

# alumni



*Best wishes from a long-time companion in science: Nobel laureate John Michael Bishop (left) happily accepted the invitation to the farewell symposium for Manfred Schwab.*

## Celebration

The 10<sup>th</sup> Anniversary of the Alumni Association will come along with the celebration of the 50<sup>th</sup> Anniversary of the DKFZ: In 2014, there will be several special events, with the 6<sup>th</sup> Alumni Meeting from June 26<sup>th</sup> to 28<sup>th</sup> as one of the highlights. The focus will be on “Personalized Cancer Medicine” – a topic which is currently being nurtured by progress in genome sequencing. The challenges towards a patient-oriented application of individual genomic alterations are enormous. Join us and learn more on how to proceed in the quest towards improving the outcome of anti-cancer treatment.

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## Operation

A cost calculation for the cultivation of fish raised quite a smile in the audience during the farewell symposium for Manfred Schwab. He had joined John Michael Bishop’s laboratory in San Francisco in 1980 initially to study cancer in a fish model. But this “Operation Goldfish” failed. Schwab then put his focus to the analysis of human oncogenes, which led to the discovery of the role of the *N-MYC*-gene in Neuroblastoma. A wise decision as Bishop states in an interview reviewing the hurdles and chances on the road to success in science.

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## Destination

Europe is a vibrant and attractive environment for research and innovation, yet not fully recognized by US-Americans. In order to raise the awareness of the diverse career opportunities, the European Commission and the Member States have launched the campaign Destination Europe. An event in April in Washington featured speakers from Austria, Denmark, France, Germany, Poland and Spain as well as the European Union who addressed research issues related to the life sciences and biomedicine. Find out more on the offers for new and experienced researchers.

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# editorial

*Dear Alumni, Colleagues, and Friends,*

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Front cover, p. 5, p. 7: DKFZ/J. Eufinger; p 1: all DKFZ, except bottom row, second left: University Hospital Heidelberg, Medienzentrum; p. 2.: DKFZ/J. Jung; p. 3: DKFZ/M. Müller; p. 4, left: DKFZ/T. Schwerdt; bottom: wikimedia commons; p. 6/7: DKFZ/F. Westermann; p. 8, left: private, top: wikimedia commons, middle: private; right: IARC; bottom: DKFZ/T. Schwerdt; p. 9: private; p. 10: Heidelberg Alumni International (HAI); p.11: private; p. 12, 13: DKFZ; p. 14, top: private, bottom: DKFZ; p.15, 16: DKFZ/Y. de Andres; p. 17: top: PIA Stadt Frankfurt am Main/ B. Wettelsbach, Kontrast Fotodesign GbR, middle and bottom: G. van Kaick, bottom, right: PIA Stadt Frankfurt am Main/H. D. Fehrenz; back: DKFZ/Y. de Andres.



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The order of events reported in any publication does not always reflect their significance and impact. One of the most encouraging developments during the last 6 months affecting all involved with the DKFZ is communicated on the back cover page: An international review panel expressed a high level of enthusiasm about the Helmholtz Program Cancer Research and ranked the scientific quality and strategic significance in all seven topics between excellent and outstanding. No doubt that such an evaluation result can only be achieved by a productive cooperation of all DKFZ members, from apprentices to Management Board.

In view of the tremendous expansion of the DKFZ, and to pave the way for future success, the question has emerged „How should the DKFZ governance structure look in the future in order to secure and expand our prime position (...) despite growing complexity and dynamics?“ (p. 1). In response, a Strategy Board consisting of distinguished members of the DKFZ has been established to develop concepts and advise on “how best to deploy financial and structural resources to greatest outcome”.

Yet, how do we determine greatest outcome? Commonly used indicators are publications, level of extramural grants, and awards. An additional aspect is offered in an interview with Nobel Prize winner Mike Bishop (p. 5). Referring to ambition he quotes the famous British mathematician Godfrey Harold Hardy, who said “the most important ambition for a young person should be to leave behind something of value”. Obviously, this addresses the matter of “achievement”. For this, as Mike Bishop adds, sometimes one just has to “be in the right place at the right time”.

The past 30 years have seen an enormous accrual of information on molecular pathways of cancerogenesis. “Why do we know so little when we have so much information?” is a question put forward by US scientist Noam Chomsky. All along, scientists have tried to find ways to apply molecular knowledge for the benefit of the patient – a quest now cumulating under the label “Personal-

ized Cancer Medicine”, which will be the topic of the scientific part of our Alumni meeting next year. 2014 marks the 10<sup>th</sup> anniversary of the DKFZ Alumni Association and at the same time the 50<sup>th</sup> anniversary of the DKFZ. Distinguished speakers from the US, France, Israel and Germany will discuss the potential and challenges of Personalized Cancer Medicine (p. 3-4). Another important part of the Alumni meeting will address scientific mentoring with three distinguished speakers presenting individual experiences during their scientific careers. Insight into the activities of Heidelberg Alumni International of Ruperto Carola will be given by Silke Rodenberg. Another attractive item surely will be the Alumni Reception, featuring an award ceremony to honor outstanding achievements of young investigators. A new section of the Newsletter addresses “Alumni affairs” (p. 16). Obvious is the recent increase in membership, an indicator of growing interest in the Alumni Association. As a new feature, members will be contacted to answer questions concerning Alumni issues, thereby hopefully providing valuable information for further developing Alumni matters. In this issue, long-time Head of the DKFZ press office Hilke Stamadiatis-Smidt states her view. This issue of the Alumni Newsletter can report only on a part of the important events that have been going on during a good part of 2013. The professional design of the Newsletter including splendid artwork has been solely the work of Dagmar Anders, with Elfriede Mang helping considerably in selecting the topics. Both should be recognized as driving forces in bringing this Newsletter to life. Thanks also to the other Board Members, Konrad Buschbeck, Gerhard van Kaick and Lindsay Murrells who have critically accompanied this process and are a constant source of encouragement. Finally, thanks must go to the DKFZ Management Board for continued support of Alumni matters.

With best wishes from Heidelberg

*Heinrich Heine*

# management

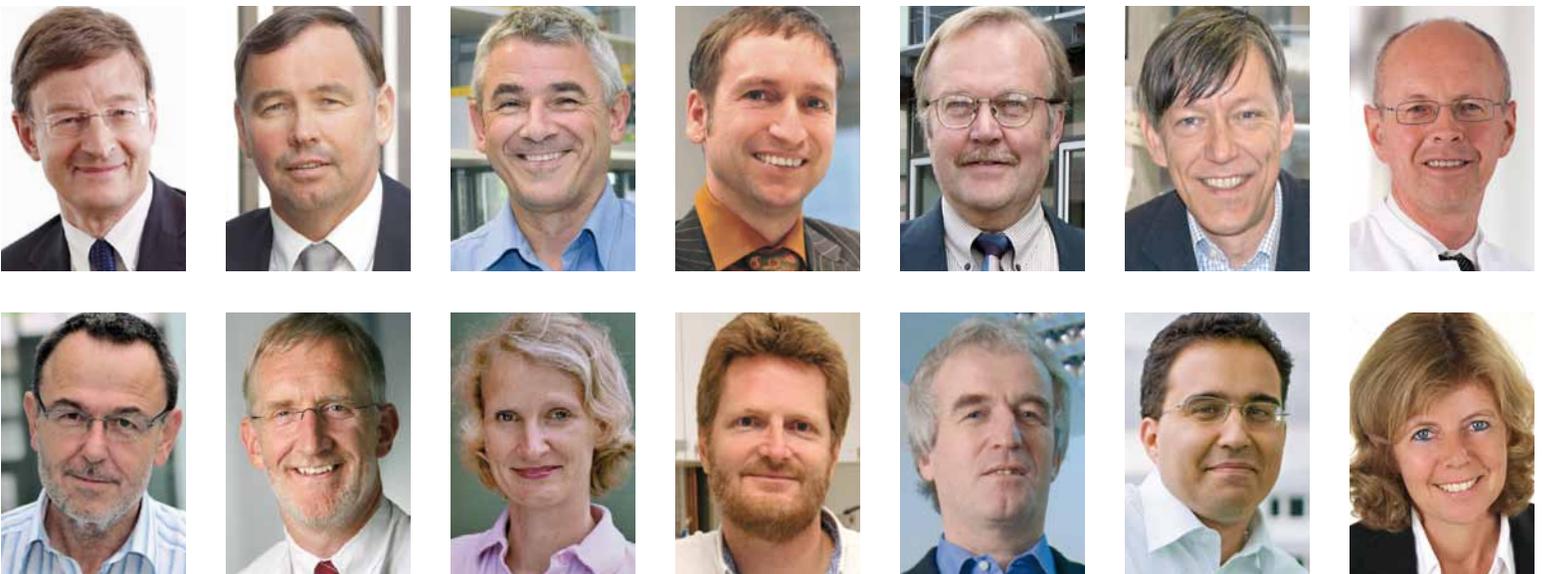
## Structures: Set for the Future by Gabriele Schulze-König

*In the course of the past years, the DKFZ has grown a lot – in terms of scientific research fields, personnel and physical area – and has been the driving force behind many new activities. Prominent examples are the National Center for Tumor Diseases (NCT) Heidelberg, which is now accommodated in its own building, the DKFZ-ZMBH-Alliance, HI-STEM, the German Cancer Consortium (DKTK) and many more. The consequences of this growth are new challenges for the management and organizational structure of the DKFZ.*

It was no easy undertaking for some 40 scientific and administrative staff members when they met for three days at the end of May 2012 to participate in a MalikSyntegration® to brainstorm the future governance of the DKFZ. The Syntegration is a complex and highly structured method, with the help of which concrete recommendations to address the following starting question were elaborated: “How should the DKFZ governance structure look in the future in order to secure and expand

our prime position in cancer research in the next years despite growing complexity and dynamics?” Starting with almost 250 topics suggested by the participants, 12 topics were chosen through a very systematic filtering process. During almost three days, those topics were elaborated on intensely, which eventually led to a catalogue of measures comprising 33 fields of action. This catalogue of measures constituted at the same time the starting point for the implementation process, which was intensively worked upon during the past months. Concrete results of the Syntegration process are – only to name a few –, for example, the greater budget responsibility delegated to division heads since the beginning of the year, the development of a training program for scientific-technical personnel, the intensification of the scientific marketing of the DKFZ as well as the establishment of a new committee, the Strategy Board. This panel advises the Management Board in all significant scientific and administrative/infrastructural decisions.

