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Newspaper for all Roche Employees in Switzerland

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More motivated and satisfied

Anne Schiefer, Project Manager, Flexible Working: "Flexible working makes it easier to work in a global environment spanning nine time zones. The main thing, though, is that people who can define their own working model so as to achieve a satisfactory work-life balance are more motivated and satisfied. If you feel good at your workplace, you're more productive. Flexible working is a win-win situation. This makes Roche more attractive as an employer for current and future employees."



Photos: Bruno Carlsch



"From my perspective, the division of labor is a complete success. Everything works perfectly. Group Communications supports all forms of flexible working. We have part-timers and some working from home. As you can see in the case of Andrea and Barbara, we also have job-sharers. It's all flexible and renegotiable if someone's circumstances change."

Stephan Feldhaus
Head Group Communications

Anytime, anyplace

The days when we used to work in the office from 9 to 5, from Monday to Friday, played sports in the evenings, and spent time with the kids only on weekends are definitely a thing of the past. Thanks to flexible working, a new era is dawning.

In 1956, the German trade unions pushed through the five-day working week in most industrial sectors with their slogan "On Saturdays, Dad belongs to me." Roche introduced work-free Saturdays as long ago as the depression of the mid-1930s, though employees had to take a commensurate wage cut. Most business sectors in Switzerland officially declared Saturday a work-free day around 1960.

While no one had to work on Saturdays any more, rigid working hours were nevertheless the rule almost everywhere until the mid-1980s, and they applied to the entire workforce regardless of personal circumstances. This was also the case at Roche.

Then the era of flexible working dawned. Roche introduced flexible working in 1990 and

annualized working time in 1999. These models, combined with modern communications technology, now enable many employees to enjoy a high level of flexibility in how they organize their working life. They could in effect work wherever and whenever it suits them best.

Part of life at Roche

Nowadays, part-time work, job-sharing and working from home are part and parcel of normal life at Roche. Suddenly, Dad (and Mom) belong to the kids more than just on Saturdays! Flexible working models are instrumental in enabling employees to strike the right balance between their professional and private life. Home offices also have an ecological impact. Cut out the long journey to work twice a week,

and you not only save time and money, but also cut down on energy and emissions. If 450,000 people in Switzerland were to work at home instead of in the office once a week, the weekly savings would come to around 4.5 million kilometers driven by car and 2.6 million passenger kilometers traveled by public transit. Total emissions of CO₂ in Switzerland would fall by 1400 tons a week.*

But the environmental footprint is not the only reason to plump for flexible working. Another genuine benefit for everyone is the fact that employees who are satisfied are more motivated and thus more productive. There are also other advantages to being able to choose when and where you work. Studies show that every day worked on company premises entails on aver-

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Avoiding errors

Working under aseptic conditions presents a challenge, and it is the people who work in sterile rooms day after day who know how things can be improved. Employees from various sites pooled their day-to-day experiences by holding joint workshops. **Page 4**



Funding ratio increases

Global stock markets performed well in 2012; equities contributed the lion's share of the Roche Pension Fund's solid performance, with a return on assets of six percent. **Page 5**

The father of Alectazar

Alectazar is currently undergoing testing in various clinical trials. Peter Mohr, the medicinal chemist also known as the "Father of alectazar," recalls the early research in this area. **Page 6**

Small-scale lifecycle team

At the "Tüftellabor" Einstein (inventors' lab) in Zug, children and young people can turn their creative ideas into reality. **Page 11**



age 30 minutes of disruptions and 30 minutes of unproductive working time*. These productivity gaps can be closed if people are able to choose their working time freely and work remotely.

Flexible working models also make it easier to work in the global environment that exists at Roche. You don't need to be in the office to take part in a telephone conference with colleagues in San Francisco. And if you're at home, you can also read the kids a goodnight story or go out jogging beforehand.

Part-time working is an important model in this respect. However, the percentage that someone works must be clearly stipulated, and absences have to be defined and organized. In job-sharing, which is basically two part-time workers splitting one full-time job, the job-sharers have to "dovetail" smoothly, and it is also helpful if they share the same work philosophy.

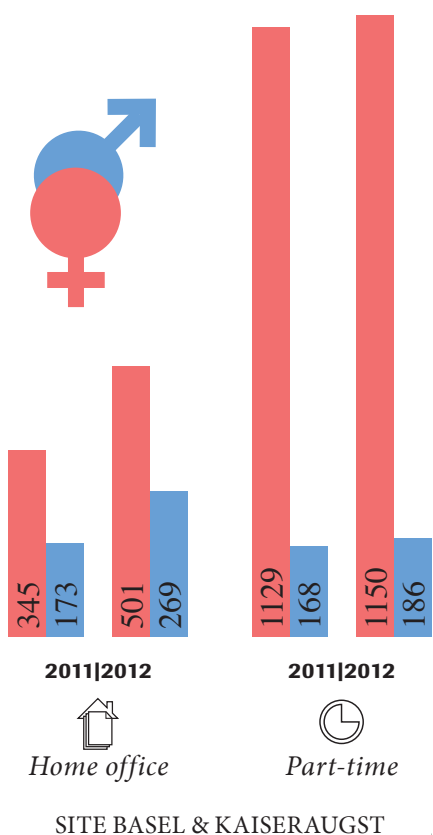
Experts believe that one or two days of working from home is the right amount for someone with a 100-percent contract.

While the "working from home" model has a lot of advantages, there are also some challenges. If you think that people who work from home have a cushy time of it, then think again. One of the main problems is that the slogan "Anytime, anyplace" may well come to mean "Always and everywhere". Some who work from home, find it difficult to set clear boundaries. They answer mails or take telephone calls at any time of the day. But if you work at home, you also have to impose boundaries on your social environment. Even at home you have to clearly define what your working time is so that you are not disturbed. On the other hand, you also have to learn to keep your free time free, even if your office is in your home, so to speak. But other dangers await those who work at home. For one thing, there is a risk that home workers may not be sufficiently visible in the workplace, leading to their performance being evaluated less positively. Effective communication and alert managers who are aware of this danger are essential here.

If a company offers its employees the opportunity to work flexibly, the demands made on managers also change as a result. They have to lead increasingly heterogeneous teams from a distance. Flexible working can only be used profitably by everybody—insofar as the work itself permits—if we are able to rethink the way we work. The principle of time controls has to make way for a culture based on trust and results-centered performance.

chs

* Reference: Between Productivity and Quality of Life. Published (in German) by the Productive Switzerland Foundation for the Home Office Day, 2011.



Compromise is king

Andrea Giezendanner and Barbara Lüthi have been sharing a job—and a desk—for the past ten years.

PC, telephone, printouts, a tube of hand cream, a coffee cup and pictures of three happy children on the wall—in short, a desk like many others at Roche. There's nothing to suggest that two coworkers share one job at this workplace. This impressive and uncomplicated sense of teamwork is the key to success for Andrea Giezendanner and Barbara Lüthi, who have been sharing a job over the past ten years. "We get along very well, and we share all aspects of our job," says Andrea. "It's not possible to do that unless the chemistry is right; that's absolutely essential." Barbara agrees: "We trust each other implicitly. We read each other's emails and keep our desk drawers unlocked. We don't hide anything from each other." She laughs as she adds: "Obviously, our setup only works if both sides are willing to compromise."

Andrea works 60 percent and is in the office from Monday to Wednesday. Working on a 40-percent basis, Barbara is responsible for administration in Group Communications on Thursdays and Fridays. The handover is a straightforward affair. When one arrives at the

office on their respective first day, she finds a simple Word list with the most important events, pending items and information about the previous days. The two talk to each other briefly on the phone on Thursdays and Mondays. Neither has a problem taking a phone call from the office at home; they enjoy the benefits of long weekends and more time with their families too much to do that. Nor do they experience what many people dread: Monday—or in this case Thursday—blues. It may be going too far to say that they work more, but both women firmly believe that they are far more motivated as job-sharers than they would be if they were working full-time. One of the first things Andrea and Barbara had to learn was not to think they had to clear their desks by Wednesday or Friday evening.

