

## Call for applications for the “Grand Prix scientifique” 2012 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 of members of the Institut de France. The theme for 2012 is "Molecular machines and biological nanomachines".

### *Molecular machines and biological nanomachines*

*The field extends broadly from the study of large, natural macromolecular complexes, responsible for essential functions to cellular life, to the development of new materials and the construction of synthetic molecular machines. The prize addresses original works at the nanometric scale in the biological or chemical sciences, or at the interface between the two sciences. For instance, it may be the question of natural molecular machines involved in the transformations between different forms of energy within a cell, in the transfer of genetic information between distinct classes of molecules, or in the translocations of molecules between compartments. It may also be the question of complex synthetic assemblies capable of being put into motion by action of external signals allowing the fabrication of electro- or photomechanical devices (valves, muscles, rotating motors, transporters, etc ...) at the nanometer scale.*

*The “Grand Prix” will be awarded to a French or European researcher and his/her team who will present an ambitious research project on these promising themes.*

The amount of the prize will be 364,000 euros:

- 250,000 euros to finance the work of the award-winning group,
- 50,000 euros awarded to the director of the research group,
- an additional 64,000 euros towards the hiring of one or more French or foreign postdoctoral researchers to be selected by the group director, in the two years following the award of the prize.

The applications may be completed in French or English and must contain:

- 1) the application form,
- 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) (approximately 500 words or 1 page),

- 3) a cover letter signed by the head of the team,
- 4) the complete CV of the head of the team (2-page maximum),
- 5) an abridged CV of team member,
- 6) description of results obtained by the team (5-page maximum),
- 7) a description of the research proposal and the intended use of the Grand Prix (3-5 pages),
- 8) a list of major publications (2-page maximum),

**Applications must be both :**

- 1) mailed electronically as one continuous pdf file,**
- 2) sent by post.**

Printed materials must be postmarked by **February 1, 2012** and electronically materials must also be submitted by email by **February 1, 2012**.

The applications must be sent to the following electronic address:  
**prix-scientifiques-delduca@institut-de-france.fr**

Applications will be examined by a jury composed of members of the Academy of Sciences and of members of other academies belonging to the Institut de France. 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 June 6, 2012.

For further information, please contact the Simone and Cino del Duca Foundation of the Institut de France at:

Tel : 01 47 66 01 21 – Fax : 01 46 22 45 02

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Cino del Duca Grand Prize for Science – Previous Years :

**2005 : Pr Massimo INGUSCIO**, professor at the University of Florence for his research on degenerate fermionic gases.

**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.

**2007 : Pr Jacques PROST**, General Director of the Industrial Physics and Chemistry Higher Educational Institution of Paris and **Pr Jean-François JOANNY**, Director of the Unit of Physical Chemistry, UMR 168 CNRS- Curie Institute, for their research works on the theme “Concepts and physical techniques implemented in the following: process studies on molecules of the living”.

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

**2009 : Pr Michael HARRIS**, Professor of mathematics at Denis Diderot University in Paris for his research works on automorphic representations and Galois representations.

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

**2011 : Pr Romain TEYSSIER**, Professor at the University of Zürich and Head of the Computational Astrophysics group in CEA Saclay, for his works on numerical simulations in astrophysics.