The Strategy Board discusses with the Management the strategic direction for the Center, the development of research topics, assesses whether new research programs should be taken up, as well as whether existing ones should be continued, and elects a person to accompany recruitment procedures as “caretaker”. Other areas include important personnel decisions, further development of the graduate and post-graduate programs, as well as junior researcher development and promotion of women in science, establishment and expansion of national and international cooperations, quality control and monitoring of scientific results. Furthermore, the Strategy Board develops concepts for the DKFZ and advises on how best to deploy financial and structural resources.



*The strategy board is composed of the Management Board Prof. Otmar D. Wiestler and Prof. Josef Puchta and the Spokesmen of the Research Programs Prof. Hellmut Augustin, Prof. Roland Eils, Prof. Kari Hemminki, Prof. Hans-Reimer Rodewald, Prof. Heinz-Peter Schlemmer, Prof. Lutz Gissmann, Prof. Christof von Kalle, as well as Prof. Ursula Klingmüller, Dr. Jörg Hoheisel as chairman of the Scientific Committee, Prof. Peter Lichter, and Prof. Michael Boutros. In addition, Dr. Stefanie Seltmann, Head of Press and Public Relations, attends the fortnightly meetings as a permanent guest (pictured above from left to right).*

# anniversary

## 10 Years Alumni DKFZ – 50 Years DKFZ Heidelberg 6<sup>th</sup> General Alumni Meeting on June 26 – 28, 2014

It is now almost a decade since the foundation of the DKFZ Alumni Association in 2004. In fact, the 10<sup>th</sup> Anniversary happens to come along with the celebration of the 50<sup>th</sup> Anniversary of the DKFZ. Throughout 2014, there will be several special events, with the 6<sup>th</sup> General DKFZ Alumni Meeting, scheduled from June 26<sup>th</sup> to 28<sup>th</sup> as one of the highlights. The topic of the meeting will be “Personalized Cancer Medicine”,

an area of cancer research that is attracting increasing attention. The basic idea behind personalized cancer medicine is to utilize specific patient information for optimizing both individual diagnosis and prognosis, for tailoring individualized therapy design as well as for monitoring individual treatment success. As the most widely employed approach, patient information is being generated by analyses of genes as well as by determining the expression of genes, proteins and their metabolites. The discussion on personalized cancer medicine is currently being nurtured by progress in genome sequencing, however, the idea is not entirely new as documented by previous prototypic discoveries such as the role of the amplified *N-MYC* gene in treatment design of childhood neuroblastoma, or the therapy of HER-2 positive breast cancer. Ultimate goal of personalized cancer medicine is individualized cancer therapy, outstanding model is the treatment of chronic myelogenous leukemia (CML) with the kinase inhibitor STI-571 (known as “Gleevec”).

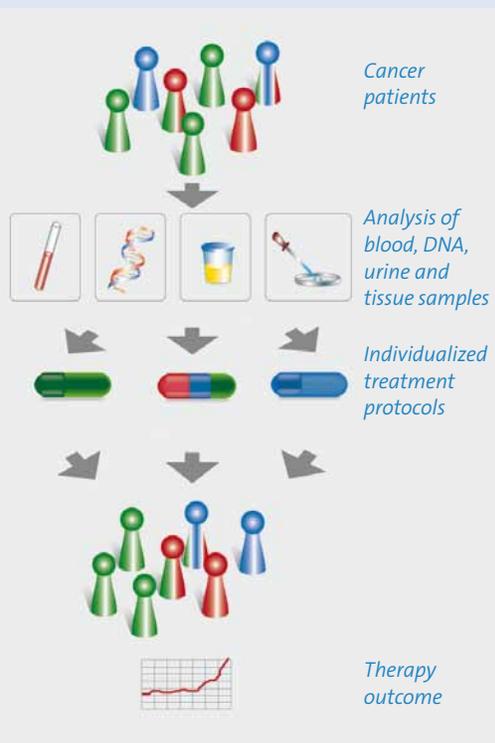
Human cancer cells are often characterized by a large number of point mutations – sometimes classified as “passenger” mutations with presumably no role in cancer and “driver” mutations. Though the distinction is not easy to make, it seems to be likely that numerous mutations will ultimately contribute to malignancy. Common mechanisms comprise the stimulation of proliferative signaling, the evasion of growth suppression, and resistance to programmed cell death. Additionally, replicative immortality, angiogenesis, and enhanced invasion and metastasis contribute to carcinogenesis. Further, more complex genomic damage, identified during previous years, like deletions, amplifications, and partial chromosome gain should not be neglected for constructing a molecular scenario of cancer development.

Personalized cancer medicine is clearly the way to go, however, the challenges towards a patient-oriented application of individual genomic alterations are enormous. Which of the complex genomic damages are important triggers (“driver”) for cancer development? How should we prioritize individual genomic changes to make feasible clinical studies even when patient numbers are limited? How should we deal with genomic heterogeneity within the individual tumor? In view of the known genomic instability of the tumor cell, how can we respond to the development of acquired treatment resistance?

To shed some light on these pressing issues, we cordially invite you to the 6<sup>th</sup> Alumni Meeting where experts from the US, Israel, France, and Germany will present their individual experience. Join us on the discussion and learn more on how to proceed in the quest towards improving the outcome of anti-cancer treatment.

In a session on Mentoring, Simone Fulda, Friedrich Rippmann and Axel Wiest will focus on different kinds of career opportunities for scientists. Further, you shouldn't miss the poster presentations of young scientists on recent research findings which will be concluded with an award ceremony. Beside three poster prizes of 300 euro each, two prizes of 3,000 euro each will be awarded for the first time to young investigators. You may also take advantage of the opportunity to exchange with current and former colleagues in a less formal way during both the reception and the excursion to regional sites in the wine-lands of the Palatinate. We look forward to welcoming you on the 10<sup>th</sup> Anniversary celebration of the Alumni!

*Manfred Schwab*



*The genetic disposition and the metabolic profile of a cancer patient strongly influence therapy outcome. In order to optimize treatment regimen and to avoid negative side-effects, differences between individuals are well considered in the concept of personalized medicine. Diagnostics of sets of biomarkers in blood, DNA, urine and tissue samples allow for patient stratification. Individualized treatment protocols help to improve therapy outcome.*

# meeting

## Thursday, June 26, 2014, DKFZ, Communication Center

- 12:15 Registration, Mounting of Posters  
(Foyer Communication Center)
- 12:45 **WELCOME** (Lecture Hall)  
Manfred Schwab, DKFZ
- MENTORING**  
Chair: Barbara Janssens, DKFZ
- 13:00 **Simone Fulda**, University of Frankfurt, Germany  
*Pediatric Oncology in the Era of Omics*
- 13:45 **Friedrich Rippmann**, Merck Serono, Darmstadt, Germany  
*Industrial Chemoinformatics and Drug Design*
- 14:30 **Axel Wiest**, Boehringer Ingelheim, Germany  
*Strategy Development and Implementation in the Biopharmaceutical Industry*
- 15:15 *Coffee Break*  
Chair: Manfred Schwab, DKFZ
- 15:30 SPECIAL LECTURE  
**John Mendelsohn**  
MD Anderson Cancer Center, Houston, USA  
*Personalized Cancer Medicine: Status and Challenges*
- 16:30 *Poster Session* (Foyer Communication Center)
- 17:30 **GENERAL ASSEMBLY ALUMNI ASSOCIATION**  
(Conferene Room K1/K2)  
**Agenda**
- Approval of the Agenda and of the minutes of the previous General Assembly
  - Report on the Activities of the Alumni by the Chairman
  - Report by the Treasurer
  - Report by the Auditors
  - Approval of the Board's Actions
  - Election of Board Members
  - Honorary members
  - Any other business
- 19:30 *Dinner at Kulturbrauerei, Heidelberg*  
(speakers and registered members)