Motherhood was the reason cited by both women for their decision to switch from a full-time position to an alternative working time model and to scale back their professional commitments. Since there were no suitable part-time positions and they had already worked together

in the past, the two women suggested the idea of job-sharing to their line manager at the time. While his initial response was that he needed to give it some thought, by the next morning he had already given them the go-ahead. Ten years and three bosses later, all parties are very upbeat about the job model. In most cases, no one can say which of the two did a given job—not even their boss.

In their own view, Andrea is perhaps more creative and Barbara more structured, but what counts is that they work together smoothly as a team. "No one can play us off against each other," says Andrea. "Neither of us will fall for the line: 'But your colleague said....' Both of us take full responsibility, and in any case we usually know exactly what the other one has said."

The pictures above the desk show Andrea's son, Tim, and Barbara's two children, Nicolas and Laura, during an outing together. The two coworkers try to meet privately at least twice a year because, although they are so closely intertwined professionally, they hardly ever see each other in the office.

Working from the hotel, the airport or the home office

Henk de Wilde and his team cultivate a flexible working culture.

When it comes to working from home, Henk de Wilde has never asked himself "Why?" In his opinion, "Why not?" would be much more appropriate. As Global Head Product Development Operations Information, he is often on the road. This means he is expected to work in a wide range of environments anyway, he says. Even when he's actually at Roche in Basel, you won't necessarily find him in his office: "With all the meetings I attend, I generally go to about five different buildings in one day. And when I make phone calls or answer emails between meetings or from hotels or airports, nobody knows where I am. It's not important. So working from home every now and then really isn't any different."

Henk de Wilde officially works from his home office one day a week, and approximately half of his team's 250 staff around the world take similar advantage of flexible working models. The reasons for this are many. The decision is frequently a result of family circumstances, and the extra flexibility can make a real difference in people's daily lives. One thing Henk values is the opportunity to perform certain tasks in a quieter environment.

His belief that flexible working models are equally beneficial to both employees and the company prompted him to join the Flexible Working Project two years ago. "Whereas part-time work and home offices had been well established in our group for a long time, some of the other departments were reluctant to follow our example. We urgently needed to create a uniform basis from which to offer all employees optimum working models." To this end, the project team launched a series of campaigns—firstly within PD and then Group-wide—in order to break down prejudices against flexible working models and raise awareness of the opportunities they offer. Says Henk: "Concerns that, for example, it will become very difficult to arrange face-to-face meetings are totally unfounded if you achieve the right balance between working from home and in the office." In part to help ensure this balance, the project team drew up checklists that managers and employees can

use to prepare for discussions about flexible working. He is convinced that flexible working models are becoming increasingly important. Younger employees in particular, he says, have different approaches to work, and Roche as a company will have to adapt to them.

After initial face-to-face encounters, most meetings nowadays take the form of telephone or video conferences, with modern technology making it easy to participate from home. Smartphones, for example, allow people to make phone calls from their computer, while powerful built-in webcams enable them to take part in video conferences.

Henk appreciates all this modern technology, because his home office also allows him to come home earlier once in a while in order to spend time with his children. Afterwards, his evening schedule usually consists of video or telephone conferences with San Francisco. The investments required to set up home offices have long since paid off in terms of improved efficiency, says de Wilde: "Our team, which manages clinical studies around the world, sets an impressive example in this regard. I firmly believe that we are able to work so effectively and efficiently not in spite of but—at least in part—because of flexible working models."



No drawbacks at all

Thomas Woltering works from home one day a week.

On Wednesdays, Thomas Woltering, head of a lab in the Medicinal Chemistry department, sits at home at his desk in Freiburg, Germany. He searches synthesis databases, prepares for meetings, works on the handouts for a lab technician training course and is reachable to his staff and friends via email, Windows Messenger and by phone. He says his

home office day is actually no different from the other four days that he spends at work in Building 92 in Basel, apart from his chair and the view from the window. Not that he spends much time looking out the window; he is so absorbed in his work that he barely notices where he is. Occasionally, lunchtime comes around before it dawns on him that the staff cafeteria

is not an option and he'll have to prepare his own lunch.

So more than a year ago, Thomas submitted an application to work from home one day a week because of his family situation. "Our son Carlo is two and a half now," he says, "and my wife works two days a week as a pediatrician at the University Hospital. When she had office consultations on Wednesdays, her eyes were always on the clock. For Carlo, these days felt always extremely long and exhausting at the daycare center."

Thomas's line managers approved his application to work from home on two conditions: the first, that childcare had to be organized; the second, that he had to have the appropriate technical infrastructure such as high-speed Internet at home. Neither was a problem for him. "The Range software that I use lets me access all the data I need for my job without a hitch. And because I have the appropriate software, chemical modeling or evaluating complex X-ray structural analyses is also something I can easily do at home."

Flexible working has improved things on the home front since last spring. Thomas takes his son to daycare on Wednesdays and picks him up in the evening. This is not a problem for him because he doesn't have to commute to Basel. His wife can devote herself fully to her patients, and Carlo is happier with shorter daycare days.

Even apart from his private situation, Thomas takes a positive view of working from home: "I really don't see any drawbacks. Quite the opposite, in fact. It's clearly a win-win situation. It took some getting used to for my staff in the lab, but ultimately they benefit from having more independence. And I'm always available if any problems arise with interpreting results."

Internal calls are redirected to his home phone, and he receives and sends emails from his company account. People in other departments often don't even notice that Thomas works in Freiburg on Wednesdays. "I work at home just as efficiently and effectively as in the Basel office. The only thing I have to plan for the days in Basel is my lab work, which amounts to around 200 syntheses a year."

"Modern communication tools support flexible working arrangements. In the laboratory, there is a great need for communication, and I'm glad that it works so well with Thomas (left). Every flexible working solution must be tailored to the individual employee."

Martin Stahl
Section Head Medicinal Chemistry



At home in two worlds

Simona Starzynski works part-time in order to accommodate a part-time course of study.

Simona Starzynski works four days a week and has Fridays off. But this is a bit misleading, as the time off only applies to her work at Roche. Simona's Fridays, just like her weekends and many of her evenings, are filled in the company of her books. This is because she has been studying gerontology at the Bern University of Applied Sciences (BUAS) for the past two years. At Roche, she is responsible for global

employee communication within the Diagnostics Division. Starzynski, who holds a degree in humanities, explains: "After 20 years in communications, I wanted to recalibrate my career. So I decided to study gerontology, which deals with all aspects of life after 50."

But studying while continuing to work full-time seemed rather unrealistic. So she broached the topic with her manager, who fully support-

ed her request to reduce her hours temporarily. Of course, it could have turned out differently. "Everyone knew that my chosen course of study would mean a career change in the not too distant future. At some point, I'd be leaving the communications field." Simona started off by working three days a week, and her duties at Roche were adjusted accordingly. The entire team was involved, with one new colleague taking over

several of her previous responsibilities. Looking back, Simona says that her colleagues were cooperative and decidedly unbureaucratic.

"It almost sounds a little too rosy, but our team truly gives everyone the freedom to work autonomously." In her opinion, flexibility from both parties is a prerequisite for being able to work effectively on a part-time schedule. Simona has more or less free rein when it comes to her schedule, but she doesn't hesitate to work full-time when the need arises.

Balancing work and school is indeed a challenge. Once a month she is on the BUAS campus for three days, while the rest of her coursework is done as group work and self-study. There are other sacrifices, too.

Simona also has to deal with reduced income and less money going into her Roche Pension Fund. But she has never once regretted her decision to go back to school. She has been back on a four-day work week for quite some time now and is overseeing an internal project called Elder Care. Simona developed the Elder Care concept to support employees who care for relatives at home, and she will move to HR in April in order to oversee the implementation of this project at the Basel/Kaiseraugst site. She will remain part-time until the end of her studies in approximately one year. *Susanne Sailer*

"For me, it is important that employees continue to develop their skills and stay motivated. In this case with Simona (left), we are all winners. We are able to offer a part-time job to a qualified colleague, and Simona can put her newly acquired skills at the disposal of the company."

