4SC has five principal shareholders which have exceeded notification thresholds at time this Group management report has been prepared. Together, these shareholders hold approx. 76.61% of the share capital and voting rights. They are therefore theoretically in a position to exert a controlling influence on resolutions at the Annual General Meeting. Regardless of how other shareholders vote, they can influence all decisions regarding future business transactions of 4SC.

### 7.2.5 FINANCIAL RISKS

**CASH INVESTMENTS ::** 4SC possesses liquid funds that it invests to earn interest as long as these funds are not needed. Currently, all of these funds are invested safely (investment grade) in overnight and term deposits, borrower's note loans and money market funds that entail only minor liquidity and default risks.

Transactions with international partners where contractual payment terms are made in a currency other than the euro entail a currency risk. This risk includes the relative decrease or increase of the euro vis-à-vis the other currencies during the period until payment of the liability or receivable. 4SC does not engage in hedging transactions but instead endeavours to pay its own liabilities in foreign currencies, primarily US dollars, sterling and Swiss francs, thereby mitigating the risk of exchange rate fluctuations.

**NOTICE OF LOSS PURSUANT TO SECTION 92(1) GERMAN STOCK CORPORATION ACT (AKTIENGESETZ – AKTG) ::** 4SC is a company which has yet to achieve profitability and has posted operating losses in all of the past financial years. Given the scope of its research and development expenses, over time these losses have accumulated into large loss carryforwards. These loss carryforwards are offset against equity and could result in a loss amounting to half the Company's share capital under German commercial law - despite the share premium from the issued shares. In this case, section 92(1) of the AktG would require 4SC to immediately convene an extraordinary General Meeting. Holding such an extraordinary General Meeting would result in organisational and financial expenditures for 4SC and could have a negative impact on the price of its shares, among others because of the corresponding notice of loss.

**ALLOWANCE OF TAX LOSS CARRYFORWARDS ::** Pursuant to the last notification received concerning the separate determination of residual loss carryforwards as at 31 December 2010, 4SC has corporate tax loss carryforwards of €95,440 thousand and trade tax loss carryforwards of €94,737 thousand. Substantial additional losses that have not yet been subject to a tax assessment have been incurred since 31 December 2010.

The application of section 8(4) of the German Corporate Income Tax Act (Körperschaftsteuergesetz - KStG) relating to the use of cumulative loss carryforwards, which was already problematic for the industry, has become considerably more difficult since the introduction of section 8c of the KStG on 1 January 2008 as part of the German Business Tax Reform Act. Any transfer of between 25% and 50% of the subscribed capital within a five-year period results in a partial elimination of tax losses carried forward whereas any transfer of more than 50% of the subscribed capital results in a complete elimination thereof. As part of the Citizens' Relief Act (Bürgerentlastungsgesetz) that took effect in the summer of 2009 and the German Growth Acceleration Act (Wachstumsbeschleunigungsgesetz) that took effect on 1 January 2010, the German parliament has taken steps to ease the limitations on loss carryforwards. Whilst these statutes mitigate the problem, they do not eliminate it. Furthermore, at present there is considerable uncertainty surrounding the applicable legal situation due to ongoing and pending court cases as well as pending legislative processes at national and European level.

In recent years, 4SC has seen some changes among its shareholders, capital increases and investments from new shareholders, all of which is also possible in future. At the same time, new operating assets of significant scope have been acquired. Individually or jointly, two articles of the German Corporate Income Tax Act (Körperschaftsteuergesetz – KStG) – section 8(4) and section 8c – could have a negative impact on the Company's future after-tax results and equity, especially because there is legal uncertainty as to how to interpret these provisions. It is possible in 4SC's view therefore, that tax authorities might adopt the position that existing loss carryforwards may no longer be partially or fully offset against profits in future. This would have a material negative impact on the Company's after-tax earnings once it reaches profitability and result in additional liquidity outflows.

### 7.2.6 ADMINISTRATIVE AND OTHER RISKS

**KEY PERSONNEL AND HOLDERS OF KNOW-HOW ::** The success of 4SC largely depends on its senior management and key scientific and technical personnel. Many of these employees have a wealth of experience and are hard to replace. Although competition for highly-skilled personnel in the biotechnology sector is very intense, 4SC has so far always succeeded in filling the most important positions with suitable staff on reasonable employment terms. However, any loss of key managerial, scientific or technical personnel could be detrimental to the Company's competitiveness.

Annual report page 70 ff.

**LEGAL RISKS ::** The management of 4SC makes many of its decisions after discussing the relevant issues with both internal and external experts in order to reduce the diverse range of risks related to corporate, labour, tax, patent and other laws.

**OTHER RISKS ::** Other risks related to environmental protection, IT security, purchasing as well as general safety requirements are not deemed significant. 4SC has taken organisational precautions in order to fulfil the requirements in question and control the internal processes.

### 7.2.7 OVERALL ASSESSMENT OF THE COMPANY'S EXPOSURE TO RISK

From today's perspective, the Company does not perceive any factors that could jeopardise the existence of 4SC as a going concern in the 2012 financial year, all aforementioned risks notwithstanding. The Company is convinced that its opportunities outweigh any of the risks related especially to the development of drug candidates. 4SC is well positioned thanks to its broad and balanced pipeline. Funds at 31 December 2011 in connection with the current forecast of future expense and revenue planning will safeguard the continued development of the existing programmes and the financing of the Company for the next twelve months and beyond. Until then, management expects that it will be able to generate additional cash inflows through partnerships. Should this fail to happen to the required extent, the Company's continued existence would be at risk in the medium term if additional equity or debt cannot be secured.

## 7.3 OPPORTUNITIES AVAILABLE TO 4SC

**PROJECT-RELATED PROGRESS ENHANCES THE COMPANY'S ENTERPRISE VALUE ::** Further 4SC products will reach important development milestones in the short and medium term as described, for instance, in the report on events after the reporting period in chapter 8 on pages 70 and 71 and in the report on anticipated developments in chapter 9 on page 72. In all likelihood, this will have a positive impact both on the assessment of individual programmes and the measurement of the Company's aggregate value. This is true in particular if compounds enter the clinical development phase or successfully complete a study phase.

**SINGLE PRODUCT CANDIDATES CAN GENERATE SEVERAL PROGRAMMES ::** In the past, 4SC's research and development programmeshave shown repeatedly that a single compound can act as an entire platform, generating a variety of programmes with distinct products for different indications. In the short term, this can lead to an expansion of the product pipeline, thus further diversifying risk and enhancing potential and value. One such example is the oncological compound resminostat, which is being evaluated by 4SC in clinical studies in three indications: hepatocellular carcinoma (HCC), Hodgkin's lymphoma (HL) and colorectal carcinoma (CRC).

**EXTERNAL PARTNERSHIPS AND LICENSING AGREEMENTS ENHANCE THE COMPANY'S ENTERPRISE VALUE ::** 4SC is involved in intensive and regular discussions with potential partners in the pharmaceutical industry. These days, pharmaceutical companies are entering into cooperation agreements and licensing partnerships for new products at increasingly earlier development stages. A number of factors contribute to this development. For one, many patents for existing products are expiring and, for another, there were setbacks in several development projects of pharmaceutical companies. As a result, partnerships between pharmaceutical and biotech companies are increasingly being structured to the benefit of the biotech industry. 4SC has benefited from this trend in the resminostat licensing deal with Yakult Honsha. The Company now has a growing number of programmes in the stages of development that are interesting for pharmaceutical companies. Such partnerships may also validate 4SC's programmes and – for example in the form of licensing revenue, upfront payments and milestone payments received as well as royalties – attest to the Company's business model and strengthen its financial performance, cash flows and financial position.

**ADDITIONAL MARKETING OF RESEARCH ENHANCES THE COMPANY'S ENTERPRISE VALUE ::** The establishment of 4SC Discovery GmbH at the end of the reporting year as a wholly-owned subsidiary of 4SC AG aims to additionally improve the positioning of the Company's research unit vis-à-vis external partners for research services, research collaborations and partnerships with products in the research stage. If one or several of these commercial aspects can be realised, this might also tangibly strengthen the Company's financial performance, cash flows and financial position.

**TAKEOVERS ::** Major pharmaceutical and biotechnology companies are not just interested in in-licensing compounds at early or advanced development phases. In recent years, they have repeatedly decided to directly acquire companies with attractive technologies or products. The premiums that are paid over such companies' current market value usually are significant. This could benefit 4SC's shareholders.

**LICENSING REVENUE FROM PATENTS ::** 4SC's broad and well-positioned patent portfolio can generate additional licensing revenue if other developers are forced to use such patent rights in order to advance their own projects. Granting the use of its patent rights would enable 4SC to generate licensing revenue and improve its financial position, cash flows and financial performance.

**HUGE OPPORTUNITIES THROUGH:**

- :: BROAD AND ROBUST PRODUCT PIPELINE
- :: ADVANCED CLINICAL DRUG PROGRAMMES
- :: REVENUES FROM PARTNERSHIPS AND LICENSING AGREEMENTS
- :: STRONG RESEARCH
- :: TAKEOVER ACTIVITIES ON THE MARKETS
- :: BROAD PATENT PORTFOLIO

# :: 8. EVENTS AFTER THE REPORTING PERIOD

4SC Discovery GmbH, which was established at the end of 2011 through the purchase of a corporate shell and subsequently renamed, commenced operations at the beginning of the new financial year. Furthermore, 4SC presented additional positive results from its drug pipeline. And finally, the Company was notified that a further major shareholder had exceeded the 3% threshold in voting shares.

## 8.1 4SC DISCOVERY GMBH COMMENCES OPERATIONS

4SC Discovery GmbH, a wholly-owned subsidiary of 4SC AG that was established in December 2011, commenced operations in Planegg-Martinsried on 1 January 2012.

In a capital increase in return for contributions in kind, both tangible and intangible assets belonging to the research activities of 4SC AG were transferred to the subsidiary. Assets include all those preclinical projects and products, for which no early development candidate (EDC) has been defined yet and all intellectual property (IP) rights related to these programmes as well as 4SC's proprietary technology platforms for modelling, screening and drug discovery. Overall, 28 employees moved from 4SC AG to 4SC Discovery GmbH as at 1 January 2012.

The net income or loss reported in 4SC AG's HGB annual financial statements for 2012 will probably include extraordinary income in the high single-digit million euro range, the exact amount of which has yet to be calculated. This extraordinary income will depend on the disclosure of the hidden reserves in the measurement of the assets transferred to the subsidiary. In 4SC AG's HGB balance sheet for 2012, the loss carryforward will be correspondingly reduced and investments will increase.

In detail, 4SC Discovery GmbH will act as a service provider for pharmaceutical and biopharmaceutical companies. In research collaborations with these clients, 4SC Discovery GmbH will offer its know-how, its capacities, as well as its technology platform in the fields of drug discovery and drug optimisation. Furthermore, the subsidiary will aim at generating additional revenue through the commercialisation of 4SC's proprietary products in early-stage research and preclinical development phases, for example through co-development and commercialisation partnerships. Thus, the development of 4SC's early-stage drug programmes can be accelerated and the development risk lowered, at the same time allowing the Company to benefit from the programmes' value enhancement during further development, for example through licensing revenue or received milestone payments. The new subsidiary will finally continue to engage in the discovery and research of novel drug candidates for the further enhancement of 4SC AG's own clinical development pipeline.

## 8.2 RESMINOSTAT ACHIEVES PRIMARY EFFICACY ENDPOINT AHEAD OF SCHEDULE IN PHASE II HCC TRIAL

On 19 January 2012, 4SC announced promising efficacy data from the clinical Phase II SHELTER trial with the cancer drug resminostat as a second-line therapy for patients with advanced liver cancer (hepatocellular carcinoma, HCC). This group of patients had exhibited radiologically proven tumour progression under first-line therapy with sorafenib (Nexavar®) prior to entering the study. This open-label, two-arm, international study investigated the safety and efficacy of resminostat both as a monotherapy and in combination with sorafenib for this difficult to treat patient group, for which no approved treatment option is currently available. According to the data presented at the 2012 ASCO Gastrointestinal Cancer Symposium in San Francisco, which are based on an advanced data set, the primary study endpoint of halting the further progression of the cancer in at least 20% of evaluable patients and for at least 12 weeks has been achieved ahead of schedule in both therapy arms.

Resminostat combined with sorafenib was able to prevent further progression of the disease for 12 weeks in two-thirds of the 15 patients evaluable at that time and considerably longer – well over a year – in individual cases. Accordingly, at the time of publication the progression-free survival rate (PFSR) after 12 weeks was 66.6% for the combination therapy group and 33.3% for the monotherapy group of 9 evaluable patients. Median progression-free survival (PFS), which is defined as the period of time for which the progression of the disease can be halted, was 4.6 months (140 days) for the combination therapy group and 1.4 months (42 days) for the monotherapy group. Resminostat has generally proven to be safe and well tolerated.

At the time the data were published, the study was still providing treatment to five patients, for whom no post-12-week evaluation was available. The final results of the SHELTER study, as determined following database closure and encompassing all patients enrolled as well as a final, centralised radiological report are expected to be presented during 2012.

**PHASE-II-SHELTER-STUDY (ACCORDING TO THE PUBLICATION IN JANUARY 2012)**

- :: PRIMARY EFFICACY ENDPOINT REACHED AHEAD TO SCHEDULE
- :: PFSR AFTER TWELVE WEEKS: 66.6% IN COMBINATION WITH SORAFENIB AND 33.3% AS MONOTHERAPY
- :: GOOD SAFETY AND TOLERABILITY PROVED

### 8.3 NEW MAJOR SHAREHOLDER EXCEEDS REPORTING THRESHOLD

In February 2012, 4SC received notification about a new major shareholder – Roland Oetker – with a voting share of 3.01%. As a result, the Company is now aware of five major shareholders that have exceeded the reportable threshold of 3%. Together, these shareholders hold approximately 76.61% of the share capital of 4SC AG.

# :: 9. ANTICIPATED DEVELOPMENTS

## 9.1 MACROECONOMIC AND SECTOR DEVELOPMENT

:: Tab. 07 GROSS DOMESTIC PRODUCT

| Change compared to previous year in % | 2011 | 2012 |
|---|---|---|
| **INDUSTRIALISED COUNTRIES** | | |
| EU 27 | 1.6 | 0.2 |
| USA | 1.7 | 1.8 |
| Japan | - 0.7 | 2.0 |
| **INDUSTRIALISED COUNTRIES, TOTAL[1]** | **1.4** | **1.1** |
| Germany | 3.0 | 0.4 |
| **EMERGING COUNTRIES** | | |
| China | 9.1 | 8.2 |
| India | 7.5 | 7.0 |
| Latin America[2] | 4.3 | 3.5 |
| East Asia excluding China[3] | 4.5 | 4.2 |
| Russia | 4.0 | 3.5 |
| **EMERGING COUNTRIES, TOTAL** | **6.6** | **5.9** |

Source: ifo economic forecast 2011/2012

[1] Weighted average of the EU 27 countries, the USA, Japan, Canada, Switzerland and Norway.

[2] Weighted average of: Brazil, Mexico, Argentina, Venezuela, Columbia and Chile.

[3] Weighted average of: South Korea, Indonesia, Taiwan, Thailand, Malaysia, Singapore, Philippines and Hong Kong.

**GLOBAL ECONOMIC PROSPECTS: WORLDWIDE SLOWDOWN OF ECONOMIC GROWTH ::** Global economic growth slowed further in recent months. The worldwide downtrend that can be observed since mid-2010 can be attributed to a restrictive economic policy as well as the debt problems of western industrialised nations. According to the ifo economic forecast, the financing terms for banks and companies will deteriorate and the expansion of the global economy will slow down considerably as a consequence of the greater uncertainty and the indebtedness of many developed economies. Due to the sovereign debt crisis and the euro crisis, the capital markets in particular are seeing substantial uncertainty as regards a forecast for 2012, which may lead investors to become extremely cautious. Economic research institutes are forecasting moderate global economic growth for 2012 with a 3.3% rise in GDP. This will be largely thanks to strong economic growth in emerging markets such as Brazil, China, India and Russia. Above all, a slower rate of expansion and the European debt crisis are considered the greatest risks to economic development.

US GDP in 2012 will essentially match the 2011 figure (see table 07). Consumer spending is slow to recover owing to the crippling debt burden on private households and the high unemployment rate. The country's restrictive savings measures make a widespread economic recovery difficult. The Japanese economy is expected to bounce back in 2012 following the sharp decline in the wake of the earthquake that hit during the first quarter of 2011.

In the euro zone, the burden of debt carried by many countries such as Greece, Portugal, Ireland, Italy or Spain is acting as a drag on economic expansion. Economic researchers are predicting that economic growth in Europe will retreat to 0.2% in 2012 (2011: 1.6%). Now even Germany cannot but be affected by the more difficult macroeconomic climate. According to the 2011/2012 ifo economic forecast, economic growth will weaken substantially compared with the previous year (3.0%) to 0.4%.

**THE EMERGENCE OF "PHARMERGING MARKETS" ::** The high level of national debt in most industrialised countries is putting pressure on household budgets, which in turn is placing long-term constraints on spending by public-sector healthcare systems. Owing to these unfavourable economic conditions and the expiry of numerous patents in the coming years, the pace of growth in the global pharmaceutical industry is likely to decelerate. The projected increase in global spending on medication is now between 3% and 6%, lower than the industry growth of an average of 6.5% forecast up to now.

Worldwide, there will be a shift in the allocation of spending on pharmaceutical products among the regions. Up to 2015, the United States and Europe will accordingly lose some of their share of the global pharmaceutical market to the "pharmerging markets" such as Brazil, India, Russia and China.

Likewise, the marketing, revenue and growth opportunities for pharmaceutical and biotechnology companies will increasingly shift in the long term to regions with fast-growing emerging economies. The Management Board of 4SC AG believes that this trend will provide significant opportunities for the Company such as in the commercialisation of the cancer drug resminostat in the liver cancer indication (HCC), a disease that is particularly prevalent in Japan, but also in the dynamic newly industrialised countries of the Asia-Pacific rim, China, Taiwan and Korea.

## 9.2 COMPANY OUTLOOK

4SC has set itself the goal of working with strong partners from the pharmaceutical/biotech industry, so as to develop its own products further along the path to market maturity.

**A BROAD-BASED, ROBUST AND HIGH-POTENTIAL CLINICAL PRODUCT PIPELINE ::** 4SC's development pipeline encompasses a total of six compounds for treating autoimmune diseases and cancer at various stages of disease development. Five substances are undergoing clinical trials and one is at an advanced formal preclinical stage. The Company focuses on indications that combine an urgent medical need with considerable economic potential.

The broad-based and well-balanced portfolio of attractive drug programmes aims to achieve better overall management for the inherent risks of biopharmaceutical development and position 4SC as an appealing partner for global pharmaceutical/biotech companies. The Company achieved some key milestones on the path to market maturity in the 2011 financial year, particularly as regards its most advanced lead compounds, namely resminostat in its oncology portfolio and vidofludimus for autoimmune diseases. 4SC intends to pursue targeted, successful development for its lead compounds in 2012 and make specific preparations for other key steps toward value creation.

4SC is awaiting data from multiple clinical studies during the course of 2012. Preparations for advanced clinical trials are also ongoing, in order to achieve – in collaboration with a partner – decisive progress for the two lead products of resminostat and vidofludimus along the path to market maturity.