## Friday, June 27, 2014, DKFZ, Communication Center

- PERSONALIZED CANCER MEDICINE**  
(Lecture Hall)
- 09:00 *Welcome*, Otmar D: Wiestler, DKFZ
- 09:10 *Introduction*, Manfred Schwab, DKFZ  
Chair: Manfred Schwab
- 09:30 **Nancy E: Davidson**, UPMC Cancer Center, Pittsburgh, USA  
*Breast Cancer in the Era of Precision Cancer Care*
- 10:15 **Alex Eggermont**, Institute Gustave Roussy, Paris  
*Integrative Precision Medicine: Current Developments in Melanoma*
- 11:00 *Coffee Break*  
Chair: Simone Fulda, University of Frankfurt
- 11:30 **Tom Sellers**, Lee Moffitt Cancer Center, Tampa, USA  
*Enhancing Precision Medicine through a Research Information Exchange: The Moffitt Cancer Center Approach*
- 12:15 **Christof von Kalle**, NCT Heidelberg, Germany  
*Taking Cancer Personally – The Precision Oncology Program at DKFZ/NCT*
- 13:00 *Lunch Break and Poster Presentation*
- 15:00 **Berta Strulovici**, Weizmann Institute of Science, Rehovot, Israel  
*INCPM: An Integrated Omics Approach to Basic and Clinical Research*
- 15:45 SPECIAL LECTURE  
**Josef Puchta**, DKFZ  
*The History of DKFZ in a Nutshell*



# meeting



## Friday, June 27, 2014, DKFZ, Communication Center

### RECEPTION (Foyer)

- 16:45 Welcome Drinks, Entrance Yard DKFZ
- 17:15 Welcome Address, Manfred Schwab
- 17:20 Award Ceremony (Alumni Award for Young Scientists, and 3 Poster Prizes)
- 17:30 Music (Popakademie Mannheim)
- 17:40 **Otmar Wiestler**, DKFZ  
*Recent Developments at DKFZ*
- 18:00 **Silke Rodenberg**, Heidelberg University  
*Heidelberg Alumni International (HAI)*
- 18:15 **Peter Bannasch**, Heidelberg  
*10 Years Alumni DKFZ Heidelberg*
- 18:30 Music
- 18:45 *Buffet*
- 19:45 *Transfer of Speakers to Schriesheim*
- 20:00 *Speakers' Dinner at the Strahlenberger Hof*

## Saturday, June 28, 2014,

### SOCIAL ACTIVITIES

(Departure from Communication Center)

- 09:30 *Bus trip to Hambacher Schloss, Visit to the village of Rhodt unter Rietburg (Palatinate)*

## Registration and Call for Abstracts

We ask all Alumni and current scientists of the DKFZ, the Heidelberg Life-Science Lab, Heidelberg University and related research institutions who plan to participate in the meeting to register by May 5, 2014. All Alumni or other participants, who intend to present a poster should submit the title and a short abstract by sticking to the deadline as well. Participation is free of registration fee.

For registration and poster application, please complete the online form on <http://alumni2014.dkfz.de/registration.aspx>; contact: Elfriede Mang, e-mail: [alumni@dkfz-heidelberg.de](mailto:alumni@dkfz-heidelberg.de), phone +49 (0) 6221 42-4499.



## The Secret of Being in the Right Place at the Right Time

*The American immunologist and microbiologist John Michael Bishop is best known for his Nobel-winning work on retroviral oncogenes. Working with Harold E. Varmus in the 1980s, he discovered the first human oncogene, c-Src. Their findings allowed the understanding of how malignant tumors are formed from changes to the normal genes of a cell. For their exceptional work, he and Harold E. Varmus were awarded the 1989 Nobel Prize in Physiology or Medicine. In an interview with Stefanie Seltmann, Head of Press and Public Relations, Bishop talks about the importance of collaboration in science and the excitement of a value creating discovery. The witty researcher sheds some light on the mysteries of Xiphophorus fish and describes a passion common to both investigators and artists.*

**Seltmann:** *Dr. Bishop, you wrote a book entitled “How to win the Nobel Prize”, do you have a secret how to get the prestigious award?*

Bishop: (laughs) No, no, I don't have a recipe. The book title was meant to be ironic. It started as a lecture title, but people were so amused about it, that I decided to keep it for the book. If there is a recipe, it is to be in the right place at the right time and, of course, to recognize that you are in the right place at the right time.

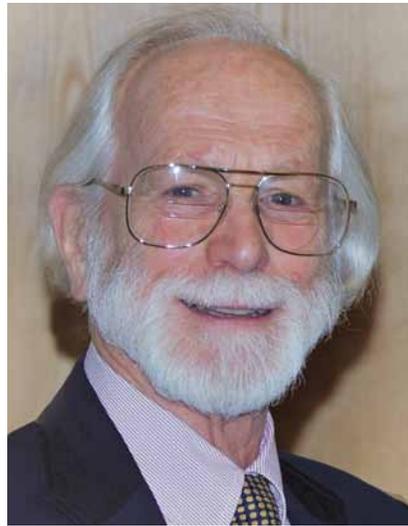
**Seltmann:** *And having the right partner? You worked together with Harold Varmus and both of you received the Nobel Prize for “the discovery of the cellular origin of retroviral oncogenes”. How important is collaboration in science?*

Bishop: Well, there are many scientists who have made major discoveries on their own, but it has become more and more difficult for the Nobel Committee to restrict the prizes to three for each category in science. That tells you that more and more discoveries come from collaborations. But if you look at the Nobel Prizes or other major research awards, you will find a history of one or very few people who had the prize-worthy idea and who proved it. Certainly,

Harold and I brought different things to the cooperation. Whether either of us would have made the discovery working alone, before somebody else eventually did – who knows? I personally rather doubt it.

**Seltmann:** *The Head of our Alumni Association, Manfred Schwab, joined your lab, too, back in the eighties. What do you remember about him?*

Bishop: Oh, I remember a lot about him (laughs), because he had this peculiar experimental system that he wanted to bring to my laboratory: the Xiphopho-



rus fish, which inherits melanomas, a very dangerous tumor that we really wanted to know something about. Manfred knew how to work with these fish. So when we went to the local aquarium, where it took him about five minutes to figure out that they really weren't very good at keeping fish alive. So we just didn't have a practical way to continue the work.

**Seltmann:** *And then? What did Manfred Schwab do?*

Bishop: To Manfred's credit – and this is what makes a good scientist – he shifted gears. He shifted directions immediately. He teamed up with another postdoc in my group, and together they decided to look for proto-oncogenes that are present in too many copies in cancer cells. They chose neuroblastoma, because there were lots of cell

lines from this tumor that contained regional amplification of chromosomes, a sign of increased gene copies. We had simple techniques to look at gene copy numbers. They got lucky and discovered a new proto-oncogene known as N-Myc that was amplified and overexpressed in many neuroblastomas. So, right there a collaboration sparked the whole thing.

**Seltmann:** *Were you thrilled as a physician when it became apparent that N-Myc amplification was relevant for the outcome of the neuroblastoma disease and thus your research was of clinical relevance?*

Bishop: It was one of the most exciting moments in my career. I am trained as a physician, yet I had no hope of ever doing research with a direct impact. But all of a sudden, within a decade, here was a discovery that clearly implicated a proto-oncogene in human cancer, suggesting a fundamental paradigm for the whole disease. The correspondence between the aggressiveness of the disease and the presence of multiple copies of N-MYC was extraordinary circumstantial evidence. And then it became apparent that it also represented a powerful prognostic indicator for neuroblastoma. It tells you with almost 100 percent accuracy whether or not the tumor is going to respond to conventional therapy. That just sealed the deal for me that clearly this gene was involved in pushing the cancer to the more aggressive form. That point was settled completely a few years later when another postdoc of mine, Bill Weiss, showed that, if you over-expressed N-MYC in mice and targeted it to the right kind of cell, the mice developed neuroblastoma.

**Seltmann:** *You are still working with the MYC-gene, developing therapeutic strategies that preferentially kill tumor cells that over-express MYC. Could you explain that in a little more detail, please?*

Bishop: Well, the MYC-gene, which is a cousin of the N-MYC-gene of neuroblastoma, is a very important regulator of the cell. It regulates the proliferation

# interview

of the cell, its size and the ability of the cell to kill itself. When it is overactive, it acts like a jammed accelerator for the cell. The *MYC*-cancer gene is not damaged, it is simply expressed in too much abundance. It has been difficult to develop direct therapies that directly attack the function of *MYC*. However, if you compromise cells that over-express *MYC*, they commit suicide. The three ways that we have developed use conventional drugs that have only limited efficacy when used by themselves. But when used in combination with over-expressed *MYC*, they are extremely effective. For example, one approach employs an inhibitor of an enzyme called CDK1, which controls cell division. If you inhibit that enzyme and the *MYC*-gene is over-expressed, the cells die. This principle is now in clinical trials with so called triple-negative breast cancer, which is the most aggressive form of the disease and the most refractory to standard therapy. These tumors frequently over-express *MYC*, but they do not have the hormone receptors that allow the classical anti-oestrogens like Tamoxifen to work. They don't over-express the *HER-2*-gene, so Herceptin does not work. So there is essentially no specific targeted therapy for that tumor. We know that our strategy kills triple-negative breast cancer cells in culture, so the first clinical trial has just started.

