



Alumni Monthly Issue 2 / November 2016

Welcome to the second edition of ALUMNI MONTHLY

This E-mail Newsletter aims to bring you closer to what is happening at the DKFZ. It includes DKFZ press releases, job offers and new publications as well as introductions to our new divisions and junior groups and DKFZ presence at conferences (AACR, Naturejobs etc.). It also informs you of upcoming Alumni Association events.

Alumni Monthly is available to all current and former DKFZ colleagues. If you wish to receive this E-mail Newsletter regularly and are not yet a member of the Alumni Association, please sign up at www.dkfz.de/alumni

We hope you enjoy reading this newsletter and we're looking forward to hearing your suggestions for future issues.

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Press Releases

Research to combat pancreatic cancer



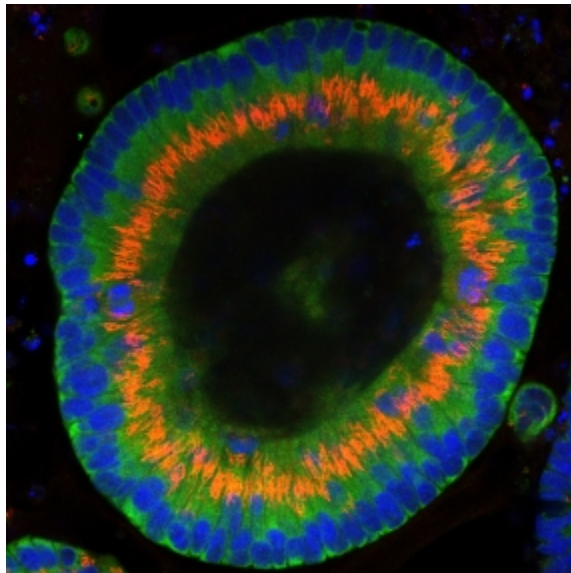
Illustration of the pancreas © Wellcome Library, London

Cancer of the pancreas is one of the most aggressive types of cancer and therapies currently used are usually rather ineffective. Therefore, scientists at the German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) in Heidelberg are very committed in the fight against this disease. [read more](#)

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DKTK Berlin: Boost for cancer therapies with tumors grown in petri-dish

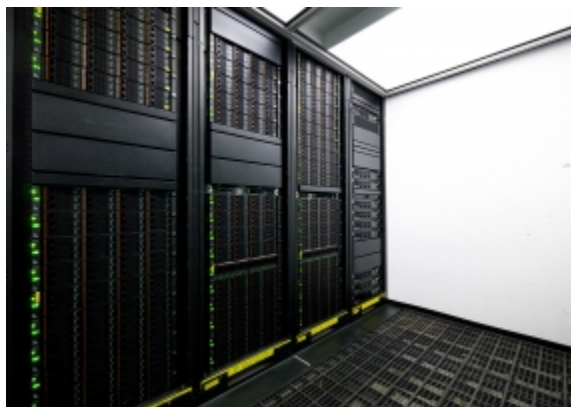
Cancer can be caused by a variety of genetic mutations. One challenge medicine faces is finding tailor-made treatment for each patient based on their individual genetic differences. Scientists at the German Cancer Consortium (DKTK) at the Charité Comprehensive Cancer Center in Berlin have now received 2.6 million Euros so, together with regional biotechnology companies, they can make test systems available for personalized medication screening. [read more](#)



Colon cancer cells growing into a 3-dimensional organoid cell culture in a ... © Joseph Regan

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Making efficient use of Big Data in medicine



The Helmholtz Association is now leading the way in storing data permanently, securely and re-usably. In order to manage Big Data in science, the association has founded the Helmholtz Data Federation (HDF). Around 49.5 million Euros will be invested over the next 5 years in multi-thematic data centers and in modern data management. In the context of the HDF initiative coordinated by KIT in Karlsruhe, the DKFZ is responsible for the data accruing in healthcare. [read more](#)

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Highlight Publications

Pan-cancer analysis of somatic copy-number alterations implicates IRS4 and IGF2 in enhancer hijacking.

