Dear DKFZ Alumni,

Until the end of 2004 Heidelberg was in the focus of all the activities of our Alumni Association. In 2005, we went abroad to meet Alumni from various countries. The annual meeting of the American Association for Cancer Research in California provided a unique opportunity for an international gathering of Alumni and current Scientists of the DKFZ. This event is highlighted in the present Newsletter by Andrea Mastro, who has just received a prestigious award for her outstanding research on breast cancer. We congratulate her on this distinction together with all current DKFZ Scientists honoured for great achievements recently. In an article on antioxidants in Brazilian fruits and plants, Teresa Trevisan describes her effective cooperation with DKFZ colleagues. The most exciting Alumni activity in 2005 was a meeting in Beijing, closely connected with a Sino-German Helmholtz Workshop. Several German participants used this occasion to visit colleagues and old friends in Wuhan, Xi’an, and Shanghai. Some travelling impressions, including the foundation of a Chinese Alumni Club, are reflected at several places in this Newsletter by lively reports and photos. Despite the activities abroad, the Guest Scientists presently working at the DKFZ and the regional Alumni are not being neglected. Thanks to Gerhard van Kaick who is taking care of the Guest Scientists and has also agreed to co-ordinate the Alumni Club Heidelberg which emerged by self-assembly early in this year. In 2006, the second General Alumni Meeting will take place at the DKFZ on May 12/13. All Alumni and current Scientists of the DKFZ are cordially invited to enjoy the promising program for these two days in Heidelberg. Those of you who intend to participate in the forthcoming conferences of the European and the American Associations for Cancer Research in Budapest and Washington, respectively, will also be highly welcomed at special receptions in these places.

Since the last newsletter, the research program of the DKFZ has been strengthened by the appointment of new Heads of Divisions and Group Leaders in different research areas. A particularly outstanding innovation was the foundation of a National Center for Tumor Diseases (NCT) more closely linking the DKFZ with the University Hospitals of Heidelberg and the affiliated Hospital for Thorax Diseases. Some days ago, Angela Merkel, who has earned a doctoral degree as a physicist, was elected the first German Woman Chancellor. Earlier during this year Jürgen Mlynek, another physicist, was elected President of the Helmholtz Association, the umbrella organisation of the DKFZ. All of these events, which are outlined on the following pages, will create new challenges and chances for the DKFZ.

With best wishes from all of us at the DKFZ I look forward to meeting many of you “im schönen Monat Mai” in Heidelberg.
The establishment of the National Center for Tumor Diseases (NCT) in Heidelberg in July 2003 represents an important milestone in intensifying the cooperation between the German Cancer Research Center (DKFZ), the University Hospital Heidelberg and the affiliated Hospital for Thorax Diseases (Thoraxklinik am Universitätsklinikum Heidelberg), accomplished with continued guidance and financial support from the German Cancer Aid (Deutsche Krebshilfe). The NCT has been structured with the expressed purpose of achieving a more rapid and efficient transfer of knowledge gained in basic research into innovative approaches for the prevention, diagnosis and treatment of cancer. These can promptly be tested in clinical trials which meet the highest quality standards.

Optimal coordination and integration is to be achieved not only through organizational and administrative structures, but also promoted by placing core clinical and research activities in a new NCT building. Thus, valuable resources and energy can be effectively combined into a comprehensive concept for the further development of medical oncology, a concept which has already been realized successfully at several US institutions.

Structure of the NCT
The clinical and scientific activities of the NCT are organized into three main departments:

A. Medical Oncology (encompassing an interdisciplinary out-patient clinic for tumor patients, day units for ambulant cancer therapy and a hospital ward for in-patient care)
B. Translational Oncology
C. Preventive Oncology

A. Medical Oncology
The core of the NCT’s clinical work is centered around the interdisciplinary out-patient tumor clinic and two day units connected to it. This is the initial point of contact for any tumor patient who is seeking advice or treatment in the NCT. Each patient is registered in the out-patient clinic and all of his previous medical history is collected and documented while he or she is given a physical examination by an NCT physician. The NCT physicians prescribe diagnostic and therapeutic measures in accordance with NCT-specific SOPs (internal guidelines) which interdisciplinary committees have developed for patient care. Any case which is unclear or for which the SOP provides more than one course of action is presented to an interdisciplinary tumor board which then issues a joint recommendation. Depending on the scope of the problems these cases are either reviewed by a general tumor board, consisting of an oncologist, a surgeon, a radiologist and an oncological radiologist, which meet daily, or by a specialized tumor board which meets once a week. The SOPs are developed and revised for each tumor entity by interdisciplinary committees termed „Cooperative Oncological Groups“ (KOG) which are organized according to specific tumor types. KOGs consist of oncologists from various departments of the university hospital. There is a specialist for internal medicine, a radiologist, an oncological radiologist and a surgeon in every cooperative group as well as specialists for the specific type of tumor and often consultants such as psycho-oncologists or nutrition experts. The cooperative oncology groups are not only responsible for developing treatment regimens but also for initiating clinical trials and encouraging scientific research in their specific fields.

The patients are informed about the clinical trials offered by the NCT and are encouraged to participate in the trials which are suited for their individual cases. After completing treatment, patients can enroll in an NCT after-care program involving regular check-ups. The outcome is carefully recorded for every patient who receives treatment in the NCT facilities. The interdisciplinary NCT tumor clinic as a center for patient care interconnects at several points with translational research.
B. Translational Oncology

The Helmholtz Association has entrusted the German Cancer Research Center with the task of quickly converting the results of basic research into preventive, diagnostic and therapeutic concepts which can be effectively tested in the clinical environment ("Translational Research"). The NCT provides a focal point in which questions relating to clinical problems converge with research activities in a variety of fields (diagnostics, therapy, prevention, epidemiology etc.). The reorganization of clinical patient care and the establishment of a data pool in the NCT provide an ideal basis for performing innovative interdisciplinary clinic-oriented cancer research as a new facet of the scientific profile of the Helmholtz Association.

