

alumni

DEUTSCHES KREBSFORSCHUNGSZENTRUM



Relaxation during the tight program of the Indo-German workshop.

Dear DKFZ Alumni,

Since the foundation of universities in the middle ages, science has been an international affair. The exchange of teachers, students and ideas was originally limited to Europe, supported by the use of Latin as the common language of clergymen and academics. Starting with the worldwide political and cultural expansion of Europe in the 15th century, universities were founded all over the globe, and scientists were among the first “global players”. However, it was only in the past few decades that the internationalisation of science, nowadays a catchword, made unprecedented progress due to the introduction of English as the modern language of science, the establishment of extremely rapid electronic media and the ever increasing mobility of people. This Newsletter focuses on some of the implications of this development for German

scientific institutions in general, and the German Cancer Research Center (DKFZ) in particular.

Professor Jürgen Mlynek, President of the Helmholtz Association, describes the efforts of this large institution to intensify its international network by promoting scientific exchange programs within Europe and with other countries such as India and China. Thus, Helmholtz offices have been established in Brussels, Beijing, and Moscow. Moreover, several International Research and Graduate Schools were founded. The DKFZ has taken advantage of these initiatives by running a Graduate School and various international meetings: an Indo-German Workshop on Cancer Research, a meeting of the program committee for Israeli-German cooperative projects, and French-German joint ventures are briefly reported in this Newsletter. In addition, a Japanese Alumnus provides insight into experiments

and experiences in Germany during repeated visits to the DKFZ.

Professor Wolfgang Frühwald, who has held several outstanding positions in German scientific bodies and is currently President of the internationally renowned Humboldt Foundation, has highlighted another aspect of the internationalisation of science: the transformation of German universities, which is related to the emergence of a “knowledge society” competing worldwide in research and teaching. Both accomplishments and risks of this development have been addressed.

The Humboldt Foundation served as role model for many activities of our Alumni Association. This applies particularly to the care taken for our guest scientists as outlined at several places in this Newsletter. Last but not least I would like to draw your attention to the encouraging news from our Treasurer, strongly supporting his thanks for donations by numerous Alumni and generous sponsors, especially the Hopp Foundation, Roche Diagnostics and Merck Pharma.

The next General Alumni Meeting has been scheduled for June 2008 at the DKFZ. We look forward to welcoming many of you on this occasion and send you our best wishes from a sunny Heidelberg

Peter Bannasch

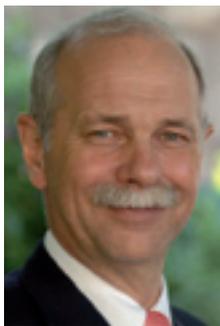
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international affairs

Intensifying the International Network

by Jürgen Mlynek

Whether managing sustainable water resources, finding new therapies for serious diseases or developing new energy sources – only by cooperating worldwide we can find the answers to the key questions of the 21st century. With regard to this task the Helmholtz Association and its 15 national research centers, including the DKFZ, aim to serve as role model.



The physicist Professor Dr. Jürgen Mlynek is President of the Helmholtz Association of German Research Centers.

Some 25,700 employees in the whole Helmholtz Association address the grand challenges that face society, science and industry, thereby naturally cooperating closely with partners from home and abroad. The large-scale facilities and complex infrastructures represent one of the Association's unique characteristics. Our portfolio also offers outstanding opportunities in the field of medicine. Take for example the German Mouse Clinic at the GSF in Munich, which enables us to study and examine the genetic causes of clinical symptoms. Furthermore, the method of using ion beams to combat deep-lying brain tumours (ion therapy) was developed on the ion accelerator run by the Gesellschaft für Schwerionenforschung in Darmstadt in close cooperation with the German Cancer Research Center in Heidelberg (*see also last newsletter, p.3*).

Back in the renaissance, scientists already maintained contacts with colleagues all around the world, although letters took weeks to reach their addressees and travelling involved a lot of exhausting effort. Today, colleagues on various continents collaborate by e-mail when writing an article, exchange their raw data and often get to meet each other. Each year, more than 4,000 international researchers come to Germany to work at Helmholtz Centers. However, we want to continue to expand our net-

works and thus integrate countries that are still making up ground.

This means that we must use our resources more efficiently. Consequently, the Helmholtz Association fundamentally reformed the distribution of research funds in 2001. Since then, the research activities have been divided into six Research Fields – Energy, Earth and Environment, Health, Key Technologies, Structure of Matter, and Transport and Space. Every five years, the Research Fields and their respective programs pass through an in-depth evaluation by international experts. This system sets incentives to constantly optimize the research goals.

In order to improve educational opportunities for young scientists, the Helmholtz Association will provide funding for three Graduate Schools and two additional Helmholtz Research Schools (*see box on right page*). Each of the newly approved Graduate Schools will supervise studies of doctoral students at a Helmholtz Research Center. The Research Schools are aimed at particularly talented graduates. Students from all over the world will be encouraged to apply for the 25 positions in each school; the working language will be English.

When it comes to raising EU grants the interests of German science and re-



search are represented in the European Union through the Helmholtz Association's office in Brussels. However, the Association not only looks westwards. It has been represented with its own office in the Chinese capital of Beijing since 2004. Selective cooperation with the China Scholarship Council makes it easier for young Chinese scientists to start a doctorate in Germany. Thus, areas of mutual interest were identified in a Sino-German Workshop on Cancer and Infectious Diseases in June 2005. Representatives of the Helmholtz Center for Infection Research and the German Cancer Research Center took part in the scientific exchange with colleagues from the Chinese Academy of Medical Sciences. As a result a memorandum of future research collaboration was signed.

Additionally, we are working on extending our relations with research institutions in Central and Eastern Europe. Joint research projects with Polish, Hungarian and Czech partners, and since 2005, a newly-opened Helmholtz Representative Office in Moscow, serve as examples of the Association's commitment to and in these regions. Systems biology as a quite young but extremely promising topic is a current example: On February 28/29, 2008, scientists from several centers of the Helmholtz Association will meet Russian colleagues at an international venue in Moscow.

