

Press Release

European Research Council (ERC) awards grants

EUR 6.5 million for up-and-coming ETH researchers

Zurich, 14 August 2018

From theories of gravity to molecular networks to refugee policy: four researchers in these fields from ETH Zurich have received an ERC Starting Grant from the European Research Council. The University has thereby once again secured valuable European funding.

Researchers from ETH Zurich were once again successful in the latest round of the prestigious ERC Starting Grants: One woman and three men have had their application efforts rewarded with EUR 1.5 to 2 million each, which they will use to advance their research in the coming years. In total, research projects at ETH Zurich will receive almost EUR 6.5 million.

Detlef Günther, Vice President Research and Corporate Relations at ETH Zurich, is delighted that the ERC grants will enable talented young researchers to conduct ambitious projects at ETH Zurich. “It shows that it is worth applying for these major grants – they enable projects that ETH would not be able to finance alone.”

“The awarding of the ERC grants is also a good opportunity for ETH Zurich researchers to be recognized as some of Europe’s best up-and-coming researchers,” continues Günther. This generous financial endowment can also have a very positive effect on a researcher’s career: “The grants offer a real chance to gain visibility on an international level and to carry out innovative and potentially groundbreaking research.”

ETH researchers achieve above-average success

This year, 25 researchers from ETH Zurich submitted applications. Sixteen made it a round further, and fifteen of these were rated “A” by the relevant EU commission. Four were finally approved for funding, representing around 20 percent of the applications originally submitted. One application is currently on the reserve list and has a good chance of receiving a grant.

In addition to the ERC Starting Grants, the EU Research Council also awards Advanced Grants to successful researchers and Consolidator Grants to researchers who have already achieved the milestones in their career and are ready to form their own research group. ETH Zurich has been very successful during the awarding of all these grants in recent years. As part of the Horizon 2020 programme from 2014 to today, ETH researchers have received a total of 59 European grants worth a total of around CHF 145 million (EUR 127 million).

The four projects at a glance:

Dominik Hangartner's ERC project will evaluate key parameters of the asylum process by combining advances in statistical methodology and large-scale registry data. The project will assess the impact of policies, including wait times, labor market access, welfare support and family reunification, on refugees' economic and social integration, on electoral politics, and on social cohesion in European host countries. The project aims to establish a comprehensive evidence base that can be used to design an asylum process that improves outcomes for refugees and host communities.

In her ERC project, **Lavinia Heisenberg** studies the fundamental properties of field theories of the space-time continuum, their cosmological consequences and the signatures that can be used to determine the validity of such theories. Her approach aims to use cosmological and astrophysical observations to test the validity of the theory of General Relativity on scales where it has not yet been fully tested. By doing so, the researcher hopes to find out, for example, how the theory of General Relativity fares in such areas when compared with alternative theories. She will also study the physical consequences of modified gravity theories for cosmological and astrophysical questions.

Berend Snijder seeks to decipher how cells work, focusing on the molecular networks that drive cellular behavior. Together with his group, he uses automated microscopy, computer vision, and machine learning, to measure the responses of cells to drugs in human tissues. With the grant, Snijder aims to understand why individual cancer patients can respond so differently to their treatment – a complex biological phenomenon called 'cancer individuality'. Furthermore, the group aims to develop methods to identify effective and personalized cancer therapies.

Masonry buildings are vulnerable to earthquakes. In his ERC project, earthquake engineer **Michalis Vassiliou** aims to study the seismic behaviour of masonry buildings by 3D-printing small-scale replicas and testing them on a shaking table inside a geotechnical centrifuge. Among other applications, he uses this method to examine a low-cost seismic isolation system suitable for masonry buildings in poor countries. A better understanding of the seismic behaviour of masonry structures is also crucial for reducing earthquake risk in rich countries.

Further Information

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Benchmark for top researchers: ERC Grants

ETH researchers have been successfully applying for EU funding – ERC Research Grants – since 2007. In addition to the Advanced Grants, the European Research Council also annually awards Starting Grants to young researchers at the beginning of their careers and Consolidator Grants to successful researchers looking to establish their own group. What's more, the large number of ERC Proof of Concepts produced by ETH Zurich (funds for drafting feasibility studies and business plans) shows that fundamental research often leads to market innovations with corresponding benefit for the entire economy. The European Research Council (ERC) is part of the EU Research and Innovation programme Horizon 2020 (2014-2020). Switzerland was readmitted as a full participant in Horizon 2020 on 1 January 2017.