The activities in translational oncology include research programs and projects with the emphasis on practical application conducted cooperatively by the German Cancer Research Center and the University Hospitals Heidelberg. They are co-ordinated by Professor Christof von Kalle, Head of the Departments for Translational Oncology in the DKFZ and the NCT. These cooperative efforts also involve the current seven clinical cooperation units (KKE) and various research groups in the German Cancer Research Center.

These activities are directed toward further developing research with potential clinical applications and translating promising pre-clinical research results into clinical approaches, i.e. clinical trials in the NCT patient facilities and various departments of the University Hospital and the German Cancer Research Center. The various projects and activities in the field of translational oncology have three major goals:

- Development, application and optimization of new and specific approaches to diagnosis and therapy
- Improvement of the quality of life and the minimizing of side effects for the patients
- Prolongation of the survival period

Translational research in the form of clinical trials will be co-ordinated in the NCT center for clinical studies in close co-ordination with the central database and the clinical cancer registry (NCT-Registry). All of the patient data and results for diagnostic tests, treatments, and course of disease, will be carefully documented in strict accordance with all the laws and regulations governing data protection. Patient and imaging data will be stored in a central digital archive and blood and tissue samples will be stored in a tumor and serum bank for biochemical, cell biological and epidemiological examination.

The strengths and advantages of translational cancer research become most apparent at the point of transition between pre-clinical and clinical research, where the results of outstanding basic research in the DKFZ can quickly be tested in phase-I and phase-II to -IV clinical trials. This area requires the presence of effective physician scientists who have extensive experience in both sides of the field and can coordinate and moderate the translation process.

C. Preventive Oncology

A new Department for Preventive Oncology is presently being established and will work in association with three departments of the German Cancer Research Center with a similar research orientation, "Clinical Epidemiology", "Molecular Genetic Epidemiology" and "Toxicology and Cancer Risk Factors". One of the areas of interest in the program "Preventive Oncology" will be chemoprevention. Another main goal is to develop innovative screening methods for the early recognition of tumor diseases as well as new concepts for primary and secondary cancer prevention. The structure of the NCT, with its patient and study center and cancer registry provides an excellent basis for developing and performing epidemiological studies, which, for example, will be able to identify genetic and environmental factors likely to increase the risk of cancer.
In June 5, 2005, the First Chinese DKFZ Alumni Meeting was held at the Sino-German Center for Research Promotion in Beijing. About twenty five Chinese scholars, 16 of them being DKFZ Alumni, joined the meeting, and 21 presented their latest research results in well prepared posters.

It was the first gathering of DKFZ Alumni devoted to a specific country outside of Germany, organized mainly in response to the fast increase in the number of guest scientists from China who have been working in the DKFZ during the past two decades. The main aim of the meeting was to further promote personal contacts and long lasting scientific collaborations between colleagues from China and the Cancer Center in Heidelberg. Professor Peter Bannasch, Chairman of the Board of Alumni DKFZ, gave a warm welcome talk to the participants and introduced activities and aims of the Alumni Association. Several colleagues from the center, including Professor Otmar D. Wiestler, Chairman and Scientific Member of the Management Board of the DKFZ, and Dr. Hong He, Chief Representative of the Helmholtz Association in Beijing, attended the meeting. Three Chinese participants were awarded prizes (300 Euros each) for their outstanding poster presentations: Yudan Wang, Beijing, presented the topic “The analysis of the humoral and cellular immune responses to SARS-CoV S2 subunit in 13 patients with severe acute respiratory syndrome (SARS)”, while Wei Zhang, Xi’an, presented a poster on “Monitoring anti-HBV therapy in HBV-infected patients by the quantity and structures of circulating viral nucleic acids: patterns of circulating HBV nucleic acids during lamivudine therapy”. Last, not least Xinli Zhu, Xi’an, was honoured for her work on “Effects of MMP-1 gene silencing by RNA interference on ACCM cell proliferation, invasion and metastasis.”

A Chinese branch of Alumni DKFZ was founded at the end of the poster session in order to strengthen the links between Chinese Colleagues and Alumni as well as current Scientists of DKFZ and to coordinate their cooperation in the field of cancer research. During the following buffet dinner, the participants continued exchange on scientific and personal matters and in-depth discussions on their research topics. The atmosphere was as friendly, warm and harmonizing as the traditional Chinese music provided for the party.

Qin Su

The Tongji Medical Faculty of the University in Wuhan is a site of many German contacts, particularly nurtured by Professor Wu Zhongbi (second on right) and DKFZ-Alumni like Professor Ruan Youbing (first on right).
A Sino-German Workshop on Cancer and Infectious Diseases was held in Beijing on June 6 to 8, 2005. It was organized, on the Chinese side by the Chinese Academy of Medical Sciences (CAMS) and on the German side by the Helmholtz Association of National Research Centers, particularly the DKFZ in Heidelberg and the Gesellschaft für Biotechnologische Forschung (GBF) in Braunschweig. The organization of the meeting was co-ordinated by Dr. He Hong from the Beijing office of the Helmholtz Association.

The meeting was held at the Beijing Sino-German Center for Research Promotion, and was inaugurated with the presentation of fundamental strategies for health research by Professor Depei Liu, President of CAMS, Professor Otmar Wiestler, Chairman and Scientific Member of the DKFZ-Management Board, Professor Rudi Balling, Scientific Director of the GBF, and Dr. Hartmut Keune from the German Embassy in Beijing. The workshop was composed of lectures of the delegates on topics of mutual interest, including cancers caused by infectious agents. In addition to the scientific part, attended by some 100 Chinese and 20 German scientists, a memorandum on future scientific collaboration was signed.