Anette Luther
Head Pharma Communication



Photos: Christoph Markwalder

BRUNO WEISSEN, HEAD OF HR BASEL

Flexible working is not something new at Roche. However, the Diversity Leadership Summit held last spring plus greater awareness among employees at the site have lent additional impetus to this. The important thing for me is the awareness that our business is innovation. That means that we have to be interested in people. The flexible working model is based on this interest. We take employees seriously, accommodate their needs wherever possible, and ensure that they have a high level of empowerment. We can't afford to lose entire target groups such as women or young fathers because working conditions at Roche

are unattractive to them. We have to make sure that our employees have every opportunity to realize their potential to the full. To reach this goal, our managers have to support employees when they chose their working model, and remove any obstacles that may arise. But this also demands a lot of trust. Particular details of an employee's job (the need to operate machines or equipment, for example) or personal environment may prove to be a challenge. That's why it's very important to speak to your line manager early on. Clearly defined agreements and rules are unavoidable. In the long run, though, they are the key to a flexible working model

that is adapted to an individual's situation and circumstances. An employee has just become a father and he'd like to work one day a week less for a while so that he can spend more time with his family. Another employee works one day a week at home so that he is there when his children come home for lunch on the day his wife goes to work. Thanks to flexible working, solutions like these are possible at Roche. *chs*



Photo: MediaLibrary

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Good at solving problems

Neil Dunstan, Head of Sterile Drug Product Manufacturing: “We tend to underestimate how good our people ‘at the front’ are at solving problems. They have to deal with all sorts of difficult situations, day in, day out. And they often have a solution for these problems or are able to make valuable suggestions as to how to solve them. Our people who work on the drug product filling lines in clean rooms have one of the most important tasks at Roche, and I have very great respect for them. I’m confident that this approach could bear fruit in other business areas too.”



Photo: Medialibrary

Anticipating risks and a voiding errors

People who work in sterile facilities at a number of Roche sites are improving the robustness of their work processes by holding joint workshops.



Basel, Kaiseraugst, Mannheim and Hillsboro—these are all Roche sites where medicines such as Herceptin, Pegasys and Avastin are manufactured under sterile conditions.

All these sites face the same challenge of delivering the right quantity of top-quality products at the right time with complete reliability. So why not join forces and try to make existing processes more robust by working together? Which is exactly what people at these sites began doing in 2010 at workshops held under the PTBF Process Robustness Initiative. It was launched by Neil Dunstan, Head of Sterile Drug Product Manufacturing. A small core team defined areas in which they believed inter-site proposals for improvement could be hammered out together.

One of the topics covered was dealing with errors and, more importantly, avoiding human error. In the wake of these deliberations, Basel and Mannheim introduced the “Risk Reduction Initiative.”

Another important issue is working under aseptic conditions. This is one of the most difficult processes in pharmaceutical manufacturing and requires constant inspections and checks. It is not just the products alone but also the air,

floor, all working surfaces, the equipment and water. Even the staff and their protecting clothing have to be regularly checked to ensure that they are 100 percent germ-free.

Different approach

One of the main topics at the workshop was “Working under aseptic conditions.” Christa Wetzel, a member of the core team, says that it was decided to consciously take an approach to this topic that was different from usual. Instead of mandating supervisors and line managers, the core team brought together the people who work in the sterile (aseptic) filling facilities day after day.

The first workshop was held in the fall of 2011 and was attended by about 20 employees from the various sites. Eventually, four favorite topics were selected: training, motivation, work processes and regulations. In the months that followed, four teams organized themselves, met at different places and developed ideas about how to tackle their chosen topic. In the fall of 2012, all met in Basel for the follow-up workshop at which the teams presented their work.

The team that worked on training, for instance, obtained the help of the global training group and shot a film. In their presentation, the team members explained just how sensitive the undertaking had been because of the various small differences in approach they discovered between the various sites. The outcome of their efforts is a training film that is useful for training current staff members as well as new employees. “The discussions were definitely worth the effort,” says Brita Schlegel, a training manager in Basel.

Feedback and motivation

The second team worked on the topic of motivation. Representatives from all the sites agreed that positive feedback is the key to motivating employees. From the discussions, it emerged that the observation period needed to provide useful

employee feedback should last around an hour rather than just five minutes. People are less nervous if they have more time, and they also have a chance to get into their normal work rhythm. The feedback should be given on the same day, and the employees should have the opportunity to respond. The team drew up a feedback form that can be used at all Roche sites.

The team that had chosen the topic of work processes started off by analyzing the current situation. They found that inter-site tools and processes exist to enable employees to address questions and suggestions relating to work processes. However, these are all too often forgotten, and employees do not receive any feedback. The team therefore decided that problems and suggested improvements should be noted on a large board, clearly showing the various steps and the name of a person responsible for ensuring follow-up.

Looking at regulations

The fourth and final team had chosen the very sensitive topic of regulations. Christa Wetzel explains that many existing regulations have de-

veloped historically: “That’s why we live in a veritable jungle of regulations.” To put it bluntly, that means: different sites—different processes and regulations. There’s also another problem, and that’s the lack of user-friendliness in these regulations. So the team set out to restructure the regulations, to make the content and layout more readily understandable and, at the same time, to comb out the tangle.

The workshop was intensive, and it showed how much work the teams had invested in the project over the preceding months. Everyone involved feels strongly that the effort was definitely worthwhile and that this form of inter-site cooperation really pays off and should be continued at regular intervals, not least in the interest of Roche’s patients.

Neil summed it up neatly: “This initiative is like a journey. Continuous improvement is propelling us along the road to outstanding achievements. I’m excited about what we have achieved so far, and we owe that to the hard work, passion, determination and commitment of the employees at grassroots level. They’re doing a really great job!” *chs*

GEMBA WALKS

“Gemba walks” are familiar to people at Basel and Mannheim. This Japanese term means “the real place;” in business, it refers to the place where value is created. The idea behind Gemba walks is that management—in other words facility managers and Quality Assurance—goes in person to the factory floor to see first-hand what is happening and ask production workers where there are problems and improvement opportunities. This gives the managers the opportunity to check the suggestions board and to intervene if progress on remediating a particular issue has stalled.



Working under aseptic conditions is one of the most difficult processes.

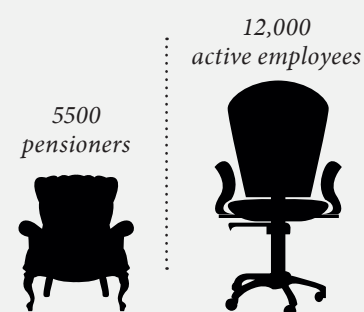
Photo: Heini Schwyb

FACTS AND FIGURES

There are currently nearly 12,000 active employees and some 5,500 pensioners in Switzerland. The Pension Fund of F. Hoffmann-La Roche Ltd (the Pension Fund itself plus the Capital Savings Plan) generated a return of six percent in 2012, bringing its assets to around five billion Swiss francs as at the end of December 2012. That's 200 million francs

more than a year earlier: a gratifying result. The funding ratio rose from the 2011 figure of 101 percent to about 104 percent at the end of 2012. As a result, the Pension Fund was able to build up a certain fluctuation reserve in the past year. Furthermore, the Supplementary Pension Scheme has assets of approximately 550 million francs, and generated a positive

return of 5.9 percent in 2012. As for the asset structure of the Pension Fund, bonds (fixed-income securities) and equities each account for approximately one third of total assets. A good 30 percent of the equity holdings are shares in Swiss companies. The remaining third is made up of cash, alternative investments (commodities, gold and the like) and real estate.



Pension Fund performance points upward

A solid performance, particularly by its equity holdings, enabled the Pension Fund to generate a return on its assets of six percent in 2012. Patrick Pilotti, Head of Pension Asset Management at Group Finance, outlines the many challenges thrown up by a difficult environment.

2009 vs. 2012

In Switzerland, we speak of the “three pillars,” whose purpose is to guarantee that people will be free of material worries in their old age. Pillar 1 is the Federal Old-Age and Survivors’ Insurance (AHV). Here, the money paid in by the working population is drawn by pensioners. With Pillar 2, individuals build up their own personal pension fund, and draw on it when they retire. And pillar 3 is private, voluntary pension provision.

The largest contribution to many people’s retirement provision is made by the second pillar, the occupational pension scheme. This is funded from several sources: The first and second contributors are the employee and employer, who each pay in a percentage of salary, and the so-called third contributor is the long-term investment return on Pension Fund assets. In the light of the continual rise in life expectancy and the increasingly uncertain situation in the financial markets (low-interest environment, erratic stock market movements), more and more pension funds are getting into trouble: The gap between promised retirement benefits and the capital actually available to provide them is threatening to become unbridgeable.

