



## Welcome to the December edition of Alumni Monthly

The year is ending soon and we look back to a year packed with news and events at the DKFZ and abroad. For all those who want to read recent issues of Alumni Monthly we have installed an archive on the Alumni [homepage](#).

Application is now open for the **winter selection of the International PhD Program** and we would be very grateful if you would share this information with potential candidates.

Season's greetings and best wishes for a Happy New Year!

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## News from the Press Office

### Harald zur Hausen is now Honorary Citizen of Heidelberg



Prof. Dr. Harald zur Hausen is a new honorary citizen of the city of Heidelberg: The former chairman of the German Cancer Research Center (DKFZ) and 2008 Nobel Laureate for Medicine was honored at a ceremony on Thursday, December 7, 2017 in the city hall with the highest honor of the city. [press release in German](#)

Mayor Prof. Dr. Eckart Würzner and Prof. Dr. Harald zur Hausen © Philipp Rothe

## Berlin-Brandenburg Academy Prize for Lena Maier-Hein

Lena Maier-Hein from the DKFZ helps physicians get better vision during minimally-invasive surgery. Using novel methods of image analysis, she wants to provide additional image information for surgeons. Thus, they can better differentiate tumors from healthy tissue and execute safer surgical tumor therapies. Maier-Hein now receives the Prize of the Berlin-Brandenburg Academy of Sciences and Humanities, which is donated by the Monika Kutzner Foundation. [read more](#)



Lena Maier-Hein © Tobias Schwerdt, DKFZ

## A high distinction for a pioneer in liquid biopsy



Nitzan Rosenfeld © DKFZ/ private

Nitzan Rosenfeld from Cancer Research UK in Cambridge is being honored with the 2017 Meyenburg Award, which carries a €50,000 monetary prize. He receives the award for his excellent work on the detection of tumor DNA in the blood. Rosenfeld has made seminal contributions to advancing a method for detecting cancer DNA in the blood to applicability in cancer medicine.

The Meyenburg-Award was presented on November 28, 2017, at a symposium held at the DKFZ. [read more](#)

## New German-Greek initiative in cancer research launched

The DKFZ has announced the start of a collaboration with the National Hellenic Research Foundation in order to establish the "Athens Comprehensive Cancer Center". The goal of the new center is to achieve direct improvements in health care for the Greek population. The DKFZ and the Helmholtz Association will support the project through an exchange of experts, consulting, and visiting stays of scientists. The support is also intended to strengthen research based in Europe. [read more](#)



from left to right.: Vasilis Gregoriou, Director of the National Hellenic Research Foundation; Otmar Wiestler, President of the Helmholtz Association; the President of Greece Prokopios Pavlopoulos; Josef Puchta, Administrative Director DKFZ © ACCC

## The direct route from A to C



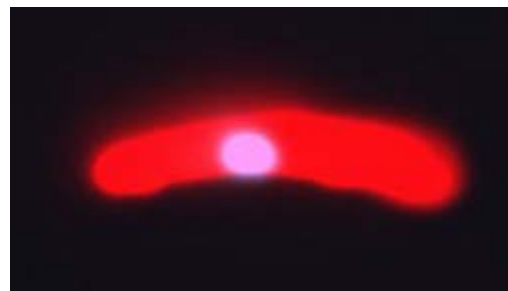
© Fotolia

navigate in space. [read more](#)

We use special nerve cells for spatial orientation. The place cells fire whenever we stay in a particular place. The grid cells, on the other hand, measure distances and play a crucial role in "path integration". So much for the theory. Scientists from the DKFZ and the University Hospital Heidelberg have now, for the first time, provided experimental proof of this. For this purpose, they studied mice with defective grid cells. The more grid cells were impaired, the harder it was for the rodents to

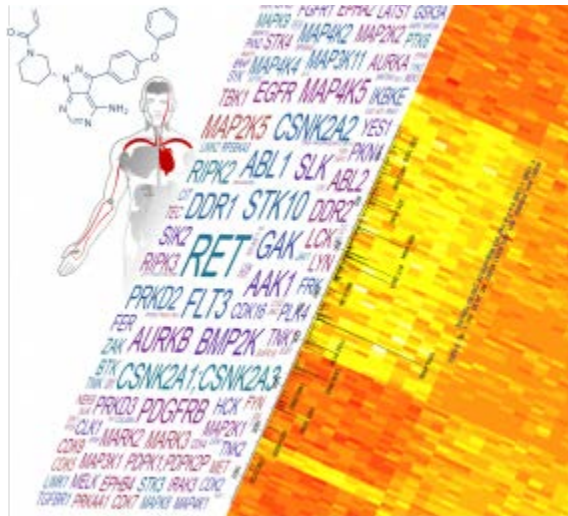
## Malaria: Protective antibodies following natural infection