Some DKFZ scientists took the opportunity to reinforce existing collaboration with Chinese scientists by organizing individual tours. A small group traveled to the Tongji Medical Faculty of the University in Wuhan for a regional workshop. This Faculty is a successor of the previous Medical Faculty founded in 1907 at the Tongji University in Shanghai by Germans, and has remained a site of many German contacts, particularly nurtured by Professor Wu Zhongbi and several DKFZ-Alumni. Peter Bannasch was granted the title of Visiting Professor in an adjoining ceremony at Wuhan. On invitation by the Dean of Teaching, Research and Medicine, Professor Yingming Feng, and the DKFZ-Alumnus, Professor Wei Zhang, the German group held a regional workshop also at the Tangdu Hospital of the 4th Military Medical University of Xi’an, to which Peter Bannasch, Lutz Gissman and Claus Schröder have particularly strong links as Guest Professors. Among students and young scientists there was a great interest in finding about possibilities to continue their studies/career in Germany. The entrance of Chinese students to USA has been restricted, which has led many to look to Europe.

The Chinese economy is booming which was obvious through the enormous construction activity, not only in Beijing, but in Wuhan and Xian as well. Science is also benefiting from the increasing wealth and in all the visited centers some modern instrumentation was seen. However, the downsides of the rapid growth were also apparent: whole traditional urban areas were turned into modern block houses and private cars were pushing through the jammed streets.

We felt that the basic educational level of the interviewed students was good and their motivation for scientific education in Germany was genuine. English language abilities of the students varied greatly, and, as the experience has shown, TOEFL scores are not reliable indicators of performance. The Helmholtz Office in Beijing will be able to provide an important service to German host institutes, if it can pay attention to the linguistic abilities of the applicants before their entrance to Germany.

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In 1998 I was employed as a lecturer at the Department of Organic and Inorganic Chemistry of the Federal University of Ceará, Brazil, with isolation and characterization of secondary metabolites of medicinal plants as the main line of planned research.

I started my interaction with the research group by carrying out cell suspension cultures and micropropagation (Egletes viscosa, Vitex agnus castus and Ocimum basilicum). In 2000, I began my PhD studies on Plant Biotechnology in the laboratory of Professor Rob Verpoorte (University of Leiden) where I became familiar with tests on the inhibition of the enzyme acetylcholinesterase, which are useful for isolation of new inhibiting substances for therapy of Alzheimer’s disease and development of natural insecticides.

In 2001, I became interested in antioxidants and on investigation of the literature for articles about this topic and I became aware of the work developed by Professor Robert W. Owen at the Division of Toxicology and Cancer Risk Factors (Head: Professor Helmut Bartsch), DKFZ. The article “The antioxidant/anticancer potential of phenolic compounds isolated from olive oil” by Professor Owen and collaborators was particularly impressive.

My country has a scientific program in collaboration with Germany through the DAAD (German Academic Exchange Service). Specifically for post-doctorate studies, I discovered the Biosciences Special Programme. Immediately I wrote to Professor Owen enquiring about the possibility to carry out post-doctoral studies under his supervision. My research proposal was the study of the antioxidant activity of Brazilian tropical fruits, condiments and medicinal plants. After his acceptance, we developed the project, which was funded from July 2002.

Several collaborative agreements were drawn up for the acquisition of extracts from tropical fruits and medicinal plants: Professor Jocelem Salgado (Escola Superior de Agricultura Luiz de Queiroz, ESALQ), Professor Hilary Castle (University of Campinas, Unicamp), Jaime Aquino (Companhia Industrial de Óleos do Nordeste, CIONE), Débora Garrutti (Brazilian Agricultural Research Corporation, EMPRAPA), Professor Maria Goretti Vasconcelos Silva (Federal University of Ceará, Brazil), and Professor Francisco de Abreu Matos (Federal University of Ceará, Brazil).

The project was initiated by studying extracts of cashew nut and apple. In this study the content of anacardic acids, cardanol and cardols in cashew nuts (raw and roasted) and cashew nut shell liquid (CNSL) were analysed. Highest amounts of the major alkyl phenols, anacardic acids were detected in CNSL followed by cashew fibre. Cashew apple and fibre were found to contain anacardic acids exclusively, whereas CNSL also contained an abundance of cardanol and cardols. The hexane extracts of all cashew products tested including CNSL, displayed significant antioxidant capacity. The antioxidant capacity correlated significantly with the concentration of alkyl phenols in the extracts and mixtures of anacardic acids showed higher antioxidant capacity as compared to cardols and cardanols. The data showed anacardic-1 to be far the most potent antioxidant more related to inhibition of superoxide generation and xanthine oxidase than to scavenging of hydroxyl radicals. The data obtained in this part of the study indicate that cashew fibre and CNSL, both of which contain large amounts of anacardic acids, can be utilized in functional food formulations and may represent a cheap source of cancer chemopreventive agents.

Ongoing activities at the DKFZ by PhD student Jaqueline do Carmo Barreto (again funded by the DAAD) include the study of potential cancer chemopreventive agents in a range of Brazilian tropical fruits, namely: cajá (Spondia lutea), umbu (Spondia tuberosa), pitanga (Eugenia uniflora), acerola (Malpighia emarginata), camu camu (Myrciaria dubia), tamarindo (Tamarindus indica), mango (Mangifera indica) and essential oils from Ocimum (basil) species.
The April weather was lovely and the venue elegant for the first DKFZ reception for Alumni and current Scientists of the DKFZ held during the 96th annual meeting of the American Association for Cancer Research in Anaheim, California.

