

Welcome to the February edition of Alumni Monthly

The DKFZ is continuously developing so that we have various **job openings** that might be appealing to you. Do you know someone for whom these job offers might be interesting? Then we kindly invite you to share this newsletter with him/her.

We would also like to draw your attention to a generous offer from Heidelberg University. They invited us to participate in their call for **partial funding for short research stays in Heidelberg 2017**. All details can be found in the section "Alumni Matters".

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

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News from the Press Office

Apply now! Group Leader Positions at the DKFZ We are currently seeking outstanding researchers with an excellent scientific track record as heads of independent research groups (equivalent to an appointment at the assistant professor level) in one of the following research areas:

- Data Science in Cancer Research
- Cell Biology and Tumor Biology
- Functional and Structural Genomics
- Cancer Risk Factors and Prevention
- Tumor Immunology
- Imaging and Radiooncology
- Infection and Cancer
- Translational Cancer Research



Apply now! Group Leader Positions at the DKFZ

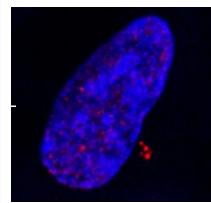
Independent junior research groups will be established for an initial period of 6 years with a tenure option after review. Junior research groups are funded at an internationally competitive level.

Applications must be submitted by March 10th, 2017 by Email to the Scientific Director Prof. Michael Baumann (<u>michael.baumann@dkfz-heidelberg.de</u>).

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Epstein-Barr virus and cancer: new tricks from an old dog



© Henri-Jacques Delecluse/DKFZ

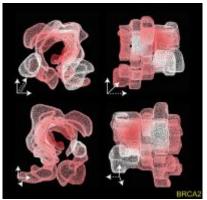
read more

Almost everybody has it: Scientists estimate that approximately 98 percent of adults around the world are infected with the Epstein-Barr virus. In rare cases, an infection with this virus causes cancer. Scientists at the German Cancer Research Center (DKFZ), at the German Center for Infection Research (DZIF), and at the French National Institute of Health and Medical Research (Inserm) have now discovered that a component of the Epstein-Barr virus infectious particle promotes carcinogenesis. This viral protein interferes with cell division and impairs proper distribution of the genetic material to the two daughter cells. This confers a risk of subsequent cancer development.

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DKTK Berlin: The Variety of the Tumor in 3D

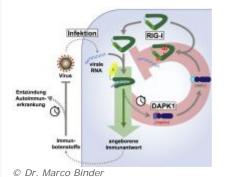
During its formation, every tumor receives a specific genetic profile, which can be utilized for personalized cancer therapy. But even within one tumor, various regions can develop which have distinct features. By making a threedimensional tumor model, researchers at the German Cancer Consortium (DKTK) at the Charité Medical University of Berlin, at the Carl Gustav Carus University Hospital in Dresden, and at the Technical University in Munich, were able to show for the first time how cancer-relevant genes in colorectal cancer are amplified in specific tumor regions. The results could help to improve routine molecular diagnostics. <u>read more</u>



The three-dimensional tumor model. ©Christine Sers, Soulafa Mamlouk / Charité Berlin

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Immune System with a Timer

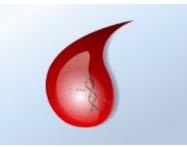


Scientists from the German Cancer Research Center and the Heidelberg University Hospital have discovered a previously unknown feedback mechanism of the human immune system. Their research shows how the innate immune system is quickly activated in the case of a viral infection, but is inhibited after just a few hours. This prevents an excessive immune reaction that might result in cell damage. The results of the study have been published in the journal "Molecular Cell." <u>read more</u>

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Cancer diagnosis from the blood – Fact or fiction?