Obligations define the investment strategy

The Board of Trustees has taken a series of measures in recent years to minimize the danger that the Roche Pension Fund will get into serious difficulties. Two examples: the discontinuation of favorable terms for early retirements, and the reduction of the conversion rate.

As for the important “third contributor,” the return on Pension Fund assets, the objective has always been to steer a steady course between calculable risk and a stable potential return. Patrick Pilotti, Head of Pension Asset Management for the Roche Pension Fund since 2010, sums it up like this: “Our investment strategy is ultimately defined by the benefits that we are obliged to pay. So the question is this: What return must we achieve in order to be able to meet all our obligations? And there’s a short answer: We need an annual average return of just under four percent in the long term. So we have to allocate our resources accordingly. Furthermore, the investment strategy has to take account of our fluctuation reserves, which at the moment do not provide much of a cushion. And that is why we cannot pursue a very high-risk investment strategy.”

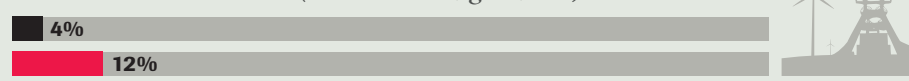
Cash and money markets



Real estate



Alternative investments (commodities, gold, etc.)



Equities



Bonds



If we compare the investment structure of the Roche Pension Fund at the end of 2009 and 2012, we can see that there has been a certain shift away from fixed-income securities to what are known as real assets, such as equities (shares in high-quality companies), real estate and commodities.

How much scope does an asset manager like Patrick Pilotti have when it comes to making specific investment decisions? “The Board of Trustees determines the strategic orientation,” says Pilotti, “and my team implements it. The investment committee, which consists of four trustees—two employee representatives and two management representatives—defines the permissible ranges for each individual investment vehicle, for example limiting equities to between 20 and 40 percent of total assets. Then it’s our job to make investments within that range that will yield as high a return as possible. We are entirely free to decide on those individual investments ourselves.”

A challenging environment

We have now been living in a low-interest environment for several years, and what used to be foolproof investments, like fixed-income securities (bonds) and cash deposits, now yield practically nothing. “Global stock markets performed well in 2012,” says Pilotti. “Equities contributed the lion’s share of our six-percent return last year. And the restructuring that we have carried out in the last few years in favor of real assets—less in bonds, more in real estate and commodities—has proved correct. Everybody knows about the problems facing the EU, so equities there are generally undervalued. And that means they have good upside potential. In the United States, by contrast, we think many equities are overvalued, so we are cautious about investing there at the moment.”

Patrick Pilotti is clear on one thing: “The financial and debt crisis is not over yet. The central banks are printing money on a lavish scale so that nations can service their debts. So the situation is still unstable, and careful stock-picking is more crucial than ever. We particularly favor the food, infrastructure and pharmaceuticals sectors: shares in first-class companies whose products we know from experience to be in constant demand. And as for the low-interest environment, I find one observation particularly encouraging for the future: From a historical perspective, interest-rate cycles generally last 30 years. From the 1950s until the early 1980s, we had rising rates, and since then we have had 30 years of falls. Historically, then, interest rates should soon be back on an upward trend. There would also be a return on bonds once again. But that will probably take some time yet.” *brü*



Patrick Pilotti, Head of Pension Asset Management.

Photo: Bruno Califfisch; Infographic: Nils Krämer

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Of pioneers, architects and craftsmen

Torsten Hoffmann, Head of Medicinal Chemistry Research in Basel: “Our medicinal chemists design and synthesize thousands of molecules every year in their research laboratories before an active substance with the ideal properties can be identified. Molecule by molecule, we break new ground in the almost limitless world of chemistry, acting as molecular pioneers, architects and craftsmen at the same time—it is a fascinating way of searching for new drug molecules. In the shape of aleglitazar, the team has created a true masterpiece.”



Photos: Bruno Carlsch

The total package is virtually unbeatable

Aleglitazar is currently undergoing rigorous testing in various phase-II and III clinical trials.

The cardioprotective potential of this active substance for risk patients with type 2 diabetes has been clearly established.

Peter Mohr, the medicinal chemist also known as the “father of aleglitazar,” recalls the early research in this area.

He comes across as reserved, modest, even a little shy. When we meet Peter Mohr (60) for an interview, his first comment is that he has really already said everything there is to say on this topic and that he conducted his research in the area a long time ago. Born in the canton of Graubünden but raised and educated in Basel (completing an “A-Matur” high school certificate with Greek and Latin), he studied chemistry at the University of Basel, where he also worked as a research associate for five years after earning his post-doctoral degree.

Peter has been a medicinal chemist in the research laboratories at Roche Basel since 1985. For the first 13 years, he specialized in retinoids and vitamin D derivatives (dermatology), then worked briefly in antibiotics before moving to the area of metabolic diseases around the year 2000. His research success in this area earned him the nickname “the father of aleglitazar.” “Aleglitazar is by far my greatest success as a chemist,” says Peter. “My second clinical candidate, a vitamin D derivative that was tested as an antipsoriatic, was stopped after phase II, so it was denied its crowning moment.”

“We were incredibly lucky”

Boehringer-Mannheim, acquired by Roche in 1998, had already synthesized a PPAR-gamma agonist called edaglitazone, which was fairly advanced. The compound was adopted into the Roche portfolio, and when asked, Peter immediately agreed to enter this new research area.

He explains: “The vitamin D derivatives and retinoids I had previously studied act via nuclear hormone receptors just like the PPAR agonists. I’ve always enjoyed working with this target class because all active substances that interact with hormone receptors are incredibly potent; they have an effect even in minute doses. This is probably because you are interfering with fundamental processes that regulate gene expression.”

Peter points out, however, that this is also a double-edged sword: High efficacy often goes hand in hand with the risk of toxicity. A good balance needs to be found between the desired effect and acceptable side effects, he says. “We were incredibly lucky with aleglitazar. The co-agonist demonstrated a high degree of binding affinity and a very balanced ef-



fect on both PPAR receptors, but also had a good safety profile because it was effective in very small doses.” Aleglitazar was registered with the patent office as early as March 2001.

He continues: “We designed and synthesized the compound we now call aleglitazar very quickly—within weeks, days even. But it was merely an incredibly lucky coincidence that virtually the first compound we created was also the best. Afterwards, we did a lot of tweaking and tried to modify almost every possible aspect of this molecule. We did in fact discover a few agonists that were even more potent, but as a ‘total package,’ the drug seems virtually unbeatable; never again did we find a better compromise than aleglitazar. A medicine—a compound that has a therapeutic effect—is always a compromise: a compromise between potency and selectivity, physicochemical properties, stability and pharmacokinetics. With aleglitazar, somehow everything just fits.”

“My favorite aspect of our job is the autonomy”

Peter may have patented dozens of inventions, but only one compound from his “kitchen” made it to the final stage, phase III: aleglitazar. How do researchers deal with the numerous unavoidable failures? Mohr: “Well, 99.9% of all molecules are flops, if you will. But as a chemist, you don’t necessarily see this as a failure. For example, if I design a molecule on paper, decide I would like to synthesize it in the laboratory and then actually succeed in doing so, for me as a chemist that is definitely a success. That’s still true if the molecule later fails the biological tests and is officially considered a ‘flop.’”

So what is it that motivates medicinal chemists to pursue their work with enjoyment every day? “My favorite aspect of our job is probably the autonomy and the relatively broad scope for creativity it affords us. The choice of which molecule to make is left to my intuition and imagination, and that independence is something I value enormously. As long as Roche also values my work, then everyone is happy.”

