HISTORICAL NOTES

Ottorino Rossi was born on 17th January, 1877, in Solbiate Comasco, a tiny Italian village near Como. In 1895 he enrolled at the medical faculty of the University of Pavia as a student of the Ghislieri College and during his undergraduate years was an intern pupil of the Institute of General Pathology and Histology, which was headed by Camillo Golgi. In 1901 Rossi obtained his medical doctor degree with the highest grades and a distinction. In October 1902 he went on to

the Clinica Neuropatologica (Hospital for Nervous and Mental Diseases) directed by Casimiro Mondino to learn clinical neurology. In his spare time Rossi continued to frequent the Golgi Institute which was the leading Italian center for biological research. Having completed his clinical preparation in Florence under Eugenio Tanzi, and in Munich at the Institute directed by Emil Kraepelin, he taught at the Universities of Siena, Sassari and Pavia. In Pavia he was made Rector of the University (from 1925 to 1936) and was instrumental in getting the buildings of the new San Matteo Polyclinic completed.

Ottorino Rossi made important contributions to many fields of clinical neurology, neurophysiopathology and neuroanatomy. These include: the identification of glucose as the reducing agent of cerebrospinal fluid, the demonstration that fibers from the spinal ganglia pass into the dorsal branch of the spinal roots, and the description of the cerebellar symptom which he termed "the primary asymmetries of positions". Moreover, he conducted important studies on the immunopathology of the nervous system, the serodiagnosis of neurosyphilis and the regeneration of the nervous system. He was the author of major scientific works including an extensive investigation of arteriosclerosis in the brain, giving a new interpretation of the development of lesions of vascular origin. He died in 1936 at the age of 59, having named the Ghislieri College as his heir. Ottorino Rossi was one of Camillo Golgi's most illustrious pupils as well as one of the most eminent descendants of Pavia's medico-biological tradition.

Since 1990, thanks to an initiative of the new Scientific Director (Prof. Giuseppe Nappi), the C. Mondino National Institute of Neurology Foundation, IRCCS has held an annual Ottorino Rossi Award Conference at which the award is presented to a scientist who has made an important contribution to research in the field of the neurosciences.

The period 2010-2012 was devoted to The Founders of Neurology and saw the prize awarded to the founders of the most important Italian Schools of Neurology of the twentieth century. In 2013, the Ottorino Rossi Award again became a prize for internationally recognized neuroscientists.

SCIENTIFIC SECRETARIAT

F. Blandini, E. D'Angelo IRCCS C. Mondino and University of Pavia

COORDINATION

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CREDITS

ECM-CPD training credits: 2.8 (neurologists, neurophysiopathologists, neuroradiologists, biologists)



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OTTORINO ROSSI AWARD: PREVIOUS WINNERS

Vittorio Erspamer - Rome (Italy)	(1990)	Michael Welch - Chicago (USA)	(2003)
Paolo Pinelli - Milan (Italy)	(1991)	François Boller - Paris (France)	(2004)
Giovanni Di Chiro - Bethesda (USA)	(1992)	Jes Olesen - Copenhagen (Denmark)	(2005)
Clarence Joseph Gibbs - Bethesda (USA)	(1993)	Stanley Finger - S. Louis (USA)	(2006)
David Zee - Baltimora (USA)	(1994)	Michael A. Moskowitz - Boston (USA)	(2007)
Elio Lugaresi - Bologna (Italy)	(1995)	Patricia Smith Churchland - S. Diego (USA)	(2008)
Michel Fardeau - Paris (France)	(1996)	Stephen P. Hunt - London (UK)	(2009)
Salvador Moncada - London (UK)	(1997)	Vincenzo Bonavita - Naples (Italy)	(2010)
Alain Berthoz - Paris (France)	(1998)	Cesare Fieschi - Rome (Italy)	(2011)
Ottar Sjaastad - Trondheim (Norway)	(1999)	Giorgio Bernardi - Rome (Italy)	(2012)
John Timothy Greenamyre - Atlanta (USA)	(2000)	Henry Markram - Lausanne (Switzerland)	(2013)
Salvatore DiMauro - New York (USA)	(2001)	Emmanuele A. Jannini - L'Aquila (Italy)	(2014)
Flio Raviola - Boston (USA)	(2002)		

tudio grafi

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C. MONDINO Presidente Prof. A. Stella UNIVERSITÀ DEGLI STUDI