**Seltmann:** *Back in 1967, you used to live in Germany for one year, in Hamburg, did you like it?*

Bishop: Oh, yes, my wife and I enjoyed Hamburg, it is a magnificent city. Unfortunately, nothing worked in the laboratory (laughs). I don't know why to this day. I like to tell my students and post-docs about this experience, because one might expect that it would be lethal to a career to spend the third year of independent research with getting absolutely nothing going. Within another three years I hardly cared that nothing had worked, because by then, things were developing very quickly with my research.

**Seltmann:** *Many young German scientists spend their post-doctoral time in*

*the US, but this is not the case for young scientists from the US. Do you have any idea why this is the case?*

Bishop: I suspect that a crucial point is language. To my embarrassment, most Americans (myself included) are essentially monolingual. In contrast, most Europeans can come to the US and handle the English language right away. So that is an inhibition for young American scientists. In addition, they are afraid that if they come to Europe for some years, they will be disconnected from the network at home and have a harder time getting a job. I do not think that this is the case, but it is a very ingrained idea. Science is an international community that speaks a common professional language, which – fortunately for Americans – is English. Scientists share the same values and standards from one country to another. I have as many international friends in science as I have American friends in science. It is among the most gratifying and pleasurable aspects of the career.

**Seltmann:** *Would you send one of your young post-docs to the German Cancer Research Center?*

Bishop: Oh definitely! It's spectacular! I haven't been here since 1991. The facilities are beautiful, the resources are excellent, and there are great people here. I think it is a major achievement of the last two decades or so. So it's wonderful.

**Seltmann:** *I read in an interview that you would love to be a musician if you were reincarnated.*

Bishop: Yes.

**Seltmann:** *Why?*

Bishop: I love classical music. I wanted to be a musician, but I wasn't good enough (laughs).

**Seltmann:** *Do scientists and musicians have something in common?*

Bishop: Yes, first of all, they share a passion for what they are doing, and secondly, there is a creativity that involves

breaking rules. Look at what Jackson Pollock did: magnificent paintings, the likes of which no one had ever done before – some people thought he was crazy. Harold Varmus and I broke a rule, Harald zur Hausen broke a rule. To make advances, artists and scientists break rules, they ignore established biases, precedents, even laws. Physicists are now turning over things we thought were absolutely immutable laws, right? So that's a common theme, I think, amongst all creative professions, thinking beyond what we know, thinking even beyond what we dare to imagine and then break a rule. You may be wrong – you have to be prepared to be wrong. But you'll never make a really major discovery, if you aren't willing to take a chance...

**Seltmann:** *I think it was a good idea for you to become a scientist, at least you won the Nobel prize...*

Bishop: Oh, yes, but I'd just like to stress that winning prizes is not a healthy ambition for a scientist. One of my favorite aphorisms about ambition in science comes from a famous British mathematician, Godfrey Harold Hardy, who said "the most important ambition for a young person should be to leave behind something of value". And something of value is not a Nobel Prize. Something of value is a discovery that in science will help human welfare, whether it is climate science or medical science or whatever. In the arts it is something that will truly enrich human experience. If you are a lawyer, leave behind something of value – a great piece of litigation for human rights or something like that. It's not about receiving an award, nor becoming a celebrity, nor getting famous, but leaving a legacy, no matter how humble, a legacy of some value.

**Seltmann:** *Dr. Bishop, thank you very much for this interview.*

# farewell symposium

## From Operation Goldfish to Neuroblastoma Genomics

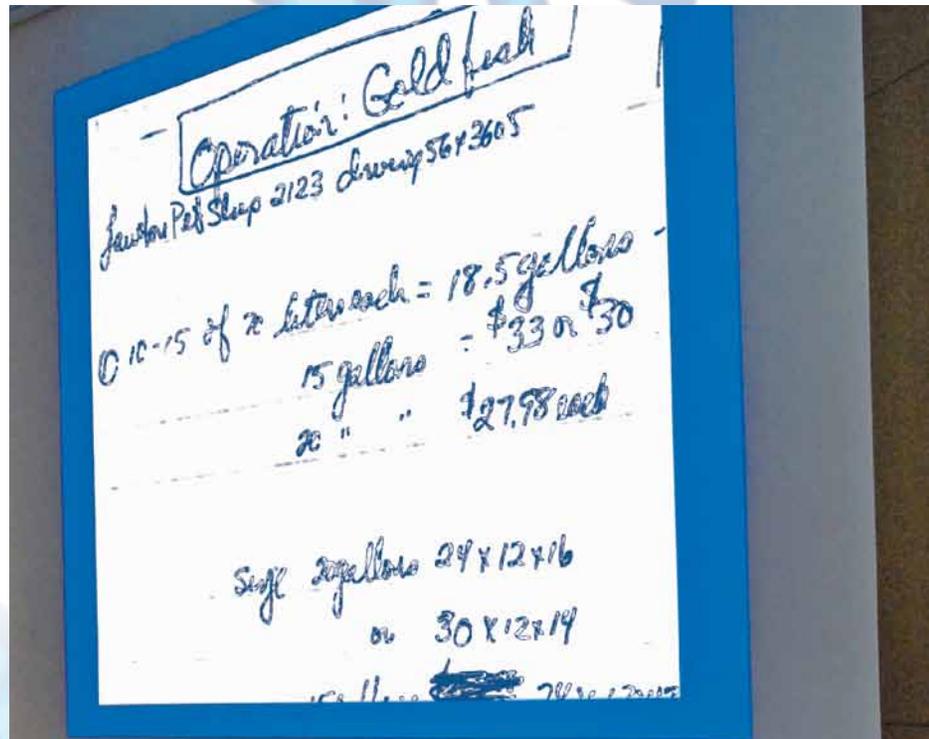
by Jan Eufinger

After more than 25 years of dedicated research on tumor genetics at the DKFZ, Manfred Schwab is retiring from his role as Division Head in 2013. To honor his achievements in the field of Neuroblastoma Genomics, an international farewell symposium was organized by the Research Program Structural and Functional Genomics at the DKFZ.

The symposium, which took place in early June 2013, attracted many current and former colleagues, and featured renowned international speakers, who interacted with Manfred Schwab during different stations of his career. As Nobel Laureate Michael Bishop explained during his lecture, Manfred Schwab had joined Bishop's laboratory in San Francisco in 1980 initially not to study Neuroblastoma, but a cancer model in fish. To the amusement of the audience, Bishop even was able to show a cost calculation for the necessary equipment acquisition for this "Operation Goldfish". However, due to apparent budget restrictions and other reasons, Schwab put his focus then to the analysis of human oncogenes, which led to the remarkable discovery of the *N-MYC*-gene and its amplification in Neuroblastoma, today recognized as the first molecular marker in personalized cancer medicine. Further guest speakers included Angelika Eggert (Berlin), John Maris (Philadelphia), Olivier Delattre (Paris) and Frank Westermann (Heidelberg), who

all presented the current state-of-the-art in Neuroblastoma research as well as many more anecdotes of their interactions with Manfred Schwab. As Otmar D. Wiestler, chairman of the DKFZ, and Roland Eils, speaker of the DKFZ's

Genomics Research Program, pointed out during their welcome remarks, Manfred Schwab will stay closely connected to the DKFZ, most notably in his current function as chairman of the DKFZ Alumni Association.



Distinguished lecturer John Michael Bishop presented the ambitious, but nevertheless failed efforts of his scholar to cultivate fish that finally paved the way for the remarkable discovery of the *N-MYC*-gene.



# farewell symposium

## Switching from Viruses to Horseback *by Martin Löchelt*

*On May 3<sup>rd</sup> 2013, a remarkable number of national and international virologists met for a farewell symposium in honor of Professor Valerie Bosch at the Applied Tumor Virology building of the DKFZ. The event was jointly organized by colleagues from the Research Program Infection and Cancer at the German Cancer Research Center and the Department of Infectious Diseases and Virology at Heidelberg University.*



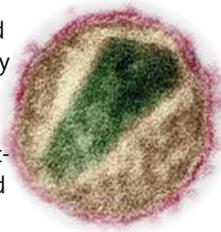
After an introductory talk by the University representative Prof. Hans-Georg Kräusslich describing Prof. Bosch's scientific curriculum vitae the symposium proceeded with excellent scientific presentations by past and current colleagues from the virologist's long scientific career. In the final presentation, Valerie Bosch herself presented most recent data on the function and immunogenicity of HIV Env, the viral protein that serves to form the envelope of the retrovirus. Over the last few years this topic had been her major research focus.

In addition to the speakers, many of whom had travelled from afar, the symposium was attended by numerous virologists from within Germany, most of Valerie's former PhD students, interested colleagues and students from the local institutes, and her family. A particular pleasure for Valerie Bosch was the attendance of her own PhD supervisor,

Prof. Volkmar Braun. The former Director of the Institute of Microbiology and Interdisciplinary Fields at the University of Tübingen also enjoyed seeing her and several colleagues again.

The excellent science was complemented by a pleasantly relaxed, friendly, and informal atmosphere throughout the whole day, with lunch and coffee breaks served in the ATV building. The entire company very clearly wished Valerie all the very best for her future, which she will spend, among other things, on the back of her horse or on the greens of golf courses.