Can a simple blood sample test replace an invasive biopsy of tumor tissue? Can a few milliliters of blood make even mammography and colonoscopy unnecessary? What are the facts about the cancer blood test called liquid biopsy? On the occasion of World Cancer Day on February 4, experts from the German Cancer Research Center (DKFZ) report on the current state of research: What is already possible today and what can be expected of the cancer blood test in the near future? <u>read more</u>



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Highlight Publications

Selected by the Research Program Coordinators

Pan-mutant-IDH1 inhibitor BAY1436032 is highly effective against human IDH1 mutant acute myeloid leukemia in vivo

Leukemia accepted article preview 31 January 2017; doi: 10.1038/leu.2017.46

A Chaturvedi, L Herbst, S Pusch, L Klett, R Goparaju, D Stichel, S Kaulfuss, O Panknin, K Zimmermann, L Toschi, R Neuhaus, A Haegebarth, H Rehwinkel, H Hess-Stumpp, M Bauser, T Bochtler, E A Struys, A Sharma, A Bakkali, R Geffers, M M Araujo-Cruz, F Thol, R Gabdoulline, A Ganser, A D Ho, A von Deimling, K Rippe, M Heuser, A Krämer

Neomorphic mutations in isocitrate dehydrogenase 1 (IDH1) are frequently found in several human cancer types including acute myeloid leukemia (AML) and lead to the production of high levels of the oncometabolite (R)-2-hydroxyglutarate (R-2HG). Here, we report the characterization of BAY1436032, a novel pan-mutant IDH1 inhibitor, both in vitro and in vivo. BAY1436032 specifically inhibits R-2HG production and colony growth, and induces myeloid differentiation of AML cells carrying IDH1R132H, IDH1R132C, IDH1R132G, IDH1R132L and IDH1R132S mutations. In addition, the compound impacts on DNA methylation and attenuates histone hypermethylation. Oral administration of BAY1436032 led to leukemic blast clearance, myeloid differentiation, depletion of leukemic stem cells and prolonged survival in two independent patient-derived xenograft IDH1 mutant AML mouse models. Together, BAY1436032 is highly effective against all major types of IDH1 mutant AML. read more

Pan-mutant IDH1 inhibitor BAY 1436032 for effective treatment of IDH1 mutant astrocytoma in vivo.

Acta Neuropathol. 2017 Jan 25. doi: 10.1007/s00401-017-1677-y. [Epub ahead of print]

Pusch S, Krausert S, Fischer V, Balss J, Ott M, Schrimpf D, Capper D, Sahm F, Eisel J, Beck AC, Jugold M, Eichwald V, Kaulfuss S, Panknin O, Rehwinkel H, Zimmermann K, Hillig RC, Guenther J, Toschi L, Neuhaus R, Haegebart A, Hess-Stumpp H, Bauser M, Wick W, Unterberg A, Herold-Mende C, Platten M, von Deimling A

Mutations in codon 132 of isocitrate dehydrogenase (IDH) 1 are frequent in diffuse glioma, acute myeloid leukemia, chondrosarcoma and intrahepatic cholangiocarcinoma. These mutations result in a neomorphic enzyme specificity which leads to a dramatic increase of intracellular D-2-hydroxyglutarate (2-HG) in tumor cells. Therefore, mutant IDH1 protein is a highly attractive target for inhibitory drugs. Here, we describe the development and properties of BAY 1436032, a pan-inhibitor of IDH1 protein with different codon 132 mutations. BAY 1436032 strongly reduces 2-HG levels in cells carrying IDH1-R132H, -R132C, -R132G, -R132S and -R132L mutations. Cells not carrying IDH mutations were unaffected. BAY 1436032 allow for oral administration. In two independent experiments, BAY 1436032 has been shown to significantly prolong survival of mice intracerebrally transplanted with human astrocytoma carrying the IDH1R132H mutation. In conclusion, we developed a pan-inhibitor targeting tumors with different IDH1R132 mutations. <u>read more</u>

Relating to the press news above:

Epstein-Barr virus particles induce centrosome amplification and chromosomal instability. Nature Communications 2017, DOI: 10.1038/ncomms14257 <u>link to article</u>

DNA copy number changes define spatial patterns of heterogeneity in colorectal cancer. Nature Communications 2017, DOI:10.1038/ncomms14093 <u>link to article</u>

Phosphorylation-Dependent Feedback Inhibition of RIG-I by DAPK1 Identified by Kinome-wide siRNA Screening. Molecular Cell 2017, DOI: 10.1016/j.molcel.2016.12.021 link to article

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New Research Group

Research Group Medical Physics in Radiooncology Prof. Dr. Joao Seco



Prof. Dr. Joao Seco

Joao Seco joined the DKFZ in January 2016, part-time initially to allow him to finish his research at Massachusetts General Hospital and Harvard Medical School in Boston USA. He was in Boston for 10 years, working on proton and photon beam physics research applied to radiation therapy.

