

EXCELLENCE NEWSLETTER

1 June 2017

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Dear Readers,

DRESDEN-concept’s major Dresden Science Exhibition, which took place throughout the month of May on Guy’s Campus at King’s College in the centre of London, was very well received. In September, the exhibits will move on to Wrocaw and then, in 2018, continue their journey to Prague.

Dresden Scientists Connect with London Colleagues

For a whole month, lectures, panel discussions and networking events involving Dresden and London scientists took place at the renowned [King’s College London](#). Researchers from TUD and the DRESDEN-concept institutes gave talks and held discussions with their London counterparts on topics such as regenerative medicine, stem cell research, materials for 3D printing and the green city. Professors and junior scientists from other London research institutes, such as Imperial College, the Wellcome Collection and the National Archives also showed interest in the topics presented. The discussions on current research issues continued over drinks and snacks, and were in some cases carried on into the night in nearby pubs.



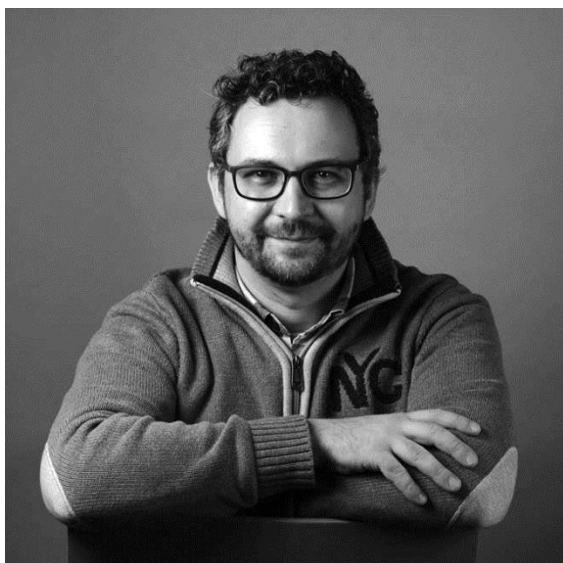
„The Questions Google can’t answer: On the relationship between Museums and Science“ – The participating speakers of this panel discussion had been: James Peto (Wellcome Collection), Colleen M. Schmitz (Deutsches Hygiene Museum Dresden), Dr. Ruth Adams (King’s College London) and PhD Emma Markiewicz (National Archives), (from left to right). Foto: DRESDEN-concept

Michael Schlierf Appointed Professor of Molecular Biophysics at B CUBE

Dr. Michael Schlierf has been Professor of Molecular Biophysics at B CUBE at TU Dresden since May 2017. He was one of the first junior researchers to be appointed a TUD Young Investigator in September 2014.

After studying physics in Munich, Paris and New York, Michael Schlierf earned his doctorate in the field of protein folding at TU Munich in 2008. He then worked as a postdoctoral research associate at the University of Illinois in the US for two years until 2010, when, as an expert in bio-nano analysis, he set up his working group "Bio-nano Technological Analysis and Manipulation" at the B CUBE Center for Innovation. The investigation of the dynamics in and between molecules by means of biophysical technologies is at the centre of his research. In particular, he is interested in molecules that can modify and multiply DNA, the carrier of genetic information, as well as proteins that find their structure in cell membranes and alter it in the case of illness.

Michael Schlierf is already the fourth Young Investigator to be appointed to a professorship.



Prof. Michael Schlierf. Photo: B CUBE

Three New TUD Young Investigators



No fewer than three TUD Young Investigators received their certificates of appointment from Prof. Hans Müller-Steinhagen, Rector of TU Dresden (2nd from right) on 10 May: (from left to right) Dr. Axel Lubk works at the TUD Chair of Physical Metrology and is in charge of the research group "Advanced Methods of Electron Microscopy" at the Leibniz Institute for Solid State and Materials Research Dresden; Dr. Benjamin Friedrich is based at the Center for Advancing Electronics Dresden (cfaed), where he heads the "Biological Algorithms Group"; Dr. Julian Thiele is working at the Leibniz Institute of Polymer Research Dresden as head of the Research Group "Polymer Microbioreactors". Photo: Holthaus

More Than 50 Participants at Third International Staff Training Week

TU Dresden's International Staff Training Week is set to take place from 12 to 16 June 2017. Some 50 non-academic employees from international universities are expected at the event, which is now being held for the third time. In the five expert groups – International Office, Career Service, DRESDEN-concept, staff unit Diversity Management, and, together as one group, the European Project Center, Transfer Unit and Project Scouts – participants will deal with daily work flows and forms of cooperation. They will learn about individual projects of the Excellence Initiative and about further internationalisation measures. As part of the extensive programme planned for their visit, they will also be shown around the Max Planck Institute of Molecular Cell Biology and Genetics, a DRESDEN-concept partner, and the Cluster of Excellence Center for Regenerative Therapies Dresden (CRTD).