The reception took place at the Anaheim Hilton hotel. Professor Peter Bannasch welcomed the more than 50 participants and described the progress in organizing a DKFZ Alumni Association. Then he introduced Professor Otmar Wiestler, the new Chairman and Scientific Member of the Management Board of the DKFZ. Dr. Wiestler presented the current research programs and directives of the DKFZ and also described the founding of a Comprehensive Cancer Center, the National Centre for Tumor Diseases (NCT) Heidelberg, which will strengthen translational research by linking basic and clinical programs at the DKFZ and the Heidelberg University Hospitals (see also pp. 2/3). Both speakers entertained questions. Following the presentations the rest of the evening was spent informally meeting old and new colleagues over a light buffet. There was an international flair in the room as scientists from many countries built up and refreshed acquaintances. Many were currently at German universities or at universities from all over the United States. Some were students at the beginning of their training. Others were more experienced and had spent time as visiting scientists or had positions in one of the many universities. Several internationally known scientists, such as Professor Paul Kleihues, former Director of the IARC in Lyon, and Professor Judah Folkman known for his work on angiogenesis and a close collaborator with scientists at the DKFZ, joined the senior scientists and students in the room. The conversation alternated between science and friendship at this successful first meeting of the DKFZ during an AACR meeting.

Andrea Mastro recently received a Stepping Stone Award from the Pennsylvania Breast Cancer Coalition at the Keystone Breast Cancer Conference in Harrisburg, Pennsylvania. The award will help to support her research on the interaction of metastatic breast-cancer cells with bone cells. Dr. Mastro showed that, in the presence of breast-cancer cells, osteoblasts undergo increased destruction by the process known as apoptosis. Under these circumstances, the osteoblasts are unable to restore bone. At the same time, bone-degrading cells (osteoclasts) are activated, causing even more damage. Dr. Mastro was the first Stepping Stone Award recipient to also present a talk at a workshop for the conference. Her talk was entitled “The Basic Science of Breast Cancer.”

Andrea Mastro, Professor of Microbiology and Cell Biology at Pennsylvania State University

Time to register for DKFZ Reception at AACR Meeting 2006 in Washingtons

During the forthcoming 97th Annual Meeting of the American Association for Cancer Research (AACR) in Washington, DC, attending Alumni and current Scientists of the DKFZ are cordially invited to a reception, taking place in the McPherson Square Room of the Grand Hyatt Hotel on Monday, April 3, between 6:00 pm and 8:00 pm. The Chairman and Scientific Member of the DKFZ Management Board, Professor Otmar D. Wiestler, will give an overview on the present research programs of the DKFZ at this occasion. The Chairman of the Board of Alumni DKFZ, Professor Peter Bannasch, will review the present state of the Association. The establishment of a DKFZ Alumni Club in the USA is envisaged.

Get-together of Alumni and current scientists of the DKFZ at EACR 2006 in Budapest

There will also be a reception for attending Alumni and Scientists of the DKFZ during EACR 2006. This get-together has been scheduled for Monday, July 3, from 4:00 pm to 6:00 pm in the Novotel Budapest Congress Center. We would like to extend a warm welcome to all attending Alumni and Scientists at this reception. Professor Otmar D. Wiestler, will again give an overview on the present research programs of the DKFZ on this occasion and Professor Peter Bannasch, will again review the present state of the Association.

Registration for Receptions in Washington, and Budapest

If you want to take part in one or both receptions, please, inform the Alumni Secretariat by e-mail (e.mang@dkfz.de). Participation is free of registration fee.
The first Alumni Meeting at the DKFZ was appreciated by numerous attendants from different countries. Now all Alumni, from abroad and from Germany, and all current Scientists of the DKFZ are cordially invited to participate in the second Meeting of Alumni Deutsches Krebsforschungszentrum to be held in the Communication Center of the DKFZ on Friday and Saturday, May 12th/13th, 2006.

I am grateful to the Alumni and to all Speakers of the DKFZ Research Programs (RP) for their help in the preparation of a very promising program. My special thanks go to the internationally renowned Alumni who agreed to actively participate in the Symposium on the Friday by presenting important aspects of the regulation of gene expression and cell replication, haematopoietic stem cell differentiation and cancer therapy. In addition to the topics discussed during the Symposium, all Alumni who are still active in research are invited to present their recent results as posters (90 cm width x 120 cm height) on Friday after the end of the Symposium. Poster awards (travel support of 300 Euros each) will be offered to three Alumni with the most outstanding poster presentations.

Additionally, I am grateful to the current DKFZ Scientists presenting highlights of the various Research Programs on Saturday, May 13. All activities of the Alumni Association enjoy the sustained support of the DKFZ Management Board, who invites the participants of the meeting to a Reception on Friday night. In addition to the scientific sessions, an attractive social event (boat trip on the Neckar River, fee 15 Euros to be paid at the Secretariat) has been prepared by Elfriede Mang from the Alumni Secretariat. For information on hotels, please visit www.cvb-heidelberg.de. I sincerely hope that a large number of Alumni and current DKFZ Scientists will take advantage of this second Meeting of Alumni DKFZ, and I look forward to welcoming many of you in Heidelberg.

Peter Bannasch

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**Symposium**

**Second General Meeting of Alumni DKFZ Heidelberg**

Welcome and Introduction

9.00 h *Otmar D. Wiestler*, Chairman and Scientific Member of the DKFZ Management Board

*Peter Bannasch*, Chairman of the Board Alumni Deutsches Krebsforschungszentrum

**Regulation of Gene Expression and Cell Replication**

Chair: *Walter Keller* and *Renato Paro*

9.15 h *Peter Becker*, Munich

Nucleosome remodelling by CHRAC: chromatin dynamics and more

9.45 h *Francis Stewart*, Dresden

Epigenetics of active chromatin

10.15 h **Coffee break**

10.45 h *Walter Keller*, Basel

Quality control of RNA: new roles for new poly(A) polymerases

11.15 h *Eiman Aleem*, Frederick/Alexandria

The cell cycle revisited: Cdk1/cyclin E complexes regulate the G1/S phase transition of the cell cycle in vivo