No effective vaccine exists to date against the tropical disease malaria. Scientists from the DKFZ have now studied how the human immune system responds to natural infection by the malaria parasite. Analyzing individual immune cells, they discovered that the immune system produces antibodies that are protective against the disease in mice. In addition, long-lived memory cells are formed and produce this antibody again if needed. These findings will help develop more specific next-generation vaccines. [read more](#)



During the mosquito bite, the sporozoite stage of the unicellular malaria pathogens is transmitted to humans. Antibodies that are induced by a natural infection label the major sporozoite protein, the CSP (red). © Wardemann/DKFZ

## Versatile cancer drugs



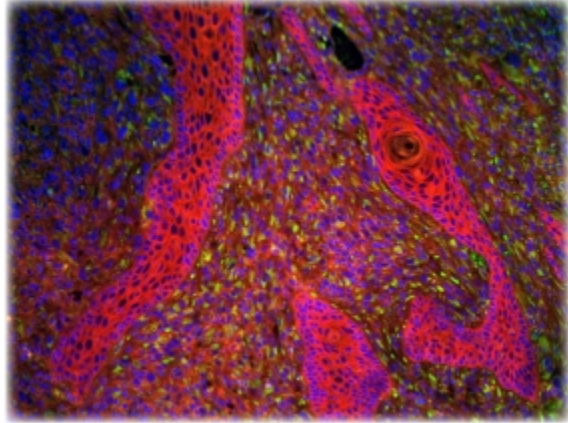
Proteomic research the big way: The study analyzed the mechanism of action and application potential of 243 kinase inhibitors for cancer medicine. © Hannes Hahne / Susan Kläeger / Bernhard Kuster

Medications which block enzymes belonging to the kinase family, are among the most effective pharmaceuticals for targeted cancer therapies. Scientists at the German Cancer Consortium (DKTK) at the Technical University of Munich have examined 243 kinase inhibitors which are either approved drugs or have been tested in clinical trials. According to results published in Science, some of these may have more applications than previously thought.

In the DKTK, the DKFZ in Heidelberg joins up with certified German university hospitals specialized in oncology. [read more](#)

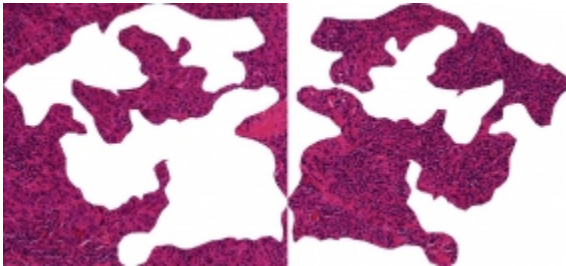
## Caught in the act: Papillomaviruses promote non-melanoma skin cancer

UV radiation has been known for a long time to be a risk factor for the development of skin cancer. Simultaneous infection with human papillomaviruses (HPV) has also been suspected to promote skin cancer, particularly in organ transplant recipients. Scientists from the DKFZ have now been able to show for the first time in a natural system that papillomaviruses associated with UV light promote the development of non-melanoma skin cancer. The investigators provide an explanation why the viruses can be detected in benign human cancer precursors but not in advanced carcinoma. [read more](#)



Squamous cell carcinoma; (red: E-Cadherin; green: Vimentin, blue: cell nuclei). © Hasche et al., PLOS Pathogen, DOI: 10.1371/journal.ppat.1006723

## Immune cells predict therapy response in breast cancer



A section through breast cancer tissue: When immune cells (small dark cells) invade the tumor, breast cancer patients have good chances that chemotherapy treatment is effective. The right image shows predominantly tumor cells (round purple cells). In the left image immune cells are infiltrating the tumor. © Hannes Hahne / Susan Klaeger / Bernhard Kuster

When immune cells invade the tumor, this is usually considered a good sign because the body's own immune system appears to be responding to the cancer. In the case of certain types of breast cancer immune cells, namely so-called tumor-infiltrating lymphocytes (TILs), these can determine survival rates and predict the usefulness of chemotherapy. This was shown by the largest meta study on TIL content to date, conducted by the scientists of the German Cancer Consortium (DKTK) at the Charité –

Universitätsmedizin Berlin in collaboration with the German Breast Group.