How lucky we are that the young Peter Mohr didn’t stick to his original plan of studying classics—if he had, aleglitazar might never have seen the light of day. *brü*

ALEGLITAZAR—AN IDEAL COMBINATION

Active substances that bind to PPAR hormone receptors (peroxisome proliferator-activated receptors) are designed both to improve the blood’s lipid profile and normalize blood glucose levels. For the fat metabolism, this is achieved by activating PPAR-alpha, and for the glucose metabolism by activating PPAR-gamma. Since the glucose and fat metabolisms are

linked, it is desirable to target both receptors at the same time, especially in the numerous diabetes patients with an elevated risk of heart attack and stroke. There are currently no drugs on the market that activate both receptors simultaneously and synergistically. Enter aleglitazar. This small molecule from the Roche Basel research laboratories modulates

both PPAR receptors very evenly and effectively, which is why it is referred to as a PPAR co-agonist. As a result, it produces a significant improvement in both blood lipid levels and cellular insulin utilization. What’s more, aleglitazar has the desired effect in doses of only 150 micrograms per day, meaning that the required dosage is many

times lower than that of all other known PPAR agonists. This in turn has a positive effect on aleglitazar’s safety profile. But one thing is important to remember: Although there is a real chance that aleglitazar will be the first PPAR co-agonist to be approved by the regulatory authorities, there is certainly no guarantee.

FACTS AND FIGURES

MEMORY CLINIC BASEL

Some 35 million people around the world suffer from dementia, with Alzheimer's disease being the most common form of the illness. According to estimates, the number of people with dementia will triple to over 100 million by the year 2050. If the onset of dementia could be successfully delayed by five years, the prevalence

of the disease would be cut dramatically from 35 to 17.5 million patients. There are nearly 110,000 people living with dementia in Switzerland today, 60 percent of them at home and 40 percent in care homes. Some 26,000 new cases of dementia are diagnosed each year, and the total number of sufferers in Switzerland is expected

to rise to around 300,000 by 2050. A study commissioned by the Swiss Alzheimer's Association showed that dementia currently costs Switzerland almost CHF 7 billion a year. A good 90 percent of that money is spent on homes and care in the family, whereas only 0.4 percent of it goes toward the cost of medicines.

When the Memory Clinic in Basel was established in 1986, it was the first clinic of its type in continental Europe. It is an interdisciplinary outpatient center that offers screening for cognitive disorders in adults and specializes in early diagnosis of mild cognitive impairment. The Memory Clinic

uses cognitive and medical tests to make accurate diagnoses, provides counseling for patients and family members, formulates treatment recommendations and offers memory training in collaboration with the Basel section of the Swiss Alzheimer's Association.

'The most thorough study I have ever seen'

On 11 January, the regulatory authority Swissmedic gave the green light for a phase III clinical trial of the Roche drug gantenerumab. Professor Andreas Monsch, a neuropsychologist and Head of the Memory Clinic at the Basel University Hospital since 2002, has the challenging task of identifying the right patients for the trial—and motivating them to take part.

What is special about the SCarlet RoAD study is the fact that only patients with very early-stage Alzheimer's disease (mild cognitive impairment) are considered for inclusion. This is due to the current thinking that, to tackle the root cause of the problem, and prevent or at least delay the severe long-term damage Alzheimer's inflicts, it is necessary to commence treatment considerably earlier than has hitherto been the case.

This immediately presents two rather difficult challenges: The earlier in the disease process a diagnosis is made, the more extensive and challenging are the tests required to establish a clear answer to the question "Is it really an early form of Alzheimer's or not?" And secondly, it isn't easy to persuade someone who is not suffering very severely from their disease yet to participate in a trial that lasts over two years and involves lumbar puncture (collection of cerebrospinal fluid to measure amyloid-beta load in the brain) and monthly injections of the study drug (gantenerumab or placebo).

Andreas Monsch addresses these problems in our interview: "The trial is really very elaborate and complex. I think it's great that they are trying to get to the root of the problem, and that the Memory Clinic has been given the opportunity to take part in this important study. We are hoping to recruit four to six patients here in Basel, but we estimate only around one in every hundred patients we examine will meet the criteria for inclusion. This means we will have to conduct an extremely thorough screening of approximately 400 to 600 patients with suspected mild cognitive impairment in order to reach the required number of trial subjects—all of which will involve a series of cognitive and memory tests (mini-mental, Buschke, etc.) and medical examinations (MRI scans, lumbar puncture, etc.). We need to look at dozens of inclusion and exclusion criteria."

The key lies in treating patients well

If a patient is diagnosed with an early form of Alzheimer's on the basis of such a detailed examination and is therefore recommended for inclusion in SCarlet RoAD, we ask Monsch, would they not be very keen to participate simply for fear that, without the appropriate treatment, they could develop dementia a few years down the line? "Fear may play a certain role,"

he replies, "but what is far more important for participants is that we treat them well. When they come here, they need to know that somebody is genuinely interested in their cognitive performance, that they will be made to feel welcome and can take as much time as they need to talk to us about their problems. That is much more likely to keep a participant on board than fear. We also offer to pay for patients' taxi transport to the Memory Clinic. It is a question of showing respect toward them as people."

The SCarlet RoAD study, says Monsch, is "a major administrative, logistical, interpersonal, technical and psychological challenge," and one that he personally is looking forward to enormously: "We are looking forward to it for a number of reasons. Firstly, we are proud of being able to take part in a trial of a highly innovative drug created by such a distinguished Swiss and Basel company as Roche. Secondly, it is without doubt the most thorough study in terms of its design that I have ever seen, and thirdly, I am confident that it will provide a relatively definitive answer to the amyloid hypothesis regarding development and treatment of Alzheimer's. If this trial does not produce a positive result, in other words if gantenerumab does not exhibit the desired effect, I will lose faith in this theory once and for all. I am looking forward to finally having a well-substantiated answer to this question."

Incidentally, Monsch describes his expectations of the study as "neutral." He has no idea what the result will be, which makes the whole thing all the more exciting. His parting words at the end of the interview are: "We aim to be a good partner for Roche. It's fantastic that Roche Neuroscience is investing so much time and effort into neurodegenerative diseases, because there is still an enormous need for more effective drug treatments. We at the Memory Clinic are excited about collaborating with such highly professional people—it's a win-win situation for all concerned."

brü



Photo: Heiko Schwyn

« This study will give us an answer to the amyloid hypothesis of Alzheimer's disease. »

Professor Andreas Monsch

GANTENERUMAB AND SCARLET ROAD

Peptide deposits in the brain could be responsible for the cognitive impairment suffered by Alzheimer's patients. It has been known for many years that neurofibrillary tangles and amyloid-beta plaques damage the neurons in the brain. As these amyloid deposits are known to accumulate more than ten years before the appearance of serious symptoms, it is thought that successful treatment of the root cause of the problem depends on commencing drug therapy at a very early stage of the disease known as prodromal Alzheimer's. This is where gantenerumab and the SCarlet RoAD study come into play.

Gantenerumab is a monoclonal antibody that passes the blood-brain barrier, and has the capacity to bind to amyloid plaques specifically and remove them from the brain. Trial results demonstrated that treatment with this drug significantly reduces the brain's amyloid load. The SCarlet RoAD study is a multicenter, double-blind, randomized, placebo-controlled clinical trial that aims to elucidate whether gantenerumab can delay the worsening of

existing mild cognitive impairment. It focuses on people aged between 50 and 85 who are highly likely to be suffering from preliminary-stage Alzheimer's. They will receive a total of 26 subcutaneous injections with four-week intervals between each individual dose (the total trial duration is therefore two years). Patient recruitment began globally in 2010, but in Switzerland the trial is only just getting underway. The SCarlet RoAD study is being conducted at the Memory Clinic, part of the acute geriatric unit of Basel University Hospital, and the Hôpitaux Universitaires de Genève in Geneva. In Basel, the study is being led by Professor Andreas Monsch and Professor Reto Kressig (Medical Director of the Geriatric Unit and Principal Investigator). The study doctor is Sibylle Bertoli from the Memory Clinic. Pascale Gasser, Senior Clinical Operations Manager at Roche Pharma Switzerland, which is helping the Memory Clinic to carry out the study: "On 11 January, Swissmedic gave us the green light to commence recruitment for this study in Basel. I look forward to the day when the first patients can begin taking part."