Radiation therapy is the most common treatment for cancer, being used in approximately 70% of all cancers either alone or combined with surgery or chemotherapy. It uses high-

energy particles or waves, such as x-rays, gamma rays, electron beams, protons, carbon ions, to "kill" or "damage" cancer cells. There is a growing interest in the use of ion-beams (protons, carbon ions) for cancer therapy. The principal benefit of ion-beams are there finite range (or depth) in tissue, known as Bragg peak, where a significant amount of the radiation is deposited at the end of the track where the ions stop. The Bragg peak guarantees that healthy organs distal (deeper) to this peak receive NO radiation, reducing significantly side effects. read more

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Lectures & Conferences

DKFZ-Bayer Drug Discovery Seminar: Target Identification & Validation

February 27, 2017

This is the 2nd seminar after the kick-off and the first talk along the drug discovery process, which starts with target identification and systematic validation. The seminar will provide an overview on techniques and systematic approaches, which are applied in the pharmaceutical industry to identify and validate a target. There are various criteria, like druggability, which are less important in academic research, but crucial in drug discovery. Come and learn how pharma would look on a protein to assess it as a drug target. read more

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PhD Winter Selection 2017



March 7, 2017

Everyone is warmly welcome to attend the short scientific presentations of the PhD candidates who are invited to interview at the DKFZ for the 2017 Winter Selection.

These presentations will take place on 7th March in K1, K2 and the ATV building from 11:20 until 15:30. The presentation schedule can be collected from the information desk in the DKFZ Communication Center on the morning of 7th March.

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Conference: 12 years SFB-TR23: From Vascular Differentiation and Remodeling to Organotypic Vasculature



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2nd European Cancer Epigenetics Conference 2017

11 – 13 May 2017

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Career Day "Science Communication"



May 19, 2017

Round tables, short talks and workshops with invited DKFZ Alumni now working in the field of Publishing, Press, Teaching and Communication.

read more

Nobel Laureate Lecture Series: Françoise Barré-Sinoussi - Nobel Prize in Medicine or Physiology 2008

June 8, 2017, 17:00 - 18:30

Contemplating an end to the HIV epidemics - what is left to be done?

Much progress has been made in the development of tools to prevent, diagnose and treat HIV infection. However, we still do not have a vaccine and antiretroviral treatments are not curative as HIV persists in many compartments of the body. The implementation of these tools at large scale worldwide remains a critical challenge as well as the sustainability of these life-long therapies. Recent advances in our



understanding of protective immune responses and of HIV persistence have generated some optimism about the development of novel vaccine and HIV cure strategies, which are an absolute necessity to end the HIV epidemics. <u>read more</u>

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Personalized Medicine - International Symposium 2017



3 - 4 July 2017

Key Note Speakers are among many other distinguished scientists: Mike Snyder, Stanford Luis Serrano Pubul, Barcelona

Anne-Lise Børessen-Dale, Oslo

Program:

The detailed program will be published by the mid June 2017 and will be sent to all registered participants via E-mail. Please find the preliminary program and the conference poster in the "Download" section. A list with a variety of hotels in Heidelberg is provided for download, too.

Conference Registration:

Registration is free of charge, but is mandatory for participating in the conference. Registration deadline: June 19, 2017. Early registration is advised due to limited capacity. **Call for Posters / Short Talks:**

If you wish to present your research as poster or short talk, please submit an abstract via the "Registration and abstract submission" Link below.

