



FONDAZIONE ISTITUTO  
NEUROLOGICO NAZIONALE  
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A CARATTERE SCIENTIFICO



**HBP**  
The Human Brain Project



DIPARTIMENTO DI SCIENZE  
DEL SISTEMA NERVOSO  
E DEL COMPORTAMENTO  
UNIVERSITÀ DI PAVIA

# THE HUMAN BRAIN PROJECT (HBP)\* The Italian Contribution



ROUND TABLE

17 October 2013  
Palazzo Botta, Aula Golgi  
Pavia

## INFORMAZIONI E ISCRIZIONI

Pragma Congressi · Tel 0382/309579 · [info@pragmacongressi.it](mailto:info@pragmacongressi.it)

\* FET FlagShip Programme – European Commission

# THE HUMAN BRAIN PROJECT (HBP)\*

## The Italian Contribution

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*HBP is one of the two flagships approved this year by the European Commission and its core target is understanding the mechanisms of brain functioning, with impressive reflections in the biomedical and technological fields. HBP points to an integrated interpretation of brain functioning, from molecular to cognitive, and to this aim it develops new tools for large-scale mathematical modeling of the brain. This creates a bidirectional link with computational and robotic sciences and with biomedical sciences, which are essential to implement brain modeling but at the same receive a potent feedback from it. Given its architectural complexity, the project is articulated over several platforms - comprising Brain Simulation, Neuroinformatics, Neurorobotics, Neuromorphic Computing, High-performance Computing, Cognitive Neuroscience, Theoretical Neuroscience, Molecular and Cellular Neuroscience, Medical Informatics, Ethics and Society - which will be developed by 87 laboratories over the next 10 years. The talks will be presented in open talks during the kick-off meeting of the Italian HBP group, which will take place on October 17, 2013, in occasion of the Ottorino Rossi Award conference in Pavia. The Ottorino Rossi Award prize for the Founders of Neurology will be conferred this year to Henry Markram, who will illustrate the general motivations, implications and perspectives of HBP on October 18, 2013.*

14.00/14.30

### WELCOME - INTRODUCTION

EGIDIO D'ANGELO (Pavia)

14.30/16.30

### HBP TALKS

- 14.30 EGIDIO D'ANGELO (Pavia)  
*Realistic modeling of neurons and networks:  
toward brain stimulation*
- 14.55 FRANCESCO PAVONE (Firenze)  
*The connectomic challenge*
- 15.20 ENRICO MACII (Torino)  
*The Human Brain Project and neuromorphic computing*
- 15.45 ALBERTO REDOLFI (Brescia)  
*Brain investigation and brain conceptualization*
- 16.10 SANZIO BASSINI (Bologna)  
*Supercomputing in neuroscience*

16.35/16.50

### COFFEE BREAK

16.50/17.30

### DISCUSSION AND CONCLUSIONS

18.00/19.00

### PRIVATE MEETING OF THE HBP ITALY GROUP