Photo: shutterstock

100
seconds
my Roche

'No time for boredom'

Markus Adlun, Quality Control Specialist, Rotkreuz: "I have been working at Roche in Rotkreuz for around four years, specializing in quality control for reagents. One of my jobs is to review PCR products and microbiological tests, which involves drawing up and analyzing a range of documents. I also carry out equipment qualification tests and method transfers, as well as giving training courses for the various tests. What I like about my job is its variety. I work in both an office and a laboratory. And because quality control involves so many deadlines, there is no time for boredom."



Photo: Henri Schwyn

Blood, sweat and high kicks

In December 2012, Roche employee Markus Adlun fought to defend his Swiss middleweight title in Thai boxing.

Markus Adlun has a new belt, but it's not one he wears to hold his trousers up. In fact, the belt is on display in the 29-year-old's glass cabinet at home, part of his substantial collection of medals and trophies. This medal is particularly special for Markus, because it represents the culmination of many years of hard training in the evenings and even before he clocks in for work at the Rotkreuz site.

Issued by the International Sport Kickboxing Association (ISKA), it is his second championship belt in the Swiss Thai boxing middleweight division (up to 72.2 kg). He defended this semi-professional title in early December 2012 at the Lucerne Thai-Kickbox Center (TKBC), his home club.

The smell of menthol is in the air as Markus enters the TKBC for his final training session, just a few days before the title fight. It comes from an ointment Markus has applied to his legs to prevent injuries. "It's quite easy to pick up bruises or a swollen eye, but my colleagues know why I sometimes come to work with a black eye," he says, laughing. "Isn't it brutal?" he is often asked. "It's just a sport," is his usual reply. "For me, it's an important way to maintain the work-life balance. I have always enjoyed sport, including at a competitive level. I feel better mentally after training hard. Thai boxing is the perfect recreation for me."

Markus is one of the first to turn up for training. It starts with runs and stretches, followed by push-

ups, shadowboxing and sit-ups. TKBC head and trainer Thomas Hladky watches his protégés and gives them instructions and tips. "It's not easy to combine job and sport," says the former professional and ex-world champion. "As an active Thai boxer, I didn't have time to run a training center." Markus trains after work four to six times a week. That's what it takes at this level. He is very disciplined and driven," he says, simultaneously shouting encouragement to the 40 or so fighters he is training. Next up are partner exercises with clinches and focus mitts. Sparring is taboo for Markus this close to the title fight.

Fast forward four days to the fight: Markus, who became Swiss Thai boxing champion for the first time two months ago, appears focused. He dominates the first three of the five two-minute rounds, scoring repeatedly with a series of punch and kick combinations.

In the last two rounds, his opponent seems to be staging a comeback; Markus is paying the price for his high tempo at the start. But he doesn't lose his cool and successfully fends off his opponent's attacks. Following a unanimous points decision by the three judges, Markus emerges from the fight a worthy winner. *ag*

Don't miss the video of the training session and the title fight on [myRoche online](#).

Photo: Bruno Celli

CONCIERGE SERVICES AT ROCHE BASEL AND KAISERAUGST

The pilot project “Concierge Services” at Roche Basel and Kaiseraugst in collaboration with “savoir faire” runs until 2014. Employees have the opportunity to use the new concierge service for planning, organizing and running all sorts of errands in the Basel area and the neighbouring parts of France and Germany. Orders can be placed directly at the Concierge’s desk, by phone or email.

Opening hours concierge’s desk
Basel, lobby Building 74:
 Monday and Wednesday 3:30-5:00 p.m.
 Friday 8:00-9:30 a.m.
Kaiseraugst:
 Unstaffed desk with flyers and price lists.
 +41 (0)79 785 11 30
 Monday-Saturday 8:00 a.m.-8:00 p.m.
basel.concierge@roche.com



Establishment of the company in **September 2010**
 In urgent cases, it's not unusual for a babysitter to help out at **5:00 a.m.**
 On their busiest days, the team of “savoir faire” completes up to **12 tasks**
 About **180 tasks** are being processed per month (including house cleaning services)

How can I help you?

As Basel’s first concierge service provider, Sandra Locher has not only won a young entrepreneur prize, but also gained an insight into her clients’ lives.

If the way to your office or lab takes you through the lobby of Building 74, you can’t have failed to notice the concierge service desk there. You soon get to know the faces behind the desk, because Basel’s first concierge service “savoir faire” needs only a handful of employees despite the wide range of tasks it takes on. When you talk to founder and managing director Sandra Locher, you soon realize that her recipe for success is pragmatic organization coupled with enthusiasm for small companies.

Everyday aspects of life

“Companies usually only take care of expat employees during the initial phase of their time in a foreign country. We help them deal with the everyday aspects of life in their new home such as buying tram tickets,” says Sandra Locher about her business concept. Whatever the task that needs doing, the “savoir faire” team takes care of it with utmost seriousness.

It arranges a host of services that covers everything from babysitting and petsitting to organizing household help, waiting for packages or recycling coffee capsules—as long as it’s legal and ethical, they’ll take care of it. While the work certainly demands spontaneity and a cool



Whether human or animal, Sandra Locher looks after all her customers.

head, above all it needs discretion. “Our clients let us into their homes, they entrust us with personal information, and they give us an insight into their private lives,” Sandra explains, emphasizing the importance of covering certain actions—handing over keys, for example—by written agreements. After all, as she remarks, her work is based on mutual trust.

Birth of an award-winning idea

Roche knows Sandra well—and vice versa. She worked for a number of years as a personal assistant in Pharma Marketing at Roche Basel, organizing meetings and congresses in Switzerland and abroad. When she was transferred to Nutley with her husband, she discovered firsthand what it was like to be an expat. Her job experience, her knowledge of international corporations plus a flyer she picked up one day in Paris gave her the idea of filling a gap in the market once back in Basel.

“When my husband later took a job in Paris, I came across a simple flyer that put me on to the business idea of concierge services for private individuals.” Her decision to run with the idea in Basel proved to be absolutely right. As the first and only woman nominated for the competition, she came in third for the Northwest Switzerland Young Entrepreneur Prize in 2012.

A native of Binningen, Sandra has a local network in the region, which was a big help in getting started. The mother of three children had already proven her organizational talents both at home and at Roche. She has no intention, though, of resting on her laurels. “Having got through the start-up phase, we’re now growing the business. It would be great if we could organize more events. We’re up for anything from birthdays to weddings,” says Locher, smiling. “In fact I’m organizing my own fortieth birthday right now.”

Maybe she’ll give herself a “savoir faire” voucher as a birthday present. After all, every successful businesswoman could do with a day off! mb

A look at the youth of 2013

Alessio Lavio won a one-week research visit to Roche in Basel as part of the 2012 Swiss Youth in Science foundation’s national competition.

Young people do not necessarily enjoy a particularly good reputation: They’re often said to be loud and irresponsible—and further proof that things just aren’t quite like they used to be in the good old days. But when a young man steps up to declare his interest in producing molecules, those in the healthcare sector should definitely pay attention. Even internationally oriented companies need to be able to count on—and benefit from—young local talent. Each year, young people from all across Switzerland participate in the Swiss Youth in Science competition, proving that the next generation has no shortage of clever ideas that may be of use to a global player like Roche in the future.

Research on the Rhine

Getting to know such a young talent and introducing him to a possible future work environ-

ment was not an opportunity that Roche was about to pass up. Last December, Alessio Lavio was invited to one of our Basel labs for one week as part of the special prize—a weeklong study visit to a research company—he received from the SimplyScience foundation for his work. Our employees gave him a peek behind the curtain of Roche R&D and helped him get to know both the storied history of the company and the city it calls home.

Worked to the bone (and a well-deserved vacation)

“I decided on Roche because I might like to study biology in Basel or Fribourg. Not to mention that people here in Basel truly know what they’re doing when it comes to molecules,” states Alessio. The young man from Ticino couldn’t have anticipated that he’d be whisked away into our lab in Building 92 so shortly after graduat-

ing from high school. Working together with a classmate, he submitted a paper to the competition entitled “Processing polycaprolactones with compressed CO₂ for biomedical use.”

To put it in layman’s terms: There is a type of bone substitute that can be synthetically produced. It is intended to support bone regrowth, for example after surgery, and to be later reabsorbed into the body. So give the kids some credit—they’re often far cleverer than they’re thought to be!

But before Alessio dedicates himself to his biology studies, he will be traveling to Australia to improve his English—and, as young people are wont to do, to see a bit of the world before the daily grind of adult life begins.