However, our most recent endeavours focus on the Indian subcontinent. This is where many promising young people with creative potential are looking forward to a scientific career. Collaboration in the field of Life Sciences has already been intensified by establishing a virtual institute on infectious diseases. The recently held Indo-German Workshop at the German Cancer Research Center (*see also next page*) is another excellent example of the long-lasting and prospering relationship in biomedical research. Future tasks and aims in this research field will be addressed jointly by the Helmholtz Association and the Indian Council of Medical Research in New Delhi.

Research knows no national borders, and this is what science is all about: anybody who can contribute knowledge, skills or competence is welcome.

Graduate Schools:

- *Helmholtz Graduate School Molecular Cell Biology, Max-Delbrück-Centrum, Berlin-Buch*
- *Helmholtz International Graduate School of Cancer Research, German Cancer Research Center, Heidelberg*
- *Helmholtz Interdisciplinary Graduate School for Environmental Research, Helmholtz Center for Environmental Research, Leipzig*

Helmholtz Research Schools:

- *Helmholtz International Research School in Molecular Neurobiology, Max-Delbrück-Centrum, Berlin-Buch*
- *Earth System Science Research School, Alfred Wegener Institute, Bremerhaven*

workshop

Reinforcing Traditional Links to India

by Jagadeesan Nair,

The Indo-German workshops have a long tradition which started in 1976 under the agreement of the governments of India and Germany on cooperation in scientific research and technological development. The fifth event in this series was held at DKFZ from July 12 till 14, 2007.

with an overview on cancer problems in India, highlighting the major research interests in this subcontinent. The workshop continued with scientific sessions on cancer epidemiology, tumor stem cells as well as on mechanisms of tumorigenesis and metastasis.

in the cooperation in cancer research, much more could be achieved and should be aimed at in the future.

A lack of clarity and co-ordinated effort for the joint funding programmes was discussed along with a need for more



The main focus of this year's Indo-German workshop in Heidelberg was on Tumor Biology and Cancer Therapy. Different aspects of these two important areas of cancer research were discussed on the first and second day, based on 34 oral and 16 poster presentations. 140 participants were officially registered for the workshop.

On the first day the workshop started with a welcome and greetings by Professor Otmar D. Wiestler, Chairman and Scientific Member of the Management Board of the DKFZ. Professor Wolfhard Sessler, German Co-ordinator of the Indo-German cooperation in cancer research, continued with an introduction to the meeting. Dr. Bela Shah, Senior Deputy Director General and Chief of the Non-Communicable Diseases of ICMR, New Delhi, welcomed all participants on behalf of the Indian delegation and started the scientific presentations

The second day of the workshop was devoted to different aspects of the pathogenesis and prevention of cervical cancer, and on advances in radiotherapy. The deliberations were followed by discussion of posters presented by Indian alumni and guest scientists. This busy day was concluded with a reception by the Management Board of DKFZ. A musical treat by Monika Rieger (Transverse flute) accompanied by Sarah Kupsa (Guitar) was one of the highlights of the evening reception.

The third day's presentations dealt with the modalities of joint projects and project applications. Dr. Mukesh Kumar, ICMR, described the mechanism of processing of Indo-German projects in India whereas Professor Christian Strefler highlighted the German position in scientific cooperation of the two countries. During the discussions it became evident that, despite of a long tradition

funding for joint Indo-German projects. In the frame of this session three presentations with proposed research projects on tumor-associated angiogenesis, gall bladder cancer as a function of diet, tobacco and alcohol consumption, and on genomic instability in colorectal cancers were delivered.

The workshop ended with remarks by Dr. Bela Shah and Professor Sessler, who jointly voiced the wish to stage such workshops more frequently – at least once in two years. It was a pleasant beautiful day for a boat trip on the Neckar river which gave many of the participants of the workshop the chance to relax at the sight of the green lush natural environment of Heidelberg. Although it was just a coincidence and not a part of the official workshop program, many participants from India enjoyed the illumination of Heidelberg castle and the fireworks over the Neckar river at night.

Workshop participants (clockwise): Professor Albrecht Müller, Professor Heike Allgayer with one of her group members, Dr. Sharmila Bapat, three junior scientists, Dr. Bela Shah, Dr. Jagadeesan Nair



perspectives

German Universities in Transformation

by Wolfgang Frühwald

Today, education is undoubtedly the most powerful motor for social change. The academic qualification of broad sections of the population represents the source that brings forth a nation's affluence. The buzzword "knowledge society", which has become widespread

ment. They also want to ensure that by 2010, the Union's higher education expenditure is going to rise to an average of 2 percent of the Gross Domestic Product. At the moment, it is at a mere 1.28 percent. The dynamics hidden in such figures cannot be overestimated.

Shanghai ranking tend to increase in severity as the number of universities examined grows.

Georg Winckler, President of the European University Association, pointed out in April 2006 that among the world's



German studies specialist Wolfgang Frühwald obtained his Ph.D. in 1961 and qualified as post-doctoral lecturer in 1969 at the Ludwig Maximilians University Munich. Frühwald served in many ways as scientific counsel and administrator. He was member of the German Science Council from 1982 to 1987 and member of the Council for Research, Technology and Innovation with the Federal Chancellor from 1994 to 1998. For more than a decade he held offices within the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG). From 1994 to 1996 Wolfgang Frühwald was also President of European Heads of Research Councils (Eurohorcs). Since 1999 he is President of the Alexander von Humboldt Foundation.

throughout the world, is beginning to acquire content. This means that higher education institutions, including universities, have become players in a field in which victory or defeat has a direct impact on a people's affluence or poverty. At present, these are still just insights, which have certainly been noted by the world's highly industrialized nations, but only seldom transformed into political priorities.

Nevertheless, we begin to walk the talk. Success scored by those countries in which education and research enjoy political and, hence, financial priority is stimulating competition. The goal currently pursued by the European Union is to invest three percent of the Gross Domestic Product in research and development by 2010. For the majority of the European states, this means additional expenditure totaling billions. A few European nations have already attained this goal and have become highly attractive for young, well-educated people from Germany, too. However, the countries of the European Union have not only decided to increase expenditure on research and develop-

In 1945, throughout the European states, there were about 200 higher education institutions with the right to award a doctorate. Since then, well over 400 have been newly founded. Every state entering peaceful competition among nations for the best academic results, for industry based on knowledge and hence also for the best researchers will first of all seek to strengthen its higher education institutions.