Whereas positive final results from a Phase IIa trial with vidofludimus in the indication IBD where the primary endpoint was reached with a patient response rate of 88.5% were announced in early 2011, a Phase IIb trial in the indication RA failed to meet the predefined trial objective. Based on these results, the Management Board of 4SC AG has decided that active clinical development of the compound will now focus on the IBD indication. An advanced Phase IIb trial is currently in preparation in IBD. Depending on the successful conclusion of negotiations with potential partners and regulatory agencies, this study is scheduled to be initiated with a partner at the end of this year or at the beginning of the following year. The commencement of this kind of Phase IIb trial is intended to constitute the penultimate stage of clinical development for vidofludimus on the path to market maturity: if the study is successful, then a registration trial could be the logical next step. The Company has also submitted several positive sets of preclinical study results to distinguished research journals, including trials investigating the application of vidofludimus in the therapy field of transplantation rejection. Publication of these data is expected during the course of 2012.

For resminostat, following publication in January 2012 of the promising data from the Phase II SHELTER trial in the liver cancer (HCC) indication – a study in which the compound attained the primary efficacy endpoint ahead of schedule as a result of an advanced analysis of the data – the final study data from this trial are scheduled to be presented at a scientific conference during the course of the year. In the indication of liver cancer (HCC), 4SC is now working with a potential partner to focus efforts on securing a pivotal – i.e. approval-relevant – study in order to take the remaining steps towards market approval. The 4SC AG Management Board estimates that a study of this kind could commence in the first half of 2013, depending on the successful conclusion of negotiations with authorities and potential partners.

This compound is currently being investigated by the Phase I/II SHORE trial in the indication of colon cancer. 4SC expects initial interim data from this study – particularly as regards safety and tolerability – before the end of the year. Advanced study data are estimated to be available in 2013. Complementing the highly positive data from the finalised Phase II SAPHIRE trial with resminostat in the Hodgkin's lymphoma indication, the Company expects the above study to considerably augment the clinical dataset available for resminostat before the end of the current financial year.

4SC also has two other attractive compounds – 4SC-202 and 4SC-205 – in its oncology portfolio. Both substances are currently the subjects of Phase I trials. 4SC will be publishing the results from the AEGIS study with 4SC-205 in the course of 2012. Depending on the speed at which the remaining patients can be recruited as required for the trial, the Company also expects to be able to present results from the Phase I TOPAS study with 4SC-202 in 2012.

**FOCUS ON RESEARCH SECURES SUSTAINABILITY AND FURTHER REVENUE POTENTIAL ::** By establishing 4SC Discovery GmbH, which has commenced operations, the Group has laid the foundations for increasing the visibility of its research activities on the market and enabling its subsidiary to act with greater flexibility in the market, such as in research collaborations with pharmaceutical partners. The team at 4SC AG's wholly-owned subsidiary works on the identification and optimisation of new compound candidates in the field of autoimmune diseases and cancer. This research focuses on key areas such as cancer stem cells, ion channels and cytokines. By conducting this research work, 4SC Discovery GmbH is addressing fields of importance for future therapy with a high medical need. The Company plans to use research services and cooperative research ventures with pharmaceutical/biotech companies to generate early revenue, which will be used primarily for the financing of further research and development activities and thus serve as an additional source of funding for the Group. A further aim is to enable the use of development and marketing partnerships with pharmaceutical companies to develop early-stage in-house research programmes along the path to market maturity ("early-stage partnering deals"), thus securing additional long-term potential and sustainability. The Company also intends to benefit from the potential future development success of the projects by means of upfront payments, milestone payments and licensing revenue, thus further strengthening its financial position. Finally, 4SC Discovery GmbH also aims to provide the Group with promising candidate compounds for use in further clinical development work. This latter aspect is intended to ensure that the Group's product pipeline is extended continuously by new development candidates, thus securing sustainable growth for the Company's business model. The strategic and operational orientation of the Group's parent company 4SC AG – i.e. the focus on the clinical development and commercialisation of attractive, advanced drugs in the field of cancer and autoimmune diseases along the path to market maturity – remains unchanged and independent of these activities.

**ATTRACTIVE LICENSING DEALS ::** 4SC aims to secure further licensing deals with companies from the pharma and biotech sectors to ensure the targeted development of its lead compounds vidofludimus and resminostat towards market maturity, and – by means of upfront payments, milestone payments, licensing revenue and royalty payments etc. – to secure a flow of funds and participate in the substances' successful future development.

In the reporting year, 4SC signed the first license agreement of this type for resminostat with Yakult Honsha, the market leader in Japan for gastrointestinal cancer therapies. The Japanese company wants to develop and market resminostat in the indications of hepatocellular carcinoma and colorectal cancer, and potentially for other indications. On achievement of certain milestones, including clinical and regulatory events in Japan, 4SC can expect to receive payments of up to €127 million over the course of the next few years. In addition, Yakult Honsha will also pay 4SC double-digit percentage royalties on revenue generated by the sale of resminostat.

The Company is continuously seeking to enter into further license agreements with international partners for resminostat. With such a partnership agreement secured, the Company will work towards the initiation of a pivotal study and thus the last stage of development on the path to market maturity.

4SC is also currently engaged in talks with potential license partners for vidofludimus. These discussions with potential partners are being actively pursued not only with highly diversified pharmaceutical companies ("big pharma") but also with companies specialising in particular therapy areas ("specialty pharma") and their agendas encompass the design, financing and operational implementation of an advanced clinical Phase IIb trial in the IBD indication, as well as the topic of subsequent marketing rights. The Company has already been engaged in talks with European and US regulatory agencies covering the key aspects and goals of this study. The trial design has already been determined. Furthermore, 4SC also maintains active contact with interested companies from the pharmaceutical and biopharmaceutical sectors in connection with drug candidates at early stages of development.

## 9.3 FINANCIAL OUTLOOK

4SC aims to generate cash inflows and revenue by forging alliances such as research and development cooperation deals and licensing agreements.

Funds as at 31 December 2011 totalled €15,820 thousand. These existing funds in connection with the current forecast of further expense and revenue planning will ensure the Company's financing for the next twelve months and beyond. This assumption is based on the premises that the monthly operating cash burn rate in 2012 will be approximately 10% higher than in the previous year (€1,072 thousand) and that the programmes will run according to plan. Should it prove impossible to generate sufficient additional cash flows with the planned operating measures, for example in the form of cooperation deals or partnerships, or if the conditions on the capital markets are attractive, additional capital requirements would need to be or could be met by raising further equity and/or borrowings to ensure the Company's continued existence in the medium and long term. Under the Company's current plans for 2012 and 2013, research and development costs will be slightly lower than in the previous year, correlating to the smaller number of ongoing clinical trials, among other things. At the same time, the Company anticipates that it will generate initial revenue from early research collaborations and services in 2012 as a whole due to the fact that 4SC Discovery GmbH has commenced operations.

Overall, 4SC is still forecasting a net loss for the year in the short and medium term. Currently there are no plans to expand the workforce with new hires. Capital expenditures in future years will mainly entail replacement purchases of lab equipment and IT systems. But since the Company is well equipped at this time, no major investments are anticipated. Up until the preparation of this Group management report, the Company's economic development at the start of the 2012 financial year again proceeded according to plan.

Planegg-Martinsried, 12 March 2012
The Management Board:

DR ULRICH DAUER, CEO

DR BERND HENTSCH, CDO

DIPL.-KFM. ENNO SPILLNER, CFO

DR DANIEL VITT, CSO

:: ANNUAL CONSOLIDATED FINANCIAL STATEMENTS (IFRS) AND CONSOLIDATED NOTES

# :: CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

FOR THE FINANCIAL YEAR FROM 1 JANUARY TO 31 DECEMBER 2011

| in €000's | Consolidated notes | 2011 | 2010 |
|---|---|---|---|
| Revenue | 3.1 | 780 | 989 |
| Cost of sales | 3.3 | - 123 | - 362 |
| **GROSS PROFIT** | | **657** | **627** |
| Distribution costs | 3.4 | - 487 | - 285 |
| Research and development costs | 3.5 | - 15,012 | - 17,025 |
| Administrative costs | 3.6 | - 3,962 | - 3,625 |
| Other income | 3.7 | 11 | 37 |
| **OPERATING PROFIT/LOSS** | | **- 18,793** | **- 20,271** |
| **NET FINANCE INCOME/LOSS** | | | |
| Share in the profit of equity-accounted investees | 3.9 | 31 | 29 |
| Finance income | 3.9 | 310 | 169 |
| Finance costs | 3.9 | - 32 | - 28 |
| **NET FINANCE INCOME/LOSS** | | **309** | **170** |
| **EARNINGS BEFORE TAXES** | | **- 18,484** | **- 20,101** |
| Income tax expense | 4. | - 587 | 26 |
| **PROFIT/LOSS FOR THE PERIOD = CONSOLIDATED COMPREHENSIVE INCOME/LOSS** | | **- 19,071** | **- 20,075** |
| Earnings per share (basic and diluted; in €) | 5. | - 0.46 | - 0.52 |

See the attached consolidated notes

# :: CONSOLIDATED STATEMENT OF FINANCIAL POSITION – ASSETS AND EQUITY AND LIABILITIES

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2011

| in €000's | Consolidated notes | 31.12.2011 | 31.12.2010 |
|---|---|---|---|
| **ASSETS** | | | |
| NON-CURRENT ASSETS | | | |
| Intangible assets | 6.1 | 13,574 | 14,012 |
| Property, plant and equipment | 6.2 | 1,065 | 1,383 |
| Investments accounted for using the equity method | 6.3 | 121 | 90 |
| Other investments | 6.4 | 143 | 146 |
| Other assets | 6.11 | 183 | 0 |
| TOTAL NON-CURRENT ASSETS | | 15,086 | 15,631 |
| CURRENT ASSETS | | | |
| Inventories | 6.5 | 25 | 21 |
| Trade accounts receivable | 6.6 | 115 | 281 |
| Receivables from associates | 6.7 | 2 | 0 |
| Other financial assets | 6.8 | 9,000 | 12,651 |
| Cash and cash equivalents | 6.9 | 6,820 | 4,956 |
| Current tax assets | 6.10 | 69 | 249 |
| Other assets | 6.11 | 721 | 942 |
| TOTAL CURRENT ASSETS | | 16,752 | 19,100 |
| TOTAL ASSETS | | 31,838 | 34,731 |

| in €000's | Consolidated notes | 31.12.2011 | 31.12.2010 |
|---|---|---|---|
| **EQUITY AND LIABILITIES** | | | |
| EQUITY | | | |
| Subscribed capital | | 41,968 | 38,503 |
| Share premium | | 75,451 | 67,836 |
| Reserves | | 1,632 | 1,318 |
| Accumulated deficit | | - 95,518 | - 76,447 |
| TOTAL EQUITY | 6.12 | 23,533 | 31,210 |
| NON-CURRENT LIABILITIES | | | |
| Deferred tax liabilities | 4 | 0 | 13 |
| Other liabilities | 6.16 | 313 | 47 |
| Deferred income | 6.16 | 4,469 | 0 |
| TOTAL NON-CURRENT LIABILITIES | | 4,782 | 60 |
| CURRENT LIABILITIES | | | |
| Trade accounts payable | 6.13 | 705 | 968 |
| Accounts payable to associates | 6.14 | 29 | 29 |
| Provisions | 6.15 | 45 | 45 |
| Other liabilities | 6.16 | 1,850 | 2,419 |
| Deferred income | 6.16 | 894 | 0 |
| TOTAL CURRENT LIABILITIES | | 3,523 | 3,461 |
| TOTAL EQUITY AND LIABILITIES | | 31,838 | 34,731 |

See the attached consolidated notes

# :: CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE FINANCIAL YEAR FROM 1 JANUARY TO 31 DECEMBER 2011

| in €000's | Consolidated notes | 2011 | 2010 |
|---|---|---|---|
| **CASH FLOWS FROM OPERATING ACTIVITIES** | | | |
| Earnings before taxes | | - 18,484 | - 20,101 |
| | | | |
| *Adjustment for statement of comprehensive income items* | | | |
| Depreciation and amortisation | | 1,392 | 1,379 |
| Net finance income/loss | | - 309 | - 170 |
| Stock options | | 313 | 376 |
| Other non-cash items | | 25 | 65 |
| | | | |
| *Changes in statement of financial position items* | | | |
| Inventories | | - 4 | 1 |
| Trade accounts receivable | | 166 | 254 |
| Receivables from associates | | - 2 | 0 |
| Current tax assets | | 180 | - 87 |
| Other assets | | 38 | 83 |
| Trade accounts payable | | - 263 | 55 |
| Deferred income | | 5,363 | 0 |
| Other liabilities | | - 303 | 498 |
| | | | |
| Interest received | | 260 | 86 |
| Interest paid | | - 1 | - 1 |
| Income taxes paid | | - 600 | 0 |
| **CASH FLOWS FROM OPERATING ACTIVITIES** | 7. | **- 12,229** | **- 17,562** |

| in €000's | Consolidated notes | 2011 | 2010 |
|---|---|---|---|
| CASH FLOWS FROM INVESTING ACTIVITIES | | | |
| Purchase of intangible assets | | - 465 | - 28 |
| Purchase of property, plant and equipment | | - 168 | - 424 |
| Purchase of financial investments | | - 17,500 | - 12,651 |
| Sale of financial investments | | 21,146 | 100 |
| **CASH FLOWS FROM INVESTING ACTIVITIES** | 7. | **3,013** | **- 13,003** |
| CASH FLOWS FROM FINANCING ACTIVITIES | | | |
| Payments to subscribed capital | | 3,465 | 0 |
| Payments to share premium | | 7,615 | 0 |
| **CASH FLOWS FROM FINANCING ACTIVITIES** | 7. | **11,080** | **0** |
| **NET CHANGE IN CASH AND CASH EQUIVALENTS** | | **1,864** | **- 30,565** |
| + Cash and cash equivalents at the beginning of the period | | 4,956 | 35,521 |
| **= CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD** | | **6,820** | **4,956** |

The consolidated statement of cash flows was prepared in accordance with the provisions of IAS 7.

See the attached consolidated notes

# :: CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

FOR THE FINANCIAL YEAR FROM 1 JANUARY TO 31 DECEMBER 2011

| in €000's | Consolidated notes | Subscribed capital | Agio | Reserves | | Accumulated deficit | Total |
|---|---|---|---|---|---|---|---|
| | | | | Reserves stock options | Retained earnings | | |
| **BALANCE ON 01.01.2010** | | **38,503** | **67,836** | **875** | **67** | **- 56,372** | **50,909** |
| Options issued (ESOP 2004/2005) | | | | 1 | | | 1 |
| Options issued (ESOP 2004/2006/1) | | | | 2 | | | 2 |
| Options issued (ESOP 2006/2006) | | | | 13 | | | 13 |
| Options issued (ESOP 2006/2007) | | | | 2 | | | 2 |
| Options issued (ESOP 2006/2008) | | | | 20 | | | 20 |
| Options issued (ESOP 2009/2009) | | | | 338 | | | 338 |
| Options issued (ESOP 2009/2010) | | | | 0 | | | 0 |
| Comprehensive income/loss 2010 | | | | | | - 20,075 | - 20,075 |
| *Profit/loss 2010* | | | | | | *- 20,075* | *- 20,075* |
| **BALANCE ON 31.12.2010** | | **38,503** | **67,836** | **1,251** | **67** | **- 76,447** | **31,210** |
| **BALANCE ON 01.01.2011** | | **38,503** | **67,836** | **1,251** | **67** | **- 76,447** | **31,210** |
| Options issued (ESOP 2004/2006/1) | | | | 1 | | | 1 |
| Options issued (ESOP 2006/2007) | | | | 1 | | | 1 |
| Options issued (ESOP 2006/2008) | | | | 8 | | | 8 |
| Options issued (ESOP 2009/2009) | | | | 299 | | | 299 |
| Options issued (ESOP 2009/2010) | | | | 5 | | | 5 |
| Capital increase 24.02.2011 | 6.12 | 3,452 | 7,580 | | | | 11,032 |
| Employee shares 12.05.2011 | | 13 | 35 | | | | 48 |
| Consolidated comprehensive income/loss 2011 | | | | | | - 19,071 | - 19,071 |
| *Consolidated profit/loss 2011* | | | | | | *- 19,071* | *- 19,071* |
| **BALANCE ON 31.12.2011** | | **41,968** | **75,451** | **1,565** | **67** | **- 95,518** | **23,533** |

For more information on components and changes in equity, see item "6.12 Equity" of the consolidated notes.

See the attached consolidated notes

# :: CONSOLIDATED NOTES

AS AT DECEMBER 31, 2011

## 1. General Disclosures and Disclosures about the Company

The consolidated financial statements comprise 4SC AG as the parent company, which is headquartered at 82152 Planegg-Martinsried, Am Klopferspitz 19a, and has been recorded in the Commercial Register of the Munich District Court under HRB no. 132917, and the following wholly owned and fully consolidated subsidiary:

:: 4SC Discovery GmbH, Planegg-Martinsried, Germany

Previous year's financial statements consisted of the individual financial statement of 4SC AG according to IFRS.

An excerpt from the Commercial Register dated 7 February 2012 that includes the most recent entry has been made available. The Articles of Association as amended on 4 July 2011 apply.

The shares of 4SC are listed under the share price symbol VSC, German securities identification number 575381 and ISIN DE0005753818, in the Prime Standard Segment of the regulated market of the Frankfurt/Main Stock Exchange.

The purpose of 4SC AG is the identification, research and optimisation of drugs and the development, use and marketing of chemical, biotechnological and computer processes.

4SC AG is authorised to engage in all transactions that are expedient to and foster the achievement of the corporate purpose. For this purpose, the Company is also permitted to found, acquire or obtain equity interests in and assume the management of other enterprises domestically and abroad, lease companies or business operations, enter into intercompany agreements, particularly profit transfer and control agreements, and establish branch offices and other outlets domestically and abroad.

### 1.1 CONSOLIDATED COMPANY

4SC AG consolidates 4SC Discovery GmbH (together the 4SC Group). 4SC Discovery GmbH was recorded in the Munich Commercial Register on 14 December 2011 and commenced operations on 1 January 2012. The object of this company is the identification, investigation and optimisation of new compounds and therapeutic agents, in the form of both research services and proprietary compounds, as well as the development and marketing of innovative chemical, biotechnology and computer simulation processes for the development of drug candidates. This company shares the premises of 4SC AG.

The Management Board approved the consolidated financial statements for release on 12 March 2012. The Supervisory Board is authorised to revise the consolidated financial statements after approval by the Management Board.

## 2. Summary of Significant Accounting Policies

### 2.1 BASIS OF PREPARATION

These consolidated financial statements were prepared pursuant to section 315a of the German Commercial Code (Handelsgesetzbuch – HGB) and in accordance with the accounting principles of the International Financial Reporting Standards (IFRS) – as adopted by the EU – and pursuant to the requirements of the International Accounting Standards Board (IASB). The recommendations of the Standing Interpretations Committee (SIC) and the International Financial Reporting Interpretations Committee (IFRIC) have been taken into account. All of the IFRSs and IFRICs adopted by the European Commission have been taken into account; IFRS and IFRIC not yet adopted, however, have not yet been taken into account. New standards issued by the IASB and adopted by the European Commission are applied without exception starting in the financial year in which their application becomes mandatory.

