



Excellence Initiative Newsletter from 10 December, 2015

Dear readers, colleagues and students,

A big Christmas charity drive for refugee children is to take place on the campus of TU Dresden (TUD): on 17 December, the TUD will be handing over Christmas parcels to the German Red Cross (DRK) for the children in the three emergency shelters. The event has been initiated jointly by the Staff Unit Communication and Corporate Identity and the Faculty of Business and Economics. There are also a lot of other things going on at the Campus of Excellence around the turn of the year – as you can discover here in our newsletter.

Institutional Strategy

- [Graduate Academy: Career Day Offers Assistance in Profile Development](#)
- [Trefftz Program: New Chance for Female Scientists](#)
- [2016 to Start with an Exciting Open Topic Lecture](#)
- [“Knowledge and Technology Transfer” Research Team off to a New Start](#)
- [New Staff Members at the DRESDEN-concept Office](#)

Cluster of Excellence and Graduate School

- [DIGS-BB Open for New Doctoral Students](#)
- [International Experts Begin Their Research at B Cube](#)
- [5G Lab Germany: Presentations in Berlin and Silicon Valley](#)
- [cfaed Scientists Honoured at Conference in Brazil](#)
- [cfaed: Prof. Xinliang Feng Receives Sponsorship for Graphene](#)
- [2.5 Million Euro for CRTD Professor Michael Brand](#)
- [“Trends in Microscopy 2016” to be Hosted by CRTD](#)
- [International Symposium on Stem Cell Research at CRTD](#)
- [Donations of 75,000 Euro for Refugee Outpatients Facility](#)



Graduate Academy: Career Day Offers Assistance in Profile Development

On 16 December, the [Graduate Academy](#) is inviting its members to a second Career Day in the Banquet Hall (*Festsaal*) on Dülferstraße: doctoral candidates and postdocs at TU Dresden and at DRESDEN-concept partner institutes will be able to obtain information about career prospects for postdocs on Saxony's job market. The keynote speeches will be given by careers advisor Heidi Störr and profiling agent Kixka Nebraska. Those providing additional inspiration at the round table sessions will include the physicist Dr. Luis Pedrero (Globalfoundries), Bettina Voßberg (HighTech Startbahn) and Grit Förster (Bundesagentur für Arbeit -*Federal Employment Agency*).

Trefftz Program: New Chance for Female Scientists

Outstanding female scientists and young female researchers are again invited to come at TUD. The call for proposals of the [Eleonore Trefftz Program for Visiting Women Professors](#) for the period of 2016/2017 winter semester and 2017 summer semester has started and will end on 29 February 2016.

The idea is for this to take place predominantly in faculties or departments that have few or no women professors. The proportion of women professors at TU Dresden amounts to 14.2% (2014), and as such is very low - also when compared to other universities. For this reason, TU Dresden has set up a program for temporary professorships for women at its faculties. The aim of the program is to provide female students in particular with role models for an academic career. At the same time, the Eleonore Trefftz Program for Visiting Women Professors serves to support careers for women by improving their chances of a career in science. Alongside established researchers at the top of their field, junior academics can also be nominated, for example with the purpose of discovering their potential for possible recruitment later on in their careers. Applications for the current application period winter semester 2016/17 and summer semester 2017 are to be submitted by post to the Institutional Strategy's project office (Mommensenstraße 5, 01069 Dresden) and online as a PDF to zukunfts-konzept@tu-dresden.de.

2016 to Start with Exciting Open Topic Lecture

The new year will start with an exciting lecture in the series offered by the [Open Topic Professors](#): on 14 January, Prof. Martin Keller-Ressel will be lecturing in the Sächsische Landesbibliothek – Staats- und Universitätsbibliothek Dresden (*Saxon State and University Library - SLUB*) on "Mathematische Modellierung von Herdenverhalten und Ansteckungseffekten in Finanzmärkten" (*Mathematical modelling of herd behaviour and effects of contagion in financial markets*). Herd behaviour and contagion effects play a significant role in many of the phenomena on the financial markets. This lecture will describe how these phenomena can be integrated into mathematical models. In the process, interesting cross-connections to biological models of population development and to the emergence and design of social networks will be demonstrated.



“Knowledge and Technology Transfer” Research Team Off to a New Start

The [“Knowledge and Technology Transfer”](#) junior research group is now complete and can be reached at their new rooms in Hülse-Bau, Helmholtzstraße 10. In the context of the Institutional Strategy, the four-strong team headed by Dr. Matthias Geissler is investigating technology transfer processes between university and the world of business.

New Staff Members for DRESDEN-concept Office

From 1 January, Prof. Ludwig Schulz from the Leibniz Institute for Solid State and Materials Research Dresden (IFW) will be the new office manager of [DRESDEN-concept](#) e.V. The co-ordinator of the office will be public administration specialist Romy Conrad.