However, if we do accept a world ranking despite these shortcomings, according to the well-known Shanghai List, 17 out of the 20 most outstanding and 51 out of the best 100 universities in the world are from the USA. There, however, among the roughly 2,500 higher education institutions running masters' programmes, just 260 universities award Ph.D. degrees, and a mere 100 count among the research universities. Accordingly, serious distortions in the representation and perspective given by the

best 500 universities, 183 are from Europe and 170 from the USA. Accordingly, the USA is better in top-flight research success, whereas the European universities do better in terms of research breadth. Around 1,000 European higher education institutions run doctoral programs, so that they are competing with the corresponding 260 American universities. However, for at least a decade, Asia and Australia have obtained a visible appearance in this intercontinental competition. In this period, the Korean and Japanese universities have made a big leap forward, the higher education institutions of Singapore, Australia and Malaysia are successful in attracting the world's best researchers, and the Chinese State Education Commission universities have caught up under their own steam, so that it is not only India that is on the way to becoming a knowledge superpower. In Africa, too, a continent still and indeed increasingly ravaged by epidemics, drought and civil war, attempts are on their way to educate an academic elite



perspectives

in a wide range of countries (Egypt, Nigeria and so forth).

German developments also have to be seen in these parameters, which are expanding at great speed and reflect the dynamics of the emergence of conti-



View of Heidelberg's Old University with the fabulous Old Assembly Hall (on the right) in close neighbourhood to...

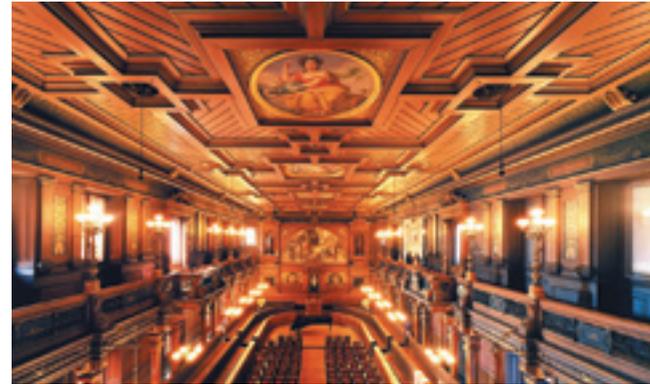


mental knowledge regions. The German higher education system is in transformation. Some speak of destruction, others of reforms, while there is also evidence of both international alignment and the loss of the quality of diversity. The gun smoke is still hovering over the contest. The contours of a new university are not clearly recognizable yet, but its outlines are beginning to emerge.

First of all, there is the Bologna Process, in the course of which the syllabi of all European universities are to be organized in three stages, in line with the Anglo-Saxon model, with Bachelors', Masters' and Postgraduate Programmes forming the phases of academic training. This grading has an immediate impact on secondary education, given that in the United Kingdom, a considerable number of young people already start higher education at the age of 17, compared to 19 in Germany. We are therefore in the initial stages of a fundamental educational reform that is going to extend into school and even pre-school education.

The second factor that has a severe impact on university reforms in Germany is the forthcoming new wave of first-year students consisting of Germany's secondary school-leavers born in the years of the birthrate bulge, and the

output of secondary schools switching from thirteen years to twelve years of school education. Until approximately 2011, German universities will not be able to avoid devoting more attention to training (also and in particular of undergraduates) than they have in the past.



The task is to qualify the rapidly increasing number of students for knowledge society without suffering considerable drops in quality levels. Germany has become one of the world's most sought-after countries for foreign students. So young German first-year students are encountering a university becoming thoroughly international, in which Europeans are no longer alone.

Finally, the buzzword "Excellence Initiative" is associated with the attempt to encourage Germany's universities to cooperate and concentrate research potential inside and outside universities. This funding initiative, from which, admittedly, only a handful of universities benefit in rigorous competition with one another, is aimed at making Germany's universities and regions recognize and, moreover, develop their strengths. The country's universities and regions are to distinguish themselves from one another by sharply contoured and internationally recognizable research profiles so that the long prevailing ideology that all of Germany's universities are research universities is thus abandoned.

Leaving aside for a moment the worldwide tendency to turn universities into service enterprises operating on the basis of economy and efficiency, what is currently happening at Germany's uni-

perspectives

versities marks a generation break that occurs every thirty to forty years. My teachers were appointed to their chairs in the forties of the last century, after war and genocide. Their university was still the full-professor “Ordinarien-Universität”, in which each discipline was



represented by a professor ordinarius and just under five percent of each birth cohort were educated at a university. In contrast to popular belief that too many old National Socialists were in outstanding positions, a lot of my teachers were able to show the indelible concentration camp number on their wrist. Having been prevented by Nazis from qualifying and being appointed as university professors and been driven from their posts by them, they had returned from exile and emigration.

My own generation, born in the thirties and forties, occupied the university chairs in the seventies of the last century. It was confronted with student numbers growing up to 40 percent of each birth cohort and a corresponding rise in the number of universities and of teaching staff as well as a revolt amongst students seeking a share in the decision-making process that soon took an ideological turn. The administrative form corresponding to the spread of academic teaching and the revolutionary demands was the “Gruppenuniversität”. Within the institution, the groups of professors, academic assistants, students and non-academic staff competed for influence, power and sinecure. This university has now reached the end of the line.

During the first few years of the new century, a new generation of professors has taken over. They are facing a grave reduction in professors’ salaries, the political attempt to turn the Universities into service enterprises oriented on economical operating and efficiency. The



big dangers here are that 1) free, self-determined thought – the university’s mission from the very beginning and its supreme mission in future, too – will be diminished, 2) core subjects will be weakened in favour of application-oriented disciplines and 3) the humanities, which also depend on individualisation in terms of language, will lag behind in the competition right from the onset due to the pressure to form clusters and raise funding for research (from industry and private foundations).