Abstract submission deadline: May 29, 2017.

read more

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Job Openings

Scientific jobs

- 059/2017 Scientist Positions in Applied Health Economics Health Economics
- 058/2017 Postdoc Position in Medical Image Analysis Theoretical Bioinformatics
- 054/2017 Experienced Medical/Scientific Writer & Editor Management Board
- 048/2017 Postdoc German Cancer Consortium (DKTK) Berlin
- 039/2017 Informatiker/in / Wissenschaftliche/r Mitarbeiter/in Medizinische Informatik in der Translationalen Onkologie
- 034/2017 Postdoc Neuroimmunology and Brain Tumor Immunology
- 030/2017 Group leader positions At the German Cancer Research Center (DKFZ)
- 022/2017 Postdoctoral Fellow or PhD Student to work in the area of epigenetics and gene regulation German Cancer Consortium (DKTK) Freiburg
- O17/2017 Postdoc Position Wnt signaling in Mouse Developmental Biology Molecular Embryology
- 008/2017 Postdoc Position Wnt signaling Molecular Embryology
- O02/2017 Postdoctoral Fellow German Consortium for Translational Cancer Research (DKTK) München

• 001/2017 Postdoctoral Fellow - Molecular RNA Biology - RNA Biology & Cancer

• 325/2016 Platform Leader - Functional Cancer Genomics - German Cancer Consortium (DKTK) Heidelberg

PhD studentships / Diploma theses

• 061/2017 PhD Student - German Cancer Consortium (DKTK) Essen/ Düsseldorf

• 057/2017 Doktorand/in - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Essen/ Düsseldorf

056/2017 Doctoral candidate - Preventive Oncology

 O50/2017 PhD Student - German Consortium for Translational Cancer Research (DKTK) München

• 049/2017 PhD Student - German Cancer Consortium (DKTK) Berlin

• 047/2017 PhD Student to work on the advanced analysis of proteomic and genomic data in cancer research - German Cancer Consortium (DKTK) Freiburg

• 045/2017 PhD Student - German Cancer Consortium (DKTK) Berlin

• 040/2017 PhD candidate in the area of Electromagnetic Simulation and RF Coil Design for MR Imaging - Medical Physics in Radiology

032/2017 PhD Student

normal tissue reaction following photon and proton irradiation - German Consortium for Translational Cancer Research (DKTK) Dresden

• 022/2017 Postdoctoral Fellow or PhD Student to work in the area of epigenetics and gene regulation - German Cancer Consortium (DKTK) Freiburg

Laboratory / Engineering department

• 055/2017 Technische/r Assistent/in in Teilzeit 50% - Präventive Onkologie

• 053/2017 Dipl.-Ingenieur/in (FH / DH oder Bachelor) Fachrichtung Architektur - Technische Infrastruktur

• 052/2017 MTA/ BTA/ CTA oder Biologielaborant/in - Zellzykluskontrolle und Carcinogenese

• 051/2017 MTA/ BTA/ CTA - Deutsches Konsortium für Translationale Krebsforschung (DKTK) München

• 046/2017 Biologielaborant/in - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Berlin

• 044/2017 Dipl.-Ing. Biotechnologie/ Bachelor oder Master - Tumorvirologie

- 043/2017 Bautechniker/in Fachrichtung Hochbau Technische Infrastruktur
- 037/2017 Tierpfleger/in Fachrichtung Forschung in Teilzeit 20 Std./Woche Deutsches Konsortium für Translationale Krebsforschung (DKTK) Essen
- O36/2017 BTA/ MTA/ CTA in Teilzeit 19,75 Std./Woche Hochdurchsatzsequenzierung

O35/2017 BTA/ MTA/ Biologielaborant/in - KKE Neuroimmunologie und

Hirntumorimmunologie

• 031/2017 Technische/r Assistent/in in Teilzeit 19,75 Std./Woche - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Berlin

 O23/2017 Study Nurse/ Studienassistent/in - Nationalen Centrums für Tumorerkrankungen (NCT) Dresden

• 018/2017 MTA/ BTA - Deutsches Konsortium für Translationale Krebsforschung (DKTK) Freiburg

Administration

• 042/2017 Einkäufer/in für die Einkaufssachgebiete Laborgeräte / EDV Hard- und Software - Beschaffung und Materialwirtschaft

038/2017 Leiter/in Innenrevision - Stabsstelle Innenrevision

• 033/2017 Fremdsprachensekretär/in in der Forschung in Teilzeit 19,75 Std./Woche -Deutsches Konsortium für Translationale Krebsforschung (DKTK) Freiburg