Nat Genet. 2016 Nov 21. doi: 10.1038/ng.3722. [Epub ahead of print]

Weischenfeldt J, Dubash T, Drainas AP, Mardin BR, Chen Y, Stütz AM, Waszak SM, Bosco G, Halvorsen AR, Raeder B, Efthymiopoulos T, Erkek S, Siegl C, Brenner H, Brustugun OT, Dieter SM, Northcott PA, Petersen I, Pfister SM, Schneider M, Solberg SK, Thunissen E, Weichert W, Zichner T, Thomas R, Peifer M, Helland A, Ball CR, Jechlinger M, Sotillo R, Glimm H, Korbel JO.

Extensive prior research focused on somatic copy-number alterations (SCNAs) affecting cancer genes, yet the extent to which recurrent SCNAs exert their influence through rearrangement of cis-regulatory elements (CREs) remains unclear. Here we present a framework for inferring cancer-related gene overexpression resulting from CRE reorganization (e.g., enhancer hijacking) by integrating SCNAs, gene expression data and information on topologically associating domains (TADs). Analysis of 7,416 cancer genomes uncovered several pan-cancer candidate genes, including IRS4, SMARCA1 and TERT.

[read more](#)

The Liver at the Nexus of Host-Microbial Interactions.

Cell Host Microbe. 2016 Nov 9;20(5):561-571. doi: 10.1016/j.chom.2016.10.016.

Macpherson AJ, Heikenwalder M, Ganai-Vonarburg SC.

The liver receives blood from the intestine, from the spleen, and directly from the heart and holds a vital position in vertebrate physiology. It plays a role in intermediary metabolism, bile secretion, maintaining blood sterility, serum homeostasis, xenobiotic detoxification, and immunological activity. This article provides our perspective on the liver as a nexus in establishing and maintaining host microbial mutualism. We discuss the role of the liver not only in sanitizing the blood stream from penetrant live microbes, but also in metabolizing xenobiotics that are synthesized or modified by intestinal microbes, and how microbiota modify the signaling potential of bile acids. The combination of bile acids as hormones and the metabolic control from pervasive effects of other absorbed microbial molecules powerfully shape hepatic metabolism. [read more](#)

New Research Groups

Division of Structural Biology of Infection and Immunity Dr. Erec Stebbins



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The goal of our research is to understand the molecular underpinnings of human disease, particularly those caused by microbial pathogens, and especially as they relate to human carcinogenesis. We use X-ray crystallography as a foundational tool for a "bottom-up" approach to these questions, examining pathogenic proteins and their molecular interactions with host molecules at the molecular level. Much of our work has to-date centered on bacterial pathogenesis, in particular bacteria utilizing specialized protein delivery systems, so-called "injectosomes" or "molecular syringes", machineries that translocate bacterial factors into eukaryotic cells to modulate host biochemistry for the benefit of the pathogen. Many of these factors are proven genotoxins or agents impacting oncogenic growth regulatory factors in the cell. [read more](#)

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Helmholtz University Junior Research Group Cell Plasticity and Epigenetic Remodeling Dr. Darjus Tschaharganeh

Our laboratory has strong expertise in applying functional genomic tools, such as RNA-interference and CRISPR/Cas9, to create innovative and powerful mouse models of cancer. We use these tools to generate genetically defined tumors, which closely resemble alterations found in human cancer samples, thereby probing the function of specific genetic events on tumor development. Subsequently we utilize the models we create for investigating specific vulnerabilities created by these defined genetic events by employing state-of-the-art high-throughput screening technology in vitro and in vivo. [read more](#)

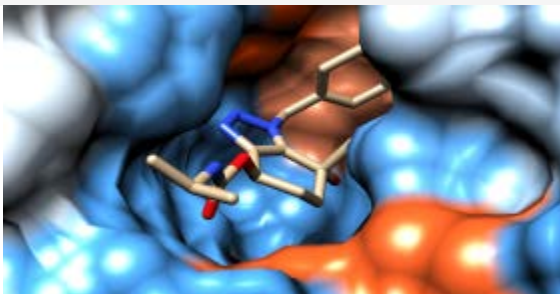


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Lectures & Conferences at DKFZ

4th Annual Helmholtz Wirkstoffforschung Meeting: Drug Innovation in Academia Conference



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8th – 9th December, 2016, DKFZ Lecture Hall

Attracting an international audience of researchers, the conference will provide a platform to learn and hear from academic experts in the field as well as industrial scientists who collaborate with academics.