These financial statements were prepared on the assumption that the Company will continue operating as a going concern. In the financial statements, all essential information is included, so that the financial statements meet the requirements of section 325(3) of the German Commercial Code (Handelsgesetzbuch – HGB).

The financial year corresponds to the calendar year. The consolidated financial statements are prepared in euros. The degree of precision used in the presentation is thousands of euros (€000's). Differences may result from commercial rounding of exact figures.

The statement of financial position is broken down into current and non-current assets and liabilities; the statement of comprehensive income has been prepared using the cost of sales method. Where items in the consolidated statement of financial position and in the consolidated statement of comprehensive income are summarised in the interests of clarity, this is explained in the consolidated notes.

4SC classifies assets and liabilities as current if they are expected to be liquidated or redeemed within twelve months following the reporting date, if they are held primarily for trading purposes, or if they constitute cash and cash equivalents.

These financial statements represent the consolidated financial statements of Germany-based 4SC AG and in addition to 4SC AG also take account of the following companies:

| Company/Domicile | Measured as | Measured acc. to |
|---|---|---|
| 4SC Discovery GmbH, Planegg-Martinsried, Germany | Affiliate | IAS 27 |
| quattro research GmbH, Planegg-Martinsried, Germany | Associate | IAS 28 |
| Nexigen GmbH, Bonn, Germany | Equity investment | IAS 39 |
| Quiescence Technologies LLC., Melbourne, Florida, USA | Equity investment | IAS 39 |

## 2.2 EFFECTS OF THE APPLICATION OF NEW STANDARDS

**INITIAL MANDATORY APPLICATION ::** The following standards, amendments to standards and interpretations are required to be applied for the first time for financial years starting on 1 January 2011.

| Standard | Title | Published by the EU on | Effect on these consolidated financial statements |
|---|---|---|---|
| Various[1] | Improvements of IFRSs 2010 *(Annual Improvements 2010)* | 19.02.2011 | None |
| Amendments to IAS 32 | Classification of Rights Issues | 24.12.2009 | None |
| Amendments to IFRS 1 | IFRS 1: Limited Exemption from Comparative IFRS 7 Disclosures for First-time Adopters | 01.07.2010 | None |
| IFRIC 19/ Amendments to IFRS 1 | IFRIC 19: Extinguishing Financial Liabilities with Equity Instruments/IFRS 1: First-time Adoption of International Financial Reporting Standards | 24.07.2010 | None |
| Amendments to IFRIC 14 | Prepayments of a Minimum Funding Requirement | 20.07.2010 | None |
| Amendments to IAS 24 | IAS 24: Related Party Disclosures/ | 20.07.2010 | None |

[1] :: Some of the amendments must be applied for the first time at the latest to financial years beginning after 30 June 2010. All other amendments, which concern IFRS 1, IFRS 7, IAS 1, IAS 34 and IFRIC 13, must be applied at the latest to financial years beginning after 31 December 2010.

**ACCOUNTING REGULATIONS NOT APPLIED EARLY ::** In addition, the following standards, interpretations and amendments to existing standards have been adopted by the EU. Since application is not yet mandatory for the present consolidated financial statements, 4SC refrained from voluntary early application of those standards.

| Standard | Title | Effective date[1] | Published by the EU on | Expected effect on future consolidated financial statements |
|---|---|---|---|---|
| Amendments to IFRS 7 | IFRS 7: Disclosure requirements for the transfer of financial assets | 01.07.2011 | 22.11.2011 | This is not expected to have significant effects but it might result for extended disclosures in the notes |

[1] :: For financial years beginning after the date

## 2.3 SIGNIFICANT ACCOUNTING POLICIES

The following accounting policies were of significance in preparing these consolidated financial statements. 4SC applied these accounting policies uniformly for similar transactions, other events and contingencies.

**FOREIGN CURRENCY ITEMS ::** Foreign currency transactions are initially measured by using the spot exchange rate applicable at the respective transaction date (IAS 21.21). On each reporting date, monetary items in a foreign currency are translated at the closing rate in accordance with IAS 21.23. In contrast, non-monetary items that were measured in terms of historical cost in a foreign currency are translated using the exchange rate prevailing on the date of the transaction.

Exchange differences arising on translating monetary items at rates different from those at which they were translated on initial recognition are recognised in profit or loss in the period in which they arise in accordance with IAS 21.28. They are shown under net finance income/loss.

**INTANGIBLE ASSETS ::** Intangible assets acquired are recognised in accordance with IAS 38. They are initially recognised at cost, if the recognition requirements of IAS 38.18 are met. Following initial recognition, intangible assets are recognised at cost less accumulated amortisation using the straight-line method.

Research costs are expensed in the period incurred in accordance with IAS 38.54. Development costs are recognised if the criteria in accordance with IAS 38.57 are met. Given the risks existing until commercialisation, 4SC does not fully meet the requirements of IAS 38.57 for recognising

internally generated intangible assets. Developments costs are therefore also expensed in the period in which they are incurred. The useful lives of and depreciation methods applied to intangible assets are reviewed and adjusted as necessary at the end of each financial year.

**GOODWILL ::** Goodwill reported in the consolidated statement of financial position under intangible assets results from merging 4SC GmbH into 4SC AG in the year 2000. Goodwill was recognised at cost and amortised using the straight-line method based on a useful life of ten years until the end of financial year 2004. The provisions of IFRS 3 have been adopted for financial years starting on or after 1 January 2005. Accordingly, amortisation of goodwill has been discontinued since the 2005 financial year; instead, goodwill is tested for impairment once a year in accordance with IAS 36 ("impairment test"). An impairment loss is recognised on goodwill if the recoverable amount is lower than the carrying amount of the asset. The recoverable amount of an asset is the higher of the asset's fair value less costs to sell and its value in use. As goodwill does not generate independent cash flows, the recoverable amount is determined for the cash-generating unit relevant to such goodwill, or to which it can be most appropriately attributed.

4SC allocates this goodwill to the project 4SC-101 (using the INN Vidofludimus since January 2010) as the smallest cash-generating unit for the purpose of impairment testing. For impairment test purposes, the value in use of the vidofludimus project is compared with the carrying amount of the goodwill. A risk-adjusted cash flow forecast is prepared for determining the value in use. The cash flows determined are discounted applying a risk-adjusted discount rate in line with market conditions. The discount rate, probability of market entry and potential market share are key factors for projecting the cash flow and thus for determining the value in use.

In accordance with IAS 38.118, the development of intangible assets is shown in the statement of changes in non-current assets under item "6.1 Intangible assets".

**PROPERTY, PLANT AND EQUIPMENT ::** Property, plant and equipment is recognised at cost less cumulative depreciation using the straight-line method. The carrying amounts of property, plant and equipment are tested for impairment whenever there are indications that an asset's carrying amount may exceed its recoverable amount. IAS 36.17 defines recoverable amount as the higher of an asset's fair value less costs to sell and its value in use. The useful lives of and depreciation methods applied to property, plant and equipment are reviewed and adjusted as necessary at the end of each financial year.

Maintenance and repairs are expensed as incurred while replacements and improvements, if the item qualifies for recognition as an asset, are recognised. Gains resulting from the sale or retirement of fixed assets are recognised in other operating income, losses from the sale of retirement of fixed assets are recognised under the area of activity concerned.

In accordance with IAS 16.73, the development of property, plant and equipment is shown in the statement of changes in non-current assets under item "6.2 Property, plant and equipment".

**EQUITY INVESTMENTS ::** As of the reporting date, 4SC has stakes in three companies, which are recognised as associates in accordance with IAS 28 or as investments in accordance with IAS 39 depending on the degree of influence 4SC has in each case.

The company quattro research GmbH, Planegg-Martinsried, in which 4SC holds a 48.8% stake, was founded as an independent entity at the beginning of January 2004. 4SC has a significant but not controlling influence on the company's business policy as it only appoints one of the three Advisory Board members. The stake held in the entity is thus recognised as an associate using the equity method in accordance with IAS 28. The reporting date and accounting policies employed for similar business transactions and events are the same for 4SC and this associate.

4SC sold its worldwide exclusive rights to its QSB substances to Quiescence Technologies LLC. (previously QuoNova LLC.), Melbourne, USA at the end of December 2006. Besides the proceeds from this sale, 4SC was also given a direct equity interest of 10.0%. 4SC does not exert any significant influence on this investee: The Company's stake in the investee falls significantly short of the 20% limit and 4SC has no business transactions with Quiescence Technologies LLC. and is not part of the executive committee. The equity interest in Quiescence Technologies LLC. entails securities that must be classified as available for sale pursuant to IAS 39. They are measured at the fair value in accordance with IAS 39.43.

4SC has held a stake in Bonn-based Nexigen GmbH since May 2008; it is currently 1.76%. 4SC does not exert any significant influence on this investee: The Company's stake in the investee falls significantly short of the 20% limit and 4SC has no business transactions with Nexigen GmbH and only provides one of three Advisory Board members. The equity interest in Nexigen GmbH entails securities that must be classified as available for sale pursuant to IAS 39. They are measured at the fair value in accordance with IAS 39.43.

**INVENTORIES ::** Inventories of raw materials and consumables are recognised at the lower of cost and net realisable value in accordance with IAS 2.9. The FIFO method is applied for allocation purposes in accordance with IAS 2.27.

**TRADE ACCOUNTS RECEIVABLE ::** Trade accounts receivable are recognised at the original invoiced amount less allowances for bad debts. These allowances for bad debts are based on the management's assessment of the recoverability of specific customer accounts receivable and are made insofar as there are objective indications that the amounts due will not be paid in full in accordance with the invoice terms originally agreed.

**RECEIVABLES FROM ASSOCIATES ::** Accounts receivable from associates are recognised at cost less an allowance for bad debts. Cost either corresponds to the value of the consideration at the effective date or is measured at the amount in which reimbursement is expected.

Allowances for bad debts are based on the management's assessment of the recoverability of specific accounts receivable and are made insofar as there are objective indications that the amounts due will not be paid in full in accordance with the terms originally agreed.

**OTHER FINANCIAL ASSETS ::** The other financial assets are financial instruments as defined by IAS 39. Depending on the individual case, the are classified as follows:

:: financial assets at fair value through profit or loss
:: available-for-sale financial assets
:: held-to-maturity financial assets

Classification of financial assets into measurement categories is made on initial recognition.

Financial instruments accounted for at fair value through profit or loss include securities which are allocated to the category "held-for-trading". Gains and losses from subsequent measurement are recognised in profit or loss in accordance with IAS 39.55a.

Financial instruments that are categorised as "available-for-sale" are measured at fair value. The resulting gains and losses from measurement at fair value – with the exception of impairment losses in accordance with IAS 39.67 ff – are recognised directly in equity under revaluation surplus as per IAS 39.55b until the financial asset is derecognised. At that point in time, the cumulative gain or loss previously recorded in equity is reclassified to profit or loss. However, the interest calculated using the effective interest method is recognised in profit or loss. This measurement also applies to the equity investments in Nexigen GmbH and Quiescence Technologies LLC., which are also classified as available for sale in accordance with IAS 39.

Financial instruments classified as held to maturity are initially measured in accordance with IAS 39.43 at fair value including transaction costs that are directly attributable to the acquisition of the financial instruments. In accordance with IAS 39.46b, the instruments are subsequently measured at amortised cost using the effective interest method.

The carrying amounts of these financial assets are reviewed at regular intervals or at least at every reporting date as to whether there is an active market for the respective assets and whether there are objective indications of impairment. With regard to equity instruments, a significant or long-term reduction of fair value is an objective indication of impairment. Such an impairment loss is expensed immediately.

In accordance with IAS 1.60, financial instruments are classified as non-current or current assets, depending on their remaining life as of the reporting date. Financial instruments with a remaining life of more than one year as of the reporting date are shown as other investments among non-current assets. Financial instruments with a remaining life on the reporting date of less than one year are shown as other financial assets among current assets, insofar as they do not meet the recognition criteria as defined by IAS 7.7. Analogous to the financial instruments as defined by IAS 39, fixed deposits that have a term of more than three months calculated from the date of acquisition are shown as other financial assets. If the other financial assets meet the recognition criteria as defined by IAS 7.7, they are shown as cash equivalents.

**OTHER ASSETS ::** Other assets comprise all receivables that are not shown as separate items in the statement of financial position. They are measured at an amount equivalent to the anticipated level of reimbursement.

**CASH AND CASH EQUIVALENTS ::** Cash consists of cash on hand, bank balances and short-term time deposits. Cash equivalents comprise other short-term and highly liquid investments with a term of no more than three months calculated from the date of acquisition, which are subject only to insignificant fluctuations in value. Receivables recognised at their nominal value.

**STOCK OPTIONS ::** The accounting for stock options granted to employees and the Management Board is handled according to the guidelines of IFRS 2 Share-based Payment. Under IFRS 2, the Company is required to spread the estimated fair values of stock options and other benefits at the measurement date as compensation cost over the period in which the employees provide the services associated with the grant of equity instruments.

**TRADE ACCOUNTS PAYABLE AND ACCOUNTS PAYABLE TO ASSOCIATES ::** Trade accounts payable and accounts payable to associates are current liabilities in accordance with IAS 1.60 and are accordingly carried at their settlement amount. They are derecognised when the underlying obligation has been discharged or expires.

**PROVISIONS AND ACCRUALS ::** Provisions and accruals are recognised in accordance with IAS 37.14 whenever current legal or factual obligations exist arising from a historical event, an outflow of resources is probable and a reliable estimate of the obligation is possible.

According to IAS 37.11, provisions can be distinguished from accruals because there is uncertainty about the timing or amount of the future expenditure required in settlement. Accruals are recognised according as part of other liabilities, whereas provisions are reported separately.

Where a provision entails a range of possible outcomes, and each point in that range is as likely as any other, the mid-point of the range is used in accordance with IAS 37.39.

**DEFERRED INCOME ::** Non-refundable upfront payments received in connection with out-licensing agreements concluded are reported as deferred income, which is recognised in profit or loss over the probable development life of the products.

**OTHER LIABILITIES ::** In addition to accruals, other liabilities also comprise all payment obligations of the Company that are not shown as separate items in the statement of financial position. They are carried at their settlement amount.

**INCOME TAX ::** The actual tax liabilities arising from income taxes for the current and previous periods are to be recognised as liabilities pursuant to IAS 12.12 for the amounts as yet unpaid. In the event that the amount incurred and already paid for the current or previous period exceeds that owed for the period concerned, the difference is to be recognised as an asset. The refund claims or liabilities are measured at the amount corresponding to the expected level of refund from the tax authorities or payment to the tax authorities. The given amount is calculated on the basis of the tax rates and laws applicable as of the reporting date.

Deferred taxes are accounted for in the statement of financial position in accordance with IAS 12. They are recognised on the basis of temporary differences in the recognition of assets and liabilities between the IFRS financial statements and the tax accounts. To this end, those tax rates are used which apply on the reporting date or such future tax rates as have already been announced. Deferred tax assets on unused tax losses are carried as assets pursuant to IAS 12.34 only to the extent that it is probable that future taxable profit will be available in order to realise the claim. In accordance with IAS 1.56, deferred tax assets and liabilities must not be not shown as current assets and liabilities.

The upfront payment received from Yakult Honsha during the reporting period is subject to withholding tax in Japan. The Japanese withholding tax is recognised as current tax expense when incurred. Setting off the withholding tax against the German corporation tax is not an option because 4SC does not pay corporation tax due to its present loss-making situation.

**REVENUE RECOGNITION ::** The business model of 4SC is aimed at generating revenue from licensing agreements (usually in terms of advance payments, milestone payments and royalties). 4SC generates additional revenue by making both its technology platform and its know-how available in future as a service package to partners and customers in the pharmaceutical and biotechnology industry under cooperation agreements through its subsidiary, 4SC Discovery GmbH.

Sales from cooperation agreements are accounted for under research services rendered in connection with the cooperation contracts concerned. The given amounts are in general calculated in line with their service character on the basis of flat sums per scientist billed ("FTE"). Settlement for the services rendered is recognised as trade accounts receivable until payment by the customers. Amounts received prior to the rendering of services are recognised as advances received before being reversed to profit or loss as of each reporting date in accordance with the current progress of services rendered as per project management.

Upfront payments are due as prepayments at the start of a given cooperation. Revenue recognition requires an analysis of the overall circumstances and is therefore contingent on the content of the relevant contract. Revenue is recognised upon receipt of the invoice providing all conditions in IAS 18.14 have been satisfied. Where individual conditions have not been met, the revenue is recognised as deferred income. The income is then reversed to profit or loss over term of the contract or the expected development period.

Milestone payments are contingent upon the achievement of contractually stipulated targets. The attainment of these milestones depends largely on meeting specific requirements, so that the resulting revenue is only posted as such once contractual milestones have been fully achieved and, if agreed, has been confirmed by the business partner.

Royalties are income from the sale of products and product candidates in connection with research performed pursuant to cooperation agreements. Royalties are recognised as revenue as of the date upon which the cooperation partner generates external sales that result in royalties. Income from licences granted for specific, contractually-defined periods is deferred and recognised as revenue pro rata temporis over the duration of the license.

Irrevocably sold licenses are posted as revenue for the full amount as of the date of transfer of usage rights if no further obligations exist for 4SC.

**COST OF SALES ::** Cost of sales comprise staff, material and other costs incurred directly attributable to the generation of revenue.

**DISTRIBUTION, RESEARCH AND DEVELOPMENT AND ADMINISTRATIVE COSTS ::** The following costs are classified as distribution, research and development and administrative costs:

:: direct staff and material costs
:: depreciation and amortisation
:: other direct costs
:: prorated overheads

Research costs are defined as costs that are incurred in connection with the planned research performed to gain new scientific knowledge. They are expensed as incurred in accordance with IAS 38.54.

Development costs are defined as expenses incurred to put research results into technical and commercial practice. They are recognised as intangible assets if the criteria pursuant to IAS 38.57 are met. At 4SC, the risks involved up until the commercialisation of its products mean the requirements for the recognition of development costs as intangible assets in accordance with IAS 38 are not met in full. Developments costs are therefore also expensed in the period in which they are incurred.

**GOVERNMENT GRANTS ::** In accordance with IAS 20.12, government grants are recognised in profit or loss on a systematic basis in the period in which the entity recognises as expenses the related costs for which the grants are intended to compensate. As funding represents the reimbursement of research expenditures, such amounts offset research and development costs for the relevant period; specific explanations are provided in the notes.

**OTHER INCOME ::** Other income includes all income from operating activities which is not shown as finance income or does not represent the reimbursement of research expenditures. For the most part, 4SC generates income from the reimbursement of expenses. Such reimbursements are made in the amount of the actual costs incurred or plus an administration fee, depending on the individual case.

## 2.4 USE OF ESTIMATES

In preparing these consolidated financial statements, it was necessary for the Management Board to make estimates and assumptions which influence the disclosed value of assets and liabilities, the disclosed value of uncertain assets and contingent liabilities as of the reporting date, as well as expenses and income within the reporting period. Actual values may vary from such estimated values.

As of the reporting date, the Management Board has essentially made the following assumptions concerning the future and has identified other key sources of estimation uncertainty:

**IMPAIRMENT LOSSES ::** The impairment test for goodwill requires the estimation of the value in use on the basis of anticipated future cash flows of the cash-generating unit and of the appropriate discount rate. Factors such as lower than expected sales and subsequent lower net cash flows, as well as changes in the discount rate, could have considerable consequences for the determination of fair value and, ultimately, the level of goodwill impairment.