11.45 h *Martin Vingron*, Berlin

Computational methods in gene expression and gene regulation

12.15 h **Lunch break**, DKFZ Cafeteria

**Haematopoietic Stem Cell Differentiation and Cancer Therapy**

Chair: *Thomas Graf* and *Anthony Ho*

13.30 h *Anthony Ho*, Heidelberg

Introduction

13.40 h *Thomas Boehm*, Freiburg

Lymphoid development in mouse and zebrafish

14.10 h *Thomas Graf*, New York

Cell fate decision of blood cells

14.40 h *Achim Leutz*, Berlin

Molecular genetics of an onco-developmental gene switch

15.10 h **Coffee break**

15.30 h *Radek C. Skoda*, Basel

JAK2 mutation in the pathogenesis of myeloproliferative disorders

16.00 h *Rainer Haas*, Düsseldorf

Molecular characterization of circulating haematopoietic stem cells

16.30 h *Thorsten Heinzel*, Jena

Histone deacetylase inhibitors in cancer therapy

**Poster Discussion** with coffee

17.00 h Lecture Rooms 1 and 2, Communication Center
Saturday, May 13, 2006, DKFZ Communication Center, Lecture Hall

**Highlights of DKFZ Research Programs (RP)**
Chair: Dietrich Keppler and Annemarie Poustka

- **9.00 h** Christof Niehrs
  - RP Cell Biology and Tumor Biology: Highlights in tumor and cell biology at the DKFZ

- **9.25 h** Jörg Hoheisel
  - RP Structural and Functional Genomics: Functional genomics and proteomics in cancer research

- **9.50 h** Clarissa Gerhäuser
  - RP Cancer Risk Factors and Prevention: Cancer without disease? Highlights from cancer chemoprevention research

- **10.15 h** Coffee break

- **10.45 h** Bruno Kyewski
  - RP Tumor Immunology: Tumor tolerance: obstacle and chance

- **11.10 h** Jürgen Biederer
  - RP Innovative Diagnostics and Therapy: MRI of lung cancer

- **11.35 h** Jörg Schlehofer
  - RP Infection and Cancer: Virotherapy of cancer

**Social events**

Friday, May 12th, 2006

**20.00 h** Reception by the Management Board and Alumni DKFZ

Heidelberg MD Orchestra
Conductor: Michael Steinhausen

*Otmar D. Wiestler: Perspectives of cancer research at DKFZ*

Saturday, 13th, 2006

**14.30 h** Boat Trip on the Neckar River

Boarding platform: Marriott Hotel, opposite from the DKFZ
(Snacks and drinks available at own expense)

**Registration and Call for Abstracts**

We ask all Alumni and current DKFZ Scientists who plan to participate in the Meeting to register by April 5th, 2006, and those Alumni who intend to present a poster to inform us by then as well, and to submit the title and a short abstract (about one page) for their poster. Participation in the scientific program is free of registration fees. Registration forms can be downloaded from www.dkfz.de/alumni. Registration will be confirmed by e-mail.
### APPOINTMENTS

**Prof. Heike Allgayer** is Head of the newly founded Clinical Co-operation Unit Molecular Oncology of Solid Tumours. The Unit addresses two central aspects of solid tumors: the wide individual variability in disease progress and the proneness to invade other tissues and disseminate cells.

**PD Dr. Jürgen Biederer** took up the position as Head of the newly established Emmy-Schmitt-Group within the Division of Radiology. His aim is to develop new imaging methods to improve lung cancer diagnostics and therapy.

**Dr. Federico Canzian** is in charge of the Working Group Genomic Epidemiology within the Division of Molecular Genetic Epidemiology.

**Prof. Ingrid Herr** is Head of the newly established Working Group Molecular Uro-Oncology within the Division of Cellular and Molecular Pathology.

**PD Dr. Harald Herrmann-Lerdon** heads the Working Group Functional Cell Architecture within the Division of Molecular Genetics.

**Dr. Gislene Pereira** is in charge of a new Research Group funded by the “Impuls- und Vernetzungsfonds” of the President of the Helmholtz Association. The scientific focus is on the molecular biology of centrosomes and their role in the cell cycle.

**Prof. Wolfgang Schlegel**, Head of the Division of Medical Physics in Radiation Oncology, has been appointed Member of the Medizintechnischer Ausschuss des Bundesministeriums für Bildung und Forschung.

**PD Dr. Olaf Witt** took up the position as Head of the Clinical Co-operation Unit Pediatric Oncology. He is addressing the question by which mechanisms the differentiation programme in tumor cells is triggered.

### RETIREMENT

**Prof. Wulf Dröge**, Head of the Division on Immuno-Chemistry, retired on April 1, 2005.

### AWARDS

**Prof. Werner Franke**, Head of the Division of Cell Biology, was appointed Honorary Member of the German Association of Cell Biology for his pioneering and internationally outstanding work in this field.

**Prof. Otmar D. Wiestler**, Chairman and Scientific Member of the DKFZ Management Board, received the Verdienstkreuz am Bande des Verdienstordens der Bundesrepublik Deutschland for his sustained commitment to medical research, especially in the field of neurosciences.

**Prof. Harald zur Hausen**, former Chairman and Scientific Member of the DKFZ Management Board, was awarded the title “Honorary Doctor” by the Medical Faculty of the University of Erlangen/Nürnberg for his excellent work in cancer research and his care for scientific and personal relations with the University. Moreover, the renowned cancer researcher was honoured with this year’s Prince Mahidol Award endowed with 50,000 US-Dollar. The Prince Mahidol Award Foundation, named after His Royal Highness, the late King of Thailand, dedicated the Award to zur Hausen for his outstanding commitment to the field of public health.

Three young scientists from Heidelberg received this year’s Walther und Christine Richtzenhain Award endowed with 4500 Euros: **Dr. Amir Abdollahi** (left) and **Dr. Christian Thieke** (right), German Cancer Research Center, and Dr. Oliver Hantschel, European Molecular Biology Laboratory (EMBL).

**Sonia Nielles-Vallesspin** was honoured for her outstanding doctoral thesis in physics conducted in the Division of Medical Physics in Radiology. She received the Dr. Moser Award endowed with 5,000 Euros.

