



EUROPEAN ACADEMY OF SCIENCES

In support of Excellence in Science and Technology



Poggi Palace

Accademia delle Scienze Palazzo Poggi, Bologna, Italy

November 6th, 2009

**The Presidium and the Executive Committee
of the
European Academy of Sciences**

have the pleasure to invite you to

the General Assembly and the Ceremony of Awards 2009



EUROPEAN ACADEMY OF SCIENCES

In support of Excellence in Science and Technology



Palazzo Poggi, Bologna, Italy

November 6th, 2009

With the support of :



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA



FONDAZIONE
CASSA DI RISPARMIO
IN BOLOGNA



Regione Emilia-Romagna

**Unibocultura and Fondazione del Monte
di Bologna e Ravenna**

Académie Européenne des Sciences – European Academy of Sciences

A.I.S.B.L - BCE 0865.074.308

Boulevard d'Avroy 280, 4000 Liege, Belgium - Tel: +32 (0)4 253.67.18 Fax: +32 (0)4 253.28.70

email: info@eurasc.org - <http://www.eurasc.org>



GENERAL ASSEMBLY OF THE EUROPEAN ACADEMY OF SCIENCES



Date: November 6th, 2009

Venue : Bologna, Palazzo Poggi, via Zamboni, 31

Morning Session

- 9 to 9:45 am :** EAS members General Meeting
- 10 to 10:30 am :** Welcome addresses by the President of EAS, the Rector of Bologna University, the President of the Accademia delle Scienze
..
- 10:30 to 11 am :** “University of Bologna and Clerici Vagantes“
Prof. Anna Laura Trombetti, University of Bologna
- 11 to 11:30 am :** “We are the Martians” Prof. G. F. Bignami, Member of EAS
- 11:30 to 11:45 am :** coffee break
- 11:45 to 12:15 am :** Leonardo da Vinci Medal in honour of Prof. Rita Levi-Montalcini.
“Believe in the values” by Prof. Saverio Cinti Member of EAS
- 12:15 to 12:45 am :** lecture of Prof. V. Balzani, Bl.Pascal Medal in Chemistry
- 12:45 to 13:30 pm :** Lunch buffet

Académie Européenne des Sciences – European Academy of Sciences

A.I.S.B.L - BCE 0865.074.308

Boulevard d’Avroy 280, 4000 Liege, Belgium - Tel: +32 (0)4 253.67.18 Fax: +32 (0)4 253.28.70

email: info@eurasc.org - <http://www.eurasc.org>



Afternoon Session

1:30 to 2:30 pm : visit to Astronomy museum

**2:45 to 3:15 pm : lecture of Prof. E. Carosella
Bl.Pascal Medal in Medicine**

**3:15 to 3:45 pm : lecture of Prof. C. Debru,
Bl.Pascal Medal in Social Sciences and Humanities**

3:45 to 4 pm : Coffee Break

**4 to 4:30 pm : lecture of Prof. H. Gleiter,
Bl.Pascal Medal in Materials Science**

**4:30 to 5 pm : lecture of Prof. P-A Raviart,
Bl.Pascal Medal in Mathematics**

**5 to 5:30 pm : lecture of Prof. J. Dalibard,
Bl.Pascal Medal in Physics**

**5:30 pm : President H. de Rode : Delivery of Medals,
Conclusions**

Coktail

Académie Européenne des Sciences – European Academy of Sciences
A.I.S.B.L - BCE 0865.074.308

Boulevard d'Avroy 280, 4000 Liege, Belgium - Tel: +32 (0)4 253.67.18 Fax: +32 (0)4 253.28.70
email: info@eurasc.org - <http://www.eurasc.org>



Morning Session

The origins of the University of Bologna and the “clerici vagantes”

Prof. Anna Laura Trombetti

Università di Bologna

Abstract :

The University of Bologna, the most ancient in the western world, grew up spontaneously in the second half of the XI century, around the teaching activities in the field of law of some of its scholars: Pepo and Irnerio. The year 1988 was chosen as an approximate date to celebrate its IX centennial. In the Middle Age Bologna was characterised by being a university of the students. By coming to Bologna from many parts of Italy and Europe for being educated, the students paid their teachers and determined their teaching policies. When other universities were founded in Italy (Padua, Modena, Naples etc.) and in Europe (Paris, Oxford) the students were given the possibility to choose to attend the universities where they expected to receive the best education. For this reason they were called “clerici vagantes”, because they followed the best teachers as they moved from a university to another.

