European Research Council
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Press release

10 September 2012

New ERC Starting Grant results: €800 million for over 530 early-career top researchers

The European Research Council (ERC) has selected 536 early-career top researchers across Europe[1] in the latest 'Starting Grant' competition, with a budget of almost €800 million. With grants of up to €2 million per project, this will enable the most promising scientists to develop their best ideas at the frontiers of knowledge. It will also allow them to build their own research teams, engaging more than 3,000 postdocs and PhD students as ERC team members, thereby supporting a new generation of top scientists in Europe. The trend of a growing demand for Starting Grants persists also this year.

The projects selected cover a wide range of topics, such as social impacts of trans-Mediterranean renewable energy cooperation, laser-based hearing aids, and optical remote sensing technology for civil engineering works. (For further information, see examples of projects below.)

Commissioner for Research, Innovation and Science Máire Geoghegan-Quinn commented: *"In a global knowledge economy we need new ideas to compete. So investing in world-class frontier research and in the next generation of scientists is one of Europe's top priorities. After just five years ERC grants are world-renowned, and help us retain and attract the best of the best."*

ERC President Professor Helga Nowotny said: *"The latest round of Starting Grants saw yet another increase in applications submitted by many bright young people from all over Europe. We are delighted with the wealth of talent and creativity, and reassured that the ERC Starting Grant is far from having reached saturation. Europe must not miss out on capitalising on this talent. In the fifth year of the ERC's existence, we will also*

[1] The EU or the FP7 associated countries (Albania, Bosnia and Herzegovina, Croatia, Faroe Islands, Former Yugoslav Republic of Macedonia and Serbia, Iceland, Israel, Liechtenstein, Moldova, Montenegro, Norway, Serbia, Switzerland, Turkey)

see the conclusion of the first ERC projects and look forward to bringing to further fruition the breakthrough ideas and potential innovations they hold."

In this Starting Grant competition, 4741 applications were received, which is a 16% rise from last year (4080). Also, the budget, nearly €800 million, saw an increase of over 17% from 2011, as planned at the beginning of the Seventh Research Framework Programme. The number of researchers selected for funding rose by around 12%. The success rate, 11.3%, dropped very slightly compared to last year's 12%.

The ERC calls are targeting top researchers of any nationality who are based in, or willing to move to Europe. In this call, Starting Grants are being awarded to researchers of 41 nationalities - with German, British, French and Italian researchers taking the lead - who will carry out their projects in around 220 institutions across 21 different European countries. The UK, Germany, France and the Netherlands host the greatest number of successful applicants.

Furthermore, just over 24% of selected researchers are women, which is an increase from last year's 21%. The average age of selected researchers is around 37. In this call, 44% of selected proposals were in 'Physical Science and Engineering', 37% in 'Life Sciences', and 19% in 'Social Sciences and Humanities'. The grantees were selected through peer review by 25 panels composed of renowned scientists from around the world. (For further information, see the statistics.)

Lists of selected researchers

The lists below show the proposals selected for funding. Some additional funds are expected to be confirmed, which will enable the ERC to support some more projects that are presently on a reserve list. The ERC website will subsequently be updated. Proposals placed on the reserve lists will only be published once their actual funding has been confirmed.

List of all selected researchers by country of host institution (in alphabetical order within each country group):
http://erc.europa.eu/sites/default/files/document/file/erc_2012_stg_results_all_domains.pdf

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Lists of selected researchers by domain (in alphabetical order):

- Social Sciences and Humanities: http://erc.europa.eu/sites/default/files/document/file/erc_2012_stg_results_sh.pdf
- Life Sciences: http://erc.europa.eu/sites/default/files/document/file/erc_2012_stg_results_ls.pdf
- Physical Sciences and Engineering: http://erc.europa.eu/sites/default/files/document/file/erc_2012_stg_results_pe.pdf

Statistics (indicative):
http://erc.europa.eu/sites/default/files/document/file/erc_2012_stg_statistics.pdf

Some examples of ERC projects selected for funding in this call:

Physical Sciences and Engineering

The **RETURN** project will look at how to reduce the damage of buildings caused by tunnel-induced subsidence and the resulting financial costs of repairing them. Such research will be based on using laser scanning (an optical remote sensing technology) to auto-generate at a city-scale geometric models of buildings (elevation, volume and window locations) that are appropriate for further engineering analysis. Such work is strategic for Europe's multi-billion tunnelling industry. Its results will also be highly relevant not only for the civil engineering sector but also for preserving Europe's cultural heritage.
(Debra F. Laefer, University College Dublin, Ireland)

