



9 May 2019

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#### Dear Readers,

In just over two months' time, on **19 July 2019**, the decision regarding the new Universities of Excellence within the framework of the Excellence Strategy will be announced. Many exciting projects and events in the coming weeks will help to bridge the time until the highly anticipated decision.

### **Employee Survey at TUD**

From **20 May to 23 June 2019**, TU Dresden will conduct an online survey of its employees, which is intended to create an important basis for the demand-oriented expansion of personnel and organisational development at the TUD.



Many of the suggestions and approaches for solutions which have been included in the personnel development concept were collected at the **Future Labs** during the first half of 2018.

The task now is to obtain a comprehensive picture of the **needs of TUD employees** and to find out how satisfied they are with their working conditions. Central topics in this context, for instance, are the **management culture**, the culture of **collaboration and communication**, and also experiences of how **diversity** is dealt with in day-to-day interaction.

The results of the survey will be evaluated during the summer and then published in the **internal section of the TUD website**. In addition, central **information events** are





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planned, the dates of which are still to be announced.

The more members of staff who participate in the survey, the more solid the basis for improvements will be. These can then be jointly implemented over the coming years. From 20 May onwards, all employees in technology, administration and science will have **five weeks** to actively influence the future of priorities at TUD.

#### So, do join in!

The link to the survey will be shared by the Rector in an e-mail on 20 May 2019.

# Follow-up to "Perspectives of Materiality in Art and Design"

At **4:30 p.m.** on **16 May 2019**, the first follow-up event to the DRESDEN-concept "Scientific Area Network" that was held in November 2018 will take place at the Hermann-Krone Building (Nöthnitzer Straße 61).

The follow-up picks up the threads of the kick-off event, e.g. regarding the topics of digitisation and making cultural heritage accessible in collections, as well as the restoration and conservation of objects in art and culture. In addition, it deals with the visualisation of objects, the transfer of cultural heritage into design and contemporary art, and with discourses relating to the natural sciences and the arts.

After the follow-up event, you will have the opportunity to participate in a **public talk** with the artist Tabita Rezaire and with Bertram Kaschek from SKD at the Schimmel Projects Art Centre Dresden at Großenhainer Straße 61. This will take place in collaboration with DRESDEN-concept.

For more information, please contact: robert.fischer2@tu-dresden.de

### "Climate Change, Energy Policy Turnaround and Sustainability" in the DDc Tram

For several months now, pupils have been taking to the streets to galvanise political leaders and to encourage them to change tack on climate policy and CO2 emissions.



Scientists in Dresden conducts research on topics such as climate change, energy policy turnaround, sustainable urban development and environmental economics. In today's world in particular, scientists feel ever more responsible for providing information on their research. They will be doing just that on 24 May 2019 during a special DRESDEN-concept tram tour. Come aboard and exchange ideas with the researchers!

The tour will start at **3 p.m. at the Postplatz stop** (by Humana) and will last for 90 minutes. Tickets are **free of charge**, but please registration is required.

### DDc Welcomes 200 International Scientists

On **12 April 2019**, the DRESDEN-concept reception for international scientists who began their research stay with one of the DDc partners in the previous year took place for the second time.

The scientists were welcomed by Lord Mayor Dirk Hilbert, TUD Rector Hans Müller-Steinhagen and Ramona Nitzsche, representing the Santander Universities.





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Youmna Fouad (on the right, in conversation with Lord Mayor Hilbert), a doctoral candidate at the Collaborative Research Centre "Invectivity. Constellations and Dynamics of Disparagement" who is also a Marwa El-Sherbini Scholarship holder and one of the faces of the TUD campaign OUR UNI, focused on her experiences of arriving in Dresden and reported on the breaking down of prejudices and on the friendly atmosphere at her institute.

The reception was organised by the DRESDEN-concept Welcome Center at TU Dresden with the support of the state capital Dresden and the Santander Universities.

### Two Prestigious Awards for cfaed Researchers

During the Cyber-Physical Systems and Internet-of-Things Week (CPS-IoT Week) held from 15 to 18 April 2019 in Montreal, the research team of the Networked Embedded Systems Lab at TU Dresden, in collaboration with the Max Planck Institute for Intelligent Systems Stuttgart/Tübingen and the ETH Zurich, presented, for the first time in public, their new approach for the control and coordination of physical systems via dynamic wireless multi-hop networks.

For their contribution, the researchers received the "Best Paper Award" of the ACM/IEEE International Conference on Cyber-Physical Systems (ICCPS) and the "Best Demo Award" of the ACM/IEEE International

Conference on Information Processing in Sensor Networks (IPSN).

The Networked Embedded Systems Lab has been housed at the Center for Advancing Electronics Dresden (cfaed) since November 2015 and, under the direction of Dr. Marco Zimmerling, deals with the design and analysis of reliable and sustainable hardware/software solutions for cyber-physical systems and the Internet of Things.



From left to right: M. Zimmerling, R. Jacob, F. Mager, D. Baumann, S. Trimpe (Photo: cfaed)

### cfaed Welcomes IHEST Delegation from France

Anyone who, at the right moment, happened to be standing at the Barkhausen Building of TU Dresden on 10 April 2019 might have had the impression that the Center for Advancing Electronics Dresden (cfaed) had turned into a tourist attraction. However, the large coach, from which about 50 people disembarked, was taking high-ranking experts from the Paris Institut des Hautes Ètudes pour la Science et la Technologie (IHEST) to the Dresden research cluster.

The delegation of leaders from industry, science, politics, the media and the French micro-electronics and nano-electronics industry was on an information-gathering trip lasting several days, with stops in Berlin and Dresden. The aim of the visit was to tap into research and politics in Germany and to establish contacts.





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### Learning from Zebrafish in the Fight Against Alzheimer's



Unlike humans, zebrafish have excellent regenerative capacities: if their brain cells are lost due to disease or injury, they will easily regrow them from so-called **progenitor cells**.

Using innovative methods, researchers at the German Center for Neurodegenerative Diseases (DZNE) and the Center for Regenerative Therapies Dresden (CRTD) have now investigated these progenitor cells in more detail. By characterising the molecular basis of the proliferative ability of these progenitor cells, scientists hope to identify new target molecules for the **treatment of Alzheimer's disease** in humans.

The study was published in the journal "Cell Reports".

## CRTD Researchers on the Trail of New ALS Therapies

Amyotrophic lateral sclerosis (ALS) is an incurable disease of the central nervous system, resulting in the gradual death of special nerve cells, the motor neurons.

The causes of the disease are not yet fully understood. However, research has shown that **changes in the behaviour of certain proteins are directly related to ALS**. One of these proteins is the RNA-binding protein FUS (FUsed in Sarcoma), which regulates genetic messengers in the cells and influences the interaction of different proteins. **Mutations in the FUS protein** lead to it

being deposited and aggregated in the cytoplasm, resulting in one of the most aggressive forms of ALS.

Lara Marrone and Jared Sterneckert from the Center for Regenerative Therapies Dresden (CRTD), together with other scientists from Germany, Italy, the Netherlands and the USA, have now discovered that the interactions between the RNA-binding proteins contribute more to the development of ALS than was previously known.

The research results were published in the scientific journal "Acta Neuropathologica".

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