

2024 Call for the "Grand Prix Scientifique" of the

Simone and Cino Del Duca Foundation

Every year, the Simone and Cino Del Duca Foundation of the *Institut de France* awards a scientific prize based on the recommendations of a jury formed by members of the *Institut de France*. The scientific theme of the award alternates between disciplines of the two divisions (1) of the Academy of Sciences. The 2024's Grand Prix will be awarded to a <u>French or European</u> scientist and his/her team⁽²⁾ who will propose an ambitious research project on:

"Seeing Living Systems"

Biological research relies on a range of technologies. Of these technologies, direct imaging forms a principal component. The advent of the 'resolution revolution' in cryo-electron microscopy has paved the way for the determination of previously unattainable three-dimensional structures such as those of membrane proteins, large multi-protein complexes and more. Furthermore, it has allowed for visualisation of cellular processes such as mRNA translation by ribosomes or the replication of the flu virus. More recently, cryo-electron tomography has enabled high-resolution visualisation of structures present within bacteria or cells. At lower resolution, optical microscopy has also made important advances in the analysis of macromolecular complexes *in vivo*. Fluorescent labelling of specific cellular components provides a means to follow cellular interactions in real time, for example during the infection of human cells by foreign invaders, interactions between T-cells and tumours or the migration of cells during development and organogenesis.

This prize will reward a team which has made significant advances by taking advantage of the latest imaging technologies and will present a project concerning the visualisation of phenomena which are as yet "unseen".

The prize is as follows:

- a) **200,000 €** to finance the work of the award-winning group,
- b) **25,000** € awarded to the pincipal investigator (PI) of the research group,
- c) **50,000** € (maximum amount paid upon presentation of supporting documents) for hiring one French or foreign postdoctoral researcher to be selected by the PI, in the two years following the attribution of the award. A report must be sent within two months after the end of the contract. A contract 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 <u>Thursday February 15, 2024 before midnight</u>

to the following electronic address:

http://prix.academie-sciences.fr

For further informations, please consult the website of the French Academy of Sciences at the following link: https://bit.ly/36hfh5Z

Documents to prepare for nomination:

- 1) A cover letter signed by the PI,
- 2) CV of the PI (2-pages maximum),
- 3) Succint CV of all team members,
- 4) A description of the past results obtained in relation with the Award (5-pages maximum).
- 5) **A research proposal** in relation with the topic of the Award (3-5 pages),
- 6) **one or two letters of recommendation** from an international reknown scientist (name and contact of the reviewer should be completed online).

Deadline for submission: Thursday February 15, 2024, before midnight.

Applications will be examined by a jury composed of members of the Academy of Sciences with additional opinions of experts, if needed.

The Grand Prix will be awarded at the Institut de France, under the dome, on Wednesday June 19th, 2024.

For questions, please contact:

Academy of sciences

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Previous and theme Laureates of the Grand Prix of the Simone and Cino Del Duca Foundation

2012: "Molecular machines and biological nanomachines"

Prof. Ben L. Feringa, from 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: "Microbiome and homeostasis"

Dr. Stanislav Dusko Ehrlich and Dr. Joël Doré, from the National Institute for Agricultural Research (INRA) for their work on the microbiota and description of intestinal metagenome.

2016: "Neurodegenerative diseases"

Dr. Erwan Bezard, from the National Institute of Health and Medical Research (INSERM) for his work on neurodegenerative diseases, Parkinson's and Lewy body dementia.

And

Dr. Ronald Melki, from the National Center of the scientific research for his work on the structure of proteins responsible for neurodegenerative diseases.

2018: "Mechanisms of resistance and adaptation to stress"

Dr. Fatima Mechta-Grigoriou, from the National Institute of Health and Medical Research (INSERM), at Institut Curie, for his work leading to major advances in our knowledge of the role of oxidative stress in different forms of cancer and their reactivity to chemotherapy.

2020: "Symbiosis"

Gerard Eberl, Professor of Immunology at the Institut Pasteur, director of the "Microenvironment & Immunity" unit.

2022: "Therapeutic Chemistry"

Bruno Canard, Research Director, head of the structural biology team at Luminy (UMR 7257 CNRS-Université d'Aix-Marseille).