When testing the impairment of receivables, the Management Board must assess their recoverability on the basis of the customer's creditworthiness. Changes in the customer's creditworthiness could lead to a valuation allowance for receivables.

**MEASUREMENT OF EQUITY INVESTMENTS ::** The Management Board had to assess whether it exercises control with regard to quattro research GmbH, in which case the company would have to be consolidated in accordance with IAS 27. The Management Board determined that the conditions which would constitute control of quattro research GmbH do not exist. Nor have the conditions been met in the Management Board's view for a consolidation of the company as special purpose entities in accordance with SIC-12.

In the case of the equity investments in Quiescence TechnologiesLLC. and Nexigen GmbH too, the degree of influence exerted by 4SC had to be estimated. Here, the Management Board arrived at the decision that, as in the previous year, the Company had neither a controlling nor a significant influence as at 31 December 2011 and neither entity had to be consolidated or recognised as an investment accounted for using the equity method.

**RESERVES ESOP/EXPENDITURE FROM STOCK OPTIONS ::** The accounting for stock options granted to employees and the Management Board is handled according to the guidelines of IFRS 2. In doing so, the Management Board must carry out estimates of the number of equity instruments expected to be exercisable. Deviations from these estimates influence the amount of reserves for stock options reported as equity, as well as the expenses posted during the financial year.

## 2.5 SEGMENT REPORTING

The 4SC Group currently operates only in one segment.

# 3. Disclosures on the Consolidated Statement of Comprehensive Income

## 3.1 REVENUE

Revenue in 2011 declined from €989 thousand in 2010 to €780 thousand as a consequence of 4SC's focus in 2011 on internal value-enhancing development programmes and the systematic scaling back of research collaborations, which generated revenue of just €45 thousand in the reporting period (previous year: €989 thousand). An upfront payment of € 6,000 thousand by Yakult Honsha in April 2011 under the resminostat licensing agreement generated further deferred income of €637 thousand.In addition, a delivery of the drug with a value of over €98 thousand has been made to Yakult Honsha.

## 3.2 STAFF COSTS

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Wages and salaries | 5,425 | 5,166 | 5 |
| Social security contributions | 902 | 876 | 3 |
| Stock options | 313 | 376 | - 17 |
| **STAFF COSTS** | **6,640** | **6,418** | **3** |
| Employees and Management Board (annual average) | 96 | 94 | 2 |

4SC hired additional personnel during the reporting year, especially to enhance its administrative staffing. On the annual average, the total number of employees rose from 94 by 2% to 96. This is also reflected in the increase in wages and salaries as well as in the attendant employee benefits and social security contributions. The wages and salaries rose to by 5% to €5,425 thousand (previous year: €5,166 thousand) and the employee benefits and social security contributions rose by 3% to €902 thousand (previous year: €876 thousand) in the reporting year.

During the reporting year, funds accruing through salary waiver were appropriated for direct insurance for the benefit of Company staff and the Management Board. These contributions are classified as defined contribution plans and are recognised and measured in accordance with IAS 19.44. Total expenditures in connection with defined contribution plans amounted to €94 thousand in the reporting year (2010: €99 thousand). Of this amount, €16 thousand (2010: €17 thousand) are attributable to Management Board members. In addition, a total of €767 thousand (2010: €741 thousand) was paid to statutory social security funds.

The options granted to staff and Management Board members during the reporting year were shown as staff costs in accordance with IFRS 2. A total of €313 thousand in staff costs arose in the 2011 financial year from the options (2010: €376 thousand); of this amount, €187 thousand (2010: €217 thousand) are attributable to members of the Management Board.

On the whole therefore, staff costs climbed from €6,418 thousand in 2010 by 3% to €6,640 thousand in 2011. They are shown in the income statement under the items, cost of sales, distribution costs, research and development costs as well as administrative costs in accordance with their functional classification.

## 3.3 COST OF SALES

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Staff | 17 | 294 | - 94 |
| Material | 2 | 67 | - 97 |
| Other | 104 | 1 | 10,300 |
| **COST OF SALES** | **123** | **362** | **- 66** |

The decrease in the costs of staff by 94% and material by 97% basically reflects the decline in revenue from research cooperation deals. In sum, the cost of sales dropped from €362 thousand in 2010 by 66% to €123 thousand in 2011.

## 3.4 DISTRIBUTION COSTS

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Staff | 203 | 113 | 80 |
| Legal and other consulting | 206 | 71 | 190 |
| Travel and conferences | 67 | 56 | 20 |
| Other | 11 | 45 | - 76 |
| **DISTRIBUTION COSTS** | **487** | **285** | **71** |

Distribution costs, which consist of the costs incurred by the Business Development and Public Relations units, increased by 71% year-on-year to €487 thousand during the reporting period (previous year: €285 thousand). This is due to the increase in business development activities and workforce restructuring in the year under review.

## 3.5 RESEARCH AND DEVELOPMENT COSTS

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| External services | 7,085 | 8,838 | - 20 |
| Staff | 4,409 | 4,042 | 9 |
| Depreciation and amortisation | 1,191 | 1,204 | - 1 |
| Patents | 1,047 | 1,189 | - 12 |
| Rental costs including ancillary costs | 739 | 763 | - 3 |
| Material | 536 | 614 | - 13 |
| Software licences | 129 | 167 | - 23 |
| Travel and conferences | 174 | 160 | 9 |
| Other | 504 | 395 | 28 |
| Grants (EU and Ministry of Education and Research) | - 802 | - 347 | 131 |
| **RESEARCH AND DEVELOPMENT COSTS** | **15,012** | **17,025** | **- 12** |

Research and development costs declined by 12% to €15,012 thousand in 2011, from €17,025 thousand in 2010.

The year-on-year reduction is mainly attributable to the fact that four of the eight clinical phases running in parallel reached their endpoint during the reporting period.

Income from grants increased substantially year-on-year to €802 thousand, up 131% from €347 thousand in the previous year. Two of the four EU-sponsored programmes ended in 2011. 4SC will continue to seek new grants in order to generate additional revenue and compensate for development projects that are coming to an end.

## 3.6 ADMINISTRATIVE COSTS

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Staff | 2,011 | 1,969 | 2 |
| Advertisement (investor relations) | 517 | 498 | 4 |
| Legal and other consulting | 537 | 241 | 123 |
| Depreciation and amortisation | 151 | 173 | - 13 |
| Supervisory Board | 139 | 139 | 0 |
| Rental costs including ancillary costs | 124 | 128 | - 3 |
| Insurance, fees and contributions | 121 | 95 | 27 |
| Travel and conferences | 90 | 87 | 3 |
| External services | 47 | 66 | - 29 |
| Other | 225 | 229 | - 2 |
| **ADMINISTRATIVE COSTS** | **3,962** | **3,625** | **9** |

Administrative costs rose from €3,625 thousand in 2010 to €3,962 thousand in 2011. This 9% increase resulted primarily from legal and consulting costs and higher staff costs.

## 3.7 OTHER INCOME

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Sublease to quattro research GmbH | 2 | 23 | - 91 |
| Insurance compensation payments | 0 | 3 | - 100 |
| Other cost allocations | 4 | 1 | 300 |
| Cost allocations from research cooperation | 5 | 0 | n/a |
| Other | 0 | 10 | - 100 |
| **OTHER INCOME** | **11** | **37** | **- 70** |

There was a strong year-on-year decline in other income by 70% to €11 thousand.

Laboratory facilities and office space that the Company did not need were sublet to quattro research GmbH, Planegg-Martinsried, until 31 October 2010. In this connection, ancillary costs from 2009 and 2010 were allocated during the reporting period.

## 3.8 DEPRECIATION AND AMORTISATION

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Amortisation of intangible assets | 903 | 853 | 6 |
| Depreciation of property, plant and equipment | 489 | 526 | - 7 |
| **DEPRECIATION AND AMORTISATION** | **1,392** | **1,379** | **1** |

Depreciation and amortisation rose by 1%, from €1,379 thousand in 2010 to €1,392 thousand, in 2011. The 6% increase in the amortisation of intangible assets largely results from the recognition of an asset for customer loyalty as defined by IAS 38. This is written down over the development phase using the straight-line method. The remaining amortisation of intangible assets – which mainly stems from the recognition of the rights acquired from Nycomed and the corresponding amortisation over their expected useful life – remained almost unchanged compared with the previous year. Depreciation and amortisation are shown in the income statement solely under the items, research and development costs and administrative costs.

## 3.9 NET FINANCE INCOME/LOSS

Net finance income/loss constitutes the result derived from the accounting of the stakes held in associates using the equity method. This concerns the measurement of the equity investment in quattro research GmbH. Further explanation can be found under item "6.3. Investments accounted for using the equity method".

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Share in the profit/loss of quattro research GmbH | 31 | 29 | 7 |
| **PROFIT/LOSS FROM INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD** | **31** | **29** | **7** |

The income shown under net finance income/loss is comprised as follows:

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Interest-bearing investment of cash and cash equivalents | 275 | 130 | 112 |
| Securities measured through profit or loss | 25 | 21 | 19 |
| Income from exchange rate differences | 10 | 18 | - 44 |
| **FINANCE INCOME** | **310** | **169** | **83** |

In 2011, there was a strong year-on-year increase in finance income by 83% to €310 thousand, Mainly due to the slight improvement in interest rates on the capital markets at the time the funds were being invested, which enabled 4SC to lift its interest income by 112%, from €130 thousand in 2010 to €275 thousand in 2011.

The expenses shown under net finance income/loss are comprised as follows:

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Expenses from exchange rate differences | 27 | 20 | 35 |
| Impairment of investments | 4 | 8 | - 50 |
| Other interest expense | 1 | 0 | n/a |
| **FINANCE COSTS** | **32** | **28** | **14** |

## 4. Income Tax, Deferred Taxes and Withholding Tax

In the reporting period, 4SC incurred for the first time expense from current income taxes in the form of a non-creditable, merely deductible foreign withholding tax. The Company has operated at a loss since it began its business activities and anticipates further net losses for the next few years in accordance with its business model, with profitability being a medium-term objective.

The income taxes recognised in the income statement are made up as follows:

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Current tax expense | - 600 | 0 | n/a |
| Deferred tax income | 13 | 26 | - 50 |
| **INCOME TAX EXPENSE (-)/INCOME (+)** | **- 587** | **26** | **n/a** |

The determination of the effective tax rate for the purpose of calculating deferred taxes is based on the following assumptions: In Germany, taxes on income and earnings comprise the corporate income tax, the solidarity surcharge and trade tax. As a result of the German Business Tax Reform Act in 2008 (Unternehmenssteuerreformgesetz) the corporate income tax rate in Germany as of 1 January 2008 is 15%. To calculate deferred taxes, an effective tax rate of 15.83% was applied for corporate income tax (including the solidarity surcharge), and a rate of 10.5% was applied for trade tax. As was the case for the previous year, the total tax rate as of 1 January 2012 is therefore 26.33%.

While deferred tax liabilities of €13 thousand were recognised at 31 December 2010, at 31 December 2011 deferred tax assets were carried in the amount of the deferred tax liabilities that arose. These were offset in the statement of financial position because they relate to income taxes levied by the same taxation authority. Consequently, the deferred tax expense of €113 thousand is set off against deferred tax income of €126 thousand resulting from the change in the taxable temporary differences.

Deferred tax assets and liabilities as of 31 December 2011 and 31 December 2010 are distributed as follows across the statement of financial position:

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| **DEFERRED TAX ASSETS AND LIABILITIES** | | | |
| Intangible assets | 108 | 0 | n/a |
| Investments accounted for using the equity method | 1 | 1 | 0 |
| Cash and cash equivalents | 7 | 2 | 250 |
| Other liabilities | 10 | 10 | 0 |
| Deferred tax assets | - 126 | 0 | n/a |
| **TOTAL DEFERRED TAX ASSETS AND LIABILITIES** | **0** | **13** | **- 100** |

The deferred tax liabilities reported under intangible assets arose from the use of different recognition criteria for an asset resulting from customer loyalty programmes recognised in accordance with IFRSs. In connection with the investments, they stem from the different measurements of the equity investment in quattro research GmbH under IFRS versus tax law. In the cash and cash equivalents, they arise from the market valuation according to IFRS, and in the other liabilities from different recognition criteria applicable to deferred liabilities under IFRS and tax law.

The value of tax losses unrecognised as deferred tax assets but reportable per IAS 12.81 (e) is as follows as of the reporting date:

| | 2011 | 2010 |
|---|---|---|
| Tax loss carryforward (in €000's) | 114,816 | 95,060 |
| Reduction for deferred tax liabilities (in €000's) | - 479 | 0 |
| Effective tax rate (in %) | 26.33 | 26.33 |
| Value of the tax loss carryforwards (in €000's) | 30,105 | 25,029 |

This calculation is based on the assumption that the tax rates applicable after 1 January 2012 will still be valid in the future upon achieving the value of the taxable losses carried forward, and that 4SC's losses carried forward will still be able to be utilised in full.

In general, losses may be carried forward indefinitely to offset future profits, although some restrictions apply with regard to the use of losses carried forward in relation to sections 8(4) and 8c of the German Corporate Income Tax Act (Körperschaftsteuergesetz – KStG). Over the last years, 4SC has experienced various changes in shareholding structures, capital increases and an influx of additional shareholders, while a significant amount of working capital has been acquired at the same time. Because of the currently prevailing legal uncertainty, which has arisen in connection with the interpretation of the provisions applicable in this context, and the attitude the competent revenue authorities might adopt, 4SC considers it a possibility that the current losses carried forward will, in future, no longer be available for the purpose of offsetting against profits. 4SC will, however continue to petition for the admissibility of its loss carryforwards.

The reconciliation of expected income tax and the effective tax expense/income is as follows:

| in €000's | 2011 | 2010 |
|---|---|---|
| Earnings before taxes | - 18,484 | - 20,101 |
| Expected tax income at a tax rate of 26.33% (2010: 26.33%) | 4,867 | 5,293 |
| Income (+)/expense (-) shown in the income statement | - 587 | 26 |
| **DIFFERENCE TO BE EXPLAINED** | **5,454** | 5,267 |
| Unrecognised tax loss carryforwards | 5,212 | 5,139 |
| Non-deductible expenses | 20 | 21 |
| Ineligible foreign withholding tax | 442 | 0 |
| Other differences | - 220 | 107 |
| **TOTAL RECONCILIATION** | **5,454** | **5,267** |

The upfront payment received from Yakult Honsha during the reporting period is subject to withholding tax in Japan. The Japanese withholding tax is recognised as current tax expense when incurred. Setting off the withholding tax against the German corporation tax is not an option because 4SC does not pay corporation tax due to its present loss-making situation.

## 5. Earnings per Share

The basic earnings per share are calculated in accordance with IAS 33.9 ff. by dividing the profit/loss for the period attributable to the shareholders (numerator) by the average weighted number of shares outstanding in the reporting period (denominator).

| | 2011 | 2010 |
|---|---|---|
| Based on profit/loss for the year (in €000's) | - 19,071 | - 20,075 |
| Based on average number of shares (in thsd.) | 41,455 | 38,503 |
| **EARNINGS PER SHARE (BASIC AND DILUTED, IN €)** | **- 0.46** | **- 0.52** |

Given 4SC's loss and the fact that the share price has currently dropped below the exercise price of the options, i.e. the options are currently "out of money", the options issued are not dilutive. As a result, the diluted and basic earnings per share are identical.

### 5.1 POTENTIAL EQUITY INSTRUMENTS

The Company's Annual General Meetings on 1 March 2001, 28 July 2004, 28 June 2006, 29 June 2007, 5 June 2008., 15 June 2009 and 21 June 2010 decided to increase the Company's share capital conditionally. These resolutions could mean that undiluted earnings per share could potentially be diluted in future if option rights are granted to members of the Management Board and employees of the Company or shares are granted to the owners or creditors of convertible bonds to be issued, participation rights and/or warrants. Details about the conditional capital can be found under items "6.12 Equity" and "9. Stock option programme".

# 6. Disclosures on the Statement of Financial Position

## 6.1 INTANGIBLE ASSETS

The development of intangible assets pursuant to IAS 38.118 is shown in the statement of changes in non-current assets.

| | | Cost | | | | Amortisation and impairment losses | | | | Carrying amounts | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| In €000's | Useful life from... to years | Balance on 01.01.2011 | Additions 2011 | Disposals 2011 | Balance on 31.12.2011 | Balance on 01.01.2011 | Additions 2011 | Disposals 2011 | Balance on 31.12.2011 | Balance on 31.12.2011 | Balance on 31.12.2010 |
| **INTANGIBLE ASSETS** | | | | | | | | | | | |
| Software and patents | 2–20 | 14,759 | 5 | 0 | 14,764 | 2,533 | 854 | 0 | 3,387 | 11,377 | 12,226 |
| Customer loyalty | 6.75 | 0 | 460 | 0 | 460 | 0 | 49 | 0 | 49 | 411 | 0 |
| Goodwill | n/a | 1,786 | 0 | 0 | 1,786 | 0 | 0 | 0 | 0 | 1,786 | 1,786 |
| **INTANGIBLE ASSETS** | | **16,545** | **465** | **0** | **17,010** | **2,533** | **903** | **0** | **3,436** | **13,574** | **14,012** |

Changes in intangible assets during the previous year were as follows:

| | | Cost | | | | Amortisation and impairment losses | | | | Carrying amounts | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| In €000's | Useful life from... to years | Balance on 01.01.2010 | Additions 2010 | Disposals 2010 | Balance on 31.12.2010 | Balance on 01.01.2010 | Additions 2010 | Disposals 2010 | Balance on 31.12.2010 | Balance on 31.12.2010 | Balance on 31.12.2009 |
| **INTANGIBLE ASSETS** | | | | | | | | | | | |
| Software and patents | 2–20 | 14,731 | 28 | 0 | 14,759 | 1,680 | 853 | 0 | 2,533 | 12,226 | 13,051 |
| Goodwill | n/a | 1,786 | 0 | 0 | 1,786 | 0 | 0 | 0 | 0 | 1,786 | 1,786 |
| **INTANGIBLE ASSETS** | | **16,517** | **28** | **0** | **16,545** | **1,680** | **853** | **0** | **2,533** | **14,012** | **14,837** |

With the exception of the goodwill recognised in the statement of financial position, there were no intangible assets with indefinite useful lives. There were no internally generated intangible assets.

The figure reported for software and patents includes three key patents with carrying amounts of between €1,280 thousand and €6,706 thousand (previous year: €1,370 thousand to €7,212 thousand) whose residual amortisation period is between 13.25 years and 15.17 years (previous year: 14.25 to 16.17 years).

Additions in the reporting year primarily relate to an asset resulting from customer loyalty within the meaning of IAS 38.

The amortisation and impairment of intangible assets is shown in the income statement mainly under the items, research and development costs and administrative costs.

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Cost of sales | 49 | 0 | n/a |
| Research and development costs | 829 | 829 | 0 |
| Administrative costs | 25 | 24 | 4 |
| **AMORTISATION OF INTANGIBLE ASSETS** | **903** | **853** | **6** |

## GOODWILL

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| **GOODWILL** | **1,786** | **1,786** | **0** |

Pursuant to IAS 36.80 ff., goodwill is not amortised, but rather subject to an impairment test at least once a year.