We can only hope that his plane returns to Switzerland and young talents like Alessio continue driving today’s research forward in the future. mb



A week in the lab coat.

He made the world a warmer place

Niggi Iberg passed away on 4 January 2013. His death is a tragic loss for his family and leaves a great void at Roche.

Niggi was an extraordinary individual. His approach to others was uncomplicated and free from preconceptions. A good listener, he made people feel accepted. After speaking to him, for example, a group of animal rights activists dropped all their activities against the company. Colleagues could always come to him with major or minor problems—or even with none at all—and go away with good advice.

And it was he who planned and ran the “Roche Continents” study week, which brought together young scientists and artists during the Salzburg Festival. It was always a very special experience. “Niggi helped me to find my way,” said one participant. He even managed to give something valuable to people who were already successful in such a way that his words were still recalled years later. And wherever he was, he inspired people to work together harmoniously to achieve a common goal.

Niggi had a broad range of interests, most notably science, life and people. After studying chemistry in Basel, earning his doctorate at the Biocenter, conducting research at Harvard Medical School in Boston and doing a great deal of traveling, he joined Roche in 1989 as a laboratory manager in arteriosclerosis research. In addition to biochemistry, he became more and more interested in psychology and organizational development.

Perhaps this is what led him to get so involved in the Roche Employees’ Association (AVR), of which he was President from 1994 until 1998. He described his approach to this role as follows: “Everything we think and do is guided by social pragmatism. We have no desire to drift off into utopian fantasies, or dream of revolutionary break-

throughs. Our aim is to progress by following a consistent policy of small but useful steps forward.”

When René Imhof became Head of Pharmaceutical Research at Basel in 1998, he brought Niggi into his senior management team. Niggi felt that his responsibilities there covered “people and communication,” and he believed he had found his niche: He was the right man in the right place. “In this role,” says Imhof in retrospect, “Niggi helped to shape and support the goals and values of the research organization and the transformation process it underwent. His contribution has been lasting.” According to his successors, “Niggi was one of the architects of the Roche research organization’s success in Basel.” His fellow laboratory managers at the time agree: “He helped us to do our jobs better.”

Niggi can be credited with the introduction of an employee personality development program. The “Leadership & Teamwork” course at the International Institute for Management Development in Lausanne offered both freshly appointed and long-serving laboratory managers something that is often neglected in formal education at schools and universities: training in how to deal with people. Unusual situations and tasks were used to show them how all the members of a group can successfully pull together.

This personalized training helped many people to identify blind spots, to the benefit of their relations with other people and the benefit of the company. The first people to take this course, incidentally, were Niggi himself and his fellow members of the management team.

In 1998, he launched RoSearch, a newspaper for pharmaceutical research staff in Basel. In the first issue, he wrote: “Infor-



Niggi Iberg: 21 March 1954–4 January 2013

mation and communication are hugely important, but they are not simple. And the larger and more complex the organization, the more difficult they generally become.” Fourteen years later, Jochen Böhm, Global Head of Medicinal Chemistry, said: “The launch of RoSearch was very important for research. It gave many people a sense of pride and identity.”

In teams under Niggi’s leadership, members’ individual contributions came together to create a whole that was far bigger than the sum of its parts. A small but perfect example of this is Moleculopoly, a fun way of explaining how an idea is transformed into

a fully fledged medicine. Moleculopoly is a module developed for the induction day held to welcome new employees. Occasionally, Niggi ran it himself. As a matter of fact, this is what he was doing on his last working day, which was also to be his last day of full consciousness.

Anyone who worked with Niggi found it a privilege and an enriching experience. His strong analytical mindset, unconventional ideas, understanding of psychology, diplomatic touch and sense of humor helped avert many a sticky situation. His humanity, sincerity and integrity made the world a warmer place. *Sabine Päuser*

From the Great Plains to the Alps

Aden Rehms takes on a new role in a new location.

Aden Rehms recently transferred from Burgdorf to Rotkreuz as part of a professional journey that has traversed the Great Plains of South Dakota, the deserts of Arizona and the Swiss Alps. His new location came with a new role: Head of Patents for Roche

Diagnostics International (RDI). As the lead patent attorney for RDI, Aden’s primary tasks are protecting Roche’s inventions by filing patent applications and ensuring that the products Roche develops don’t infringe the patent rights of others. Working at Rotkreuz brings several professional advantages, Aden observed, including opportunities to extend the scope of his involvement in the division and to develop his leadership skills.

“Just the other day, I realized I’ve now had exposure to every segment of Roche Diagnostics,” he describes. “In Burgdorf, I was head of patents there for Diabetes Care, Insulin Delivery

Systems, and before that, I was Senior Patent Counsel at Ventana. Now, I work with Roche Molecular Diagnostics (RMD), Roche Applied Sciences (RAS), and Roche Professional Diagnostics (RPD).”

Although Aden enjoys these new professional challenges and life in nearby Cham, there are several things about Burgdorf that he misses.

“I woke up to the sound of cowbells outside my window,” he reminisces. “I feel very lucky to have had the chance to live in and explore the Emmental. Most people, when they come to Switzerland, they go to Basel, Luzern, the Berner Oberland ... the Emmental is off the beaten track. The solitude you can find there is astounding.”

So how did a former chemistry professor from South Dakota wind up as the chief patent attorney in Rotkreuz, Switzerland? Aden’s educational and professional journey began in South Dakota, then continued to Texas, Oregon (where

he earned his law degree) and Arizona, where he joined Ventana in 2004, before the company became part of Roche.

Not long after the acquisition, bells went off in Aden’s head—although he wasn’t yet hearing cowbells.

“When Ventana was purchased by Roche, my wife and I looked at each other and thought, *hmmm*, maybe there is a possibility we could at some point transfer to Switzerland, which we did in 2009,” Aden recalls. “Switzerland is a great place to live. We love the mountains. We’re hikers and the Wanderweg system here is terrific. When the spring and summer weather arrives, I may start walking to work.”

Aden’s wandering has stopped for now. He and his wife Catherine Green, Regulatory Functional Lead for Roche Diabetes Care, Insulin Delivery Systems, currently working in Mannheim on a commuter contract, plan to stay with Roche and explore life in Canton Zug. They also plan to improve their German skills.

“I actually understand quite a lot,” Aden says. “But it is definitely a leap from understanding what people are saying to speaking and writing in German on a regular basis. That will be my next big challenge.” *bt*



'Like a small-scale lifecycle team'

The "Tüftellabor" Einstein in Zug is an "inventors' lab" that invites adolescents and kids from the age of nine to discover hidden talents and turn their creative ideas into reality.

The objective of the Einstein Inventors' Lab ("Tüftellabor")—set up in 2010 by the association of the same name—is to bridge the gap between home, school and work. It's a place where young people can weld, solder, saw and experiment to their hearts' content in an informal atmosphere. And because today's young inventors could be the scientists of tomorrow, the lab is supported by the canton, association members and industrial sponsors such as Roche Diagnostics International in Rotkreuz. Roche supports the laboratory on its assessment that the concept is a good fit with the Group's sponsorship philosophy, "not least because the young inventors follow their projects through from the initial idea to the finished product," explains Martina Rupp, Head of Communications, Sponsoring & Reception Services in Rotkreuz.

Use whatever you like, the way you want

"Inventing involves thinking with all your senses and limbs," states the lab's official website, and it is precisely this wide-ranging concept of creativity that the lab strongly promotes—with a combination of craftsmanship and intellectual and social skills. The "raw materials" are wood, metal, plastic, fabric, paper, cardboard, leather, plaster, clay, optical and electronic components, chemicals, water, and much more besides.

The young inventors are completely free to select their own activities and pursue them as independently as possible,

either alone, in pairs or in small groups, in line with their school curriculum and examination schedule. If the association's financial situation permits, the lab also offers special programs during school vacations. In 2012, the "Tüftellabor" even offered special training for teachers, focusing on promoting particularly gifted children in the school environment.