Later in the evening, the speakers and further selected guests adjourned to the Kulturbrauerei restaurant in Heidelberg's old town, enjoying good food and wine, reminiscing over past experiences, and discussing future plans.



## Reminiscing the Career of a Great Epidemiologist *by Karen Steindorf*

*On the occasion of the retirement of Prof. Jürgen Wahrendorf, the DKFZ honored the renowned epidemiologist with a scientific symposium.*

At the meeting on June 3, 2013, close national and international colleagues and friends gathered to give an overview on the researcher's scientific work and celebrate his achievements. Among the participants of the symposium were of course quite a few of his scholars – many of whom meanwhile hold leading positions.

Starting his career in the field of mathematics with a PhD from the ETH University in Zürich, Switzerland, Jürgen Wahrendorf then worked as a biostatistician at the DKFZ and continued his research at the International Agency for Research on Cancer in Lyon, France, in 1980. In 1986, Jürgen Wahrendorf again joined the DKFZ as Head of the Institute of Documentation, Informatics and Statistics which was later on con-

verted into the Division of Epidemiology. There, he initiated the Research Group Environmental Epidemiology which he headed until his retirement. Jürgen Wahrendorf contributed significantly to the field of designing statistical models, especially survival analyses. In parallel, he promoted the new discipline of cancer epidemiology in Germany. Jürgen Wahrendorf also initiated and led large international multi-center projects. An impressive number of scientific publications reflects his accomplishments in science.



# report

## Education and Sensitization for Critical Thinking *by Stella Veloza*



*Scientific family: Stella Veloza among the Medical Physics group of the Department of Diagnostic and Interventional Radiology at the University Hospital Heidelberg*

*During my time in Heidelberg I was fortunate to be part of two groups: the Medical Physics group of the Department of Diagnostic and Interventional Radiology at the University Hospital Heidelberg headed by Dr. Wolfram Stiller, and the Division of Medical Physics in Radiology at the DKFZ headed by Prof. Wolfhard Semmler. These two strong partners offered ideal conditions for learning and developing skills to me, not only because I worked at the cutting edge of cancer research worldwide but also because I found two institutions friendly to and supportive of students and their families.*

**Dr. Stella Veloza** is a physicist who finished her PhD in Medical Physics at the Heidelberg University in close cooperation with the DKFZ in March 2013. Now, she lives in Bogota, Colombia where she works as Associate Professor at the Department of Physics of the Universidad Nacional de Colombia.

From 2009 to 2013, Veloza stayed in Germany for her PhD thesis supervised by Prof. Hans-Ulrich Kauczor. Before, she had worked at the Instituto Nacional de Cancerologia in Bogota for five years. In 2008, Stella Veloza trained in PET/CT and image quality control at the Mallinckrodt Institute of Radiology, Washington University, St. Louis, USA, under the supervision of Prof. Richard Laforest. In 2007, she



was a visiting researcher in internal dosimetry at Vanderbilt University, Nashville, TN, USA, supervised by Prof. Michael Stabin.

The physicist has authored several research papers and regularly takes part in national and international conferences. Stella Veloza is an active member of the American Association of Physicist in Medicine (AAPM).

Many experiences impacted our life as a Colombian family with two children who grew up in a new country for four years. The excursions of the DKFZ Alumni gave us the opportunity to interact with other newcomers and to learn more about German culture. At Heidelberg University the warm address of welcome by the Partners for International Friendship (PFIF) meant an extension of our family, and every Wednesday in their meetings we further developed our fantastic friendships. Last, but not least, I have to mention the invaluable support of the team of the Welcome Center for International Scholars at the University of Heidelberg.

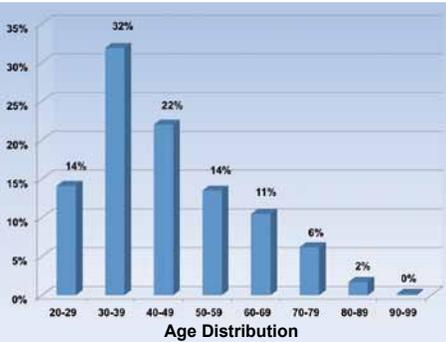
I also found a friendly and competent scientific family in Heidelberg. The Helmholtz International Graduate School for Cancer Research at the DKFZ encouraged me to attend many congresses and seminars where I was in contact with leading scientists from the field of Medical Physics. I will always remember the PhD retreat, where I made contact with students from many different fields, who worked like me on cancer research projects, and I still have in mind the training with the medical physicists of the Department of Radiation Oncology and Radiation Therapy at the University Hospital Heidelberg – I learned something from everyone.



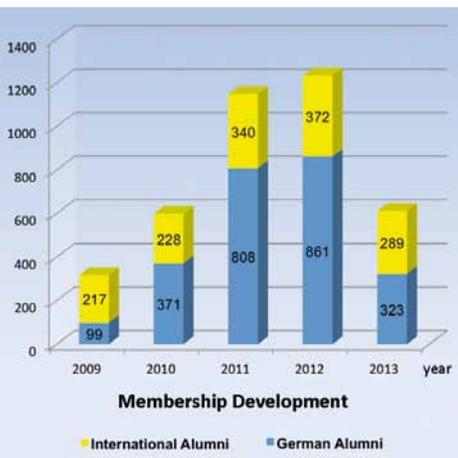
Especially remarkable in Heidelberg was the education and sensitization for critical thinking. This experience is something that I now try to practice in my own seminars as Assistant Professor at the Universidad Nacional de Colombia in Bogota. I am one of the few PhDs in Medical Physics in Colombia, and I have the task of training students for a career as a hospital Medical Physicist and to guide research related to any application of Physics to Medicine. The predominant benefit of my training in Heidelberg are the great connections. We already have a cooperation project with the group of Wolfram Stiller for the development of a software for tumor target delineation based on image fusion. With body and soul we are in love with Heidelberg, our “second home”, with both its University and the DKFZ.

## Ruperto Carola Network Spreading to Over 135 Countries

by Miriam Mohr, translated by Angela Browne



*As one of the first German academic institutions to do so, Heidelberg University started its Alumni activities some 17 years ago. The core initiative of former students, Heidelberg Alumni International (HAI), has been in existence since 1996. In 2010, the activities initially focusing on former international graduates were expanded and a new management department was incorporated in the rector's office.*

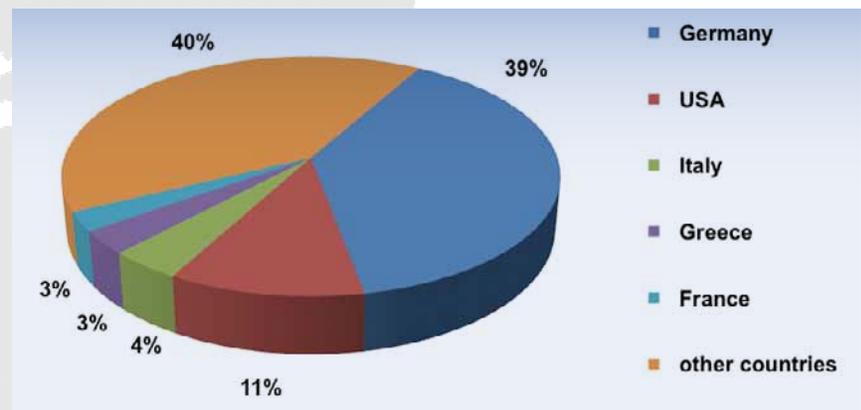


HAI aims to use the many services it offers to connect the worldwide alumni and thus help them to maintain contact with their old Alma Mater and fellow students after their time in Heidelberg. Since 2011, under the auspices of the HAI, there is a further special service offered for former visiting scholars at Heidelberg research institutions. Accordingly, the HAI network is now also open to DKFZ Alumni.

In the meantime, the HAI network covers more than 9,500 alumni from more than 135 countries: Forty percent live in Germany, the majority of the remaining alumni is living in the USA, Italy, Greece, France, United Kingdom, Switzerland, Hungary, China, and Spain. Most alumni have completed studies in medicine, law, German as a foreign lan-

as professional groups in individual specialist areas and institutions. Former students are also connected online by the Alumni portal HAI.net and other social networks.

The Research-Alumni network is aimed at former visiting scholars. It already has 240 members in 40 countries, the majority hailing from India, Italy and the USA. In addition to HAI membership, the service provision includes national and international network meetings. The repeat invitation program HAIreconnect enabled 29 research alumni to return to Heidelberg for short research stays of up to 14 days. Ruperto Carola nominated 6 research alumni, ranging from post-docs to visiting scholars, for a network meeting of the Alexander von Humboldt Fellowship in November 2013.



### HAI Alumni: Countries of origin

guage, German studies, or translation and interpreting. The former students maintain contact through international, national, professional, and social networks: Nine foreign Alumni clubs complete the HAI service offering with country-specific events. In Germany regional clubs are based in Berlin, Heidelberg, Frankfurt and Munich, as well

Registration with HAI is possible under [www.alumni.uni-heidelberg.de](http://www.alumni.uni-heidelberg.de) and is free of charge. HAI looks forward to also welcoming DKFZ Alumni as members!

