

## EXCELLENCE INITIATIVE NEWSLETTER

3 March 2017

## INSTITUTIONAL STRATEGY

- \_Twenty "Open Topic Postdoc Positions" Advertised
- \_ "World Tasters" Include Valentine's Day Box in Their Selection
- \_New "Scientific Area Networks" (SANs) at DRESDEN-concept
- \_Numerous VIPs from Saxony at Science Exhibition in London
- \_DRESDEN-concept Has Two New Members – 24 Partners in Total

## CLUSTERS OF EXCELLENCE

- \_Paul Ehrlich Foundation's Prize Awarded to Dr. Volker Buskamp
- \_Tatiana Sandoval Guzmán is New Group Leader at CRTD
- \_CRTD Set to Continue its Voluntary Social Year
- \_New Hermann Krone Building Provides Space for Top Research
- \_cfaed and NaMLab Create World's First Germanium-Based Transistor
- \_Spice Up Your Career: cfaed's First Career Symposium

## Dear Readers,

What is new in terms of Excellence? On 3 April 2017, the day when the new cluster proposals for the Excellence Strategy of the federal and state governments have to be submitted, the Rectorial Board will invite all TUD participants to an information event at 9 am in the ballroom Dülfersaal. Information is provided, questions are very welcome.

## Twenty "Open Topic Postdoc Positions" Advertised

TU Dresden is advertising a programme for the promotion of postdoctoral candidates. Twenty "Open Topic Postdoc Positions" are to be filled by 1 November. Researchers from all disciplines at an advanced stage of their postdoctoral studies still have the opportunity to apply for these new types of posts until 31 March. The programme aims to appeal particularly to young women researchers. Those postdoctoral candidates selected will receive a scholarship or an employment contract of between one and two years at TU Dresden, and they will be supported – for the duration of the contract – in their application for an autonomous project financed by third-party funding. The programme has been inspired by the successful "Open Topic Tenure Track Professorships" measure. When the positions for this were filled in 2014, it attracted great interest in the international scientific community and the media. Just like the "Open Topic Tenure Track Professorships", the "Open Topic Postdoc Positions" are funded by TU Dresden's Institutional Strategy.

## “World Tasters” Include Valentine’s Day Box in Their Selection

Green curry sauce from Thailand, Inca-Kola from Peru and Australian ginger beer, decorated with red hearts and a greeting card for your sweetheart – this is how the “world tasters” presented their new gift box for Valentine’s Day on 14 February. The student start-up has been providing culinary country boxes for a year now. “The Valentine’s Day special offer is an extension of our ‘World Travel Box’, which we sold with great success at Christmas,” explains 23-year-old TUD economics student Bettina Kieselbach, one of the three founders. At the end of 2015, the “world tasters” started out in a prefab container on the grass in front of the biology building at TU Dresden. As part of the Institutional Strategy, these containers – known as [Innovation Sheds](#) – are provided free of charge for creative projects on campus.



“World tasters” Philip Hölzel, Bettina Kieselbach and Frederik Rambow (from left to right) present their Valentine’s Day box. Photo: Birgit Holthaus

## New Scientific Area Networks (SANs) at DRESDEN-concept

DRESDEN-concept is offering its member institutions a new networking option: the [Scientific Area Networks \(SANs\)](#). On 27 March at 5 pm, the kick-off event “Future of urban and rural areas” will be held at the Center for Regenerative Therapies Dresden (CRTD). The event addresses the issues of future developments regarding life in cities, municipalities and rural areas.

The range of research topics is deliberately broad and covers societal and cultural change, as well as technological and medical innovations.

## Numerous VIPs from Saxony at Science Exhibition in London

From 3 to 26 May, the [DRESDEN-concept science exhibition](#) will be on display at Guy’s Campus of King’s College London. What is more, Saxon Minister of Science Dr. Eva-Maria Stange, the Rectorial Board of TU Dresden, as well as directors of DRESDEN-concept institutions will be present at the opening event on 3 May. A large number of scientists from Dresden, who will be holding lectures with their colleagues from London and participating at panel discussions, are also among the delegation.

## DRESDEN-concept Has Two New Members – 24 Partners in total

Two Fraunhofer Institutes have become the [latest new members](#) to join the research alliance DRESDEN-concept: the Fraunhofer Institute for Manufacturing Technology and Advanced Materials (IFAM), and the Dresden division (All Silicon System Integration - ASSID) of the Fraunhofer Institute for Reliability and Microintegration (IZM). DRESDEN-concept is now made up of 24 members.

## Paul Ehrlich foundation’s Prize awarded to Dr. Volker Busskamp

On 14 March, CRTD Research Group Leader [Dr. Volker Busskamp](#) will receive the Paul Ehrlich and Ludwig Darmstaedter Prize for Young Researchers awarded by the Paul Ehrlich Foundation. The [award ceremony](#) for the prize, which is endowed with EUR 60,000, will take place in Frankfurt’s Paulskirche (St Paul’s Church). “Busskamp’s inventiveness and his brilliant technical ability form the basis for these successes,” is how the board of trustees explains its decision. “I am delighted to receive the Paul Ehrlich and Ludwig Darmstaedter Prize for Young Researchers,” says Dr. Busskamp.

"This prize encourages me, along with my team, to pursue the generation of human neurons and functional circuits in order to explore diseases and potential therapies."