Young geniuses at work

Children have great powers of imagination that they can often apply in an everyday setting with amazing pragmatism. One junior high school student, for example, was annoyed at not being allowed to play in the yard of his parents' recently built house because there could still be rusty nails concealed in the ground. He set about solving the problem as soon as he got to the inventors' lab: He designed and developed his own metal detector and dug the rusty nails out of the ground. This allayed his parents' fears, and he was then allowed to play in the yard. Two other young inventors constructed an illuminated, perfectly working aquarium.

Just over 1000 young inventors have been able to put their creative talents to practical use since the laboratory was set up. Up to 30 children can work at one time when five coaches are present. Lab manager and coach Johnny Padua is delighted by what he's experienced and seen. "The lab provides an environment for experimentation where children and adolescents can ex-

plore their own ideas of creativity while learning a great deal in the process. This is why it is also positioned as a modern educational resource for promoting the next generation of talents," he explains.

Courses for beginners, expert supervision

Two part-time and three volunteer coaches ensure that everything runs smoothly in the lab, and they also advise any young inventors if requested. They all have a teaching and/or technical background, and several years of professional experience. Safety is a high priority at the lab, and users need to be instructed in the proper handling of equipment.

Young people who visit the lab and then decide to come on a regular basis are enrolled in the two-module beginners' course, which teach-

es them how to use materials and tools, and also how to operate equipment safely. Once they have completed this introduction, the young inventors have the run of the lab and can use most of the machines on their own.

Roche comes to mind once again: At Roche, too, specific training is required for work in many of the labs.

Like being at work

Although the kids can invent and experiment almost free of charge—they pay only for the materials they use—they have to draw up a detailed project budget and stick to it. If an idea turns out to be totally utopian, a coach reviews the budget with its young author to find ways of reducing the cost or redesigning the project more realistically.

The young inventors are encouraged to interact and share skills relating to their respective trades. A metal casing may be used in conjunction with electronic components, for example, and a wooden construction may be completed with fabric, plastic or leather—materials that require different skills and techniques.

During the afternoon break, the young inventors sit together and discuss their projects, ideas, thoughts and problems. "Just like a small-scale lifecycle team," emphasizes Martina Rupp. "The members of the team regularly talk to each other to ensure that each individual's expertise finds its way into the overall project," she explains.

The "Tüftellabor" offers bright young people a way of putting their leisure time to good use and expanding their horizons to infinity. Albert Einstein would have approved of the idea. As he said so tellingly, "Imagination is more important than knowledge, for knowledge is limited." *mv*



Why not give ship building a try with styrofoam?

Metamorphosis of old skis into table and chairs.



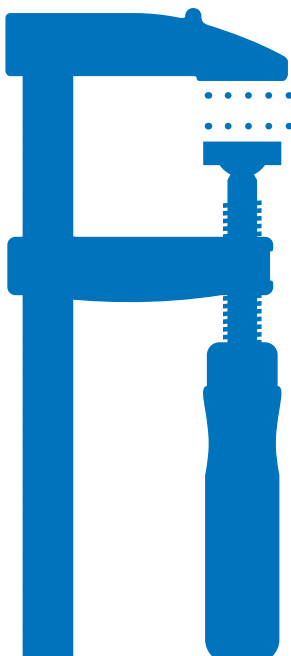
An unconventional approach to rocking chair design.



Concentrated woodwork for the future boat.



Using the styrofoam cutter calls for a sure instinct.



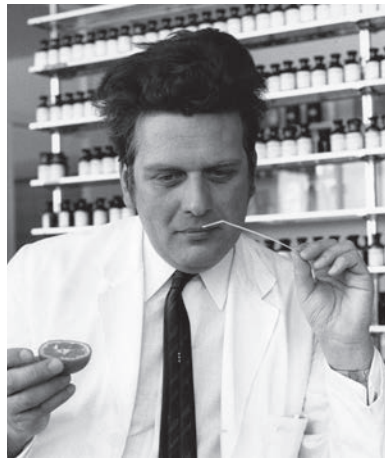
75 years ago

Roche inaugurates its first buildings in Welwyn Garden City, at a site which over the years will grow into a major center of research and production. Expansion in the United Kingdom is part of a strategy to move the core of operations westwards, as the company prepares for the threat of war. In 1938, Welwyn is even considered a potential location for the company's official headquarters.



First buildings in Welwyn Garden.

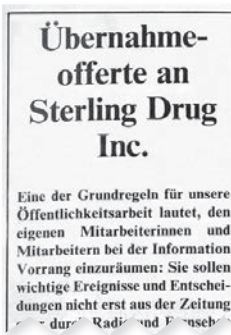
50 years ago



"Promising scents", "Hoffmann-La Roche smelling sweet" and "Pharma giant goes for fragrances" are typical of the headlines accompanying Swiss press coverage of Roche's 1963 business results. They all refer to the acquisition of Givaudan S.A., one of the world's leading manufacturers of fragrances and flavors and a long-standing customer for intermediates from Roche's vitamin A production.

Investigating scents.

25 years ago



Headline in Roche Nachrichten.

Roche fails in its first attempt at expanding its non-prescription business through a substantial acquisition. A 4.2-billion-dollar takeover offer for the American company Sterling Drugs Inc. is outbid by Eastman Kodak by around one billion dollars. Rather than pay an exorbitant price, Roche withdraws from the bidding, preferring instead to wait for potentially better deals in the OTC arena.



- 1 Saffron
- 2 Ginger
- 3 Nutmeg
- 4 Clove
- 5 Cinnamon
- 6 Cardamom
- 7 Garlic
- 8 Star anise

Mixing medicines in the kitchen

Cooking and pharmacy have a lot of things in common. Spices, for example, can have significant medical benefits. This was the focus of the Pharmacy Museum during the 13th Basel Museum Night.

It's a well-known fact that many herbs and spices used in cooking originally found their way into the kitchen less because of their pleasant flavors than because of their digestive, preservative and even curative properties.

It's possibly less well known that over the centuries, quite a few recipes were invented simply to preserve spices: preserved ginger, herbal drops, gingerbread, spiced bread and "Morsellen," another spiced confection, are some examples. Honey was originally used to preserve the spices, but industrially processed sugar was used for this purpose from the 19th century onwards.

These creations were then cut up small or grated and added to food, or simply eaten as they were. This was the only way to make many heavy meat dishes palatable in winter, when fresh herbs and vegetables were not available.

Spices—particularly ginger, cinnamon and cloves—stimulate digestion and do much more

besides. Ginger root contains antibacterial and anti-inflammatory substances that can also stimulate the circulation and bile production and are very effective against nausea. For a long time, cinnamon, or more precisely the bark of the cinnamon tree, was thought to be a panacea for all stomach ills.

More recently, components in this spice have been shown to have beneficial effects on blood glucose and lipid levels in people with type 2 diabetes. Cloves—the dried buds of the clove tree—contain essential oils of the sort found in typically Mediterranean herbs. These oils have an antioxidant effect, and in experiments, they have also been found to prevent arteriosclerosis. Eugenol is a pain-relieving substance found in both cinnamon and cloves, which explains the familiar advice to chew on a clove if you have a toothache.

In view of the similarities, it is hardly surprising that derivations of the word "recipe" are still used today in some languages to refer to both

medical prescriptions and instructions for cooking food. Hippocrates (who lived from about 460–375 BC) is thought to have said "let food be thy medicine and medicine be thy food."

These were just some of the fascinating facts awaiting the 4000 or so people who visited the Pharmacy Museum during this year's Museum Night in Basel. The museum's director, Michael Kessler, and his team had prepared a rich and varied program: several displays of spices; a circuit through the exhibition focusing on fragrances; spiced wine; and a number of "hands-on" attractions.

Visitors were able to make their own "Morsellen," a spiced sugar cookie that is still a confectionery staple at the "Herbstmesse", the annual fall fair in Basel. "We wanted to showcase an aspect of pharmacy that would appeal to a lot of people because it is something they experience in their everyday lives," Kessler explained. "A lot of visitors were surprised at how many different spices there are."

And what goes through a chemist's mind as she strolls through the pharmaceutical exhibits on Museum Night? Well, she wonders if a mix of medicines might be used in the future to treat various diseases, and not just infections and cancer—multiple medication in the true sense of the word.

Sabine Päuser



Laymen are welcome in the Pharmacy Museum Basel.

Photos: Heim Schwyn; Bruno Catlisch