In the DKTK, the DKFZ in Heidelberg joins up with certified German university hospitals specialized in oncology. [read more](#)

## Highlight publications

Selected by the Research Program Coordinators

### Rare PfCSP C-terminal antibodies induced by live sporozoite vaccination are ineffective against malaria infection.

*J Exp Med.* 2017 Nov 22. pii: jem.20170869. doi: 10.1084/jem.20170869. [Epub ahead of print]

Scally SW, Murugan R, Bosch A, Triller G, Costa G, Mordmüller B, Kremsner PG, Sim BKL, Hoffman SL, Levashina EA, Wardemann H, Julien JP.

[link to article](#)

### Natural Parasite Exposure Induces Protective Human Anti-Malarial Antibodies.

*Immunity.* 2017 Nov 28. pii: S1074-7613(17)30484-3. doi: 10.1016/j.immuni.2017.11.007.

[Epub ahead of print]

Triller G, Scally SW, Costa G, Pissarev M, Kreschel C, Bosch A, Marois E, Sack BK, Murugan R, Salman AM, Janse CJ, Khan SM, Kappe SHI, Adegnika AA, Mordmüller B, Levashina EA, Julien JP, Wardemann H.

[link to article](#)

## Drug-perturbation-based stratification of blood cancer.

*J Clin Invest*. 2017 Dec 11. pii: 93801. doi: 10.1172/JCI93801. [Epub ahead of print]  
Dietrich S, Oleś M, Lu J, Sellner L, Anders S, Velten B, Wu B, Hüllein J, da Silva Liberio M, Walther T, Wagner L, Rabe S, Ghidelli-Disse S, Bantscheff M, Oleś AK, Słabicki M, Mock A, Oakes CC, Wang S, Oppermann S, Lukas M, Kim V, Sill M, Benner A, Jauch A, Sutton LA, Young E, Rosenquist R, Liu X, Jethwa A, Lee KS, Lewis J, Putzker K, Lutz C, Rossi D, Mokhir A, Oellerich T, Zirlik K, Herling M, Nguyen-Khac F, Plass C, Andersson E, Mustjoki S, von Kalle C, Ho AD, Hensel M, Dürig J, Ringshausen I, Zapatka M, Huber W, Zenz T.

[link to article](#)

## Genome-wide screen for differentially methylated long noncoding RNAs identifies *Esrp2* and lncRNA *Esrp2-as* regulated by enhancer DNA methylation with prognostic relevance for human breast cancer.

*Oncogene*. 2017 Nov 16;36(46):6446-6461. doi: 10.1038/onc.2017.246. Epub 2017 Jul 31.  
Heilmann K, Toth R, Bossmann C, Klimo K, Plass C, Gerhauser C.

[link to article](#)

## Ovarian cancer early detection by circulating CA125 in the context of anti-CA125 autoantibody levels: Results from the EPIC cohort.

*Int J Cancer*. 2017 Nov 21. doi: 10.1002/ijc.31164. [Epub ahead of print]  
Fortner RT, Schock H, Le Cornet C, Hüsing A, Vitonis AF, Johnson TS, Fichorova RN, Fashemi T, Yamamoto HS, Tjønneland A, Hansen L, Overvad K, Boutron-Ruault MC, Kvaskoff M, Severi G, Boeing H, Trichopoulou A, Papatesta EM, La Vecchia C, Palli D, Sieri S, Tumino R, Sacerdote C, Mattiello A, Onland-Moret NC, Peeters PH, Bueno-de-Mesquita HBA, Weiderpass E, Quirós JR, Duell EJ, Sánchez MJ, Navarro C, Ardanaz E, Larrañaga N, Nodin B, Jirström K, Idahl A, Lundin E, Khaw KT, Travis RC, Gunter M, Johansson M, Dossus L, Merritt MA, Riboli E, Terry KL, Cramer DW, Kaaks R.