**Dr. Leif Schröder**, former member of the Division of Medical Physics in Radiology, obtained the Philips-Prize of the German Association of Medical Physics endowed with 1,500 Euros.
**Awards**

**Prof. Matthias Löhr**, Head of the Clinical Co-operation Unit Molecular Gastroenterology, is one out of three awardees who won the Innovation Award of the Family Klee Foundation. The prize of 5,000 Euros is granted for his recent work in gene therapy.

The Alfried Krupp Award 2005 for young University Professors is dedicated to **Prof. Heike Allgayer**, Head of the Clinical Co-operation Unit Molecular Oncology of Solid Tumors. The remarkable sum of one Million Euros aims at stimulating the establishment of an independent research group throughout the next five years. Additionally, Allgayer received the Young Cancer Researcher Award 2005 (2000 Euros) of the European Association for Cancer Research (EACR).

**Prof. Volker Schirrmacher** and co-workers of his Division of Cellular Immunology together with Dr. Hans-Herbert Steiner, Neurosurgical Hospital at Heidelberg University, received the Clinical Science Award 2004 of the German Association for Immune Therapy. The researchers were honoured for their publication on “Anti-tumor vaccination of patients with glioblastoma multiforme in a case-control study: Feasibility, safety and clinical benefit”.

Scientists of the German Cancer Research Center are among the four winning teams in the competition „New Research Topics“ for Health Sciences within the Helmholtz Association. The innovative and promising research proposals are funded with 200,000 Euros each. Among the winning teams are  **Dr. Frank Lyko** (above, right), provisional Head of the Division of Epigenetics, and  **Dr. Jörg Hoheisel** (above, left), Head of the Division of Functional Genome Analysis.

The role of stem cells in gliomas is a prize-winning project proposal in the Helmholtz competition by  **Dr. Bernhard Radlwimmer** (above, left), Division of Molecular Genetics, **Professor Otmar D. Wiestler**, DKFZ, and **Dr. Christel Herold-Mende**, University of Heidelberg, and Professor Helmut Kettenmann of Max-Delbrück-Center for Molecular Medicine. Additionally, **Dr. Jan Mollenhauer** (above, right), Division of Molecular Genome Analysis, received an award for his proposal on “meta-diseases”.

The tandem of **Dr. Michael Boutros** and **Dr. Adelheid Cerwenka** (above), both Heads of Boveri-Junior-Groups, were also successful in the competition of the Helmholtz Association.
New Helmholtz President

The Senate of the Helmholtz Association elected Professor Jürgen Mlynek as the successor to Professor Walter Kröll. Dr. Mlynek took up his new position on September 1, 2005, as Walter Kröll handed over office after having completed the first phase of Helmholtz reform.

It was quite a surprise when on May 22, half an hour after the polling stations had closed for the state election in Nordrhein-Westfalen (NRW), SPD Chairman Franz Müntefering addressed the press and announced new elections for the Bundestag in the forthcoming autumn after having consulted Chancellor Gerhard Schröder on this matter.

The reason for this unexpected coup were the disappointing results of the Social Democrats (SPD) in the Federal State with the highest number of population - the end of a series of defeats in state elections. In comparison: in 2000 the SPD gained 42.8 percent of the votes in the elections for the NRW parliament and thereby became by far the strongest party, with a six percent lead to the CDU result of 37 percent. However, this year the Christian Democrats (CDU) reached 44.8 percent in the SPD stronghold, nearly 8 percent more than the Social Democrats’ 37.1 percent. This political landslide forced the SPD party leaders to react. On July 1, the Chancellor asked parliament for a vote of confidence. As this wasn’t passed – paradoxically in concordance with the Chancellor’s intention -, Schröder made the suggestion to dissolve the Bundestag to Federal President Horst Köhler. After three weeks time for reflection Köhler indeed dissolved the parliament and announced a new election for September 18. Although this procedure was quite controversial according to the experts, the Federal Constitutional Court confirmed the dissolution of the Federal Parliament as constitutional on August 25. Now the way was paved for new elections.

Parliament elections

The second surprise was the result of the election of September 18. After the CDU/CSU had been far ahead the SPD and nearly reached an absolute majority in opinion polls in the weeks and months before the election the actual result suddenly turned out to be totally different. While the CDU/CSU were still the strongest fraction in parliament with 35.2 percent of the votes, they were only 1 percent ahead of the SPD – against all the odds. Even more severe was the fact that because of this disappointing outcome the plan for a Black-Yellow coalition failed despite of the success of the Liberal Party FDP that reached nearly 10 percent. This led to a new paradox: the Social Democrats and, first of all, Gerhard Schröder himself, who had strived for an unmistakable and clear vote to form a new base of confidence for his policy, regarded themselves as the actual winners even though they were no longer the strongest fraction in parliament and had lost the majority for a Red-Green coalition. This became evident in the Chancellor’s behaviour on election night when he declared vociferously that under no circumstances would there be a new CDU/CSU-SPD-government headed by a Chancellor Merkel. At the same time the Christian Democrats adhered unperturbably to their claim of the chancellor post.

Neither Red-Green nor Black-Yellow won the majority due to the fact that the PDS Party fused with the WASG (abbreviation for “election alternative for social justice”) to form a new left wing party named “Linkspartei” with Oskar Lafontaine and Gregor Gysi as drawing cards and that this political group succeeded with a nearly 9 percent result. Schröder gave in and hinted at his resignation after the CDU had gained another mandate in a by-election on October 2, which had to be held because of the death of a candidate in the electoral district Dresden I. As the FDP consequently rejected any exploratory talks with the SPD which could result in a so called “Ampel-Koalition” (for the colours of traffic lights reflecting the red SPD, the yellow FDP and the Green Party), and as the Green Party showed no interest in forming a possible “Jamaica-Coalition” consisting of CDU/CSU, FDP and the Green Party, the only way to prevent the arrangement of yet new elections seemed to be a big coalition of CDU/CSU and SPD.