With sessions on novel targets, epigenetics, RNA-based treatment modalities, innovative screens, and the path from academic discovery to drugs in development, this event is sure to be valuable for those who not only want to learn more about the challenges and opportunities of pursuing drug discovery in academia, but also for those who want to experience great science in this exciting field.

Confirmed speakers [read more](#)

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Distinguished Lecturer Seminar Series Erwin Böttinger Berlin Institute of Health: Strategy for Translation

13th December 2016 at 11:30 - DKFZ Lecture Hall

Erwin Böttinger currently serves as CEO of the Berlin Institute of Health and W3 Professor for Personalized Medicine at the Charité - Universitätsmedizin Berlin. Until October 2015 he was Director of The Charles Bronfman Institute for Personalized Medicine at the Icahn School of Medicine at Mount Sinai in New York City. In 2004, he joined the Icahn School of Medicine at Mount Sinai as



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The Irene and Dr. Arthur Fishberg Professor of Medicine and Professor of Pharmacology and Systems Therapeutics. Dr. Böttinger served as Vice Chairman for Biomedical Research in the Department of Medicine and became the inaugural Director of The Charles Bronfman Institute for Personalized Medicine in 2007. [read more](#)

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Opening Symposium for the new Treatment and Research Center for Pediatric Oncology and Hematology Heidelberg



Prof. Dr. Andreas Kulozik, Prof. Dr. Olaf Witt, Dietmar Hopp, Annika, Prof. Dr. ... © Universitätsklinikum Heidelberg. The Dietmar Hopp Stiftung supports the foundation of the „Hopp-Kindertumorzentrum at the NCT Heidelberg“ (KITZ) with 20 Million Euro.

19th - 20th January 2017
Print Media Academy, Heidelberg

Registration deadline: 5th December 2016
Registration fee: 150,-€

The innovative new Treatment and Research Center for Pediatric Oncology and Hematology will aim at fostering the translation of basic science discoveries into novel diagnostic approaches and therapies for children with cancer and serious non-malignant blood diseases. We aim to fully develop a synergistic interaction between the different

basic, translational and clinical disciplines by uniting them under one roof. The ultimate goal is to turn more of the laboratory breakthroughs into lifesaving treatments for children. The meeting covers a broad repertoire of pediatric malignancies and hematological disorders represented by a panel of renowned national and international speakers as well as oral presentations from selected abstracts in each session. [read more](#)

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Coming soon

27th - 28th March 2017,
12 years SFB-TR 23: From Vascular Differentiation and Remodeling to Organotypic Vasculature
[read more](#)

11th - 13th May 2017,
2nd European Cancer Epigenetics Conference
[read more](#)

8th June 2017,
Nobel Lecture Françoise Barré-Sinoussi

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Job Openings at DKFZ

Scientific jobs

- 297/2016 Arzt/ Ärztin/ Facharzt/ Fachärztin - Im Rahmen des DKTK MASTER Programms NCT Heidelberg - Abteilung Translationale Onkologie
- 293/2016 Head of the Proteomics Core Facility - Genomics & Proteomics Core Facility
- 285/2016 (Bio-)Statistician - Biostatistics

- 282/2016 Koordinator/in - Medizinische Onkologie des NCT
- 279/2016 Postdoc - Medical Physics in Radiology
- 277/2016 Wissenschaftliche/r Mitarbeiter/in, Epidemiologe/in - Projekte: "Effekte der Darmkrebsvorsorge auf die Darmkrebsinzidenz und die Darmkrebsmortalität in Deutschland" und "Regionale Unterschiede in der Krebsprognose in Deutschland" - Klinische Epidemiologie und Altersforschung
- 276/2016 Wissenschaftliche/r Mitarbeiter/in, Epidemiologe/in - Projekt: "Zukünftige Krebslast - Prädiktionen und Präventionspotential" - Klinische Epidemiologie und Altersforschung
- 255/2016 Junior professorship (W1) with tenure track option "Translational Pediatric Glioma Research"