• 026/2017 Studentische/n Online-Redakteur/in in Teilzeit 10 Std./Woche - Deutsches Konsortium für Translationale Krebsforschung Heidelberg

• 025/2017 Sekretär/in/ Bürokauffrau/-mann in Teilzeit 19,75 Std./Woche - Nationalen Centrums für Tumorerkrankungen (NCT) Dresden

• 021/2017 2 Volljuristen/innen -

• 020/2017 Studentische Hilfskraft in Teilzeit 10. Std./Woche - Rechtsangelegenheiten des Stiftungsvorstandes

Further job offers

• 060/2017 Studentische Hilfskraft in Teilzeit 19 Std./Woche Pressestelle NCT Dresden -Partnerstandort Dresden des Nationalen Centrums für Tumorerkrankungen (NCT)

• 041/2017 Systemadministrator/in - Computer-Assistierte Medizinische Interventionen CAMI und Zentrale Einheit für Informationstechnologie ITCF

• 039/2017 Informatiker/in / Wissenschaftliche/r Mitarbeiter/in - Medizinische Informatik in der Translationalen Onkologie

• 323/2016 Fachinformatiker/in/ Systemadministrator/in - Partnerstandort Dresden des Nationalen Centrums für Tumorerkrankungen (NCT)

• 322/2016 Fachinformatiker/in/ Systemadministrator/in/ Linuxadministrator/in -

Partnerstandort Dresden des Nationalen Centrums für Tumorerkrankungen (NCT)

• 320/2016 Studentische Hilfskraft mit einem Umfang von 40 Std./Monat - Zentrale Einheit für Genom und Proteom

• 299/2016 Informatiker/in / Bioinformatiker/in - Theoretische Bioinformatik

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Alumni Matters

Alumni New Year's Reception 2017 "La Dolce Vita"



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© Florian Köhler, DKFZ

More than 200 colleagues and guests from the Heidelberg University and EMBL joined to celebrate "La Dolce Vita" at the DKFZ. Our italian PhDs and Postdocs gave us an insight into

italian lifestyle, music and dance. It was also a good oportunity to meet our new Scientific Director, Michael Baumann. Please find a selection of photos at www.dkfz.de/en/alumni/events

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Partial funding for short research stays in Heidelberg 2017

HEIDELBERG ALUMNI INTERNATIONAL

The programme "HAIreconnect", offered by Heidelberg Alumni International (HAI), gives you the opportunity to return to Heidelberg for a short-term research stay. The funding covers 100 Euro per day for a period of 5-10 days maximum. **We are pleased to announce that this offer**

is extended to Alumni from the Deutsches Krebsforschungszentrum (DKFZ).

Are you interested in returning to Heidelberg once again, to rekindle professional contacts, to explore possibilities for future cooperation and to see the current state of research at first-hand in Heidelberg? Then apply now! Do you know someone for whom this call for application might be interesting? Then we kindly invite you to share this letter with him/her.

In the past our focus lay mostly with other parts of the world, now, we would like to focus on researchers in Latin America. However, researchers from all over the world may apply.

You will find more information about the application and the requirements on the HAI <u>website</u>. The **application deadline is March 15**, **2017**. The period of stay should be between March 15 and November 30, 2017. If you apply, please contact Susanne Schunk at <u>susanne.schunk@dkfz.de</u>.

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Save the date



DKFZ Reception during the AACR Meeting in Washington, DC

Sunday, April 2, 2017, 6:30 pm

The Management Board of the German Cancer

Research Center (DKFZ) cordially invites alumni, friends and current co-workers of the DKFZ to a reception.

Welcome Michael Baumann Chairman and Scientific Director Josef Puchta Administrative Director

Location: Renaissance Washington DC Hotel Marriott, 999 9th St NW, Washington, DC 20001, USA

Stay Connected

Join the Alumni Association

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 <u>your.name@alumni.dkfz.de</u>

• 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 1700 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 <u>www.dkfz-connect.de</u>

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Imprint

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Research for a Life without Cancer