DIGS-BB Open for New Doctoral Students

The next [DIGS-BB](#) application round is now open. National and international candidates are cordially invited to submit their applications by 22 December. As in previous years, the DIGS-BB selection is organised jointly with the IMPRS-CellDevoSys (International Max-Planck Research School for Cell, Developmental and Systems Biology). These two PhD programmes together form the Dresden International PhD Programme (DIPP). The 5th DIGS-BB Fellow Award was already presented in November. This prize, which is in the form of a contract (E13 65%) for the remaining duration of the doctorate, honours outstanding DIGS-BB PhD candidates for their excellent performance after the first year of their doctoral degree. In this round, the DIGS-BB Steering Committee bestowed the award on five PhD candidates at the Dresden International Graduate School for Biomedicine and Bioengineering (DIGS-BB).

International Experts Begin Their Research at B Cube

In November, the [DIGS-BB](#) had the pleasure of welcoming two new faculty members: Dr. Igor Zlotnikov, who investigates thermodynamic and nanomechanical aspects of biomineralised tissue formation, and Dr. James Saenz, whose research is focused on the contribution of lipids to membrane function and organismal fitness. Both group leaders will start working at the Center for Molecular Bioengineering B CUBE in mid-2016.



5G Lab Germany: Presentations in Berlin and Silicon Valley

Prof. Frank Fitzek, co-ordinator of [5G Lab Germany](#) at TU Dresden, presented the current status of 5G research at the 9th German National IT Summit in Berlin. Among his attentive audience were Germany's Chancellor Angela Merkel, Vice-Chancellor Sigmar Gabriel and five federal ministers. The exhibits showed various applications of 5G, such as industry 4.0, health care, smart energy grids and mobility. Regarding mobility, a live demonstration illustrated the difference between autonomous and connected driving.

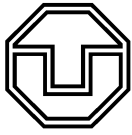
The second co-ordinator of 5G Lab Germany, Prof. Gerhard Fettweis, was one of the five keynote speakers at the 5G Silicon Valley Summit 2015, which took place on 16 November at Santa Clara University in California, USA. His keynote speech was entitled "5G Technology - Breaking Grounds from Thingbook to the Tactile Internet". The TUD Cluster of Excellence "Center for Advancing Electronics Dresden" (cfaed) supports the 5G Lab with its three system-oriented research paths Orchestration, Resilience, and the special research area Highly-Adaptive Energy-Efficient Computing (HAEC).

cfaed Scientists Honoured at Conference in Brazil

In November, a paper written by David Schöniger, Ronny Henker and Frank Ellinger received the Best Student Paper Award at the IEEE International Microwave and Optoelectronic Conference ([IMOC](#)) 2015 in Porto Galinhas, Brazil. The published paper deals with "A High-Speed Energy-Efficient Inductor-Less Transimpedance Amplifier with Adjustable Gain for Optical Chip-to-Chip Communication". The results were achieved within the HAEC project Energy-Adaptive Optical Onboard Links for Inter-Chip Communication. The proposed transimpedance amplifiers (TIA) are characterised by their high energy efficiency.

cfaed: Prof. Xinliang Feng Receives Sponsorship for Graphene

Professor Xinliang Feng (Chair of Molecular Functional Materials) has been successful in having his project proposal regarding the electrochemical delamination of graphenes accepted by the European Research Council ([ERC](#)). The scientist will now receive sponsorship of up to € 150,000 within the framework of a Proof of Concept Grant for the commercial development of his research results.



2.5 Million Euro for CRTD Professor Michael Brand

Michael Brand, Professor at the DFG Research Center for Regenerative Therapies ([CRTD](#)) – Cluster of Excellence at Technische Universität Dresden, has been awarded a European Research Council (ERC) Advanced Research Grant. The funding, which is worth 2.5 million euro, will support his research in the field of brain regeneration for the next five years. With the funding, it will be possible to continue investigating the cellular and molecular mechanisms behind the ability of the adult zebra fish brain to self-regenerate following an injury. By acquiring this sponsorship, Michael Brand proved himself successful in Europe's most competitive application process for funding. Only 8.3 per cent of the total 2287 applications were chosen.

“Trends in Microscopy 2016” to be Hosted by the CRTD

An international conference on “Trends in Microscopy 2016: Grasping Higher Dimensions” will be taking place at the CRTD from 22 to 24 February, 2016. The event is organised jointly by the Biopolis Dresden Imaging Platform ([BioDIP](#)) and the German BioImaging Network (GerBI). The TIM 2016 will focus on the following areas: optogenetics, adaptive optics/imaging techniques for deep tissue layers, 3D electron microscopy, phase and holographic microscopy, and new technologies.

International Symposium on Stem Cell Research at the CRTD

An international symposium on “Stem Cell Models of Neural Regeneration and Disease” will take place at the CRTD from 1 to 3 February, 2016. The event is being jointly organised together with the International Society for Stem Cell Research ([ISSCR](#)). The 400 participants who are expected to attend can look forward to internationally renowned speakers such as Jürgen Knoblich (IMBA Wien) and Sally Temple (NSCI, New York).

Donations of 75,000 Euro for Refugee Outpatients Facility

More than 75,000 Euro for an outpatients facility for refugees were collected at the Dresden sponsored run “[Run and Roll](#)” in October. The organisers included the University Hospital Carl Gustav Carus Dresden (UKD) and the Max Planck Institute for Molecular Cell Biology and Genetics (MPI-CBG), as well as the CRTD.

*Responsible for publication: Marlene Odenbach and Kim-Astrid Magister
Edited by Birgit Holthaus*