The impairment test conducted at the end of the reporting year did not indicate a need for adjustment of the value recognised as of 31 December 2011. For the impairment test, the value in use of the vidofludimus programme was compared with the carrying amount of goodwill. The value in use is determined essentially by means of the following factors: The discount factor is 14% (previous year: 14%) and determines at which interest rate future cash flows will be discounted. The probability of a market entry, assumed to be 35.11% (previous year: 35.1%), depends on the development phase that the project is in. The maximum anticipated sales are based on an estimate by 4SC and depend primarily on expected market shares, future patent numbers and anticipated revenue per patient. The expected cash flows have been calculated for the period up to 2036, on the basis of corresponding patent terms in addition to taking a commercialisation phase following the expiration of patent protection into account.

There was no need for recognising impairment losses on the goodwill of 4SC.

## 6.2 PROPERTY, PLANT AND EQUIPMENT

The development of property, plant and equipment pursuant to IAS 16.73 is shown in the statement of changes in non-current assets.

Property, plant and equipment include office equipment, laboratory equipment, other operating and office equipment, IT equipment (hardware) and leasehold improvements.

| | | Cost | | | | Amortisation and impairment losses | | | | Carrying amounts | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| In €000's | Useful life from... to years | Balance on 01.01.2011 | Additions 2011 | Disposals 2011 | Balance on 31.12.2011 | Balance on 01.01.2011 | Additions 2011 | Disposals 2011 | Balance on 31.12.2011 | Balance on 31.12.2011 | Balance on 31.12.2010 |
| **PROPERTY, PLANT AND EQUIPMENT** | | | | | | | | | | | |
| Office equipment | 8–14 | 153 | 10 | 0 | 163 | 100 | 10 | 0 | 110 | 53 | 53 |
| Laboratory equipment | 3–14 | 3,134 | 71 | 122 | 3,083 | 2,527 | 211 | 121 | 2,617 | 466 | 607 |
| Leasehold improvements | 3.5–14 | 1,039 | 0 | 0 | 1,039 | 635 | 85 | 0 | 720 | 319 | 404 |
| Other operating and office equipment | 3–13 | 207 | 8 | 0 | 215 | 138 | 20 | 0 | 158 | 57 | 69 |
| IT equipment | 3–13 | 1,464 | 37 | 795 | 706 | 1,290 | 89 | 797 | 582 | 124 | 174 |
| Other | 0–5 | 153 | 44 | 44 | 153 | 77 | 74 | 44 | 107 | 46 | 76 |
| **PROPERTY, PLANT AND EQUIPMENT** | | **6,150** | **170** | **961** | **5,359** | **4,767** | **489** | **962** | **4,294** | **1,065** | **1,383** |

The development of property, plant and equipment in the previous year was as follows:

| | | Cost | | | | Amortisation and impairment losses | | | | Carrying amounts | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| In €000's | Useful life from... to years | Balance on 01.01.2010 | Additions 2010 | Disposals 2010 | Balance on 31.12.2010 | Balance on 01.01.2010 | Additions 2010 | Disposals 2010 | Balance on 31.12.2010 | Balance on 31.12.2010 | Balance on 31.12.2009 |
| **PROPERTY, PLANT AND EQUIPMENT** | | | | | | | | | | | |
| Office equipment | 8–14 | 142 | 11 | 0 | 153 | 90 | 10 | 0 | 100 | 53 | 52 |
| Laboratory equipment | 3–14 | 2,974 | 227 | 67 | 3,134 | 2,376 | 218 | 67 | 2,527 | 607 | 598 |
| Leasehold improvements | 3.5–14 | 1,033 | 6 | 0 | 1,039 | 556 | 79 | 0 | 635 | 404 | 477 |
| Other operating and office equipment | 3–13 | 197 | 11 | 1 | 207 | 116 | 23 | 1 | 138 | 69 | 81 |
| IT equipment | 3–13 | 1,361 | 103 | 0 | 1,464 | 1,191 | 99 | 0 | 1,290 | 174 | 170 |
| Other | 0–5 | 153 | 66 | 66 | 153 | 46 | 97 | 66 | 77 | 76 | 107 |
| **PROPERTY, PLANT AND EQUIPMENT** | | **5,860** | **424** | **134** | **6,150** | **4,375** | **526** | **134** | **4,767** | **1,383** | **1,485** |

Additions in the reporting period concern both investments in new technical laboratory equipment such as a Bio-Plex system (€33 thousand) as well as investments in the replacement and expansion of equipment in this area. An additional €37 thousand (previous year: €103 thousand) was invested in IT hardware. This mainly concerns investments in the replacement and expansion of servers, desktop computers, laptops and printers. 4SC is under no obligation to acquire property, plant and equipment.

The depreciation and impairment of property, plant and equipment is shown in its entirety on the income statement under the items, research and development costs and administrative costs.

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Distribution costs | 0 | 1 | - 100 |
| Research and development costs | 362 | 376 | - 4 |
| Administrative costs | 127 | 149 | - 15 |
| **DEPRECIATION OF PROPERTY, PLANT AND EQUIPMENT** | **489** | **526** | **- 7** |

## 6.3 INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

Investments accounted for using the equity method concerns shares held in quattro research GmbH. The respective key figures of quattro research GmbH as of 31 December 2011 are as follows:

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Revenue | 1,090 | 882 | 24 |
| Profit/loss for the year | 63 | 59 | 7 |
| Total assets | 671 | 469 | 43 |
| Equity | 378 | 315 | 20 |
| Liabilities | 294 | 154 | 91 |

The profit posted by quattro research GmbH raises the carrying amount of the shares held by 4SC to €121 thousand of the reporting date (31 December 2010: €90 thousand).

## 6.4 OTHER INVESTMENTS

This item in the statement of financial position reflects financial instruments within the meaning of IAS 39 with a remaining life of more than one year as of the reporting date. This includes the equity investments in Nexigen GmbH and Quiescence Technologies LLC..

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| Equity investment in Nexigen GmbH | 143 | 146 | - 2 |
| Equity investment in Quiescence Technologies LLC. | 0 | 0 | 0 |
| **OTHER INVESTMENTS** | **143** | **146** | **- 2** |

The equity investment in Nexigen GmbH was originally made in May 2008. 4SC has a 1.76% stake in this company. A financing arrangement at Nexigen GmbH that was not subscribed by 4SC had a dilutive effect for 4SC and led to a slight reduction in the value of the equity investment by €3 thousand to €143 thousand.
The 10% stake in Quiescence Technologies LLC. was acquired in December 2006. But its carrying amount is still €0 thousand due to a lack of clarity in regards to Quiescence Technologies LLC.'s financial situation.

## 6.5 INVENTORIES

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| Consumables | 21 | 17 | 24 |
| Solvents | 3 | 3 | n/a |
| Chemicals | 1 | 1 | n/a |
| **INVENTORIES** | **25** | **21** | **19** |

Inventories remained increased by €4 thousand year-on-year.

Material costs amounting to €542 thousand (2010: €686 thousand) were recorded as an expense during the reporting year. In part, these were shown as inventories during the financial year; however, the other part was used directly for the respective projects and therefore recorded directly as expenses.

## 6.6 TRADE ACCOUNTS RECEIVABLE

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| Germany | 115 | 281 | - 59 |
| **TRADE ACCOUNTS RECEIVABLE** | **115** | **281** | **- 59** |

On 31 December 2011, as on the reporting date of the previous year, there were no bad debt allowances for trade accounts receivable in accordance with IAS 39.63 f.

Trade accounts receivable of €115 thousand comprise research cooperation deals and a delivery of drug compounds to Yakult Honsha, Japan. They were not yet due on the reporting date and were paid in January and February 2012, respectively, as contractually stipulated.

## 6.7 RECEIVABLES FROM ASSOCIATES

This item in the statement of financial position shows receivables from Quiescence Technologies LLC., which were written down in full.

The management of 4SC decided at the close of the third quarter of 2008 – in the light of the uncertainty that had begun to cloud the finances and liquidity of Quiescence Technologies LLC. during the 2008 financial year – to write down US-$1,000 thousand in total non-current and current receivables from Quiescence Technologies LLC. resulting from the purchase price for QSB substances and a cooperation agreement. This situation did not change during the 2011 financial year so that there still is a receivable of US-$1,000 thousand as at 31 December 2011 that has been written down in full.

Receivables of €2 thousand from Quattro research GmbH are also reported that were attributable to a subsequent calculation of ancillary costs under a lease for 2009 and 2010.

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| Germany | 2 | 0 | n/a |
| **RECEIVABLES FROM ASSOCIATES** | **2** | **0** | **n/a** |

## 6.8 OTHER FINANCIAL ASSETS

This item in the statement of financial position reflects financial instruments within the meaning of IAS 39 as well fixed deposits with a remaining life of less than one year as of the reporting date, which are not included in cash equivalents.

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| Financial instruments with a remaining life of less than one year | 3,000 | 3,500 | - 14 |
| Fixed deposits with a remaining life of less than one year | 6,000 | 9,151 | - 34 |
| **OTHER FINANCIAL ASSETS** | **9,000** | **12,651** | **- 29** |

The decrease in other financial assets is the result of sales.

The terms and conditions of financial assets as at 31 December 2011 were as follows:

| in T € | Carrying amount | Term in months | Interest rate in % |
|---|---|---|---|
| Financial instruments with a remaining life of less than one year | | | |
| Deutsche Pfandbriefbank AG, promissory notes | 1,000 | 9 | 1.94 |
| HSH Nordbank AG | 2,000 | 12 | 1.86 – 1.93 |
| Fixed deposits with a remaining life of less than one year | | | |
| Südwestbank, fixed deposits | 2,000 | 4 | 1.32 – 1.45 |
| UniCreditGroup, fixed deposits | 4,000 | 10 | 1.18 – 1.81 |

## 6.9 CASH AND CASH EQUIVALENTS

This item in the statement of financial position comprises cash on hand and bank balances. In addition, this item comprises financial instruments within the meaning of IAS 39 as well as fixed deposits which serve the purpose of meeting shortterm payment obligations. They have an original term of no more than three months and are only subject to insignificant variations in value.

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| Financial instruments with an original term of less than three months calculated from the date of acquisition | 4,012 | 1,549 | 159 |
| Fixed deposits with an original term of less than three months calculated from the date of acquisition | 0 | 0 | n/a |
| Bank balances | 2,807 | 3,406 | - 18 |
| Cash on hand | 1 | 1 | n/a |
| **CASH AND CASH EQUIVALENTS** | **6,820** | **4,956** | **38** |

## 6.10 CURRENT TAX ASSETS

4SC receives interest from its fixed deposits, money market funds and securities. Financial nstitutions are required to withhold tax and solidarity surcharge on such interest income. ecause the Company posted a net loss for the 2011 and 2010 financial years, it has a tax refund claim with regard to the taxes it has paid.

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| **CURRENT TAX ASSETS** | **69** | **249** | **- 72** |

The income tax refund claims as at 31 December 2011 comprise a claim for withholding tax on investment income for the 2011 financial year that the tax office has not yet refunded. The prior-year figure included refund claims for 2009 and 2010.

## 6.11 OTHER ASSETS

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| VAT refund claims | 265 | 302 | - 12 |
| Prepaid expenses | 187 | 220 | - 15 |
| Rent deposit IZB West | 157 | 157 | 0 |
| Advances paid for third-party services and chemicals | 68 | 137 | - 50 |
| Government grants | 149 | 68 | 119 |
| Prepaid interest | 69 | 55 | 25 |
| Other | 9 | 3 | 200 |
| **OTHER ASSETS** | **904** | **942** | **- 4** |

Other assets are presented in the statement of financial position according to IAS 1.60 as separate classifications.

| | Total receivables | | thereof non-current | | thereof current | |
|---|---|---|---|---|---|---|
| in €000's | 31.12.2011 | 31.12.2010 | 31.12.2011 | 31.12.2010 | 31.12.2011 | 31.12.2010 |
| Tax refund claims | 265 | 302 | 0 | 0 | 265 | 302 |
| Prepaid expenses | 187 | 220 | 24 | 0 | 163 | 220 |
| Rent deposit IZB West | 157 | 157 | 157 | 0 | 0 | 157 |
| Advances paid for third-party services and chemicals | 68 | 137 | 0 | 0 | 68 | 137 |
| Government grants | 149 | 68 | 0 | 0 | 149 | 68 |
| Prepaid interest | 69 | 55 | 0 | 0 | 69 | 55 |
| Other | 9 | 3 | 2 | 0 | 7 | 3 |
| **OTHER ASSETS** | **904** | **942** | **183** | **0** | **721** | **942** |

Based on the information available today, there are no indications giving rise to doubts regarding grant funding. Rent deposits serve to safeguard the landlord's claims.

Prepaid expenses primarily comprises prepaid invoices under maintenance contracts, licences and online research. The advances paid for third-party services comprise payments for external services that were made before the service in question was rendered.

## 6.12 EQUITY

**SHARE CAPITAL AND SHARES ::** The share capital of 4SC as of 31 December 2011 amounted to €41,968,304.00. It is composed of 41,968,304 no-par value bearer shares. Each share represents €1.00 4SC's share capital, entailing one vote at the Annual General Meeting. Share capital is fully paid-in at this time.

4SC shares are securitised under global non-coupon certificates held in custody by Clearstream Banking AG, Frankfurt am Main, a central securities depository. The shareholder's right to issuance of individual certificates is excluded pursuant to section 6(3) of the Articles of Association.

On 24 February 2011, 4SC implemented a non-public capital increase with exclusion of the existing shareholders' subscription rights, placing a total of 3,452,647 new shares with institutional investors at a price of €3.40 per share. The number of no-par value bearer shares rose from 38,502,739 to 41,955,386.

On 18 May 2011, 4SC issued employee shares, granting 12,918 new shares to employees at a price of €3.70 per share. The number of no-par value bearer shares rose from 41,955,386 to 41,968,304.

**CONDITIONAL CAPITAL ::** The Company's Annual General Meetings decided to increase the Company's share capital conditionally as follows:

| Conditional capital | Amount (€000's) | AGM resolution dated | Purpose |
|---|---|---|---|
| I | 31 | 01.03.2001/ 21.06.2010 | Exercise of "ESOP 2001" options held by Company employees and Management Board members |
| II | 114 | 28.06.2006/ 21.06.2010 | Granting of options to members of the Management Board and Company employees with a term of up to ten years ("ERSATZ-ESOP 2001") |
| III | 88 | 28.07.2004/ 21.06.2010 | Exercise of "ESOP 2004" options held by Company employees and Management Board members |
| IV | 305 | 28.06.2006/ 21.06.2010 | Granting of options to members of the Management Board and Company employees as well as employees of affiliated companies with a term of up to ten years ("ESOP 2006") |
| V | 7.500 | 21.06.2010 | Granting of shares to owners and/or creditors of still to be issued convertible bonds and/or warrants, income debentures and/or participation rights (or a combination of these instruments) |
| VI | 1.000 | 15.06.2009 | Granting of options to members of the Management Board and Company employees as well as employees of affiliated companies in Germany and abroad with a term of up to ten years ("ESOP 2009") |

**AUTHORISED CAPITAL ::** The Annual General Meeting on 04 July 2011 authorised the Management Board to increase the Company's share capital, with the approval of the Supervisory Board, until 03 July 2016, once or repeatedly, by up to €20,984,152.00 in return for contributions in cash or in kind by issuing, once or repeatedly, an aggregate total of up to 20,984,152 new no-par value bearer shares (Authorised Capital 2011/I).

**SHARE PREMIUM ::** The share premium consists of premiums paid by shareholders in the course of capital increases executed in financing rounds. Pursuant to IAS 32.35, transaction costs of an equity transaction are accounted for as a deduction from equity, net of any related income tax benefit. The transaction costs for the capitalisation measures were €706 thousand (previous year: €0 thousand). These costs were charged against the share premium.

**RESERVES ::** The item in the statement of financial position, reserves, comprises the following individual items:

The ESOP reserve amounting to €1,565 thousand (previous year: €1,251 thousand) corresponds to the amount of the share options granted during the reporting year and the previous years to employees and the Management Board, which have been measured in accordance with the provisions of IFRS 2. The calculation is explained under item "9. Stock option programme".

The retained earnings of €67 thousand as of 31 December 2011 remained unchanged compared to the previous year.

**APPROPRIATION OF EARNINGS ::** The accumulated deficit of €95,518 thousand (previous year: €76,447 thousand) is carried forward to new account.

**CAPITAL MANAGEMENT DISCLOSURES ::** Since the Company posted a net loss for the year, the primary objectives of capital management are to retain a sufficiently high amount of liquid reserves to enable the further development of the project pipeline and technology without significant limitations, and to maintain or strengthen equity so that financial challenges such as a notice of loss in accordance with section 92(1) German Stock Corporation Act (Aktiengesetz – AktG) as a result of equity being halved can be avoided. Accordingly, an increase in the accumulated deficit and thus a further reduction in equity must be minimised to the extent possible without compromising project progress. Management keeps a close eye on the equity ratio and the total of the items reported under equity. A very restrictive handling of financial reserves is a prerequisite for the achievement of these goals. Furthermore, the acquisition of additional liquid funds is also one of the main options in terms of realising these objectives. Given the Company's development stage and risk profile, raising equity is the principal action that can be taken in this context. Of course, the Company's goal continues to generate revenue in order to reach break-even and reduce the losses carried forward.

Capital management as a whole concerns management of equity and loss carryforwards. Due to the net loss posted for the year, equity fell from €31,210 thousand as of 31 December 2010 by €7,677 thousand to €23,533 thousand as of 31 December 2011.

No changes were made in the strategy or objectives with regard to capital management during the reporting year.

## 6.13 TRADE ACCOUNTS PAYABLE

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| Germany | 599 | 800 | - 25 |
| EU | 45 | 73 | - 38 |
| Other countries | 61 | 95 | - 36 |
| **TRADE ACCOUNTS PAYABLE** | **705** | **968** | **- 27** |

Trade accounts payable decreased by 27% year-on-year. They primarily result from outsourced scientific services and patent services, but also from legal and consulting services invoiced at the end of the year.

## 6.14 ACCOUNTS PAYABLE TO ASSOCIATES

The accounts payable to associates as of the reporting date concerned quattro research GmbH. Two agreements were signed with that company regarding the development, servicing and maintenance of software and servicing and maintenance of 4SC's IT infrastructure and databases. The amount of €29 thousand owed to quattro research GmbH results from its year-end billing (31 December 2010: €29 thousand).

## 6.15 PROVISIONS

As in the previous years, provisions amounted to €45 thousand, resulting from the following: The solicitors' office that 4SC had used in the past for ongoing patent matters issued final invoices in connection with the transfer of our patent portfolio from it to another law firm which, in the Company's view, contains a substantial number of unjustified items. Approximately €66 thousand were billed for no good reason. No settlement has been reached to date in regards to this amount. It cannot be precluded that the patent law firm will file suit in future to enforce its claim in full.

Given the uncertain outcome of such a lawsuit and certain losses are therefore equally likely to occur, pursuant to IAS 37.39, 4SC based its determination of the provision on the mid-point of the range that is theoretically possible in its view. 4SC also recognised a provision to cover the solicitors' fees for the expected dispute.

Given that the disclosures required under IFRS would seriously prejudice the position of 4SC in the dispute, in accordance with IAS 37.92 the Company is dispensing with making the disclosures pursuant to IAS 37.84 – 37.89.

