

Call for applications
“Grand Prix scientifique” 2018
Simone and Cino Del Duca Foundation

Every year, alternatively under the disciplines of the two divisions⁽¹⁾ of Academy of Sciences, the Simone and Cino Del Duca Foundation of the Institut de France awards a scientific prize based on the recommendations of a jury of members of the Institut de France. The Grand Prix will be awarded to a French or European scientist and his/her team⁽²⁾ that will propose an ambitious research project on promising theme :

In 2018, the Prize topic is **“Mechanisms of resistance and adaptation to stress”**

Every living cell is submitted to numerous stresses (thermal, hydric, chemical, nutritional, infectious, pathological, radiological, metabolic, etc.) from its environment or genetic changes, creating situations that can put in danger its well-being and even its existence. Biological evolution has selected those cells that developed mechanisms of resistance and adaptation to these natural stresses or to xenobiotics like the pesticides and, during medical treatment, for example to antibiotics or chemotherapy.

Our knowledge of these mechanisms at the molecular level recently progressed in a spectacular way. We can mention, for example, the adaptation to oxidizing stress with the central role of the Nrf2 pathway, the resistance to xenobiotics and to electrophilic stress with the key roles of the glutathione transferases and peroxidases, or the mechanisms of repair of the genetic material during a replicative or mutational stress.

The Simone and Cino Del Duca 2018 Prize will reward work in the field of resistance mechanisms and stress adaptation, which can cover all types of organisms and every biological situation.

The prize is as follows:

- a) 200,000 € to finance the work of the award-winning group,
- b) 25,000 € awarded to the director of the research group,
- c) 50,000 € (maximum amount paid upon presentation of supporting documents) towards the hiring of one French or foreign postdoctoral researcher to be selected by the group director, in the two years following the award of the prize. An activity report must be sent within two months after the end of the contract.

An agreement will be established between the laboratory and the Del Duca Foundation to define the conditions of payment.

The applications must be sent on line not later than Friday January 12, 2018 before midnight to the following electronic address:

<http://prix.academie-sciences.fr>

For further informations, you can consult this call for application on the website of the French Academy of sciences at the adress below:

http://www.academie-sciences.fr/activite/prix/gp_duca.htm

⁽¹⁾ **1st division: Mathematics; Physics; Sciences of the Universe; Mechanical and Computer Sciences.**

2nd division: Chemistry; Molecular and Cellular Biology, Genomic; Integrative Biology; Human Biology and Medical Sciences.

⁽²⁾ **The research team isn't necessarily the administrative team. The team members don't necessarily work in the same laboratory. The role of each member of the team should be clearly defined in the application.**

The files should be **written in English**.

The applications must contain:

- 1) **the application form**, completed online (<http://prix.academie-sciences.fr>)
- 2) **an executive summary** (title of the project, abridged CV of the project head, main past scientific achievements and a short description of the research proposal, a list of 10 major publications) (2-3 pages) (**completed online**),
- 3) **a cover letter** signed by the head of the team,
- 4) **the complete CV of the head of the team** (2-pages maximum),
- 5) **an abridged CV of team members**,
- 6) **a description of results obtained** by the team (5-pages maximum),
- 7) **a description of the research proposal** and the intended use of the Grand Prix (3-5 pages),
- 8) **a letter of recommendation** or sponsorship of a international scientist of renown (name and contact of the personality should be completed online).

The deadline for submissions is, **Friday January 12, 2018, before midnight**.

Applications will be examined by a jury composed of members of the Academy of sciences. The jury will seek the opinion of French and foreign experts.

The Grand Prix will be awarded at the Institut de France, under the Dome, **on Wednesday 6, June, 2018**.

For questions, please contact:

Academy of sciences

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<p>Simone and Cino Del Duca Foundation Grand Prize for Science – Previous Years in the areas covered by this call of applications for the 2nd division</p>
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2006: Dr Geneviève Almouzni, director of the interdisciplinary unit “Nuclear dynamics and genome plasticity – UMR 218” at the CNRS/Institut Curie, and head of the “chromatine dynamics” group, for her work on the assembly of genetic material and its dynamics.

2008: Dr Philippe Janvier, Senior Researcher at laboratory of Paleodiversity, History and Evolution of “Muséum National d’Histoire Naturelle” for his work on biodiversity and evolution

2010: Pr Patrick Aubourg, Professor at Paris-Descartes University and Director of the unit INSERM genetic and biotherapy, for his work on gene therapy for neurodegenerative diseases of the central nervous system.

2012: Pr. Ben L. Feringa, Professor at the University of Groningen (Netherlands) and Vice-President of the Royal Academy of Sciences of the Netherlands, for his work on stereochemistry, organic synthesis and asymmetric catalysis.

2014: Monsieur Stanislav Dusko Ehrlich and Joël Doré, Research Directors at the National Institute for Agricultural Research (INRA) for their work on the microbiota and description of intestinal metagenome.

2016: Mr Erwan Bezar, Research Director at the National Institute of the Health and the Medical Research (INSERM) for his work on neurodegenerative diseases, Parkinson's and Lewy body dementia.
Mr Ronald Melki, Research Director at the National Center of the scientific research for his work on the structure of proteins responsible for neurodegenerative diseases.