WE ARE THE MARTIANS

Prof. G. F. Bignami

IUSS- Istituto Universitario di Studi Superiori, Pavia

Abstract :

We owe to Copernicus, Kepler and Galileo the understanding that we are not at the centre of our Universe and to Darwin that we are just another product of natural evolution. Modern astronomy has dealt two more blows to anthropocentrism: 1) the stuff we are made of, “baryonic matter”, is but a pinch of salt in the total mass of the Universe, 2) planets, even habitable planets, are the norm and not the exception around stars. Even the complex molecules we are made of resemble organic matter found in meteorites. Since at least half a ton of Martian rocks fall on Earth every year, it may well be that we are the Martians. So, what’s holding us from going back home? We know the way.

Académie Européenne des Sciences – European Academy of Sciences

A.I.S.B.L - BCE 0865.074.308

Boulevard d’Avroy 280, 4000 Liege, Belgium - Tel: +32 (0)4 253.67.18 Fax: +32 (0)4 253.28.70
email: info@eurasc.org - <http://www.eurasc.org>



EAS BLAISE PASCAL MEDALS 2009



Professor **Vincenzo BALZANI** , Italy, **Blaise Pascal Medal in Chemistry**

In recognition of his outstanding activities dedicated to introduce novel principles in the design, construction, and characterization of molecular-level devices and machines in the frame of the bottom-up approach to nanotechnology. The innovative aspect of this research is the idea that the concept of macroscopic device can be extended to the molecular level, and that it is possible to design supramolecular systems capable of performing specific functions upon stimulation with external energy inputs, in particular with light. For the outstanding results obtained in this field, he has been awarded with the prestigious Porter Medal in Photochemistry (2000) and the Prix Franco-Italien de la Société Française de Chimie (2002). The results were developed in many papers and in several review articles. Vincenzo Balzani's constant and unvalued efforts in delineating the key functions of Science in the human Society should also be underlined.

Professor **Edgardo D. CAROSELLA**, France, **Blaise Pascal Medal in Medicine**

In recognition of his outstanding work on foetal tolerance during pregnancy. His remarkable discovery has totally changed our understanding of foetal tolerance during pregnancy. He was the first to formally find the answer to the age-old question of why a mother tolerates her semi-allogenic foetus, which bears powerful paternal MHC antigens. Professor Carosella was the pioneer who demonstrated the protective role of HLA-G molecule on trophoblasts which form a shield protecting the foetus from the immune reaction of its mother and subsequent reject. Thus the pregnancy can continue developing. He has since then described the immunological mechanisms and therapeutic applications of this molecule, of which he is the undisputed international leader. His studies on HLA-G molecule have introduced the concept of an HLA tolerance molecule in the heart of the MHC complex of antigens, previously considered solely as antigens of immune defence and rejection. His discovery will provide a considerable advance in the treatment of pregnancies, organ transplantation and in the immunotherapy of cancer.

Professor **Jean DALIBARD**, France, **Blaise Pascal Medal in Physics**

In recognition of his outstanding and influential works in atomic physics and quantum optics: manipulation of atoms by electromagnetic fields to obtain extremely cold gases, with applications from metrology to collective quantum phenomena. In particular, Jean Dalibard proposed the principle of the magneto-optical trap, a tool henceforth very extensively and successfully used in atomic and molecular physics; he also showed the possibility of realizing matter-wave frequency modulation. Since 1998, he has studied the properties of Bose-Einstein Condensates and has shown that condensates in rotation contain arrays of quantized vortices. With his team, he demonstrated the first example of a magnetically guided atomic beam in the collision regime, revealed interferences of an array of independent BECs and examined fermionic condensates.