## 6.16 OTHER LIABILITIES

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| Accrued liabilities | 1,975 | 2,005 | - 2 |
| Advances received | 75 | 351 | - 79 |
| Liabilities related to social security | 112 | 109 | 3 |
| Deferred income | 5,363 | 0 | n/a |
| Other liabilities | 1 | 1 | 0 |
| **OTHER LIABILITIES** | **7,526** | **2,466** | **205** |

Other liabilities are presented in the statement of financial position according to IAS 1.60 as separate classifications.

| | Total receivables | | thereof non-current | | thereof current | |
|---|---|---|---|---|---|---|
| in €000's | 31.12.2011 | 31.12.2010 | 31.12.2011 | 31.12.2010 | 31.12.2011 | 31.12.2010 |
| Accrued liabilities | 1,975 | 2,005 | 313 | 47 | 1,662 | 1,958 |
| Advances received | 75 | 351 | 0 | 0 | 75 | 351 |
| Liabilities related to social security | 112 | 109 | 0 | 0 | 112 | 109 |
| Deferred income | 5,363 | 0 | 4,469 | 0 | 894 | 0 |
| Other liabilities | 1 | 1 | 0 | 0 | 1 | 1 |
| **OTHER LIABILITIES** | **7,526** | **2,466** | **4,782** | **47** | **2,744** | **2,419** |

Accrued liabilities were comprised as follows as of the reporting date:

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| Invoices outstanding | 1,340 | 1,435 | - 7 |
| Compensation of the Supervisory Board | 139 | 139 | 0 |
| Personnel liabilities | 129 | 121 | 7 |
| Bonus paid to Management Board | 177 | 116 | 53 |
| Renovation IZB West | 37 | 72 | - 49 |
| Financial statements preparation and auditing costs | 105 | 71 | 48 |
| Contribution to employer's liability insurance | 26 | 26 | 0 |
| Other | 22 | 25 | - 12 |
| **ACCRUED LIABILITIES** | **1,975** | **2,005** | **- 2** |

The non-current accrued liabilities result from long-term Management Board bonuses and outstanding invoices. All other accrued liabilities are of a current nature. There is only insignificant insecurity regarding the amount of actual utilisation. There are no claims for reimbursement against third parties.

Deferred income results from the current and non-current liabilities relating to the upfront payment made by Yakult Honsha in April 2011. These are released as revenue on a pro rata basis over the entire assumed development period for resminostat.

## 6.17 OTHER DISCLOSURES ON FINANCIAL INSTRUMENTS

### CARRYING AMOUNTS AND FAIR VALUES ACCORDING TO MEASUREMENT CATEGORIES

| in €000's | Measurement category pursuant to IAS 39 | Measurement as of 31.12.2011 | | Measurement as of 31.12.2010 | |
|---|---|---|---|---|---|
| | | Carrying amount | Fair value | Carrying amount | Fair value |
| Trade accounts receivable | LaR | 115 | 115 | 281 | 281 |
| Receivables from investees | LaR | 2 | 2 | 0 | 0 |
| Income tax refund claims | LaR | 69 | 69 | 249 | 249 |
| Other non-current assets | LaR | 183 | 183 | 0 | 0 |
| Other current assets | LaR | 721 | 721 | 942 | 942 |
| Fixed deposits and bank balances | LaR | 8,808 | 8,808 | 12,558 | 12,558 |
| Financial assets at fair value through profit and loss – held for trading | AFVPL | 4,012 | 4,012 | 1,549 | 1,549 |
| Financial assets held to maturity | Htm | 3,000 | 3,000 | 3,500 | 3,500 |
| Available-for-sale financial assets (equity investment in Nexigen) | AfS | 143 | 143 | 146 | 146 |
| Trade accounts payable | Amortised cost | - 705 | - 705 | - 968 | - 968 |
| Accounts payable to associates | Amortised cost | - 29 | - 29 | - 29 | - 29 |
| Other non-current liabilities | Amortised cost | - 313 | - 313 | - 47 | - 47 |
| Other current liabilities | Amortised cost | - 1,850 | - 1,850 | - 2,419 | - 2,419 |
| **TOTAL** | | **14,156** | **14,156** | **15,762** | **15,762** |
| *Of which aggregated by IAS 39 measurement category* | | | | | |
| Financial assets at fair value through profit or loss | AFVPL | 4,012 | 4,012 | 1,549 | 1,549 |
| Held-to-maturity investments | Htm | 3,000 | 3,000 | 3,500 | 3,500 |
| Loans and receivables ("Loans and receiva-bles") | LaR | - 1,284 | - 1,284 | 7,104 | 7,104 |
| Available-for-sale financial assets | AfS | 143 | 143 | 146 | 146 |
| At amortised cost | AC | - 2,897 | - 2,897 | - 3,463 | - 3,463 |

**VALUATION METHODS ::** Trade accounts receivable and other assets mainly have short remaining terms. The values recognised represent the approximate fair value. Non-current other assets reported in the previous year were interest-bearing; their carrying amount and fair value were therefore identical. These were guarantee deposits (deposit) lodged with the landlord. The fixed deposits and bank balances are also interest-bearing; carrying amount and fair value are therefore also identical.

The primary financial instruments existing as at the reporting date were classified as financial assets at fair value through profit or loss or held-to-maturity financial assets in accordance with IAS 39.

Of the financial instruments at fair value through profit or loss, gains and losses from subsequent measurement are recognised in profit or loss. Bank statements and other bank confirmations serve to verify the fair value as at year's end. In accordance with IAS 39.46b, financial instruments classified as held to maturity are subsequently measured at amortised cost using the effective interest method. Bank statements and other bank confirmations also serve to verify the value as at year's end.

The equity investment in Nexigen GmbH entails securities that must be classified as available for sale pursuant to IAS 39. There is no price available from an active market. A dilution of the equity investment in Nexigen GmbH in the reporting period led to a slight reduction in the interest held of €3 thousand to €143 thousand owing to a financing arrangement at Nexigen GmbH not subscribed by 4SC. Subsequent to this financing arrangement there were no indications of further impairment. The equity investment in Quiescence Technologies LLC. has been recognised at €0 thousand.

Trade accounts payable, accounts payable to associates, provisions and other liabilities predominantly have short remaining terms. Hence their carrying amounts correspond approximately to their fair value at the reporting date.

The assets are continuously reviewed on the basis of these measurement criteria. Hedge accounting is not applicable.

**FAIR VALUE HIERARCHY ::** Both the primary financial instruments that are recognised at fair value through profit or loss as at the reporting date and the securities that were classified held to maturity in the previous year were allocated to Level 1 (prices in active markets) and Level 2 (directly observable assets) in accordance with IFRS 7.27A . On the basis of the 2011 round of financing, the equity investment in Nexigen GmbH was allocated in the reporting year to Level 2 (market input factors that can be observed immediately and are not Level 1 input factors) – the same as the previous year. No reclassifications of fair values from or into another hierarchy level were made in 2011.

**NET RESULTS ACCORDING TO MEASUREMENT CATEGORIES ::** The net result of the financial instruments in the reporting year, in accordance with IAS 39 is composed of the following:

| | | Subsequent measurement | | | | |
|---|---|---|---|---|---|---|
| in €000's | Interest result | At fair value | Currency translation | Impairment loss | Disposal | **Net result 2011** |
| Financial assets at fair value through profit or loss | | | | | | |
| Held for trading | 0 | 25 | 0 | 0 | 0 | 25 |
| Held-to-maturity investments | 63 | 0 | 0 | 0 | 0 | 63 |
| Loans and receivables („Loans and receivables") | 212 | 0 | - 17 | 0 | 0 | 195 |
| Available-for-sale financial assets | 0 | 0 | 0 | - 4 | 0 | - 4 |
| **TOTAL** | **275** | **25** | **- 17** | **- 4** | **0** | **278** |

In the previous year, the net result of the financial instruments, in accordance with IAS 39, was comprised as follows:

| | | Subsequent measurement | | | | |
|---|---|---|---|---|---|---|
| in €000's | Interest result | At fair value | Currency translation | Impairment loss | Disposal | **Net result 2010** |
| Financial assets at fair value through profit or loss | | | | | | |
| Held for trading | 3 | 21 | 0 | 0 | 0 | 24 |
| Held-to-maturity investments | 30 | 0 | 0 | 0 | 0 | 30 |
| Loans and receivables („Loans and receivables") | 97 | 0 | - 2 | 0 | 0 | 95 |
| Available-for-sale financial assets | 0 | 0 | 0 | - 8 | 0 | - 8 |
| TOTAL | **130** | **21** | **- 2** | **- 8** | **0** | **141** |

The interest from financial instruments as defined in IAS 39 is shown in net finance income, as are the other components of the net result.

## RISKS FROM FINANCIAL INSTRUMENTS

**1. LIQUIDITY, DEFAULT AND INTEREST RATE RISKS RELATED TO LIQUID RESERVES ::** 4SC possesses liquid reserves that it invests in order to earn interest as long as these funds are not needed. Currently, all of these funds are invested safely in fixed and term deposits, borrower's note loans and money market funds that entail only insignificant liquidity and default risks. Whilst 4SC is exposed to an interest rate risk from securities subject to variable interest rates, i.e. from money market funds. They account for 25.4% of the Company's aggregate financial assets and liquid funds as at the reporting date. The market value of these securities could rise or fall in line with changes in interest rates. Yet any change in interest rates would not have material effects on the fair values of these investments because they are subject to a guaranteed repurchase price that is renewed every six months. As at the reporting date, all the invested funds had short maturities and thus would not be sensitive to changes in interest rates.

For more information in this context, please see the risk and opportunity report in the Group management report, specifically section 7.2.5 on page 67.

**2. LIQUIDITY RISK INHERENT IN FINANCIAL LIABILITIES ::** 4SC has financial liabilities, i.e. contractual obligations to deliver liquid assets to another party. These are presented in the statement of financial position under trade accounts payable, accounts payable associates and other liabilities. Because most of the financial liabilities are current, they are not subject to liquidity risk.

**3. CURRENCY RISKS ::** 4SC executes transactions with international business partners where contractual payment terms are made in a currency other than the euro, exposing the Company to a currency risk in the items, loans and receivables and liabilities at amortised cost. This risk includes the relative decrease or increase of the euro vis-à-vis the other currencies during the period until payment of the liability or receivable.

4SC does not engage in hedging transactions but instead endeavours to pay its own obligations in foreign currencies, mitigating the risk of exchange rate fluctuations. For this reason, US dollars (US-$) are bought when the exchange rate is favourable. As at 31 December 2011, 4SC had bank accounts in US-$ with a zero balance (31 December 2010: €176 thousand).

Liabilities denominated in foreign currencies as at 31 December 2011 were the equivalent of €17 thousand in US-$ and the equivalent of €16 thousand in Swiss francs (CHF).

A total of $1,000 thousand in receivables from Quiescence Technologies LLC. were written down in full in the 2008 financial year. This situation did not change during the 2010 and 2011 financial years so that there still is a receivable of €1,000 thousand as at 31 December 2011 that has been written down in full.

Varying exchange rates and their impact on assets and liabilities were simulated in a sensitivity analysis so as to determine the effects on profit or loss. A gain or decline by 10% in the value of the euro versus the foreign currency in question would have changed the outcome as follows as of 31 December 2011:

| | 31 December 2011 | | 31 December 2010 | |
|---|---|---|---|---|
| in €000's | Increase | Decrease | Increase | Decrease |
| Euro vs. US dollar | - 2 | 2 | - 13 | 11 |
| Euro vs. Swiss franc | - 2 | 2 | 1 | - 1 |
| Euro vs. British pound | 0 | 0 | 5 | - 4 |

If euro and foreign currency exchange rates had remained stable in the financial year just ended, the net loss of 4SC would not have changed (previous year: decreased by €1 thousand).

**4. DEFAULT RISKS IN CONNECTION WITH RECEIVABLES ::** In addition, 4SC is subject to the risk of a possible loss due to bad debt in terms of the loans and receivables category. 4SC has receivables on its books, all or some of which may be settled with a delay or may not be settled at all. This would lead to valuation allowances being made on such receivables, and would thus have a negative impact on the Company's financial position, cash flows and financial performance.

The receivables from Quiescence Technologies LLC. in the amount of US-$ 1,000 thousand were written down in full in the 2008 financial year. Thus, on the reporting date, 4SC had no receivables that were past due and not impaired.

4SC's maximum default risk in connection with receivables is equivalent to the carrying amount of the trade accounts receivable and the receivables from associates, i.e. €117 thousand as at the reporting date (31 December 2010: €281 thousand). To reduce the default risk, the Company regularly runs its business relationships through different evaluation scenarios and fosters intensive customer relationships.

## 6.18 OTHER FINANCIAL OBLIGATIONS

Other financial obligations for the years subsequent to the reporting date include facilities and office space rented by 4SC. This lease was renewed for five more years on 2 November 2011 and runs out on 31 December 2016. Purchase options do not exist. The lease contains terms for adjusting the rent: Rent per month for office and laboratory space including common and functional space is reduced by €0.30/m² for 2012 and subsequently increases by €0.50/m² per year. In the reporting year, a lease running until the end of 2013 was signed for the Überlingen-Bonndorf site rented from January 2009, resulting in rent amounting to €22 thousand per year. No terms for rent adjustment or purchase options exist. If the lease is not terminated six months before it expires, it is renewed for a further five years.

Financial obligations under leases exist at the reporting date from an operating lease for a mass spectrometer. The lease, which commenced in September 2010, has a term of 36 months and requires 4SC to make an annual payment of €76 thousand. The payment will be made in advance monthly instalments on a straight-line basis and recognised in the income statement over the term of the lease. There are no extension or purchase price options or escalation clauses.

There are no finance lease agreements.

Future payments due pursuant to agreements mentioned break down as follows:

| in €000's | |
|---|---|
| 2012 | 912 |
| 2013 | 908 |
| 2014 | 855 |
| 2015 | 875 |
| from 2016 | 896 |
| **TOTAL** | **4,446** |

The income statement for the reporting year contains expenses of €810 thousand from the leases (2010: €751 thousand). Expenses under leases in 2011 amounted to €76 thousand (2010: €25 thousand).

Financial obligations above and beyond those under leases basically stem from scientific service contracts, including external services in connection with the execution of the clinical and preclinical studies. This entails obligations up to an amount of €3,812 thousand (2010: €10,081 thousand); the maturity is contingent on the progress of the respective study.

# 7. Disclosures on the Statement of Cash Flows

The development of cash and cash equivalents is shown in the table below:

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Cash flows from operating activities | - 12,229 | - 17,562 | - 30 |
| Cash flows from investing activities | 3,013 | - 13,003 | - 123 |
| Cash flows from financing activities | 11,080 | 0 | n/a |
| **NET CHANGE IN CASH AND CASH EQUIVALENTS** | 1,864 | - 30,565 | - 106 |
| + Cash and cash equivalents at the beginning of the period | 4,956 | 35,521 | - 86 |
| **= CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD** | **6,820** | **4,956** | **38** |

On 14 December 2011, 4SC acquired all of the interests in 4SC Discovery GmbH for a one-off cash payment of €25 thousand. Between 14 December 2011 and 31 December 2011, the subsidiary contributed €0 thousand to the Group's net result.

Additions of €2 thousand to property, plant and equipment did not yet lead to any payments in 2011.

In addition to cash and cash equivalents, 4SC has liquid funds that are predominantly invested for better return in fixed deposits, borrower's note loans, a fixed-interest bond and money market funds. Taken together, these items comprise the cash balance/funds:

| in €000's | 31.12.2011 | 31.12.2010 | Change in % |
|---|---|---|---|
| Cash and cash equivalents at the end of the period | 6,820 | 4,956 | 38 |
| Other financial assets | 9,000 | 12,651 | - 29 |
| **CASH BALANCE/FUNDS** | **15,820** | **17,607** | **- 10** |

# 8. Company-wide Disclosures in Accordance with IFRS 8

## 8.1 ALLOCATION OF REVENUE BY PRODUCTS AND SERVICES IN ACCORDANCE WITH IFRS 8.32

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Research cooperation | 45 | 989 | - 95 |
| Deferred income | 637 | 0 | n/a |
| Cost allocations | 98 | 0 | n/a |
| **REVENUE** | **780** | **989** | **- 21** |

## 8.2 INFORMATION ABOUT GEOGRAPHICAL AREAS IN ACCORDANCE WITH IFRS 8.33

| in €000's | 2011 | 2010 | Change in % |
|---|---|---|---|
| Germany | 45 | 989 | - 95 |
| Other countries | 735 | 0 | n/a |
| **REVENUE** | **780** | **989** | **- 21** |

As in the previous year, all non-current assets were based in Germany in the reporting period.

## 8.3 INFORMATION ABOUT MAJOR CUSTOMERS PURSUANT TO IFRS 8.34

In the year just ended, most revenue was generated under contracts with one customer. In the previous year, all revenue was generated under contracts with one customer.

## 9. Stock Option Programme

The table below provides an overview of stock option programmes issued to date as well as tranches and option terms:

| Option programme | Tranche | Issue | Subscription price in € | Subscription ratio[1] | Issued in 000's | Outstanding on 01.01.2011 in 000's | Issued in 2011 in 000's | Expired in 2011 in 000's | Exercised in 2011 in 000's | Outstanding on 31.12.2011 in 000's | Exercisable on 31.12.2011 in 000's | Max. number of shares available on 31.12.2011 in 000's | Fair value in € | Cumulative staff costs[2] in T € | Staff costs in 2011 in T € |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ESOP 2001 | 2001/1 | 31.03.01 | 9.60 | 2:1 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 |
| ESOP 2001 | 2001/2 | 10.10.01 | 9.60 | 2:1 | 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 |
| ESOP 2001 | 2002 | 30.06.02 | 12.00 | 2:1 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 |
| ESOP 2001 | 2003 | 30.09.03 | 5.08 | 2:1 | 318 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.74 | 52 | 0 |
| ESOP 2004 | 2004 | 30.09.04 | 4.24 | 2:1 | 122 | 72 | 0 | 72 | 0 | 0 | 0 |  | 0.72 | 62 | 0 |
| ESOP 2004 | 2005 | 30.09.05 | 4.24 | 2:1 | 93 | 68 | 0 | 3 | 0 | 65 | 56 | 33 | 0.71 | 53 | 0 |
| ESOP 2004 | 2006/1 | 30.05.06 | 4.53 | 2:1 | 26 | 26 | 0 | 0 | 0 | 26 | 26 | 13 | 0.74 | 19 | 0 |
| ESOP 2006 | 2006/2 | 25.08.06 | 3.80 | 1:1 | 296 | 244 | 0 | 8 | 0 | 236 | 233 | 236 | 1.71 | 436 | 0 |
| ERSATZ-ESOP 2001 | 2006/3 | 25.08.06 | 3.80 | 1:1 | 166 | 108 | 0 | 0 | 0 | 108 | 96 | 108 | 1.54 | 183 | 0 |
| ESOP 2006 | 2007 | 26.11.07 | 3.65 | 1:1 | 9 | 9 | 0 | 0 | 0 | 9 | 9 | 9 | 1.49 | 14 | 1 |
| ESOP 2006 | 2008 | 22.08.08 | 3.45 | 1:1 | 43 | 42 | 0 | 0 | 0 | 41 | 31 | 41 | 1.50 | 62 | 8 |
| ESOP 2009 | 2009 | 26.11.09 | 3.29 | 1:1 | 888 | 863 | 0 | 55 | 0 | 809 | 404 | 809 | 1.04 | 817 | 299 |
| ESOP 2009 | 2010 | 26.11.10 | 3.09 | 1:1 | 18 | 18 | 0 | 0 | 0 | 18 | 0 | 18 | 0.77 | 13 | 5 |
| ESOP 2009 | 2011 | 30.11.11 | 1.44 | 1:1 | 18 | 0 | 18 | 0 | 0 | 18 | 0 | 18 | 0.65 | 10 | 0 |
| **TOTAL** | | | | | **2,301** | **1,450** | **18** | **138** | **0** | **1,330** | **855** | **1,285** | | **1,721** | **313** |

[1] :: The tranches affected by the December 2004 capital reduction had a subscription ratio of 2:1.