Only when performance criteria that specifically suit the requirements of the individual disciplines have been defined and successfully applied, when the social depreciation of professors has been reversed, and when free, self-determined thought also determines the call for commercially usable results will this new university stand the test.



...the New University and University Square.

“Homesick” in Los Angeles

Thanks to the DKFZ Alumni reception held during the 100th AACR meeting at the Los Angeles Convention Center, California, this Monday on April 16, 2007 was a very special day to me as it brought back memories of my Ph.D. years at the DKFZ, but, being on American ground, it was also flavored with memories of my postdoctoral training at the National Cancer Institute.

The DKFZ Alumni Association took advantage of the Centennial AACR meeting to invite former and present members of the DKFZ to a relaxing evening reception, where we had the chance to chat and to exchange experiences enjoying drinks and snacks served in the German way. It was very delightful to meet again after years. Some of us are still at the DKFZ, others went back to their home countries or are scientists in universities and research institutions all over the world.

The reception started with a talk by Professor Peter Bannasch to welcome the participants. He summarized the progress of the various Research Programs of the DKFZ, and the newly established Helmholtz Association programs supporting young scientists. He also introduced to us Professor Dirk Jäger, Head of the Division of Medical Oncology at the National Center for Tumor Diseases (NCT) Heidelberg, who gave an excellent progress report on the NCT.

In June 2007, I attended a DAAD Alumni meeting, which took place at the German University in Cairo. During this meeting a new Germany-network online portal was announced. This is a website including a database of people from all over the world who have studied or received training in Germany. It also includes information on organizations and job opportunities as well as other activities. This is a great opportunity to exchange experience and spread the German culture worldwide.

Eiman Aleem

exchange

Israel Connections in Science and History

by Wolfhard Semmler and Elfriede Mang

One year after the 30th anniversary of the Israel-German cooperation program in cancer research Israeli and DKFZ-partners of the 14 ongoing projects got together at the DKFZ Heidelberg from March 18 to March 21, 2007 to report on the progress of each subproject.

It was the 30th meeting of the scientific program committee consisting of the internationally renowned scientists Max Burger, Bernd Groner (chairman for this session), Hans-Georg Rammensee, Varda Rotter, Michael Schlesinger and Isaac Witz. Permanent co-chairpersons are the coordinators Shlomo Sarig and Wolfhard Semmler.

During a welcome dinner on Sunday, March 18, old contacts were continued in a friendly atmosphere. In the morning of March 19, evaluation of six concluded projects by an international evaluation committee including Jürgen Behrens, Paul Kleihues and Eitan Yefenof took place successfully.

The afternoon of this day was reserved for a guided visit to the city of Buchen (Odenwald) where the Jewish Library was the supposed highlight of the day. But on the way to Buchen heavy snowfall already brought excitement to the Israeli participants – no wonder, as snow

is rare in their home country. At about 17,30 hours the visitors firstly relaxed with a warm cup of coffee at the Jewish Library before they listened to Dr. Elmar Weiss. The historian gave a vivid lecture on the history of Buchen which was also a history of many Jewish inhabitants for centuries. For the evening the scientists were invited to a reception at the old town hall of Buchen.

During the following two days of the program committee meeting the partners from Israel and Germany discussed extensively many scientific achievements and, last not least, friendships were renewed.

This meeting may indeed be considered particularly successful: the international evaluation committee made some suggestions to improve the cooperation program and recommended increase in the number of projects to 15. Additionally, a winter school for young Israeli and German scientists shall take place in April 2008.



joint ventures

Sense and Sensibility in Franco-German Relations

by Bernard Mechler

In 1963 the signing of the Élysée Treaty by the French and German heads of government Général Charles de Gaulle and Chancellor Konrad Adenauer established the principles of cooperation between the two countries, especially the organization of concerted research programmes. However, the high quality of the cooperation in biomedical research must be attributed to the commitment and motivation of the scientists involved in these projects, who often have to act far beyond the frame assigned by institutional agreements.

The special relationship between both states has played a critical role in the implementation of European research and development programmes. Over the last 40 years, the political environment in Europe has changed dramatically. Nevertheless, the French-German couple has constantly increased its ties, particularly in biomedical research. This expansion has occurred despite all the political uncertainties, like those associated with the recent French presidential election, the problems of the EADS-Airbus industry or the take-over of the German pharmaceutical manufacturer Aventis by the French company Sanofi.

The French Attaché of University Cooperation in Heidelberg, Georges Leyenberger, has organized a series of conferences. One of the debates planned with Bernard Mechler (DKFZ) dealt with the limits imposed by the differences in the biomedical scientific organization between France and Germany. This meeting took place on February 22nd 2007 at the DKFZ. With its centralized organization, the French Republic started the first initiative in 1993 by implanting a research unit of the National Institute for Health and Medical Research (INSERM) at the DKFZ. Professor Jean Rommelaere introduced his collaborators and the work of this unit on parvoviruses. These viruses can be used to specifically destroy tumor cells. Derivatives of parvoviruses may be potent weapons for clinical investigations. Currently, more than 40 people work on this project either attached to the DKFZ, the French Institutions, CNRS or INSERM, with some depending upon other European or national institutions. During

the 15 years of the life of the INSERM-DKFZ unit, one of the longest scientific cooperations was established between France and Germany; students and collaborators from more than 20 countries have participated in major endeavours achieved in the biomedical field and have contributed to the worldwide renown of the INSERM unit. As stressed by Jean Rommelaere, the example of the INSERM-DKFZ unit has catalyzed the establishment of scientific and medical cooperations between the DKFZ and the "Cancéropole Grand-Est" linking cancer research institutions in the French neighbouring regions with Germany (see also newsletter 1/2006).

However, scientific achievements are not only the result of work made within organized institutions and international treaties but also the contribution of individual scientists, who are at the frontline of their research field and pave the way in advance for any international cooperation program.