In the last decades, climate models have not succeeded in describing the environmental evolution of the Red Planet. Early Mars was successively known to be "cold and dry" or "warm and wet". The **icyMARS** project proposes to test a new hypothesis to explain that the young Martian surface was "cold and wet". By performing interdisciplinary investigations of its aqueous environments, like conducting geomorphological reconstructions of the glaciers shaping the ancient Martian topography, geochemical computer modelling of salty aqueous solutions and brines and microbiological lab experiments, the researcher should help to better understand the astrobiological history of the planet and determine whether the presence of water on a cold and wet Mars could have supported life.
(Alberto G. Fairén, Centro de Astrobiología, CSIC, Spain)

Life Sciences

Around 278 million people worldwide live with disabling hearing impairment (WHO, 2006). The **LASER HEARING AIDS** project proposes an alternative stimulation strategy to the existing auditory prostheses based on light energy. This method would replace the current speakers or sound transducers with the non-contact and very focused laser pulses, which would stimulate not just the inner ear but also the middle and outer ear. By specifically activating each frequency of the hearing spectrum, this new technique should help hearing-impaired people to hear and distinguish the most complex sounds, such as music and speech.
(Gentiana I. Wenzel, Saarland University, Germany)

The mechanisms by which plants generate different tissues are poorly understood. The **DivisionPlaneSwitch** project will examine how oriented cell divisions shape tissues and gradually build multicellular forms, i.e. form plants' organs and architecture. The researcher's unique in vivo division plane switch system should help to better understand the central process of cell division orientation and the role of microtubules, micrometres' long and nano scale hollow cylinders involved in it. The knowledge gained from this project it can contribute to design "efficient" plants for increasing crop yield and for managing global food demand.
(Pankaj B. Dhonukshe, Utrecht University, the Netherlands)

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Social Sciences and Humanities

The need for a better integration of renewables and the need for their growth in the decades after 2020 are no longer questioned within the EU. Some scientists take a step further and believe that trans-Mediterranean renewable power cooperation is likely to occur to respond to Europe's electric power consumption needs. The "Social challenges of trans-Mediterranean renewable energy cooperation" project **(DESERTECTION)** seeks to address several research angles, including the risk perception and public acceptance of such a cooperation with the Middle East and North Africa (MENA) region, the economic and social benefits of it and the environmental constraints and potential conflicts. The results could help in shaping Europe's future energy policies.
(Anthony Patt, International Institute for Applied Systems Analysis, Austria)

The "Nahua" world, more often known as the "Aztec" world, is a fascinating culture, with countless intriguing aspects that remain to be explored. The **CULTURECONTACT** project will examine the implications of mutual language transfers between Europeans and the Nahuas during and after the colonial period. The research will favor the native perspective through a close study of indigenous historical sources combined with modern ethnolinguistic data. It will also look at the correlation between language and more general cultural, political and social changes. The impact of the study will be highly relevant for understanding cross-cultural communication and for developing new forms of collaboration between European and indigenous researchers.
(Justyna Olko, University of Warsaw, Poland)

Note to the editors

Set up in 2007 by the EU, the **European Research Council** is the first pan-European funding organisation for frontier research. It aims to stimulate scientific excellence in Europe by encouraging competition for funding between the very best, creative researchers of any nationality and age. The ERC also strives to attract top researchers from anywhere in the world to come to Europe. It funds young, early-career top researchers ('ERC Starting Grants'), already independent excellent scientists ('ERC Consolidator Grants'), and senior research leaders ('ERC Advanced Grants'). The substantial funding is awarded based on peer review evaluation and can amount to max. €2 million for a 'Starting Grant', €2.75 million for a 'Consolidator Grant', and €3.5 million for an 'Advanced Grant'.

The ERC operates according to an "investigator-driven", or "bottom-up", approach, allowing researchers to identify new opportunities in any field of research. The ERC, which is the newest, pioneering component of the EU's Seventh Research Framework Programme ('Ideas' Specific Programme), has a total budget of €7.5 billion from 2007 to 2013. The European Commission has proposed a significant boost of the ERC budget to over € 13 billion in the new framework programme "Horizon 2020" (2014-2020).

The ERC is led by the ERC Scientific Council, composed of 22 top scientists and scholars and the ERC President is Prof. Helga Nowotny. The ERC Executive Agency implements the "Ideas" Specific Programme and is led by Director Pablo Amor.

ERC Starting Grant in brief

- For early-career top researchers of any nationality and age, with 2-12 years of experience after PhD (Please note, as from the next call: 2-7 years of post-doctoral experience; those with 7-12 years of experience will be eligible for the new 'Consolidator Grant' scheme)
- Funding: up to €2 million per grant for up to 5 years
- Calls for proposals: published annually in summer with deadlines in autumn. See the on-going Starting Grant call click here

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For more information

ERC Press Release on outcome of the fourth Starting Grant call (2011)
http://erc.europa.eu/sites/default/files/press_release/files/press_release_stg2011_results.pdf

Some striking ERC-funded projects
http://erc.europa.eu/success-stories

ERC website
http://erc.europa.eu

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