[link to article](#)

## Upcoming events

### 10th Epigenetics@dkfz Workshop

18 January 2018, 09:00-17:00

Hosts: Christoph Plass & Karsten Rippe

Keynote lecture by Iñaki Martín-Subero, University of Barcelona, Spain

## DKFZ CONFERENCE on Preventive Oncology

**DKFZ CONFERENCE 2018**  
**Preventive Oncology: Facing the Challenges of Cancer Prevention and Early Detection**  
February 15 – 16, 2018  
German Cancer Research Center (DKFZ)  
Communication Center, Lecture Hall  
[www.dkfz.de/conference2018](http://www.dkfz.de/conference2018)

**Primary Prevention: Risk factor research aiming for practical interventions**

- Novel interventional concepts, chemoprevention
- Epidemiology, personal risk, prediction
- Genetic predisposition, familial cancer

**Secondary Prevention: Pushing the limits by earlier detection**

- Tumor evolution, novel biomarkers
- Minimal invasive diagnosis, radiomics
- Systems approaches

**Tertiary Prevention: Improving life with cancer**

- Prognosis, personalized prevention

**Program Committee:**  
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Christoph Plass  
Hans-Joachim Lipp  
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Holger Süttgen

**Organizing Team:**  
Christoph Plass  
Christoph Plass  
Ingrid Willms

Deutsches Krebsforschungszentrum (DKFZ) | Im Neuenheimer Feld 306 | 69120 Heidelberg | Germany | [www.dkfz.de](http://www.dkfz.de)

February 15 – 16, 2018

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### Tertiary Prevention:

Improving life with cancer

Prognosis, personalized prevention

[registration](#) and [program](#)

## Job openings

### PhD Positions in Cancer Research



**SEEING BEYOND.**  
RESEARCH FOR A LIFE WITHOUT CANCER  
INTERNATIONAL PHD PROGRAM

Application is now open for the Winter Selection of the International PhD Program. We would be very grateful if you would share this information with students that you think would be interested in doing a PhD at the DKFZ. **The deadline is 5th January 2018** and more information can be found [here](#)

Many thanks in advance for your support!

#### Scientific jobs

- 349/2017 Bioinformatician - NCT Molecular Pathology Core
- 343/2017 Postdoc - German Cancer Consortium (DKTK) Berlin
- 325/2017 Scientist - Preventive Oncology
- 319/2017 Postdoctoral Fellow in Molecular Biology / Cancer Genetics / RNA Biology - German Cancer Consortium (DKTK) Freiburg
- 318/2017 Leiter/in Klinisches Studienzentrum / Studienkoordinator/in für klinische Studien - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Dresden
- 316/2017 Postdoctoral Fellow PET-MR data for Radiation Treatment Planning - Medical Physics in Radiation Oncology
- 291/2017 Wissenschaftliche/r Mitarbeiter/in im Bereich Medizinische Informatik/ Informatiker/in - Medizinische Informatik in der Translationalen Onkologie

#### PhD studentships

- PhD Positions in Cancer Research within the International PhD Program
- 337/2017 Doktorand/in - Partnerstandort Dresden des Nationalen Centrums für Tumorerkrankungen (NCT)
- 328/2017 PhD Student - Partner site Dresden of the National Center for Tumor Diseases (NCT)
- 296/2017 PhD Student - Cell Plasticity and Epigenetic Remodeling

#### Laboratory / Engineering department

- 347/2017 Biologielaborant/in - Partnerstandort Dresden des Nationalen Centrums für Tumorerkrankungen (NCT)
- 341/2017 Biological Laboratory Assistant - Neuronal signaling and morphogenesis
- 339/2017 Technische/r Assistent/in - Klinische Epidemiologie und Altersforschung
- 331/2017 MTA / BTA in Teilzeit 19,75 Std./Woche - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Essen/ Düsseldorf
- 329/2017 MTA - Partnerstandort Dresden des Nationalen Centrums für Tumorerkrankungen (NCT)
- 317/2017 MTA / BTA - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Freiburg
- 306/2017 Technical Assistant (BTA) / Biology Laboratory Assistant - DNA repair mechanisms and cancer

- 301/2017 BTA / MTA - Chronische Entzündung und Krebs

### **Administration**

- 345/2017 Datenschutzbeauftragte/r - Stiftungsvorstand
- 336/2017 2 Rechtsreferendare im Rahmen der Wahlstation - Schwerpunkt Zivilrecht, Öffentliches Recht, Internationales Recht - Stiftungsvorstand
- 335/2017 Volljurist/in - 1 Vollzeitstelle oder 2 Teilzeitstellen mit 20 Std./Woche - Stiftungsvorstand
- 334/2017 Sekretär/in / Fremdsprachensekretär/in - Zentrale Koordinierungsstelle des DKFZ für das Nationale Centrum für Tumorerkrankungen (NCT)
- 326/2017 Sekretär/in in Teilzeit 19,75 Std./Woche - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Essen/ Düsseldorf
- 324/2017 Sachbearbeiter/in Facility-Management - Technische Infrastruktur
- 323/2017 Vergabemanager/in Bau und Technik - Technische Infrastruktur
- 318/2017 Leiter/in Klinisches Studienzentrum / Studienkoordinator/in für klinische Studien - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Dresden