[2] :: Cumulative staff costs are calculated until the end of holding period.

On 30 November 2011, 4SC issued one tranche comprising 17,799 options under its ESOP 2009 entitling the beneficiaries to subscribe for an equivalent number of shares. Participants in this issue included new employees hired since the last issue and employees entitled to a larger number of options on account of changes in their working times or other success factors.

All option tranches issued are exercisable only in return for shares. Authorised Capital I through IV and Conditional Capital VI were adopted to fulfil exercise of options issued.

Tranches issued between 2001 and 30 May 2006 have a term of seven years. Half of these options may be exercised a minimum of three years after the issue date. Another 25% are exercisable one year thereafter, and the remaining 25% in another year's time thereafter. Options may only be exercised if the share price exceeds the issue price by a minimum of 20% at the exercise date.

Tranches issued since 25 August 2006 have a term of ten years. Half of the options under the "ESOP 2006" and "ESOP 2009" programmes may be exercised a minimum of two years after the issue date. Another 25% are exercisable one year thereafter, and the remaining 25% in another

year's time thereafter. All of the options of the "2006/3" tranche are exercisable after two years. The subscription rights may be exercised on condition that the applicable reference price exceeds the exercise price by more than 1/240th between the date on which the option is issued and the onset of the respective exercise period in the previous month.

The weighted average remaining term of all tranches outstanding is 6.58 years. The exercise prices of all outstanding tranches range from €1.44 and €4.53.

An overview of weighted average exercise prices is given below:

| Exercise prices (weighted, €) | 2011 | 2010 |
|---|---|---|
| Options outstanding as of 01.01. | 3.53 | 3.60 |
| Options issued in the reporting period | 1.44 | 3.09 |
| Options expired in the reporting period | 3.83 | 4.41 |
| Options outstanding as of 31.12. | 3.47 | 3.53 |
| Options exercisable as of 31.12. | 3.60 | 3.92 |

Certain assumptions must be made in determining the fair value of these options. 4SC employs the "Black-Scholes option pricing model" for measuring options. The following assumed parameters were applied to new options issued during the reporting year and in the previous year:

| Tranche | Expected vesting period | Market price (€) | Volatility | Risk-free interest rate |
|---|---|---|---|---|
| 2011 | 3.75 years | 1.36 | 67.89% | 0.81% |
| 2010 | 3.75 years | 3.10 | 29.98% | 1.37% |

The market price stated is the closing price of 4SC's shares in Xetra trading on the Frankfurt/Main Stock Exchange. Volatility represents the 250-day volatility of 4SC shares, the assumption being that this metric reflects actual share price fluctuation better than measures of market volatility. The risk-free interest rate is that for Bundesanleihen (German treasury bonds) of comparable duration. There are no anticipated dividend payments. All assumptions applied were valid as of the respective option issue dates.

# 10. Compensation of the Management Board and the Supervisory Board

## 10.1 MANAGEMENT BOARD

The total compensation of the Management Board in the reporting year amounted to €1,095 thousand (2010: €1,058 thousand). Of this total amount, €16 thousand (2010: €17 thousand) represents contributions to defined contribution plans according to IAS 19.7. Prorated staff costs attributable to options included in overall compensation amounted to €188 thousand for the reporting year (2010: €217 thousand). However, these were non-cash expenses.

Individual Management Board member compensation for the reporting year breaks down as follows:

| Compensation in €000's | Fixed | | Variable | | Staff costs arising from options | | Total | |
|---|---|---|---|---|---|---|---|---|
| | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 |
| Dr Ulrich Dauer | 196 | 190 | 43 | 29 | 45 | 47 | 284 | 266 |
| Dr Daniel Vitt | 186 | 179 | 43 | 30 | 45 | 47 | 274 | 256 |
| Dr Bernd Hentsch | 186 | 186 | 43 | 31 | 56 | 61 | 285 | 278 |
| Dipl.-Kfm. Enno Spillner | 175 | 170 | 35 | 26 | 42 | 62 | 252 | 258 |
| **COMPENSATION OF THE MANAGEMENT BOARD** | **743** | **725** | **164** | **116** | **188** | **217** | **1,095** | **1,058** |

The following shareholdings were attributable to the members of the Management Board as of the reporting date:

| Shares Number | Shares 01.01.2011 | Purchase | Sale | Shares on 31.12.2011 |
|---|---|---|---|---|
| Dr Ulrich Dauer | 437,439 | 0 | 0 | 437,439 |
| Dr Daniel Vitt | 416,803 | 0 | 0 | 416,803 |
| Dr Bernd Hentsch | 0 | 0 | 0 | 0 |
| Dipl.-Kfm. Enno Spillner | 70,000 | 0 | 0 | 70,000 |
| **SHARES HELD** | **924,242** | **0** | **0** | **924,242** |

| Stock options<br>Number | Options<br>01.01.2011 | Additions | Expired | Exercised | Options<br>31.12.2011 | Maximum number of shares available |
|---|---|---|---|---|---|---|
| Dr Ulrich Dauer | 152,200 | 0 | 4,800 | 0 | 147,400 | 145,000 |
| Dr Daniel Vitt | 152,200 | 0 | 4,800 | 0 | 147,400 | 145,000 |
| Dr Bernd Hentsch | 152,720 | 0 | 0 | 0 | 152,720 | 152,720 |
| Dipl.-Kfm. Enno Spillner | 249,600 | 0 | 0 | 0 | 249,600 | 236,400 |
| **SHARES HELD** | **706,720** | **0** | **9,600** | **0** | **697,120** | **679,120** |

No stock options were issued to the members of the Management Board in the 2010 financial year.

With the exception of fixed compensation, of which a percentage is paid out at the end of each month, there are no current benefits owed to management.

For the Management Board members Dr Ulrich Dauer, Dr Daniel Vitt, Enno Spillner and Dr Bernd Hentsch, an agreement was signed in 2010 in the context of rearranging the Management Board's directors' contracts, stipulating that in the event of a takeover by a third party and when the Management Board is to be dissolved as a result, their salaries would be fully paid out for the remaining term of their contract, but for a minimum period of 15 months. Furthermore, in the event that a controlling interest is acquired in the Company the regulations on the expiry of stock options for the Management Board members are rescinded, i.e. all stock options issued to the members of the Management Board up to the termination date remain with the Management Board members regardless of the termination of their employment. Apart from this, there are no post-employment or termination benefits owed to the Management Board members.

As of the reporting date, the members of the Company's Management Board were also members of the following control bodies and Supervisory Boards:

**DR DANIEL VITT**

:: Advisory Board member for quattro research GmbH, Planegg-Martinsried (since January 2004)
:: Deputy Chairman of the Supervisory Board of Weltoffen-Germering Weltladen eG (since June 2008)
:: Chairman of the Advisory Board of Nexigen GmbH, Bonn (since July 2008)

Dr Ulrich Dauer, Dr Bernd Hentsch and Enno Spillner did not hold any positions in other control bodies or Supervisory Boards as of the reporting date.

## 10.2 SUPERVISORY BOARD

The total compensation paid to the members of the Supervisory Board amounted to €139 thousand (2010: €139 thousand). Individual Supervisory Board member compensation for the reporting year breaks down as follows:

| in €000's | Occupation | Compensation 2011 | Compensation 2010 |
|---|---|---|---|
| Dr Jörg Neermann (Chairman) | Partner of LSP Life Sciences Partners, Munich, Germany/Managing Director of LSP Services Deutschland GmbH, Munich, Germany | 32 | 32 |
| Dr Thomas Werner (Deputy Chairman) | Management Consultant, Utting am Ammersee, Germany | 21 | 21 |
| Günter Frankenne | Managing Proprietor of STRATCON Strategy Consultants, Berg bei Neumarkt, Germany/Interim Managing Director of InViroLogik GmbH, Erlangen, Germany | 21 | 21 |
| Helmut Jeggle | Head of Business Planning & Analyzing of Athos Service GmbH, Munich, Germany | 20 | 20 |
| Dr Manfred Rüdiger | Partner of LSP Life Sciences Partners, Munich, Germany/CEO of Affectis Pharmaceuticals AG, Planegg-Martinsried, Germany/CEO of Kiadis Pharma B.V., Amsterdam, the Netherlands | 20 | 20 |
| Dr Clemens Doppler | Partner & Managing Director of HeidelbergCapital Asset Management GmbH, Heidelberg, Germany | 25 | 25 |
| **COMPENSATION OF THE SUPERVISORY BOARD** | | **139** | **139** |

The shareholdings of the Supervisory Board members developed as follows during the reporting period:

| Number of shares held | Shares 01.01.2011 | Purchase | Sale | Shares 31.12.2011 |
|---|---|---|---|---|
| Dr Jörg Neermann | 100,000 | 0 | 0 | 100,000 |
| Dr Manfred Rüdiger | 16,000 | 4,000 | 0 | 20,000 |
| Dr Clemens Doppler | 9,875 | 5,000 | 0 | 14,875 |
| Dr Thomas Werner | 5,000 | 0 | 0 | 5,000 |
| **SHARES HELD** | **130,875** | **9,000** | **0** | **139,875** |

As of the reporting date, the members of the Company's Supervisory Board were also members of the following control bodies and Supervisory Boards:

**DR JÖRG NEERMANN**
:: Affimed AG, Heidelberg, Germany, member of the Supervisory Board
:: Curetis AG, Holzgerlingen, Germany, member of the Supervisory Board
:: Vivendy Therapeutics Ltd., Basel, Switzerland, Chairman of the Management Board
:: Activaero GmbH, Gemünden/Wohra, Germany, member of the Advisory Board
:: Probiodrug AG, Halle/Saale, Germany, member of the Supervisory Board

**DR THOMAS WERNER**
:: Medigene AG, Planegg-Martinsried, Germany, member of the Supervisory Board
:: Basilea Pharmaceutica Ltd., Basel, Switzerland, member of the Management Board
:: SkyePharma PLC, London, United Kingdom, Non-Executive Director
:: SuppreMol GmbH, Munich, Germany, member of the Advisory Board

**DR CLEMENS DOPPLER**
:: Accovion GmbH, Eschborn, Germany, Chairman of the Advisory Board
:: Merlion Pharmaceuticals Inc., Singapore, member of the Supervisory Board
:: Nanogate AG, Quierschied-Göttelborn, Germany, member of the Supervisory Board
:: Sensovation AG, Stockach, Germany, Deputy Chairman of the Supervisory Board
:: Vasopharm GmbH, Würzburg, Germany, member of the Advisory Board

**DIPL.-VW. GÜNTER FRANKENNE**
:: Concentro AG, Nuremberg, Chairman of Supervisory Board
:: CURADIS GmbH, Erlangen, Germany, Chairman of the Advisory Board
:: Epigenomics AG, Berlin, Germany, member of the Supervisory Board
:: iMTM GmbH, Magdeburg, Germany, Deputy Chairman of the Advisory Board
:: November AG, Cologne, Germany, Chairman of the Supervisory Board
:: Verbena AG, Berg in Neumarkt, Germany, member of the Supervisory Board
:: ViroLogik GmbH, Erlangen, Germany, Chairman of the Advisory Board until 31.10.2011 (office currently suspended until March/April 2012 due to his position as Interim Managing Director)

**HELMUT JEGGLE**
:: BioNTech AG, Mainz, Germany, Chairman of the Supervisory Board
:: AFFiRiS AG, Vienna, Austria, member of the Supervisory Board
:: Ganymed Pharmaceuticals AG, Mainz, Germany, member of the Supervisory Board
:: Sidroga AG, Zofingen, Switzerland, President of the Management Board
:: VANGUARD AG, Berlin, Germany, member of the Supervisory Board

Dr Manfred Rüdiger did not hold any positions in other control bodies or Supervisory Boards as of the reporting date.

# 11. Other Information

## 11.1 RELATED PARTY TRANSACTIONS

4SC engaged in the following significant business transactions with related parties in the period from 1 January 2011 to 31 December 2011:

**QUATTRO RESEARCH GMBH, PLANEGG-MARTINSRIED, GERMANY (ASSOCIATE) ::** 4SC maintains legal relations with quattro research GmbH, in which it has held a 48.8% stake of the share capital since its founding at the beginning of 2004. In particular, a software service contract exists between the companies, on the basis of which quattro research GmbH renders services for improvement, further development, user support, further training and database maintenance with respect to software created by 4SC for supporting research activities. For the period from January to Decem-ber 2011, this contract had a net volume of €267 thousand (2010: €277 thousand). In addition, there is an IT service contract, on the basis of which quattro research GmbH provides maintenance services for 4SC's infrastructure. As a result of this contract, 4SC incurred net costs of €30 thousand in 2011 (2010: €21 thousand). In the reporting period, a copier was purchased from quattro research GmbH for €4 thousand. As of the reporting date, the liabilities toward quattro research GmbH resulting from these contracts amounted to €29 thousand (31 December 2010: €29 thousand); they were repaid as contractually agreed by January 2012.

In addition, a business relationship existed until 31 October 2010 between 4SC as main tenant and quattro research GmbH as subtenant in the offices of 4SC. The rent payable by quattro research GmbH was based on the conditions of 4SC's lease. In the reporting period, the Company recognised income from allocating ancillary costs for 2009 and 2010 in the amount of €2 thousand (2010: €0 thousand).

**DONNER & REUSCHEL BANK, HAMBURG (DRB) (OTHER RELATED PARTIES) ::** In February 2011, 4SC entered into an agreement with KEMPEN & CO Corporate Finance B.V. for the execution of 4SC's capital increase in the first quarter of 2011. This agreement stipulates fees that are charged on and that are to be paid to DRB, which was also involved in the transaction. In the reporting period, 4SC incurred expenses related to the capital increase with DRB amounting to €63 thousand; these transaction costs were posted against equity.

In May 2011, 4SC signed a contract with DRB for the execution of a capital increase of 4SC in the second quarter of 2011 based on an employee share programme. The expenditure of €18 thousand incurred in this connection were recognised in profit or loss.

In addition, DRB has advised 4SC since October 2008 on optimising its relationships with private and institutional investors. As a result of this contract, 4SC incurred costs of €28 thousand in the reporting year (2010: €28 thousand).

Based on the contract signed in December 2005, DRB has assumed the function of payment and depository agent for 4SC, which triggers an annual expenditure of €3 thousand.

One of DRB's Management Board members, Marcus Vitt, is a brother of 4SC's Chief Science Officer, Dr Daniel Vitt.

**OTHER RELATED PARTY TRANSACTIONS ::** Beyond this, there were no further business transactions with related parties in the reporting period where the transaction volume in each case exceeded €10 thousand or where the total annual transaction volume is likely to exceed €10 thousand. No liabilities existed from these transactions as of 31 December 2011.

## 11.2 CORPORATE GOVERNANCE CODE PURSUANT TO SECTION 285 NO. 16 GERMAN COMMERCIAL CODE

On 25 February 2011 and 24 February 2012, the Company's Management Board and Supervisory Board declared in accordance with section 161 German Stock Corporation Act (Aktiengesetz – AktG) that they are almost completely in compliance, with a few exceptions, with the recommendations of the "Government Commission on the German Corporate Governance Code" issued by the Federal Ministry of Justice. The declarations of compliance were made permanently available to the public on the same day on the website www.4SC.com.

## 11.3 REPORTABLE EQUITY INVESTMENT PURSUANT TO SECTION 160(1) NO. 8 GERMAN STOCK CORPORATION ACT

The following table shows the principal shareholders of 4SC who – on the basis of the notifications received by the Company in accordance with section 21 ff. of the German Securities Trading Act (WpHG) – hold more than 3% of the Company's shares. The figures given in each case refer to the last published notification. The actual status at 31 December 2011 may differ from these amounts, however.

| Notifying entity | Date of notice | Voting share |
|---|---|---|
| Santo Holding (Deutschland) GmbH | 25.10.2007 | 31.55%[1] |
| HeidelbergCapital Private Equity Fund I GmbH & Co. KG, HeidelbergCapital Asset Management GmbH, Dr Clemens Doppler & Professor Martin Weiblen, Munich | 26.11.2009 | 7.66% |
| Deutsche Bank AG, Frankfurt/Main | | |
| Nordwestdeutscher Wohnungsbauträger GmbH, Frankfurt/Main | | |
| DBG Vermögensverwaltungsgesellschaft mbH, Frankfurt/Main | | |
| VCG Venture Capital Gesellschaft mbH, Munich | 04.12.2009 | 8.55% |
| First Capital Partner GmbH, Gräfelfing | 27.04.2011 | 9.43% |

[1] :: Based on an estimate of the management, the share held by Santo Holding (Deutschland) GmbH as at 31 December 2011 was 49.78%.

## 11.4 AUDITOR'S FEES PURSUANT TO SECTION 285 NO.17 GERMAN COMMERCIAL CODE

On 4 July 2011, the Company's Annual General Meeting appointed KPMG AG Wirtschaftsprüfungsgesellschaft, Ganghoferstrasse 29, 80339 Munich, to serve as the auditor of the 2011 financial statements.

| in €000's | 2011 | 2010 |
|---|---|---|
| Auditing services | 102 | 68 |
| Other verification services | 16 | 10 |
| Other services | 42 | 11 |
| TOTAL FEE BILLED BY THE AUDITOR | 160 | 89 |

In the 2011 financial year, a total of €102 thousand was recognised for financial statements auditing services provided in 2011 (previous year: €68 thousand).

Fees of €10 thousand for other verification services in connection with two analytical reviews and the reviews of the quarterly financial statements were incurred in the reporting year (2010: €10 thousand). Furthermore, costs of €6 thousand were incurred for the means test in connection with the "Antimal" project funded by the EU and the preparation of the corresponding audit certificates.

Other services provided by KPMG AG Wirtschaftsprüfungsgesellschaft during the year under review involved the performance of an inventory of IT security. Costs of €35 thousand were incurred for this. An additional €7 thousand was billed in the year under review for a written opinion on the up-front payment made by Yakult Honsha.

## 11.5 AVERAGE NUMBER OF EMPLOYEES PURSUANT TO SECTION 285 NO. 7 GERMAN COMMERCIAL CODE

The average number of employees (excluding the Management Board and trainees) during the financial year just ended was 91 (2010: 90).

Of these 91 employees (excluding the Management Board and trainees), 66 worked in research and development, 22 in sales and administration and three in information technology. Of the 90 employees in the previous year (excluding the Management Board and trainees), 67 worked in research and development, 19 in sales and administration and four in information technology.

The Company had four Management Board members in 2011 and 2010 and one trainee in 2010 such that the total number of employees on average was 96 in 2011 and 94 in 2010. 4SC again had one trainee chemical laboratory technician in 2011.