# networking

## Intertwining the Activities of Alumni Associations by Jana Mills

*Typically, US colleges maintain Alumni organizations to foster collegiality and to build a network of individuals who give back to their formal education institution thereby enhancing educational programs. At MD Anderson Cancer Center in Houston, Texas, the Alumni organization takes that concept one step further by connecting the faculty and trainees to a much larger network of institutions and opportunities.*

The partnership between MD Anderson and its affiliates helps create a communication platform around the world to enhance research, patient care, trainee programs, and to continue collaborations. The German Cancer Research Center (DKFZ) is part of MD Anderson's Global Academic Programs (GAP) Sister Institution Network; it is the largest global network of cancer centers working collaboratively on research and education aimed at lessening the world's cancer burden. For the sister institutions, collaboration is very important and the goal of expanding this network through an Alumni organization is one of many steps to increasing visibility and perception among alumni across this great network of institutions.

A good opportunity for linking activities arose in April 2013 during the AACR meeting in Washington, D.C., where the Alumni Association of the DKFZ hosted a reception featuring Michael Alvarez as one of the key guest speakers. As a representative of MD Anderson Cancer Center he had been invited to present an overview of the institution's Alumni organization. Alvarez, who is Executive Director of the Center for Professional Development and Entrepreneurship at MD Anderson, described the purpose and overall success behind an organization made up of past and current faculty as well as trainees of MD Anderson. To date, the success of MD Anderson's Alumni Association is directly related to the members and their involvement. The organization has increased visibility by expanding to our Development Office (endowed donors) and participates in community outreach projects. Being an MD Anderson Alumnus is closely connected with a couple of benefits such as

- Continued access to our state of the art Research Medical Library
- Reduced prices at selected on-site conferences
- Opportunities to support Alumni activities through an education fund

- Continued participation and networking through Alumni events and award ceremonies.
- Further, it establishes distinguished lectureships and seminars, and partners with scientific meetings and conferences in order to promote why MD Anderson is unique and why our Alumni organization attracted nearly 10,000 members since 1983. Much like our DKFZ partners, we feel that an Alumni organization associated with an academic or research institute has the greatest potential to create ambassadors of our institutions and successfully expand networks across the world. Therefore, we are very enthusiastic to establishing more connectivity through our Alumni organizations. We look forward to becoming further involved with our sister institution affiliates and to sharing ideas as we move forward together. This includes a strong partnership with the DKFZ which we hope to expand in the future. Hence, we are already looking forward to the DKFZ Alumni Reception next year at the AACR Meeting in San Diego.



*Michael Alvarez, MD Anderson Cancer Center, together with Manfrd Schwab, DKFZ, and Min Li, The University of Texas Health Science Center, USA, and Fudan University Shanghai Cancer Center (from left)*

# people

## Awards & Special Honors

**Prof. Michael Boutros**, Head of the Division Signaling Pathways and Functional Genomics at DKFZ and the Mannheim Faculty of Medicine of Heidelberg University, has been elected member of the European Molecular Biology Organization. Together with his colleagues, he uses RNA interference to study the functions and interactions of almost all genes in the cell.

**Prof. Hermann Brenner**, Head of the Division Clinical Epidemiology and Aging Research, and his colleagues **Dr. Christian Stock** and **Dr. Michael Hoffmeister** received the Felix Burda Award in the category "Medicine and Science" for their study confirming the safety of colonoscopy as a cancer screening tool. Additionally, a prize in the category "Best Prevention Idea" was awarded to **Prof. Cornelia Ulrich**, **Dr. Ulrike Bussas** and **Clare Abbenhardt**. The scientists who work at the DKFZ and National Center for Tumor Disease (NCT) Heidelberg want to provide information on screening measures directly to genetically predisposed high-risk groups. To identify these groups they plan to establish an online assessment of personal cancer risk.



This year's Hella Bühler Prize worth 100,000 euro goes to the tumor biologist **Dr. Sven Diederichs** for his investigations into the function, regulation and biogenesis of non-coding RNA molecules in healthy and malignant cells. He wants to find out how these molecules intervene in important cell regulation processes. Diederichs performs his research both at the DKFZ Junior Research Group Molecular RNA Biology and Cancer and the Heidelberg University's Institute of Pathology.

**Dr. Sebastian Dieter**, Division of Translational Oncology, received the 2012 Vincenz-Cerny Prize endowed with 7,500 euro. Together with colleagues, the medical scientist was able to demonstrate that tumor-triggering stem cells are much more heterogeneous than previously supposed. The results contribute to the understanding of tumor development and suggest new treatment approaches.

**Dr. Matthias Eder** was awarded the 2012 Emil Salzer Prize of 5,000 euro on behalf of the Baden-Württemberg Ministry for Science, Research and Arts. The member of the Division of Radiochemistry and Radiopharmacy has developed a radiopharmaceutical substance that binds specifically to the surface of prostate cancer cells. Detection of even the smallest metastases using positron emission tomography may facilitate the early identification of recurrent cancer. Clinical trials for this approach are already in preparation.

Together with the Fraunhofer Institute for Production Technology and Automation, **Fabian Graf** developed a non-invasive, automated tool to verify the quality of induced pluripotent stem cells. Developing this promising approach into a business idea, the graduate student of the Division of Signaling Pathways and Functional Genomics succeeded in a Federal Ministry of Education and Research competition: With the first prize of 50,000 euro at his disposal he wants to test the commercial market prospects of the new technique.



**Dr. Thomas Hofmann**, Head of the Junior Research Group Cellular Senescence, has been awarded the 10,000 euro Berlin-Brandenburg Academy of

Sciences Award for his outstanding findings on triggers of DNA damage-based cell death. The molecular switch is considered a promising target to increase the effectiveness of cancer therapy.

**Dr. Sophie Knobloch**, Junior Research Group Neuropeptides, was awarded the Otto Hahn Medal of the Max Planck Society. The distinction endowed with 7,500 euro acknowledges her PhD thesis on the innervation of forebrain structures through axonal branching of hypothalamic oxytocin neurons.

The Medical Faculty of Göttingen University presented **Prof. Peter Lichter**, Head of the Division of Molecular Genetics, with the Jacob-Henle Medal. The scientist investigates how genetic changes contribute to the development of tumors which will lead to more accurate predictions on disease progression and treatment strategies.



**Dr. Lena Maier-Hein**, Division of Medical and Biological Informatics, received the Heinz Maier Leibnitz Award of the German Research Foundation (Deutsche Forschungsgemeinschaft). Together with colleagues, she developed novel image processing and computer-assisted systems for the use in minimally invasive cancer diagnosis and treatment. The award is endowed with 20,000 euro.

**Prof. Stefan Pfister** and his colleagues discovered that genetic alterations used as biomarkers of disease progression and treatment response also occur in three common childhood brain tumors. This helps to distinguish tumors with better prognosis from aggressive forms thereby allowing for risk-adapted treatment intensity. In addition, genetic

# people

changes can be potential targets for treatment. For these findings, Pfister has been awarded the translational part of the German Cancer Award (Deutscher Krebspreis). The pediatrician works both at the DKFZ and the Heidelberg University Hospital. For his studies on the molecular properties of childhood brain tumors, Pfister also received the Württemberg Cancer Award of 50,000 euro. **Dr. David Capper**, Clinical Cooperation Unit Neuropathology, received the Young Investigator Award of 10,000 euro for the discovery of a new marker related to secretory meningioma.

Aggressive brain tumors enhance the production of a transmitter resembling the toxin dioxin. This stimulates growth and weakens the immune system. For this discovery, **Prof. Michael Platten**, Head of the Clinical Cooperation Unit Neuroimmunology and Brain Tumor Immunology, has been awarded the 2012 Sir Hans Krebs Prize of 10,000 euro by the Society of Friends of Hannover Medical School.

**Dr. Alexander Radbruch** is one of the two awardees who share the Coolidge Award of 15,000 euro. GE Healthcare honors the advancement of an MRT-based imaging method for the use in brain tumor diagnostics. The technology facilitates the identification of tumor subspecies and the monitoring of therapy response. Radbruch heads the Research Group Neurooncological Imaging at the DKFZ and the University Hospital Heidelberg.



**Dr. Maria Rohm**, Division of Molecular Metabolic Control, studies human fat metabolism. Recently, she has received two prestigious awards: the 10,000 euro Novartis Young Endocrinologist Prize

from the Society of Endocrinologists, and the grand prize of 7,500 euro from the German Diabetes Society, sponsored by Sanofi-Aventis. The researcher provided proof that lack of a central molecular switch (TBLR1) leads to overweight which is supposedly related to increased cancer risk.

The German Association for Radiooncology (Deutsche Gesellschaft für Radioonkologie) has appointed **Prof. Wolfgang Schlegel**, Head of the Division of Medical Physics in Radiotherapy, Honorary Member thereby acknowledging the scientist's national and international merits in the field of radiooncology.

**Dr. Martina Seiffert**, Division of Molecular Genetics, investigates micro-particles released by tumor cells in chronic lymphatic leukemia. She wants to elucidate the exact functions of these micro-particles in intercellular communication and disease progression. Her results may offer targets for new therapy approaches. The Jose Carreras Leukemia Foundation is funding the project with more than 140,000 euro.