### **Further job offers**

- 346/2017 Dipl.-Ing. Biotechnologie / Bachelor oder Master - Tumorstudiologie
- 342/2017 Medizinische/r Fachangestellte/r - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Berlin
- 340/2017 Medizinische/r Dokumentar/in - Klinische Epidemiologie und Altersforschung
- 333/2017 Studentische Hilfskraft in Teilzeit 5 Std./Woche - Hochdurchsatzsequenzierung
- 332/2017 Studentische Hilfskraft in Teilzeit 3 Std./Woche - Hochdurchsatzsequenzierung
- 330/2017 Medizinische/r Dokumentar/in / Dokumentationsassistent/in - Präventive Onkologie
- 327/2017 IT Spezialist/in (Medizininformatiker/in / Bioinformatiker/in / Informatiker/in) - NCT Studienzentrale
- 321/2017 4 Wissenschaftliche Hilfskräfte in Teilzeit 20-40 Std./Monat - Klinische Epidemiologie und Altersforschung
- 300/2017 Medizinische/r Dokumentar/in / Medizinische/r Dokumentationsassistent/in - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Dresden
- 286/2017 Informatiker/in / Bioinformatiker/in Cloudtechnologie - Theoretische Bioinformatik

## Alumni matters

### Alumni excursion to Carl Zeiss Vision International in Aalen/Oberkochen

On December 12th, 30 DKFZ colleagues and alumni visited Zeiss Microscopy and Zeiss Meditech and got fascinating insights into surgical microscopes for neurosurgery and spinal surgery as well as intraoperative radiotherapy (i.e. for brain tumors). Other topics were multiphoton microscopy, light sheet microscopy, light and electron microscopy, ion beam scanning, electron microscopes, high resolution 3D X-ray microscopy and computed tomography. High level scientists and department heads dedicated the whole day to the group to enable professional exchange and lively discussions.



*from left to right.: Dr. Frank, Zeiss; Norbert Frank, Wolfgang*

*Hagmann and Eva Frei, DKFZ © Susanne Schunk*

### Save the date!

### Alumni New Year's Reception on February 20th, 2018



This New Year's Reception is being organized with our Turkish colleagues.

So save the date for an evening to remember!



## Save the date! Alumni get-together in Boston

Friday 23rd February 2018



Philipp Gebhardt (Postdoc Manager) and Lindsay Murrells (PhD Program Manager) will be in Boston attending the European Career Fair and will arrange an informal dinner for the Alumni in the area.

Details will be announced in the January newsletter.

## Career Day Research & Development

On Dec 8th 2017 DKFZ hosted the second Career Day on the topic of Research & Development. Twelve speakers, all of them DKFZ Alumni, shared their personal experience in Biotech, Pharma and Development with 348 participants from all over Germany and beyond. The brief impulse talks were followed by intensive round table discussions and thereby the great chance for participants to ask more in depth questions and to get a valuable insight in the everyday business of the speakers' current jobs and companies.



© DKFZ

**Stay connected**



### Join the Alumni Association

Alumni members benefit from an attractive range of activities:

- Alumni Monthly electronic newsletter reporting on recent developments at the DKFZ
- Publication of Alumni Magazine reporting on Alumni activities
- Eligibility for a DKFZ Alumni email address [your.name@alumni.dkfz.de](mailto:your.name@alumni.dkfz.de)
- Biennial General Alumni Meeting and Scientific Symposium, including travel grants
- Invitations to social events and excursions

All current and former DKFZ colleagues are welcome to join. Please register at [www.dkfz.de/en/alumni](http://www.dkfz.de/en/alumni)

## Join DKFZ Connect

Join more than 2283 colleagues on DKFZ Connect, the online platform for networking and mentoring between former and current employees, including events and job postings. You can register per email or easily sync your profile with social media on [www.dkfz-connect.de](http://www.dkfz-connect.de)



## Imprint

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Research for a Life without Cancer