In the course of the exploratory talks between the two partners in early October it became evident that the Social Democrats might withdraw their claim for the chancellor post and accept Angela Merkel as head of the new government. In return the SPD was guaranteed eight ministry posts. On October 17, negotiations were initiated with the aim to of
Presenting a coalition treaty by November 11. things now seemed to work out well, since coalition negotiations were conducted constructively on both sides. Still, the next big surprise was on its way.

**The first German Woman Chancellor**

On October 31, SPD Chairman Franz Müntefering who acted as negotiator and who was the designated Vice Chancellor announced his resignation from the party chairman post after the party Managing Board had nominated Andrea Nahles Secretary General against his explicit request. This situation seemed to put further coalition talks at risk. Additionally, the following day CSU Chairman Edmund Stoiber, the designated Minister of Economic Affairs and Technology, declared that under these circumstances he would not be a cabinet member. Fortunately, the situation was eased quickly when the Managing Board of the SPD party agreed on the nomination of Matthias Platzeck, Prime Minister of Brandenburg, for the chairman post. On November 15, he was indeed elected with an excellent result, and in recent polls he has turned out to be the most popular German politician. It was also helpful that Franz Müntefering expressed his willingness to join the cabinet as Minister of Employment and Social Affairs as well as Vice Chancellor. Platzeck’s readiness to assist Müntefering in negotiating the coalition treaty and his constructiveness made the presentation of the treaty on the set date possible so that it could be approved by the Party Congresses. On November 22, Angela Merkel, who had stayed objective and statesmanlike throughout the whole debate, was elected the first female chancellor of the Federal Republic of Germany after seven male predecessors putting an end to a six month period of no operational political measures. The question now is: What is going to change?

**What next?**

Giving in to Stoiber’s request the new coalition planned to move the competences for technology, transport and space matters from the Federal Ministry of Education and Research to the Ministry of Economics, the Ministry originally offered to Stoiber. This would be an extremely critical decision, Professor Jurgen Mlynex, President of the Helmholtz Association of National Research Centers, pointed out. Thereby, research, knowledge and technology transfer as well as economical innovations which are essential prerequisites for the creation of value and the cause of mutual effects, would be separated from each other, he said.

Further, it has to be stated that the enormous urgent problems society has to face are still to be solved. The demographic development with increasing numbers of elderly people causes problems of immeasurable extent, in particular reflected in the rise of expenses for health care. This development alone cries out for extensive reforms. The national debt has beaten records. The increasing amount of subventions to the public pension fund, the pension aspirations as well as interests for already existing debts leave the government with little scope to actively develop solutions. The Federation and the Federal States represented by the Bundesrat (Federal Council of Germany) have been paralyzing each other for years. The number of unemployed has reached 5 million. Among the states of the European Union Germany has had the lowest economic growth rate for many years. When it comes to education and research the Federal Republic has difficulties to catch up with other countries. The German tax system is by far the most complicated one in the world. Non-wage labour costs amount to 40 percent and are an additional obstacle on the employment market. In 2006 the national budget will not meet the EU-criteria for stability for the fifth time in a row.

Facing the profound changes the Federal Republic has to cope with, a big coalition is presumably also a great chance. Enormous and long overdue reforms can probably be implemented more easily by a strong majority in parliament. A first sign could be the fact that the coalition partners quickly agreed on raising the retirement age step by step from 65 to 67 years – a measure that requires some courage since neither of the parties had dared to tackle the subject before, not even in their political programme. Time is also ripe for the reformation of the Federal System. The reorganization of the Health System seems to be much more difficult as the two partners prefer different healthcare models. Both coalition partners consented to the common goal of balancing the national budget. However, a new budget plan that meets the criteria of stability is to be presented for the year 2007 when value added tax will be raised from 16 to 19 percent. It remains to be seen whether an economic upturn and a decrease of the unemployment rate can be reached. These are certainly going to be the criteria by which the new government’s political performance will be judged. But you never know, the new government might have more surprises in store.
Generous Donations

We would like to remind all Alumni that membership in our Association has to be formalized since we have become a registered institution in 2004. In the meantime, many former Guest Scientists and co-workers of the DKFZ, and even a number of scientists currently working at the DKFZ have joined the Alumni Association. However, there are many more potential members. Since membership is not gained automatically, we kindly ask those of you who did not receive a formal approval of their membership from the Alumni Secretariat previously to register at their earliest convenience. It takes only a few minutes to complete a membership application form which is available via the homepage of the DKFZ (http://www.dkfz.de/alumni) or can be provided by the Alumni Secretariat (e-mail: e.mang@dkfz.de). We sincerely hope that all of you who are interested to join will find these few minutes.

At the first general assembly of the Alumni Association all participants unanimously agreed that we should not ask for membership fees for several reasons, particularly since many of our members are from abroad or at an early stage of their scientific career. As pointed out in our last Newsletter, however, the Association needs financial resources to be able to continue and possibly extend its activities, some of which are reflected in this Newsletter. At present we largely depend on the generous support by the DKFZ Management Board, for which we are most grateful. But in the long run the Association needs more financial support from its members in order to reach the aims put down in our constitution, especially to provide funds for initiating scientific contacts of young scientists from abroad with colleagues from the DKFZ. Recently, we have also been asked by participants of the International PhD Program whether they might get some help to attend important international conferences.

Some of you may have noticed that we have called for donations in our last Newsletter. Actually, we have to thank some members for generous donations after the first spontaneous gifts by two Alumni from the USA. We gratefully acknowledge this generosity, but, nevertheless, have to repeat our previous call for donations. Please, refer to the following bank account for your donation:

Germany:
Sparkasse Heidelberg
(Account-Nr.: 1000597810)

Abroad:
Sparkasse Heidelberg,
IBAN: DE31672500201000597810,
BIC/SWIFT: Solade S1 HDB

Of course, we can expect donations only from those members who are well-established and estimate the goal of our association, which is not only to come together and refresh old acquaintances but to further cancer research in the DKFZ and related institutions all over the world. With this in mind, we would appreciate your donations. All of you who have favourable relationships to companies which might be prepared to support the activities of our Association are requested to pass on the news on the Alumni DKFZ Heidelberg.