**Prof. Harald zur Hausen**, Nobel Laureate 2008, has been elected member of the first class of the Academy of Fellows established by the American Association for Cancer Research (AACR).

## Appointments

As of May 1, 2013, a new research group headed by **Prof. Richard Harbottle**, formerly group leader at the Imperial College in London, was established within the Research Program Infection and Cancer. The investigations of the group focus on DNA vectors.

Since April 2013, **Prof. Klaus Kopka** is new Head of the Division Radiopharmaceutical Chemistry. He follows Prof. Michael Eisenhut who held the position since 2001.

**Prof. Annette Kopp-Schneider** heads the Division of Biostatistics as of October 2012.

The Division Tumor Genetics headed by **Prof. Manfred Schwab** was closed by the end of May 2013.

## Obituaries

The DKFZ mourns the death of **Prof. Ludwig Strauss**, who has died at the age of 63. The mathematician and specialist in nuclear medicine was active in the Clinical Cooperation Unit Nuclear Medicine over many years. He led the medical positron emission tomography (PET) group since 1987 and accomplished pioneering work in the field of molecular imaging in oncology. On May 29, 2013, he lost his long battle with a serious illness. The German Cancer Research Center will remember Ludwig Strauss as a dedicated colleague and excellent scientist. Our deepest sympathy is extended to his wife and his three children.

**Prof. Manfred F. Rajewsky**, internationally renowned cancer researcher at the University of Essen, passed away at the age of 79. Manfred Rajewsky had many personal links to colleagues at the DKFZ, and was among the first to join our Alumni Association. After early studies at Max-Planck-Institutes in Frankfurt and Tübingen, and research institutions in London and at Stanford University, he became Founding Director of the Institute of Cell Biology at the University of Essen in 1975, where he worked until his retirement in 1999. His research was devoted to molecular and cellular mechanisms of multistage carcinogenesis, particularly DNA repair processes. For his outstanding achievements he received the German Cancer Research Award in 1989. Manfred Rajewsky also assumed responsibility for research policy in various functions, e. g. as Founding Chairman of the Experimental Branch of the German Cancer Society from 1980 to 1983, and as Chairman of the Senate Commission for Cancer Research of the German Research Foundation (DFG) from 1987 to 1990. He will be commemorated in the scientific community as a most active and amiable colleague.

# exchange

## Destination Europe by Vera Kammann

*Europe does not only offer world-class research institutions, innovation clusters and unique infrastructures but also excellent research career and science opportunities to European as well as to international scientists. In fact, Europe is a vibrant and attractive environment for research and innovation. With the objective to raise the awareness and the visibility of these opportunities, the European Commission (EC) and the Member States have launched the information campaign Destination Europe in 2012. The latest event of the campaign took place during the AACR conference on April 11, 2013 in Washington with a particular focus on health research.*

Destination Europe events take place either as “stand-alone” events or in parallel to a specific thematic conference in the target country USA. They provide a forum for leading European research organisations, funders as well as industry to present the scope of programs they offer to researchers and innovators from the US. The events give information on opportunities, networks and institutions to the audience, but also answer concrete questions and facilitate the exchange with people that have already chosen a research career in Europe. The background to the initiative is a huge progress in strategic policy cooperation between the European Commission and the Member States. One of the results of the projects “BILAT USA” and “Link2US” – both funded by the

7<sup>th</sup> Framework Programme – was that Europe’s excellent research possibilities are not perceived and utilized to their full extent by US-American researchers. Taking action, the “Destination Europe” campaign was started in 2012.

The meeting at the Cosmos Club in Washington was organized in partnership with the European Institute and the Embassy of Ireland, representing the Irish Presidency of the Council of the European Union. Moderator of the meeting was James Gavigan, Counsellor for Research and Innovation of the Delegation of the European Union. The opening address was held by the US Ambassador of Ireland, Michael Collins, while Joao Vale de Almeida, EU Ambassador to the US, introduced to the Destination Europe Initiative.

Germany’s contribution on research programs was presented by a delegation of three: Manfred Schwab gave an overview of opportunities at the Helmholtz Association with particular emphasis on DKFZ activities. Additionally, Max Vögler, Director of the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) in USA explained programs of the DFG and Max-Planck Society, complemented by a talk of Andrea Noske, representative of the German US Embassy. Speakers from Austria, Denmark, France, Poland and Spain as well as in the European Union also addressed research and innovation issues related to the life sciences and biomedical research and presented



*Presented German research programs: Manfred Schwab at the Cosmos Club in Georgetown, Washington*

offers for both new and experienced researchers among others available. Highlighted European-level support included grants from the European Research Council, particularly relevant was the presentation by Louise Byrne on the highly attractive Marie Curie Actions for Mobility and Training. Additionally, personal testimonials showed the rich variety of opportunities available for health researchers in Europe. Conference delegates mingled with presenters over lunch before they gathered again for the afternoon presentations, e. g. on the opportunities offered by the European Research Council and the placement offers and networking services of EURAXESS. Later in the early evening, networking was continued at a reception generously hosted on the premises of the Irish Embassy. For more information please visit: <http://ec.europa.eu/research/destination-europe>

### American Exchange Scholars Step into Biomedical Research at DKFZ

Experiencing lab atmosphere live during a six weeks course – for three talented scholars from the US this special opportunity became true in June 2013: The Governor’s School for Science and Mathematics in Hartsville, South Carolina, and the Johanna-Wittum-School in Pforzheim initiated the „Research Experience Scholar Program“. It is the fourth time that the DKFZ hosts the stay for

exchange scholars. In return, German scholars will be offered a course in South Carolina.

After an introduction course at the facilities of the DKFZ Life-Science Lab, the exchange scholars took up small supervised projects in the research departments. The internship ended with the presentation of the results. Dr. Rüdiger Arnold, Head of the bioscience activities at the Life-Science Lab, was both impressed by the enthusiasm of the scholars and appreciated the unbiased approach of the young investigators towards research issues. “They come up with very stimulating questions and trigger new ideas.” Prof. Otmar D.

Wiestler, Chairman of the DKFZ Management Board, fully supports the scholar program: “Science depends on international exchange, and we are always looking forward to welcoming talented young investigators.” The Scholar Program is funded by Roche. Additionally, the diagnostics company offers insights into biotechnological procedures at the headquarter in Basel. “Our support aims at scholars and young academics, but we also want to raise the awareness of the public towards biosciences,” as Marcel Braun, Corporate Donations and Philanthropy at Hoffman La-Roche in Basel, pointed out.



*Hands-on science: The DKFZ hosted three scholars from the US for a six-week course.*

# collaboration

## Deepening the Alliance with Bayer HealthCare by Ruth Wellenreuther

*On June 25, 2013, the opening ceremony of the DKFZ-Bayer HealthCare joint immunotherapy laboratory located at the National Center for Tumor Diseases (NCT) Heidelberg was celebrated. In the well equipped laboratory, a team of 12 DKFZ and Bayer HealthCare scientists will jointly work on research projects of mutual interest in the area of cancer immunotherapy.*

In 2008, DKFZ and Bayer HealthCare initiated a strategic alliance to accelerate the transfer of research results into medical application. Both partners provide dedicated funds for projects which promote the transition from basic research to early drug development. Joint committees and a structured decision making process ensure that projects are selected in which both partners have a genuine interest and benefit from doing this in a collaborative manner. Based on a risk- and reward-sharing collaboration model that governs all issues of joint funding, ownership, and financial terms, projects can be set up quickly and performed with low administrative hurdles.

The intensive exchange within the interdisciplinary project teams and joint committees includes personnel exchange and is complemented by the joint organization of scientific events, guest lectures and informal visits. These measures help to deepen the collaborative culture and an environment of mutual trust between the alliance partners.

Up to now, 22 joint projects have been initiated, covering a broad range of topics, from epigenetics, cell cycle con-



*Concerted inauguration of the new laboratories (from left): Prof. Philipp Beckhove (DKFZ), Prof. Guido Adler (University Hospital Heidelberg), Prof. Otmar D. Wiestler (DKFZ), Dr. Karl Ziegelbauer (Bayer HealthCare), Prof. Andreas Busch (Bayer HealthCare).*

trol, metabolism, oncogenic signaling, immunotherapy to biomarker development. Some of the projects have meanwhile reached major milestones within the early drug development pipeline.

“The past four years of our partnership have shown that we really teamed up and that we can learn and benefit tremendously from each other. Working bench-to-bench is the best way to do so and it is the next step in our joint effort”, said Prof. Otmar D. Wiestler, Chairman of the DKFZ Management Board, at the opening ceremony of the joint immunotherapy laboratory at the NCT Heidelberg. The latest amendment to the alliance offers lab space for six to eight joint projects, two of which have already been

started. One of them is targeted to induce T cells of the patients’ immune system for tumor rejection. In the other, the scientists try to break immune tolerance of the tumor. In both projects, specific antibodies are identified and optimized for their therapeutic application. Prof. Andreas Busch, Member of the Executive Committee of Bayer HealthCare and Head of Global Drug Discovery, stressed the importance of academic collaborations for oncology research at Bayer. Based on the progress made in the last years, the goal of the joint laboratory is to come up with one or two clinical candidates within the next five years. That’s a challenging aim, but with joints efforts and a little luck, this can be feasible...