PhD studentships

- 300/2016 PhD Fellowship - Molecular Genetic Epidemiology
- 283/2016 PhD Student in Life Science - Regulation of cellular functions (transcription, signaling, intracellular trafficking) by sphingolipid metabolism in the context of metabolic syndrome and tumor development - Lipid-Pathobiochemistry Group within Department of Molecular and Cellular Pathology
- 275/2016 Doktorand/in - Projekt: "Zukünftige Krebslast - Prädiktionen und Präventionspotential" - Klinische Epidemiologie und Altersforschung
- 274/2016 Doktorand/in - Projekt: "Effekte der Darmkrebsvorsorge auf die Darmkrebsinzidenz und die Darmkrebsmortalität in Deutschland" - Klinische Epidemiologie und Altersforschung
- 273/2016 Doktorand/in - Projekt: "Regionale Unterschiede in der Krebsprognose in Deutschland - eine Analyse im Hinblick auf sozio-ökonomische Unterschiede und Krebsversorgung" - Klinische Epidemiologie und Altersforschung
- 272/2016 Doktorand/in - Projekt: "Langzeit-Lebensqualität (10 und mehr Jahre) nach Brust-, Kolorektal - und Prostatakrebs" - Klinische Epidemiologie und Altersforschung
- 267/2016 PhD Student - Dissection of oxytocin-mediated suppression of stress response: The role of transcription factor Otp - Neuropeptides
- 264/2016 PhD Student in Life Science - Regulation of Endocytosis by Glycolipids - Lipid-Pathobiochemistry Group within Department of Molecular and Cellular Pathology

Administration

- 296/2016 Wissenschaftsadministrator/in - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Freiburg
- 287/2016 Sachbearbeiter/in wiss./med. Umfeld in Teilzeit 19,75 Std./Woche - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Essen/ Düsseldorf

Further job offers

- 299/2016 Informatiker/in / Bioinformatiker/in - Theoretische Bioinformatik
- 298/2016 Klinische/r Dokumentar/in - Im Rahmen des DKTK MASTER Programms NCT Heidelberg - Abteilung Translationale Onkologie
- 284/2016 Medizinische/r Dokumentar/in - NCT-Krebsregister
- 278/2016 Fachinformatiker/in First-Level-Support des NCT - Translationale Onkologie
- 266/2016 Informatiker/in - Zentrale Einheit für Informationstechnologie

[read more](#)

Alumni Events

DKFZ Career Day "Project Management"

2nd December 2016, 09:00, DKFZ Communication Center

[Program and Last Minute Registration](#)

Alumni event for new DKFZ colleagues

6th December 2016, 16:15, Tour of the Heidelberg University Library and Dinner

Every year, the Alumni Association invites DKFZ newcomers to get together for a social event followed by a dinner at an historic restaurant in Heidelberg.

Alumni Club Heidelberg

12th December 2016, 17:30, KI/II DKFZ Communication Center

Demenz: Fortschritte in der Erkennung und Beeinflussung (in German)

[link to program](#)

All DKFZ colleagues and Alumni are welcome! Please register with susanne.schunk@dkfz.de

Alumni New Years Reception 2017

SAVE THE DATE!

The Alumni New Years Reception, in collaboration with the PhD Council und the PostDoc Network, will be held on **16th February 2017**.

Our Italian colleagues and DKFZ Alumni are organizing a spectacular evening.

Stay connected

Join the Alumni Association

Alumni members benefit from an attractive range of activities:

- Publication of *Alumni Monthly* 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
- Biennial General Alumni Meeting and Scientific Symposium, including travel grants

All current and former DKFZ colleagues are welcome to join. Please register at www.dkfz.de/en/alumni

Join more than 1500 colleagues on **DKFZ Connect**, the online platform for networking and mentoring between former and current employees www.dkfz-connect.de

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Imprint

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Research for a Life without Cancer