Académie Européenne des Sciences – European Academy of Sciences

A.I.S.B.L - BCE 0865.074.308

Boulevard d'Avroy 280, 4000 Liege, Belgium - Tel: +32 (0)4 253.67.18 Fax: +32 (0)4 253.28.70

email: info@eurasc.org - <http://www.eurasc.org>



EAS BLAISE PASCAL MEDALS 2009



Professor **Claude DEBRU, France, Blaise Pascal Medal in Social Sciences and Humanities**

In recognition of his outstanding works in philosophy of life sciences, and more particularly in neuro-philosophy. He wrote a hundred articles and more than twenty books, which are references in their field. He always developed his main ideas on the solid basis of collaborations with eminent biologists or physicians. One can cite his work on sleep, dreams and consciousness, based on the experiments of the biologist Michel Jouvet (the inventor of the concept of REM sleep) or on the hemoglobin with Jean Bernard and Michel Bessis or Pierre Buzer who deepened the understanding of fundamental biological processes, allowing him to show an impressive grasp of scientific developments often imbued with the spirit of philosophical inquiry that he developed as a former student of Georges Canguilhem. Claude Debru obtained several prizes and is member of the German academy of sciences Leopoldina and corresponding member of the French academy of Science.

Professor **Herbert GLEITER, Germany, Blaise Pascal Medal in Materials Science**

In recognition of his outstanding achievements and discovery of a new class of materials in which the volume fraction of the cores of interfaces is comparable to the volume fraction of the crystallites forming these interfaces. Materials of this kind were produced by consolidating nanometer-sized crystallites and were thus called nanocrystalline or nanostructured materials. In the subsequent years, this field expanded at a remarkable rate: today hundreds of papers are published and several international conferences are organized annually. His publications in this area have been cited more than 10 000 times.

Professor **Thomas KAILATH, USA, Blaise Pascal Medal in Computer Science**

In recognition of his outstanding contributions to many fields of engineering and mathematics, for a stellar array of nearly one hundred doctoral and postdoctoral scholars he has mentored during his remarkable career at Stanford University (where he was appointed as an Associate Professor in 1963, just 18 months after being the first Indian to receiving a doctorate in electrical engineering from MIT), for successfully transitioning theoretical advances to industry through the over twenty companies in Silicon Valley founded by his students, in several cases with him as a cofounder. In 2006, Kailath was inducted into the Silicon Valley Engineering Hall of Fame, which celebrates "the accomplishments of engineers in SiliconValley who have demonstrated outstanding professional achievement and have made significant contributions to the Silicon Valley community". It includes legendary figures such as Terman, Hewlett, Packard, Noyce, Moore, Ted Hoff (inventor of the microprocessor), and Steve Wozniak (designer of the first Apple computers).

Professor **Pierre-Arnaud RAVIART, France, Blaise Pascal Medal in Mathematics**

In recognition of his outstanding contribution in the field of mathematical modelling and numerical approximation of problems in Physics and Mechanics. His work has had a major impact on the understanding of many problems in physics and mechanics and is remarkable by the width and the depth of its contributions. During the past fifty years, Pierre-Arnaud has founded many different applied mathematical schools. He has worked intensively on many different topics and for each of them, he has laid the basis of a new mathematical setting, introducing new concepts and designing new tools that have been widely used and further developed by students and colleagues all over the world, not only in his community, but also in many other groups, ranging from pure analysis to engineering.

Académie Européenne des Sciences – European Academy of Sciences

A.I.S.B.L - BCE 0865.074.308

Boulevard d'Avroy 280, 4000 Liege, Belgium - Tel: +32 (0)4 253.67.18 Fax: +32 (0)4 253.28.70

email: info@eurasc.org - <http://www.eurasc.org>



Registration form

please fax it to the Academy, FAX: +32 (0)4 253.28.70

November 6th, 2009 : EAS General Assembly, Bologna

Title: Prof. Dr. Mr. Mrs.

Name

Address

.....

Tel. Fax

E-mail:

Registration form

EAS Member

Members of the Academy of Bologna and Italian Universities

University

Company

Accompanying person

Date

Signature

For organisation and security reasons, participants are kindly requested to bear the registration form with them