This is perfectly illustrated by the examples of Monique Aumailley and Elisabeth Davioud-Charvet who perform biochemical research at the Universities of Cologne and Heidelberg, respectively. Monique Aumailley's research work focuses on the extracellular matrix, more particularly on epithelial laminins, their signalling properties, and pathological dysfunction. As a woman she noticed the highly hierarchical and male-dominated structures at German universities, but also saw the changes that happened during the more than 20 years she has spent in Germany and abroad. Of particular interest is her permanent affiliation to the CNRS: after long-lasting negotiations the institution recently accepted that she would work at the University of Cologne with her husband provided that her salaries are paid to the CNRS by the German College. This was an administrative solution to prevent

her from losing French social benefits and pension-scheme contributions, a problem often neglected in international agreements of scientific cooperation.

Over the last 12 years Elisabeth Davioud-Charvet developed a close collaboration with the Biochemical Centre of Heidelberg in the synthesis of compounds affecting disulfide reductases. These enzymes play crucial roles in redox equilibrium in parasites and cancer cells. The reductases are over-produced in most tumors and are also involved in drug resistance. With her discoveries she has established a broad network of collaborations in Germany, France and other countries allowing her to foster new lines of studies with pharmaceutical applications. Although Elisabeth Davioud-Charvet has initiated numerous projects supported by the DFG, the CNRS and NIH in Heidelberg, her position is still financed by the CNRS, an ever-lasting temporary solution which has not entered in any institutional scientific agreement yet. With regard to such circumstances Paul Janiaud, French Ministry of Research, described the constantly growing entropy of the systems supporting research in France and Europe, trying to define the best paths to get adequate financing. Like in "Pride and Prejudice", and "Sense and Sensibility", the novels of Jane Austen, the French-German marriage in biomedical research is tugged in different directions, balancing institutional obligations and individual interests.



The Rommelaere Team

guest scientists

Thoughts on Cultural Diversity

by Heike Langlotz



“Diversity is about difference – the differences that make us all unique.” (William Taylor, President & CEO, Mercedes-Benz U.S. International)

International collaboration at the DKFZ is a dynamic process characterized by the meeting of individuals of different cultures which holds great potential for the development of creative synergies.

A huge research organization like the DKFZ consists of a multi-cultural working and living environment. Each individual's culture and identity are the result of the generation and social environment in which he or she grows up. Each individual lives in that personal cultural context, but in our research center, we meet people from other environments and cultures. This requires a great deal of understanding and respect for each other from all of us.

When we talk of culture many of us may firstly think of literature, theatre or music; but of course, the concept of culture goes much further. It also encompasses family roots, the fine arts (painting, sculpture, architecture, etc.), economic and social systems and attitudes towards life. In my life and work at the DKFZ, I prefer to define culture in the wider sense as “a strategy or system of mastering existence”. This includes all aspects of life: religion, philosophy, politics, symbolism, mythology, ethics, government, law, technology, educational and economic systems, goods, services, geographical influences, cuisine.

We become aware of an individual's culture by his actions and behaviour, which are expressions of the attitudes, values, standards etc. that have been anchored in the culture as it developed through ages. Living together and communicating in a more or less closed group defines a “code” of what is regarded as normal, plausible and sensible. Precisely these aspects become obvious especially when cultural development in occidental and oriental countries is compared. Working together, different worlds may collide as the following examples try to explain: Individuals who have grown up in a collective culture suddenly find themselves in an individualistic culture when they come to Germany, which may lead to a feeling of isolation. From this angle, Germans may be perceived as unemotional, impersonal, thorough and pedantic.



Heike Langlotz has taken care of guest scientists of the DKFZ for 16 years now.

For me this is the reason to give our guests an especially warm welcome upon arrival, which includes an honest concern for their travelling time as well as the accommodation in our guest-house. This is my personal “first step” to make them feel at home in Heidelberg before we have to go through some necessary paperwork in order to start a hopefully successful and pleasant time at the DKFZ and in Germany.

As I have learned from our guests, in China, direct criticism, even in technical matters, may be regarded as personal criticism, leading to a loss of face. The maintenance of respect and harmony have highest priority in Chinese culture. Criticism should therefore be approached gently.

When it comes to Arab countries, in some situations time seems to be unlimited. This view may counteract the execution of tasks and projects that should follow precise schedules and time limits according to western habits. A particular surprising experience was to understand from a female Iranian guest that the handling of financial matters by women was uncommon in her social environment. When I asked whether she would prefer an advanced pay for the first month or a transfer of the fellowship grant to her new bank account with the next payroll, she answered that this would not matter at all because she “never dealt with money before”.

Another example of possible misunderstandings is the shaking of heads by Indians. Initially I felt that this was an expression of disagreement. But this gesture should be seen as a sign of consent. In another situation it was again my turn to learn that one of my Indian guests only shook hands when we met for the first time. For any following visit to Heidelberg he preferred to welcome me with a gentle bow.

The examples of cultural differences are manifold. Therefore, I hope that all of us will eagerly try to learn from people of other countries, hence getting the notion of how much our daily lives are enriched by these encounters.

cooperation

Experiments and Experiences of a Japanese in Germany

by Daisuke Takenaka

In 1984 the German-Japanese Radiological Affiliation (GJRA) was founded as a joint forum for specialists in radiology, radiotherapy and nuclear medicine from both countries. To attract more young scientists to this affiliation, an exchange program was started in 2004. As part of the exchange between Heidelberg and Kobe, I have visited the German Cancer Research Center (DKFZ) several times since October 2005.

I am a physician in the Department of Radiology at Kobe University Graduate School of Medicine in Japan. Do you know Kobe? Kobe is one of the most thriving sea ports in the west of Japan. Kobe University is a National University founded in 1902. The University Hospital has 920 beds and about 2000 outpatients per day. The Department of Radiology at Kobe University Graduate School of Medicine is a front runner in the field of pulmonary functional magnetic resonance (MR) imaging in Japan. And as you probably know, the Department of Radiology in the German Cancer Research Center (DKFZ) is also a leading institution in this field in Europe.