Dr. Volker Busskamp. Photo: Sven Döring

### Tatiana Sandoval Guzmán is New Research Group Leader at CRTD

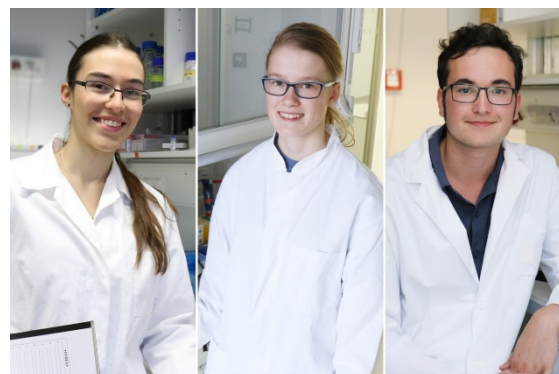
Tatiana Sandoval Guzmán has been a [research group leader](#) at the Center for Regenerative Therapies Dresden (CRTD) since 1 January. "Our long-term goal is deciphering regenerative processes. To this end, we want to compare organisms with high regenerative potential to those with low regenerative potential," says Tatiana Sandoval Guzmán, who already worked as a postdoc at the CRTD (Tanaka Group) from 2010 to 2016. Prior to that, she was a Postdoctoral Fellow at the Karolinska Institutet in Stockholm (Sweden, 2005-2009) and a Research Assistant at the University of Arizona (USA, 1998-2003).



Tatiana Sandoval Guzmán, PhD. Photo: CRTD

### CRTD set to Continue Voluntary Social Year

After a successful first round, the CRTD will now also be offering three places for a scientific voluntary social year (FSJ) in the coming year (2017/2018). The CRTD is one of only three research institutions in Germany to conduct a voluntary year within a scientific context. All three participants are involved in their individual research group and in this way gain insights into everyday practices in the lab, where they can experience the daily routines and work of the scientists and lab technicians. The FSJ at CRTD is organised jointly with the German Red Cross. The second round will begin in September 2017.



Currently, three high school graduates (Photo: Maria Rosner, Jennifer Schwarz and Max Hyman, from left to right) are doing their voluntary service at the CRTD. Jennifer and Max already began working there in September 2016, with Maria following them in January 2017. Photos: CRTD

### New Hermann Krone Building Provides Space for Top Research

On 24 January, the Saxon Minister of Finance, Prof. Dr. Georg Unland, ceremonially opened the new building of the Institute of Applied Physics at TU Dresden. The building is named after former TUD scientist Hermann Krone. Minister for Science, Dr. Eva-Maria Stange, pointed out that the research results of applied physics are contributing through their outstanding reputation to the good chances that TU Dresden has in the current Excellence Strategy.

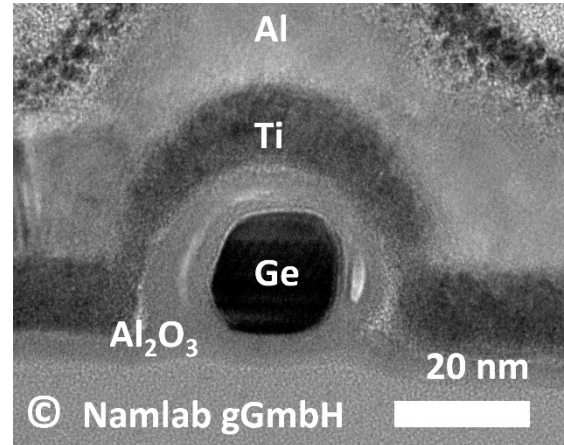
The new building provides 3500 square meters of space for laboratories, some of them of cleanroom quality. The building is equipped with a 400-square-meter solar facility on the roof and is heated with waste heat from the TUD high-performance computing centre. The construction costs amounted to just under 30 million Euro. Researchers from the [Dresden Integrated Center for Applied Physics and Photonic Materials \(IAPP\)](#) and from the [Center for Advancing Electronics Dresden \(cfaed\)](#) will be moving into the new rooms. Overall, approximately 120 researchers will have jobs in the building, working – among other things – on the development of high-precision measuring methods in the nanometer range.



Minister of Finance, Prof. Unland, ceremonially opens the Hermann Krone Building. Photo: cfaed

### **cfaed and NaMLab create World's First Germanium-Based Transistor**

Scientists of the Nanoelectronic Materials Laboratory (NaMLab gGmbH) and the Dresden Center for Advancing Electronics Dresden (cfaed) at TU Dresden have demonstrated the [world's first transistor based on germanium](#), which can be reconfigured electrically between electron conduction (n) and hole conduction (p). Due to the lower band gap compared to silicon, transistors based on germanium can be operated at low supply voltages. Therefore, the transistors based on germanium enable a more energy-saving operation than comparable transistors made from silicon.



The germanium transistor allows electronic circuits with the same level of functionality to be built with a smaller number of transistors compared to the currently used CMOS technology. Image: NaMLab

### **Spice up your Career: First cfaed Career Symposium**

The Career Development team of the Excellence Cluster cfaed is organising a big career day for young researchers for the first time. At the [Career Symposium "Spice up your Career"](#) on 9 May, various practical reports will make it possible to gain exciting insights into the everyday practices at companies and into the world of science. Participants can foster their networking skills by exchanging ideas with company representatives, cfaed alumni and career coaches.

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