“Lady of the Flies” to Visit TUD

The successful lecture series at the School of Science, featuring Nobel laureates will continue in June with a celebrated cast. On 7 June 2017, the geneticist Prof. Dr. Christiane Nüsslein-Volhard will deal with the following question: "The stripes of the zebra fish: why and how does beauty develop in animals?" The Frankfurter Allgemeine Zeitung bestowed the title of "lady of the flies" on Prof. Dr. Christiane Nüsslein-Volhard. The German developmental biologist and geneticist received the Nobel Prize in Physiology or Medicine in 1995 for her fundamental research on the genetic control of embryonic development. On 28 June 2017, we go below ground with Prof. Dr. Arthur McDonald. In his talk, "A deeper understanding of our universe from 2 km underground," the Canadian particle researcher will tell us about his research at the Sudbury Neutrino Observatory (SNO) in Canada. Both public lectures begin at 7 pm in the Audimax, in TU Dresden's Hörsaalzentrum.



Prof. Christiane Nüsslein-Volhard. Photo: momentum photo

Project Scouts arrange IRANWEEK 2017 from 10 to 14 July

To facilitate German-Iranian co-operations, the Project Scouts arrange an **IRANWEEK** from 10 to 14 July for TUD. The intercultural seminar "Successful in Iran" and a workshop ("IDEENSTUDIO") about current grant opportunities are part of the programme.

Graduate Academy's "Welcome Days" in June

In the shape of the "Welcome Days" from 20 to 22 June, the **Graduate Academy (GA)** will be providing students who are interested in doing a doctorate and PhD candidates in the early stages of their doctoral degree with important information on topics related to the doctorate, such as organising, funding and qualification. Participants can also expect various short workshops as well as an extensive supporting programme. **Registration** is possible until 11 June 2017.

GA and SLUB Announce New Round of "Doctoral Cap Contest"

Together with the SLUB, the Graduate Academy is this year once again looking for the most creative doctoral mortarboards and caps. The guests will become the jury at the GA summer party on 20 June, and will be able to vote for the most original "Doctoral Cap". Competition entries will be accepted by the Graduate Academy until 9 June.

CRTD: Sebastian Zeißig Awarded Theodor-Frerichs Prize

Prof. Dr. Sebastian Zeißig, Research Group Leader at the DFG Research Center for Regenerative Therapies Dresden (CRTD) – Cluster of Excellence at TU Dresden, and physician at the Department of Medicine I of the University Hospital Carl Gustav Carus Dresden was awarded the Theodor-Frerichs Prize of the German Society of Internal Medicine (DGIM). With this award, the specialist association for internists honours his outstanding research on the causes of intestinal cancer. In 2016, for example, he was able to demonstrate for the first time the crucial role of intestinal bacteria in the regulation of stem cells in the intestine and in the development of intestinal cancer.

First Dresden Dementia Action Day is Well Received

For the first time on 10 May 2017, the **CRTD**, together with the German Center for Neurodegenerative Diseases (DZNE), the University Hospital Carl Gustav Carus Dresden and the Dresden Volkshochschule (adult education

centre) presented a new format for the Dresden science location: the [Dresdner Aktionstag Demenz](#) (Dresden Dementia Action Day). More than a hundred people took up the CRTD's invitation to acquaint themselves with this broad topic. A continuation is planned for 2018.

Dresden Vocational School Students Given Insights into CRTD research

From 24 April to 5 May 2017, seven students from the "Ernst Lößnitzer" vocational school centre in Dresden did their [company internship at the CRTD](#). During their two-week stay, they attended lectures such as "Classical Genetics" by Prof. Gerd Kempermann or "Transplantations" by Prof. Martin Bornhäuser. In addition, they were introduced to the model organism of the zebrafish, and to the light microscopy facility, one of the central technology platforms at the CRTD/BIOTEC.



Vocational school students at the CRTD. Photo: CRTD

cfaed: New Method for Synthesising Molecular Hydrogen

A current research paper of the [Chair of Molecular Functioning Materials](#) (Prof. Xinliang Feng), [Center for Advancing Electronics Dresden \(cfaed\)](#) at TU Dresden – co-authored by researchers at universities and institutes in Germany, France and Japan – has recently been published in the renowned magazine "Nature Communications". The paper, entitled "[Efficient hydrogen production on MoNi₄ electrocatalysts with fast water dissociation kinetics](#)", describes a new approach in the production of platinum-free molecular hydrogen, which could

revolutionise this process. The gas is considered to be one of the most promising energy carriers of the future.

16th Dresden Microelectronics Academy to Kick Off in September

The [Dresden Microelectronics Academy \(DMA\)](#), which has a rich tradition, will embark on a new round in September 2017. From 18 to 22 September, some 50 international participants will once again be immersed in the world of wafers and transistors, and will be able to gain deep insights into research and industry in the field of microelectronics. Strong partners such as Globalfoundries, Infineon and X-FAB will also see to that. The programme includes taking a look at organic electronics, for which the cfaed Chair of Organic Devices (Prof. Stefan Mannsfeld) will be responsible. Registration for the DMA is possible on the website as of now.



Prof. Stefan Mannsfeld is organising the cfaed Summer School. Photo: Jürgen Lösel

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