Lung diseases are among the leading causes of death in the world. One of the main reasons is the lack of an early diagnosis. Although computed tomography (CT) allows for high resolution morphological imaging of the lung, it fails to provide information about the pulmonary function. The current gold standard for regional lung function imaging is ventilation/perfusion scintigraphy (V/Q scintigraphy), which, however, provides only low resolution information. In contrast, MR imaging has the potential for both high resolution and functional imaging. Matched distribution of regional pulmonary blood flow and ventilation is required for blood gas exchange at lung parenchyma. Currently, multiple methods such as CT, ventilation/perfusion scanning, angiography and newly developed MR imaging such as contrast-enhanced MR angiography, perfusion imaging, and oxygen-enhanced imaging have been utilized for qualitative and quantitative evaluation of pulmonary disease.

The German-Japanese Radiological Affiliation organizes meetings every two years with alternating venues in Japan and Germany. Professor Hans-Ulrich Kauczor, Head of the Department of Radiology, DKFZ, who became member of the GJRA in 2004, initiated

an exchange between the DKFZ and the University of Kobe in 2005. At first, Dr. Michael Puderbach, a physician of the Department of Radiology in DKFZ, visited the Department of Radiology at Kobe University Graduate School of Medicine between April and June in 2005. Later on, I had the chance to work at the DKFZ as a Visiting Research Scientist from September 2005 to January 2006. Michael Puderbach and I studied the effect of inversion pulse changes in oxygen enhanced pulmonary MR imaging at each institution. During my stay in Heidelberg I worked on a specific way to improve the sequences for oxygen enhanced imaging of the lung. The results were very promising and probably will allow a shortening of the scan time for the patient. This will be an essential step in order to make use of this technique with patients in clinical routine. Additionally, the exchange was an important step to implement oxygen-enhancement in MR imaging at the DKFZ.

It was a great experience to stay in Heidelberg for those three months. But this exchange was much more than only research. My wife and our two children joined me during the second half of my stay in Heidelberg and also got a chance to experience life in Germany. As it was Christmas time they used the opportunity to visit the Christmas market in Heidelberg and other markets in the south of Germany. My son especially liked the German sausages! Further



Christmas markets are of special fascination for people from near and far. Maybe it's because this is one of the rare chances to meet Santa Claus...

more I took the chance to travel around Europe during the weekends as well as during some days off. I went to Switzerland and also visited the castle "Neuschwanstein" in Bavaria.

After the exchange I came back to Heidelberg twice, once attending the third International Workshop of Pulmonary Functional Imaging held at the DKFZ in October 2006 and once again within the framework of a new international collaboration, including Kobe, Heidelberg and Boston. Within this multi-center study we are investigating the effects of low dose settings on image quality in computed tomography (CT) of the chest. I hope that this good relationship between Heidelberg and Kobe will be maintained in the future. Now, Heidelberg is my second home town.



Daisuke Takenaka studied Medicine at Kobe University Graduate School of Medicine from 1984 to 1990. After four years as a physician of radiology he became Assistant Professor of

Radiology at Kobe University. In October 2005 Takenaka took over the position as Head of Clinical Thoracic Imaging at the Graduate School of Medicine. In the same year the physician also started a period of three months as visiting research scientist at the DKFZ.

people

Appointments – Retirements – Awards

APPOINTMENTS

Professor Andreas von Deimling is Head of the newly established Clinical Cooperation Unit Neuropathology.

As of January 1, 2007, **Professor Wolfgang Wick** took up the position as Head of the newly established Clinical Cooperation Unit Neurooncology. His work is backed by **Dr. Michael Platten** heading the Helmholtz University Young Investigators' Group Experimental Neuroimmunology.

At the beginning of the year a new Junior Research Group headed by **Dr. Alexander Weber** started its work within the Research Program Infections and Cancer.

Dr. Marcus Frohme, Deputy Head of the Division of Functional Genome Analysis, accepted an appointment as W3-Professor of Molecular Biology at the Faculty of Engineering/Industrial Engineering at the University of Applied Sciences Wildau near Berlin.

The Initiative on Systems Biology is a new interdisciplinary instrument of the Helmholtz Association bringing together studies on cellular processes conducted by different centers in order to understand how cancer and other complex diseases develop. The long term perspective of this initiative is to generate new therapeutic strategies. Holding nearly half of the research subsidies granted by the Helmholtz Association the DKFZ takes the leading part in systems biology among all centers. The initiative is headed by **Professor Roland Eils**, who is in charge of the Division of Theoretical Bioinformatics at the DKFZ. Part of the initiative within the Heidelberg research institution is the SBCancer network (Systems Biology of Cancer) which is coordinated both by Roland Eils and **Dr. Ursula Klingmüller**, Head of the Division of Systems Biology of Cellular Signal Transduction at the DKFZ.

RETIREMENT

Dr. Gerhard Fürstenberger, Head of the Research Group Eicosanoids and Tumor Development, retired on January, 31, 2007.

AWARDS TO DKFZ SCIENTISTS



Dr. Ana Martin-Villalba, Head of the DKFZ Junior Group Molecular Neurobiology, received the Walther und Christine Richtzenhain-Award of 10,000 Euros. She shares the prize with Professor Clemens A. Schmitt (on the very right), Max-Delbrück-Centrum for Molecular Medicine, and **Dr. Fabian Kießling** (on the left of Dr. Martin Villalba), Head of the DKFZ Junior Group Molecular Imaging. Kießling additionally was awarded the Dr. Emil-Salzer-Prize 2006. This award of 5,000 Euros was dedicated in equal measure to him and **Dr. Christian Plathow** (on the very left), University Hospital Tübingen and formerly member of the Division of Radiology at the DKFZ.



For her outstanding research in the field of skin biology and gerontology **Professor Petra Boukamp**, Head of the Division of Genetics of Skin Carcinogenesis, was granted the Skin Aging Research Award (SARA) endowed with 15,000 Euros, which is announced every two years by cosmetics manufacturer La-Roche Posay.



Dr. Stephan Herzig, Head of the Junior Research Group Molecular Metabolic Control, is prize-holder of this year's Ferdinand-Bertram-award endowed with 5,000 Euros. With this decoration the Deutsche Diabetes-Gesellschaft acknowledged his research on the regulation of hepatic gluconeogenesis.