*On the occasion of the opening ceremony, Dr. Christiane Opitz received the Bayer Early Excellence in Science Award, endowed with 10,000 Euro. With the prize in the category of biology, the Bayer Science & Education Foundation acknowledges the young investigator’s contribution to understanding the relevance of tryptophan metabolism in cancer biology. She and her group discovered the first endogenous ligands for the aryl-hydrocarbon receptor (AHR). Activation of this receptor enhances tumor cell aggressiveness and inhibits the immune response. Prof. Andreas Busch, Bayer HealthCare, emphasized the importance of her results for new approaches in tumor therapy. Opitz, who is a medical scientist and a biologist, heads a Junior Research Group on the metabolism of tumor cells of the brain affiliated to both the DKFZ and the University Hospital Heidelberg.*

# alumni affairs

## Membership in a Nutshell



*Stated her point of view: Hilke Stamatiadis-Smidt*

### *How did you first become involved with the DKFZ?*

In 1976, I began my work as Head of the newly established Division for Press and Public Relations in the German Cancer Research Center.

### *What have you been doing over the years since you first came into contact with the DKFZ?*

My co-workers and I built up a professional PR-concept where we focused on communication with the media, especially science journalists from Germany and abroad and on contacts with decision-makers in politics. Further, we developed formats in order to reach the broad public and make cancer communication a goal for the whole Center. Besides, I took over the press issues for clinics of Heidelberg University with the focus on cancer treatment, e. g. for the then created Tumor Center. To better correspond to the needs of the broad public, the psycho-oncologist Dr. Almuth Sellschopp and I founded the German Cancer Information Service (KID) in 1985, according to a model of the National Cancer Institute.

### *What made you become a member of the Alumni Association?*

I was member of the group that founded the Alumni Association.

### *What do you like about the Alumni Association already and what are you looking forward to in the future?*

After so many years committed to PR matters, I still have great interest in the developments in cancer research and in the organization of the Cancer Center. I also appreciate the opportunities the Alumni Association offers to stay in contact with former colleagues. It gives a platform for the former staff of the Center in science and administration with the aim to keep up contacts and to deepen relationships. In the future, contacts to the former administrative staff should be strengthened and extended to the many journalists and PR-specialists who have been trained in the Cancer Center over the years. So far, the international science community in the Association has been built up very well, yet the national part could be strengthened.

### *What additional benefits should the Alumni Association provide to its members?*

Additionally, it would be fine if we could come together in Heidelberg on a less official basis besides the regular meetings which are very much appreciated.

### *What can Alumni members do who want to get more involved into the Association's activities?*

In informal meetings, as I propose, they could work out ideas of networking and later discuss them with the officials and help to develop livelier contacts here in Heidelberg.

## New Members

Dr. Maria Agarwal, Irvine /// Nicole Amen, DKFZ, Heidelberg /// Christina Bölk-Krosta, Heidelberger Inst. für Theoretische Studien /// Prof. Dr. (em.) Valerie Bosch, Bammental /// Dr. Ines Brückmann, DKFZ, Heidelberg /// Larisa Condurat, DKFZ, Heidelberg /// Dr. Elsa Conrad, DKFZ, Heidelberg /// Dr. Asta Försti, DKFZ, Heidelberg /// Dr. Mahdi Fallah, DKFZ, Heidelberg /// Dr. Johannes Fredebohm, Reinbek /// Dr. Kai-Oliver Henrich, DKFZ, Heidelberg /// Prof. Dr. Thomas Höfer, DKFZ, Heidelberg /// Sarah Hofmann, DKFZ, Heidelberg /// Helen Hülsmann, DKFZ, Heidelberg /// Dr. Marcin Kaminski, DKFZ, Heidelberg /// Guy Karlebach, DKFZ, Heidelberg /// Dr. Elham Kharazmi, DKFZ, Heidelberg /// Sven Kramer, Karlsruhe Inst. of Technology (KIT), Karlsruhe /// Dr. Julia Leibold, Tübingen /// Giovanni Mastrogliulo, DKFZ, Heidelberg /// Prof. Dr. Christine Neumann, University of Cologne, Cologne /// Weike Pei, DKFZ, Heidelberg /// Dr. Philipp-Niclas Pfenning, DKFZ, Heidelberg /// Ewa Pochopien, DKFZ, Heidelberg /// Dr. Martina Pötschke-Langer, DKFZ, Heidelberg /// Dr. Christian Praml, Basel /// Dr. Christoph Schlude, Porsche Consulting GmbH, Bietigheim /// Prof. Dr. Martin Schrader, Joh. Wesling Klinikum, Minden /// Jing Shen, DKFZ, Heidelberg /// Mikolaj Slabicki, DKFZ, Heidelberg /// Dr. Dragana Slavkovic Lukic, DKFZ, Heidelberg /// Dr. Chen Tianhui, DKFZ, Heidelberg /// Dr. Stella Veloza, Universidad Nacional de Colombia, Bogota /// Dr. Frank Westermann, DKFZ, Heidelberg /// Prof. Hua Wu, The First affiliated Hospital of Xiamen University, Xiamen /// Dr. Stephan Wurzer, DKFZ, Heidelberg /// Dr. Jianming Xu, DKFZ, Heidelberg /// Dr. Qin Zhang, DKFZ, Heidelberg /// Dr. Sheng Zhao, DKFZ, Heidelberg ///

# excursions

## Mainhattan and a Rendezvous with the Mainzelmännchen

by Sarah Mang

*On a spring excursion, our group of alumni and guest scientists took the opportunity to visit the 500,000 m<sup>2</sup> large campus of the second German television station, the ZDF, in Mainz and to follow the track through the ancient and modern City of Frankfurt.*



The "Römer"



*Souvenirs from the ZDF studios: Only some alumni and guest scientists took home a bag of Mainzelmännchen, but surely all of us carried along nice memories of the interesting day trip.*

On a guided tour through the TV studios, we learned that approximately 50 percent of the ZDF's broadcasting time is given to information, such as documentaries, news and magazines containing "soft news". The ZDF broadcasts a maximum of 20 minutes of commercials per workday before 8 p.m. which alternate with short animated spots of the adventures of the "Mainzelmännchen". Over the years, the benevolent elves have become a characteristic label of the TV station. On weekends and holidays and in the evenings no advertisements are shown at all. To fund the program, the ZDF receives revenues from commercials. Only 4.37 euro of the fee each household in Germany has to pay for publicly owned broadcasting (GEZ) add to these funds. After a stroll through the stage settings of the show "Fernsehgarten" we



stopped at the "Sportstudio". Standing in the well-known goal we were reminded of the former German Keeper Oliver Kahn. In the studio the large number of huge cameras on the ceiling left us with deep impression. At the end of our visit, we had the chance to attend a live broadcast, the "Dreh-scheibe" and to address individual questions to the moderator, Norbert Lehman. Later, in the foyer, it was great fun to make a blue-screen interview together with a virtual Klaus Kleber, news anchorman of the "heute journal". Afterwards, we continued our journey to Frankfurt am Main, one of the largest cities in Germany. On a guided tour, we learned that "Mainhattan" as Frankfurt is frequently called is not only the financial center of Germany today, but has been an important trading point and political center in mediaeval times as well. Not only em-

perors were crowned there, but also the first elected German parliament was in session in Frankfurt. As we visited the old town on foot, we were amazed that the name "Römer" of the mediaeval city hall, where the national soccer team is traditionally received after international tournaments, is not related to the romans at all, but was given to the building because it belonged to a merchant who did a lot of trade with Italy. After our tour through the old town we got on the bus again to visit more parts of Frankfurt and admire the diverse and stunning architecture of this great city. Our excursion was blessed by sunny weather, which lifted our spirits after a long winter. This made the walks in Frankfurt and on the extensive grounds of the ZDF not only very interesting, but filled us with great pleasure.



"Mainhattan" view

## Imprint

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*Runners of all ages took part in the DKFZ charity run. At the finish, the band "Lady's Voice" received them with great cheers.*

## International Reviewers Confirm Top Ratings for DKFZ Research

The DKFZ and its partner institutions are highly delighted about the review reports within the evaluations of the Helmholtz Association for the third period of Program Oriented Funding (POF III) that took place in March and April 2013. The international review panel visiting Heidelberg from March 18<sup>th</sup> to 20<sup>th</sup> 2013 expressed a high level of enthusiasm about the Helmholtz Program Cancer Research coordinated by the DKFZ and ranked the scientific quality and strategic significance

in all seven topics between excellent and outstanding. The reviewers have provided very constructive recommendations and encouraging comments for the further development of the program that will be the basis of future funding.

To a smaller extent, DKFZ scientists are also contributing to the Helmholtz Program Cardiovascular and Metabolic Diseases coordinated by the MDC in Berlin. The excellent rating of this program and the very positive comments of the review-

ers reassured us to further participate to this crucial area. The evaluation of the cross-program initiative on Personalized Medicine coordinated by Christof von Kalle was also very positive and supportive as well as the evaluation of the Helmholtz part of the National Cohort coordinated by Rudolf Kaaks.