## 12. Events after the Reporting Period

The Company had announced the following results from clinical studies by the time these consolidated financial statements were prepared:

:: 4SC's cancer compound resminostat meets primary endpoint in Phase II trial in advanced liver cancer (HCC) ahead of schedule (press release dated 19 January 2012)

:: 4SC Discovery GmbH, which was founded at the end of 2011, commenced operations at the beginning of the new financial year. The net income or loss reported in 4SC AG's HGB annual financial statements for 2012 will probably include extraordinary income in the high single-digit million euro range, the exact amount of which has yet to be calculated. This extraordinary income will depend on the disclosure of the hidden reserves in the measurement of the assets transferred to the subsidiary. In 4SC AG's HGB balance sheet for 2012, the loss carryforward will be correspondingly reduced and financial assets will increase.

:: In February 2012, 4SC received notification about a new major shareholder – Roland Oetker – with a voting share of 3.01%. As a result, the Company is now aware of five major shareholders that have exceeded the reportable threshold of 3%. Together, these shareholders hold approximately 76.61% of the share capital of 4SC AG.

There were no other events occurring after the end of the financial year which had a significant impact on the financial performance, cash flows or financial position of 4SC.

Planegg-Martinsried, 12 March 2012

The Management Board:

DR. ULRICH DAUER,
Vorstandsvorsitzender

DR. BERND HENTSCH,
Vorstand für Entwicklung

DIPL.-KFM. ENNO SPILLNER,
Vorstand für Finanzen

DR. DANIEL VITT,
Vorstand für Forschung &Technologie

# :: AUDITORS' REPORT

WE HAVE ISSUED THE FOLLOWING UNQUALIFIED AUDITORS' REPORT:

"Unqualified auditors' report

We have audited the consolidated IFRS financial statements, comprising the consolidated statement of financial position, consolidated statement of comprehensive income, consolidated statement of changes in equity, consolidated statement of cash flows and notes to the consolidated financial statements, and the Group management report of 4SC AG, Planegg, District of Munich for the financial year from 1 January to 31 December 2011. The preparation of the consolidated financial statements and Group management report in accordance with IFRSs, as adopted by the EU, and the additional requirements of German commercial law pursuant to section 315 (1) HGB [Handelsgesetzbuch: German Commercial Code] are the responsibility of the Company's management. Our responsibility is to express an opinion on the consolidated financial statements and the Group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the Group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the Group management report are examined primarily on a test basis within the framework of the audit.

The audit includes assessing the financial statements of the companies included in consolidation, the definition of the scope of consolidation, the accounting and consolidation principles used and significant estimates made by the legal representatives, as well as evaluating the overall presentation of the consolidated financial statements and the Group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRS, as adopted by the EU, and the additional provisions of German commercial law pursuant to section 315a (1) of the HGB and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The Group management report is consistent with the consolidated financial statements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Without qualifying this opinion we refer to the discussion in section 7.2.4 of the Group management report. Therein it is disclosed that the Company's and the Group's ability to continue as a going concern depends on the contribution of funds in the form of equity capital or debt financing if sufficient cash inflows cannot be generated through cooperation or partnerships."

Munich, 12 March 2012

KPMG AG

Wirtschaftsprüfungsgesellschaft
Original German version signed by

| | |
|---|---|
| PASTOR | RAHN |
| Wirtschaftsprüferin | Wirtschaftsprüfer |
| (Auditor) | (Auditor) |

# :: RESPONSIBILITY STATEMENT

"To the best of our knowledge, and in accordance with the applicable reporting principles, the financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company, and the management report includes a fair review of the development and performance of the business and the position of the company, together with a description of the principal opportunities and risks associated with the expected development of the company."

Planegg-Martinsried, 12 March 2012
The Management Board:

DR ULRICH DAUER, CEO

DR BERND HENTSCH, CDO

DIPL.-KFM. ENNO SPILLNER, CFO

DR DANIEL VITT, CSO

# :: MEDICAL GLOSSARY

## :: 1–9

**4SCAN® ::** Patented technology of 4SC which simulates the principle of high throughput screening on the computer in order to generate new molecules for biology and chemistry research.

## :: A

**ACR20 ::** Internationally acknowledged clinical standard for measuring the efficacy of drugs for the treatment of rheumatoid arthritis (RA); measures the improvement in the disease by at least 20% compared to the base value, i.e. reduction of 20% in the number of swollen and tender joints, and a reduction of 20% in three of the following five parameters: physician's overall assessment of disease activity, patient's overall assessment of disease activity, patient's assessment of pain, C reactive protein or erythrocyte sedimentation rate, and degree of physical disability in Health Assessment Questionnaire (HAQ) score.

**AE ::** Abbreviation for adverse events. Is usually evaluated in connection with the testing of new therapies in clinical trials.

**ANTI-MITOTIC ::** Inhibiting mitosis, i.e. cell nucleus division.

**ANGIOGENESIS ::** New formation of blood vessels. Plays an important role in cancer therapy, because the blood supply of tumours is key for the growth and spread of the tumour in the patient. This is why cancer therapy attempted to inhibit angiogenesis.

**APOPTOSIS ::** Programmed cell death. This process can be caused by external factors, for example it may be triggered by immune cells, or may be activated due to cellular processes such as a damaged genome. Apoptosis is actively conducted by the cell's internal components and results in the destruction of the cell.

**AUTOIMMUNE DISEASE ::** Illness that cause the body's immune system to attack its own tissue.

## :: B

**ß-CATENIN ::** Plays an important role together with the TCF / LEF transcription factors in the Wnt signalling pathway, a significant new therapeutic target structure in cancer therapy.

## :: C

**CLINICAL STUDIES ::** Trials (Phase I through III) during the drug development of a therapeutic substance that are conducted in healthy subjects and patients with the objective of attaining market approval.

**CRC ::** Abbreviation for colorectal cancer.

**CROHN'S DISEASE ::** Autoimmune disease resulting in chronic inflammation of the intestine.

## :: D

**DHODH ::** Dihydroorotate dehydrogenase; a key enzyme of the so-called pyrimidine biosynthesis which plays an important role in building DNA in the cell. The inhibition of DHODH halts cell growth of activated T and B cells which are involved in the pathology (disease development and progress) of autoimmune diseases. DHODH is the therapeutic target structure of the 4SC drug vidofludimus.

**DNA ::** Deoxyribonucleic acid is a biological molecule that contains the genetic information in a cell and codes the blueprint for making the proteins.

**DRUG-SENSITIVE ::** The state in which tumour cells respond to cancer medication.

**DRUG-TOLERANT ::** The state in which tumour cells have developed initial, yet reversible resistance properties to classic cancer medication.

## :: E

**EG5 ::** Kinesin spindle protein which plays a role in the distribution of chromosomes to the daughter cells during cell division. An important new therapeutic target structure for the development of anti-mitotic cancer drugs that aim at inhibiting the cell division of tumour cells and are therefore designed to inhibit further tumour growth.

**EGFR ::** Abbreviation for epidermal growth factor receptor; a transmembrane receptor with intrinsic tyrosine kinase activity that is highly regulated and / or found in mutated form in many types of tumours, thus leading to uncontrolled cell growth. It is therefore an important target structure in oncology.

**ENDPOINT ::** General result of a clinical study that evaluates the outcome of the individual steps based on a clinical trial protocol.

**ENZYME ::** Protein which enables or accelerates chemical reactions in cells by acting as a catalyst.

## :: F

**FIRST-IN-MAN ::** Voluntary, usually healthy person participating in a clinical study.

**FLT3 ::** A receptor tyrosine kinase that plays an important role in the development of haematological cancers (leukaemias).

**FOLFIRI ::** chemotherapy scheme for treating colon cancer based on the cancer drug irinotecan.

**FOLFOX ::** Chemotherapy scheme for treating colon cancer.

## :: H

**HCC ::** Abbreviation for hepatocellular carcinoma, the most common form of liver cancer. Liver cancer is the fifth most common type of cancer worldwide and – with about 700,000 deaths per year – the third most frequent cancer-related cause of death.

**HDAC ::** Abbreviation for histone deacetylases. These are enzymes that modify histones (proteins that package the DNA in the cell nucleus). As a result, they directly regulate the transcription, that is the reading of genetic information and therefore also epigenetic modification, i.e. whether certain genetic information can be used for the organism or not. The higher the concentration of HDAC, the more difficult it is to read – and use – the genetic information that exists in the cell. In many tumour cells, HDAC are present in high concentrations; accordingly, the cell has no access to the information it requires for its normal function in the resting phase between two divisions. Therefore, the development of HDAC inhibitors is a meaningful strategy in the fight against cancer.

**HDAC INHIBITOR ::** Histone deacetylase inhibitor. A substance to be used in monotherapy and in combination therapy with other cancer drugs due to its special epigenetic mechanism of action. HDAC inhibitors modify the DNA structure of tumour cells and can trigger cell differentiation and ultimately programmed cell death (apoptosis). HDAC inhibitors therefore offer a mechanism of action that has the potential to halt tumour progression and induce tumour regression. In addition, HDAC inhibitors can suppress or reverse reversible tolerance and resistance mechanisms tumour cells have developed to other cancer drugs, so that the treatment is designed to achieve a resensitisation to these cancer drugs or to significantly improve their efficacy again. The compound resminostat developed by 4SC is an HDAC inhibitor.

**HEDGEHOG SIGNALLING PATHWAY ::** Signal transduction pathway based on which cells can react to external signals. The signalling pathway is called "Hedgehog" after its ligand, a signalling protein that plays an important role in the embryonic development of animals and humans.

**HEPATOCELLULAR CARCINOMA ::** Malignant tumour triggered by the hepatocytes of the liver's tissue; the most common form of liver cancer.

**HL ::** Abbreviation for Hodgkin's lymphoma, a type of lymph node cancer.

**HODGKIN'S LYMPHOMA ::** Hodgkin's lymphoma is a malignant tumour in the lymph nodes.

## :: I

**IBD ::** Abbreviation for inflammatory bowel diseases. Autoimmune diseases of the intestines, specifically including Crohn's disease and ulcerative colitis.

**IL-17 ::** Abbreviation for Interleukin 17, a cytokine (messenger) regulating cell growth and differentiation. The production of cytokines IL-17A and IL-17F is closely associated with the development of autoimmune diseases and chronic inflammatory diseases. The compound vidofludimus developed by 4SC specifically blocks the formation of IL-17A and IL-17F.

**INFLAMMATORY BOWEL DISEASE (IBD) ::** A group of inflammatory conditions that occur in the gastrointestinal tract, including the small intestine and colon; Crohn's disease and ulcerative colitis are the main types.

**INHIBITOR ::** Substance that inhibits a specific enzyme reaction.

**IN VITRO ::** Experiments that take place in a controlled, artificial environment outside of the living organism, e.g. in a test tube.

**IN VIVO ::** Experiments that take place in the living organism, e.g. in animal testing.

## :: K

**KINASE ::** Protein which controls cellular signal transfer.

**KV1.3 ::** The name of a specific ion channel; represents an important target structure for new therapies of autoimmune diseases that are currently being researched. This ion channel plays a significant role in the production of certain T immune cells that play a key role in the development of autoimmune diseases.

## :: L

**LUPUS ::** Autoimmune disease, frequently accompanied by joint pain similar to rheumatism; inflammation may also occur in the heart, lungs, kidneys and brain.

## :: M

MITOSIS :: Division of the cell nucleus; important mechanism for the proliferation (reproduction) of cells or tumour cells.

MULTIPLE SCLEROSIS :: Autoimmune disease of the central nervous system which results in degeneration of the nerve sheath.

## :: N

NEUROTOXIN :: A toxin that specially acts on nerve cells or nerve tissue.

## :: O

ORPHAN DRUG :: A drug classified by the US Food and Drug Administration (FDA) as a drug for rare diseases. Orphan drug designation is granted by the FDA to promote the development of drugs in the United States that may offer therapeutic benefits for diseases affecting less than 200,000 people in the USA. Orphan drug designations are based on several criteria that include frequency and seriousness of the condition, the lack of therapies and scientific merit of the proposed medicinal product and provide opportunities for significant fee and tax reductions before and after marketing authorisation and the opportunity to obtain seven years of market exclusivity following drug approval, thereby offering competitive protection from similar drugs of the same class.

ORPHAN MEDICINAL PRODUCT :: A drug classified by the European Medicines Agency (EMA) as a drug for rare diseases. Such drugs are granted ten years of market exclusivity in Europe, counting from the date of marketing authorization. During this period, no similar drugs of the same class may be launched in the market. These drugs address rare diseases that affect no more than five in 10,000 people in the European Union. The designation also allows direct access to centralized marketing authorization, fee reductions and protocol assistance.

## :: P

PFS :: Abbreviation for progression free survival. PFS describes the period during which the progression of a tumour can be halted, e.g. based on a drug tested in clinical trials.

PFSR :: Abbreviation for progression free survival rate. Measures the number of patients who have reached a predefined PFS in a clinical trial in relation to the number of patients who were treated and can be evaluated overall in the clinical trial.

PHARMACODYNAMICS :: Study of the efficacy of drugs in a living organism.

PHARMACOKINETICS :: Spatial and temporal distribution of compounds throughout the various tissues of organism.

PHASE I :: Clinical trial of a drug conducted in a small number of healthy volunteers or patients subject to strict controls; serves to test the tolerance, pharmacokinetics, method of administration and safe dose of the compound.

PHASE II :: Clinical trial conducted in a small number of patients subject to strict controls to identify a compound's sudden side effects and risks; determination of the efficacy of the drug and any potential side effects.

PHASE III :: Study conducted in a large number of patients (between several hundred and several thousand) under real therapeutic conditions to determine the safety, efficacy and optimum dosage of a drug – with the aim of filing for market approval for the drug based on the results obtained.

PRECLINICAL :: Laboratory tests related to a new drug candidate conducted in animals, organs (in vivo) or cell cultures (in vitro) in order to obtain satisfactory evidence that a clinical study is justified and that the drug candidate is classified as safe and effective *in vivo* and / or *in vitro*.

PROOF OF CONCEPT :: Milestone proving a drug candidate's efficacy in medical terms, usually in Phase II.

PROTEIN :: Large complex molecule composed of amino acids. Proteins are essential to the structure, regulation and function of all organisms; typical proteins include enzymes and antibodies.

## :: R

RA :: Abbreviation for rheumatoid arthritis.

RESENSITISATION :: Based on resensitisation, a tumour cell is reversed from a previously drug-tolerant state to its original, drug-sensitive state and can therefore respond to cancer medication again.

RHEUMATOID ARTHRITIS :: Autoimmune disease of the connective tissue, especially the joints.

## :: S

SAE :: Abbreviation for serious adverse events; is usually valuated in connection with the testing of new drugs in clinical trials.

SMO :: Abbreviation for smoothened, a membrane protein that plays a role during the activation of the Hedgehog signalling pathway.

STEROID :: Class of hormones such as cortisone which has an anti-inflammatory effect.

## :: T

**TARGET ::** Specific biological molecule, e.g. an enzyme or receptor, which plays an important role in the origination or development of a disease. Compounds / drugs develop their therapeutic activity by binding to a target molecule.

**TARGETED THERAPIES ::** Specific influencing and controlling of signalling pathways in cancer and autoimmune diseases.

**TAXOL ::** Drug derived from natural cytotoxins. It inhibits cell growth by attacking the spindle apparatus during cell division. Taxanes are used in chemotherapy of cancers.

**TCF / LEF ::** A group of transcription factors that bind to DNA. They play an important role in the Wnt signalling pathway and recruit ß-catenin as a co-activator to activate the genes they address.

**TOXICOLOGY ::** Field of science examining the effects of toxic substances or the toxicity of substances.

**TOXICITY ::** Undesirable side effects of a substance depending on its dose.

**TUBULIN ::** Protein which plays a significant role in cell division, among others.

## :: U

**ULCERATIVE COLITIS ::** Chronic inflammatory disease of the mucous membranes of the large intestine.

## :: V

**VEGF ::** Vascular endothelial growth factor; an important signalling molecule (kinase) that unfolds its effect both in the formation of the embryonic vascular system and in angiogenesis (cellular blood supply) and therefore represents an important therapeutic target molecule for anti-angiogenetic cancer medication. The goal is to block the blood supply to the tumour cells, thereby combating the tumour.

## :: W

**WNT SIGNALLING PATHWAY ::** Signal transduction pathway based on which cells can react to external signals. The signalling pathway is named after its “Wnt” ligand, a signalling protein that has an important function as a local mediator in the development of various animal / human cells. Due to mutations, this signalling pathway is among the most frequent causes of tumour development.

# :: FINANCIAL/SECTOR GLOSSARY

## :: A

AFS :: Abbreviation for available for sale, one of four categories of financial instruments.

AFVPL :: Abbreviation for at fair value through profit or loss, one of four categories of financial instruments.

AMORTISED COST :: In accordance with IAS 39, financial instruments in the categories LAR and HTM are to be measured at amortised cost.

## :: D

D&O INSURANCE :: Directors & officers insurance; liability insurance for managers.

DIVERSITY :: Concept of corporate governance that takes into account the diversity of people and functions among a company's workforce, management and Supervisory Board.

## :: E

EQUITY METHOD :: Method used in annual financial statements to account for an entity's investment in another entity's voting capital.

ESOP :: Abbreviation for employee stock option programme.

## :: F

FIFO METHOD :: Abbreviation for"first in, first out"; a procedure related to the measurement of inventories and their utilisation in connection with fluctuating procurement prices.

## :: H

HTM :: Abbreviation for held to maturity, one of four categories of financial instruments.

## :: I

IAS :: Abbreviation for International Accounting Standards.

IASB :: Abbreviation for International Accounting Standards Board, the body discussing and adopting IASs.

IFRIC :: Abbreviation for International Financial Reporting Interpretations Committee.

IFRS :: Abbreviation for International Financial Reporting Standards.

IMPAIRMENT TEST :: Annual test of recognised goodwill for impairment.

## :: L

LAR :: Abbreviation for loans and receivables, one of four categories of financial instruments.

## :: P

PRIME STANDARD :: Listing segment of Deutsche Börse with clearly defined transparency requirements.

## :: R

ROYALTIES :: Compensation for the use of third-party rights to intellectual property. Royalties are generally calculated as a certain percentage of the revenue generated from the intellectual property rights.

## :: S

SIC :: Abbreviation for Standing Interpretations Committee.

## :: FINANCIAL CALENDAR

29 MARCH 2012
:: Annual Report 2012

10 MAY 2012
:: Q1 Report 2012

18 JUNE 2012
:: Annual General Shareholders' Meeting 2012

9 AUGUST 2012
:: Q2 Report 2012

8 NOVEMBER 2012
:: Q3 Report 2012

12 - 14 NOVEMBER 2012
:: Analyst Conference – German Equity Forum
Frankfurt, Germany

## :: PUBLISHING INFORMATION

EDITOR
:: 4SC AG :: Am Klopferspitz 19a, 82152 Planegg-Martinsried

INVESTOR RELATIONS
:: Jochen Orlowski, jochen.orlowski@4SC.com
T +49 (0)89 70 07 63 0

CORPORATE COMMUNICATIONS
:: Bettina von Klitzing-Stückle, bettina.von.klitzing@4SC.com
T +49 (0)89 70 07 63 0

CONCEPTION, DESIGN & TEXT
:: PETRANIX Corporate & Financial Communications AG :: Zurich

PHOTOGRAPHY
:: Steffen Jänicke

:: 4SC AG :: Am Klopferspitz 19a, 82152 Planegg-Martinsried, Germany
:: T +49 (0) 89 70 07 63 0 :: F +49 (0) 89 70 07 63 29

:: www.4sc.com