Dr. Marc-André Weber, Division of Radiology, received the Coolidge Award 2007. GE Healthcare honoured his outstanding work on the use of MRI technologies in diagnostics and therapeutic management of brain tumors. The Innovation Prize for Imaging Methods in Radiagnostics is endowed with 15,000 Euros.



Dr. Wiebke Katharina Ludwig-Peitsch, senior physician at Mannheim Hospital of Heidelberg University and guest scientist in the Division of Cell Biology at the DKFZ, is this year's prize holder of the Karl Freudenberg-Preis of 6,000 Euros. She elucidated the role of the actin-binding protein drebrin in determining the structure and stability of cell junctions, cell migration and tumor metastasis.



Professor Christof Niehrs, Head of the Division of Molecular Embryology and Chairman of the Scientific Council, has been elected member of the renowned Heidelberger Akademie der Wissenschaften.

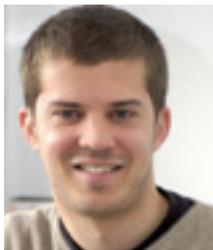


The Walter-Friedrich-Preis of 2,500 Euros was granted to **Dr. Ralf Schulz**, Division of Medical Physics in Radiology, by the Deutsche Röntgengesellschaft for the development of a scanner allowing the imaging of small animals without negative impact on physiology and blood distribution.



Professor Harald zur Hausen was honoured with the Loeffler-Frosch-Medal by the Society for Virology for his outstanding contributions to Virology at the national and international level.

AWARDS TO ALUMNI



Professor Frank Lyko, Head of the Division of Epigenetics, received the Novartis-Prize for Therapy Related Pharmacologic Research of 10,000 Euros. The German Society of Pharmacology and Toxicology and the Novartis Foundation honoured his work on inhibitors of DNA methyltransferases used as epigenetic cancer drugs.



Dr. Eiman Aleem, former PhD student of the Division of Cell Pathology, received the Egyptian „State Prize for Young Researchers in Biological Sciences“. This national award endowed with 20,000 Egyptian Pounds (approximately 4,000 Euros) is considered the most prestigious award for young scientists in Egypt.



Dr. Frank Mendrzyk, Roche Pharma AG, Grenzach-Wyhlen, and former PhD student of the Division of Molecular Genetics, received the Waltraud-Lewenz-Preis 2006 of 7,500 Euros by the Scientific Council of the DKFZ. He identified genetic markers hinting at a poor prognosis of ependymomas and medulloblastomas.



The DKFZ received the “World No Tobacco Day Award” by the WHO for contributions to legal measurements for protection against passive smoking. Furthermore, both **Dr. Martina Pötschke-Langer**, Head of the WHO Collaboration Center on Tobacco Control at DKFZ, and **Dr. Lothar Binding**, Member of the Bundestag, were elected “Non-smoker of the year” by the Aktionskreis Stuttgarter Nichtraucher e.V.



On February, 9th 2007, the Fred Kubli-Honour Award endowed with 5,000 Euros was granted for the first time. Prize holder is **Professor Manfred Kaufmann**, Director of the Women’s University Hospital Frankfurt and once doctoral fellow of the former Division of Cell Biology. He was awarded for his commitment to interdisciplinary and comprehensive medical care for breast cancer patients.



Dr. Jürgen Biederer, University Hospital Kiel and former Head of the Emmy Schmitt Group for clinical research at the DKFZ, received the Felix Wankel Research Award for animal protection of the Ludwig Maximilians University Munich. He developed a model system for the optimization of magnetic resonance imaging requiring no animal testing. The prize is endowed with 30,000 Euros.

excursion

Fascination of Technical Perfection

by Yanning Wu

During my college time at Mannheim University I already got the notion of Heidelberger Druckmaschinen AG. I knew that this large manufacturer of printing machines is a worldwide recognized company with an open and friendly attitude towards students who want to take part in trainings-on-the-job and practical courses. Ever since it has been my wish to visit this company. Therefore, I learnt with great pleasure and thankfulness that the Alumni Association offered an excursion to the plant of Heidelberger Druckmaschinen in Wiesloch close to Heidelberg.

On February 7, 2007 our group of guest scientists and alumni visited the plant which was about to celebrate its 50th anniversary this year. The opening of the Wiesloch site in 1957 represents an important milestone in the history of Heidelberger Druckmaschinen AG. There was no longer sufficient space at the main plant in Heidelberg to produce large presses, especially with the launch of a new A3 format cylinder press. The factory was completed in mid-1957 and thus assembly started. In the beginning the plant consisted of two production halls, a two-story administrative building and a 1,000-capacity canteen. In 1962, Heidelberg made the switch from letterpress to offset printing. During that time the factory was completely restructured. A highlight was the introduction of the first Speedmaster four-color press for the A2 format in 1974. The Speed-



master series is a completely new press generation for multicolor and perfect printing at speeds of up to 11,000 sheets per hour.

Now, half a century later, Wiesloch is headquarter of Heidelberger Druckmaschinen. With about 6,000 employees and a production area expanding to 860,000 square meters it is the biggest and most modern manufacturer of printing machines in the world. Here, all sheet fed offset printing machines are mounted. The production of required parts and electronic components is integrated at this place as well. The whole plant is highly automated. In comparison to the large production hall there seem to be quite few employees. Many steps of production are conducted by robots, specialized work stations and other automates.

The huge sheet fed offset printing machine consists of several units. There are no standardized products. Every machine is manufactured according to individual ordering requirements. And every order has its own features.

The printing presses are produced, mounted and thoroughly checked, before they are disassembled into pieces and shipped to their final destination. Mechanics and technicians of Heidelberger Druckmaschinen AG adjust the huge machine at the customer's place on-site and ensure reliable running of the printing press.

The Heidelberger Druckmaschinen AG holds three centers for logistics, one

located in the U. S., one in Asia, and the European one in Wiesloch. These centers stock 130,000 different pieces and deliver their products to commercial and industrial customers in more than 170 countries on five continents. More than 95 percent of all orders are available within 24 hours – via internet customers can check the status of their orders. At the Wiesloch location provides trainees.