Appointments and Awards of Alumni

It was only by chance that we learned from the internet that Andrea Mastro, who has highlighted the gathering of Alumni and current DKFZ scientists at AACR 2005 in this Newsletter, has received a prestigious award for her outstanding research on breast cancer (see p.7). This experience prompted us to remind all Alumni that we would greatly appreciate information on similar events (e.g. important new appointments, awards) for our listing in the Newsletter. This would not only give all readers the chance to follow the scientific careers of Alumni, but also help to further develop an international network of cancer researchers related to the DKFZ. We also explicitly invite former Guest Scientists to contribute reports on their experience in Heidelberg, as exemplified in this Newsletter by Teresa Trevisan from Brazil, and in previous Newsletters by Ada and Donald Olins from the USA, and Qin Su from China.

Alumni Addresses

We frequently have difficulties in reaching Alumni when their addresses change. Please, do not forget to inform the Alumni Secretariat (see imprint on last page) whenever you change your address. We also would appreciate all available e-mail addresses from Alumni in order to improve communication.

Alumni Club Heidelberg

During the first Alumni Meeting at the DKFZ in June 2004, Hilke Stamatiadis-Smidt, former Head of the Public Relations Department at DKFZ, suggested a regular regional alumni meeting in Heidelberg. Upon invitation by the Board of Alumni Deutsches Krebsforschungszentrum, about 25 Alumni from the Heidelberg area met for the first time in the restaurant Kulturbrauerei on March 16, 2005. It was agreed that those meetings should be held once or twice a year (spring/autumn), if possible with a presentation of new developments in the DKFZ.

The second meeting of the Alumni Club took place in October, at the Liberty, Heidelberg-Wieblingen. In a relaxed atmosphere 20 Alumni met to refresh acquaintances. The special event of the evening was a lecture by PD Dr. Dirk Jäger, Head of the Interdisciplinary Oncology Department at the NCT (National Center for Tumor Diseases Heidelberg, see also pp. 2/3) on structure and the aims of the newly founded Comprehensive Cancer Center. After the lecture a lively discussion rose, especially on new concepts to be realized in practice.
Historical Highlights of Heidelberg and Speyer

On the trace of Heidelberg’s most famous visitors

About 20 Guest Scientists from India, Russia, Poland, China and other countries joined together on an extremely hot day in June for a tour through the old town of Heidelberg guided by Charlotte Frey. A first highlight was the famous Great Hall of the University (Alte Aula) where the guide introduced the visitors to the History of the University. The Witches Tower caused many guest scientists to take a snapshot. The walk through the old town included the renaissance building, Hotel Ritter, with a short glance at its history, a stop at the Old Bridge where the story of the monkey sculpture was told and a visit to the Holy Ghost Church. By cable car we went up to the courtyard of the ancient Castle where Charlotte Frey introduced us to the Kurfürsten who had lived and loved here many years ago. The view from the terrace showed the Neckar valley up to the Rhine plain. The last destination of the tour was the Kulturnbrauerei Heidelberg where the Brewer explained to us the processing of yeast, hop and malt. As it was extremely hot in the cellar everybody longed for a beer which was served for a trial together with a Pretzel.

While learning various facts about the writers Mark Twain and José Rizal, the Schurmann library on American history and chemist Robert Wilhelm Bunsen throughout the Heidelberg tour the

On a hot day the Biergarten of the Kulturnbrauerei is a nice place for recreation and a cold, refreshing beer.

The most remarkable sight was the Cathedral of Speyer where the Guest Scientists were introduced to the history at this world cultural heritage.

Guest Scientists got to know each other over cold, refreshing beer more closely, especially during the dinner at the Kulturnbrauerei which was enjoyed in the Biergarten outside in the early evening.

Speyer: City of the Cathedral and the Emperors on the Rhine

A misty veil covered the fields when we looked out of the window in the S-Bahn on Saturday, September 24. The destination of our group, nearly 30 Guest Scientists and the Organizers of the tour, was Speyer, the City of the Cathedral and the Emperors on the Rhine. When we arrived there, surprisingly blue sky and bright sunshine awaited us. A stroll through the old town led us to the Cathedral (world cultural heritage) were an American guide introduced us to its history. Afterwards another guide accompanied us through various sight seeing points of Speyer. One of the most important was the Jewish Bath, established in 1128, the oldest known bath complex for cleaning rituals in Germany. Afterwards the market of Speyer offered an abundance of flowers, fruits and other delicacies. In front of the town hall we were told a humorous story about the historical custom that citizens ask the mayor critical questions after each year. A challenge were the many stairs that had to be climbed up at the town-gate Altpörtel. The magnificent view from above compensated us for the previous strains. Everybody was nearly starving at 1.30 p.m. and glad to have lunch at the Amadeus restaurant where all the impressions of the tour were discussed vividly.

Gerhard van Kaick/Elfriede Mang

Professor van Kaick kindly agreed to co-ordinate the social activities of the Guest Scientist Program of the DKFZ and the Alumni Club Heidelberg
Obituary

Professor Dr. Stanislav Ivanković, Head of the Division of Perinatal Toxicology and Chemotherapy, passed away in September 2005 at the age of 74 years. Dr. Ivanković made significant contributions to the establishment of several animal models regarding transplacental and perinatal carcinogenesis by nitrosamines and nitrosamides.

Sunset over an ornate bridge in the summer palace in Beijing

This beautiful picture may be taken as a symbol of many bridges which have been built inside and outside of Germany by the Alumni Association during the ending year. We sincerely hope that these bridges will be increasingly used and complemented by numerous additional bridges between Alumni in the years to come.

Best wishes to all of you for a full and prosperous New Year!