After lunch at the canteen of Heidelberger Druckmaschinen AG we finished the interesting and intriguing visit, but yet this was not the end of our technical excursion. Our next stop took us to the automobile and technology museum near Sinsheim. We were deeply impressed by the multitude of beautiful cars, planes and other technical products witnessing both old-fashioned and



In 2007, Heidelberg Druckmaschinen celebrates its 50th anniversary

modern styles. We will keep this interesting day in mind as it reminds us once again that the diversity of technical inventions has added a lot of valuable improvements to our lives. And who would like to dispense with them?

(translated by Dagmar Anders)



donations

Encouraging News from the Treasurer

When dealing with our Alumni Association's financial resources we have to begin with the basic reason for its existence which is to strengthen the worldwide network of people devoted to fighting cancer, to further progress in cancer research for the benefit of those suffering from the disease. With this in mind we are happy to report growing numbers of members in our Association as well as a very positive response to our calls for making annual and further contributions to enhance our ability to achieve the Association's targets.

Members will recall the guideline adopted by the General Assembly of May 13, 2006, to increase voluntary contributions:

- 50 Euros p. a. for Senior Scientists, Emeriti and Graduating Members (Article 15 of our Constitution)
- between 20 and 10 Euros p. a. for Junior Members.

Thus, in 2006 we received contributions and donations from private donors of the Association amounting to 3,125 Euro. Generous corporate donations of 5,000 Euro and 1,000 Euro were offered by the Dietmar Hopp Foundation and by Roche Diagnostics Mannheim, respectively. This was a great help to funding e. g. travel grants and poster awards in connection with our International Symposium in May 2006, and with the Indo-German Workshop on Collaboration in Cancer Research in 2007 (see also page 4



in this Newsletter). We are most grateful for this generous support.

With Merck Pharma Darmstadt we now have adopted a new approach: the company offered a sponsoring agreement for 3,000 Euros p.a. with a perspective till 2011. This is a very encouraging development in our fund raising activities and at the same time an inspiring example for further individual support. To strengthen our fund raising activities with non-members we would appreciate very much strong support and back-up by the members of the Alumni Association.

We, therefore, are again providing you with the necessary bank form. Of course, it would make things easier if you advised your bank to transfer your contribution on a regular basis to Alumni DKFZ Heidelberg e. V., Sparkasse Heidelberg, account number 1000597810, bank identification code 67250020. From abroad: IBAN: DE31672500201000597810. BIC/SWIFT: Solade S1 HDB.

Since the Alumni Association's activities have been acknowledged by the German tax authorities as furthering aims of public interest, contributions and further donations are deductible from taxes in Germany. Our Secretary Elfriede Mang is waiting to provide you with a formal letter confirming this officially upon receipt of your contribution.

Konrad Buschbeck

Happy about the generous support by the Merck Pharma GmbH, Darmstadt: Professor Peter Bannasch, Chairman of the Alumni Association, receives a symbolic check from Dr. Bernd Schneider-Lowitz, Division Head Oncology, Merck Pharma GmbH.

Alumni Club HD

When still acting as Scientific Chairman of the Management Board of the Deutsches Krebsforschungszentrum Professor Harald zur Hausen was the first to put forward the idea to Professor Peter Bannasch to start the foundation of an Alumni Association of the DKFZ in 2002. Thus, it was a particularly attractive event for the Alumni Club Heidelberg to listen to zur Hausens talk on "Infections and cancer" on April 19th, 2007.

In less than one hour zur Hausen succeeded to give a very substantial and clear insight on the connections between several types of infections – mostly viral – and cancer. The guests, not only club members but also highly interested young scientists, added to the presentation a long discussion with many questions especially with regard to vaccination against papilloma virus infection to prevent cervical cancer. The basis of this great "break through" of primary cancer prevention was provided by 40 years of hard and consequent scientific work by zur Hausen and his team.

The ever increasing knowledge on the role of infectious agents in cancer is not only important for our understanding of the mechanism of cancer development but also opens new horizons for primary preventive interventions. All in all, it was a fascinating scientific and social evening of the Alumni Club Heidelberg. Who wants to get more insight in the subject is recommended to read or look at the new book of Harald zur Hausen "Infections Causing Human Cancer", Wiley VHC Verlag, 2006.

Gerhard van Kaick

Next Meeting

All Alumni and current scientists of the DKFZ are cordially invited to the next **Regional Meeting in the Rega Hotel Heidelberg on November 8, 2007, at 7 p.m.** (Prof. Dr. Dr. Jürgen Debus will speak about ion therapy).



Hard Work for the participants of the DKFZ-cup: Stemming huge beer mugs filled with water was a real challenge even for tough people. Thus, the question was: How much longer will he stand it?

Ingredients for a happy summer party

Even the few short rain showers could not spoil the relaxed and jolly atmosphere on that Friday in the end of June when many staff members of the DKFZ and their families came together for the 3rd annual summer party. Science was then replaced by private chats with colleagues and friends.

Far into the evening people were enjoying themselves with groovy music, barbecue and exotic cocktails. Of course, this year's party offered again the possibility for all scientists and administrative workers to take part in the almost traditional DKFZ cup. The competition consisted of disciplines like stemming beer mugs, a mega tabletop soccer with live football players and finally the pantomimic presentation of diverse terms which had to be guessed.

In the afternoon the small ones had great fun with fancy make-up, a theatre play, funny movies, a special nutcracker and a lot more. Whoever was not tired by then had the chance to experience the bouncing castle. The mini-zoo attracted its guests with the special encounter with a toad or a mega centipede which caused one or the other to keep a safe distance.

Despite the construction activities in and around the DKFZ building the summer party was indeed a great success again – a success that would not have been possible without the support of the Management Board, but most of all the many helping hands of the organizing team and numerous volunteers.

Nicole Schuster/Dagmar Anders

All Alumni and current scientists of the DKFZ are cordially invited to the **3rd General Alumni Meeting on June 20/21, 2008, at the DKFZ Heidelberg** (Details of the program will be published in the next Newsletter)

All Japanese Alumni are welcome at a **Regional Alumni Meeting in Tokyo at a restaurant in the Ginza- Shiodome area on December 2, 2007, at 6 p.m.** (The exact place will be communicated by e-mail)

Imprint

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