Magnifico Rettore Prof. F. Rugge

Scientific Director IRCCS C. Mondino Prof. G. Nappi

Thursday, 25 June 2015





FRONTIERS IN NEUROTECHNOLOGY AND NEUROREPAIR

NUTRIRE IL PIANETA ENERGIA PER LA VITA

XXVI Ottorino Rossi Award

AULA GOLGI / PALAZZO BOTTA UNIVERSITÀ DI PAVIA / PIAZZA BOTTA / PAVIA





IRCCS FONDAZIONE ISTITUTO NEUROLOGICO NAZIONALE

Both the theme of this conference and, in particular, the topic of the lecture given by the winner of the Ottorino Rossi Award, fit very neatly into the setting of Expo 2015; indeed, particular emphasis will be placed on nutraceutics as possible strategy for increasing the defences of the nervous system through the action of specific foods. The event, devoted to the frontiers of technology geared at furthering understanding of the mechanisms of neurological diseases and at identifying new diagnostic and therapeutic tools, will focus on innovative technologies in the fields of brain connectomics, advanced neuroimaging techniques and in silico reconstruction of neuronal circuits.

It will also include discussion of innovative therapeutic approaches, from the application of robotics in neurorehabilitation, to new pharmacological and non-pharmacological strategies able to protect nerve cells against cytotoxic stimuli, preventing the development of neurodegenerative processes and possibly promoting neurorepair phenomena.

8.30 a.m.

REGISTRATION AND WELCOME COFFEE

9.00 a.m.

INTRODUCTION BY THE SCIENTIFIC DIRECTOR IRCCS C. MONDINO G. Nappi, *Pavia* GREETINGS FROM THE AUTHORITIES

A. Stella - F. Rugge, Pavia

- A. Tajani, Bruxelles
- L. Cifarelli G. Nisticò, Rome

Chairman: P. Carretta, Pavia

9.30 a.m.

Ionic channel activity in large-scale computational reconstructions of neural microcircuits E. D'Angelo, *Pavia*

9.55 a.m.

MRI-based connectomics to investigate neurodegenerative diseases C. Wheeler-Kingshott, *London, Pavia*

10.20 a.m.

Robotics for neurorehabilitation

G. Sandrini, Pavia

Chairman: F. Salvatore, Naples

10.45 a.m.

New mechanisms of neurodegeneration and potential neurorepair strategies in Parkinson's disease F. Blandini, *Pavia*

11.10 a.m.

Advances in the search for new treatments in epilepsy E. Perucca, *Pavia*

11.35 a.m.

Redox regulation of cellular stress response in aging and neurodegenerative disorders: the role of hormesis V. Calabrese, *Catania*

12.00

Discussion

12.30 p.m.

XXVI OTTORINO ROSSI AWARD CEREMONY

Declaration and Presentation of the winner

A. Stella - L. Toma, Pavia; M. Melazzini, Milano

WINNER LECTURE:

New approaches in feeding the planet: olive polyphenols, hydroxytyrosol and the management of neurogenerative diseases R. Crea, *Hayward (CA-USA)*

13.30 p.m.

Lunch

PROFILE OF THE WINNER

Roberto Crea, world famous biotechnologist, left his native Reggio Calabria in 1970 for Pavia, where he graduated in chemistry and specialized in biological chemistry. He then spent several years (1973-1976) at the University of Leiden, The Netherlands, before moving, in 1977, to California, where he still lives today. Crea's scientific and professional career has been both emblematic and sui generis.



His main discovery dates back to the late 1970s when, at the City of Hope Medical Center / Genentech, Inc. in Duarte, California, he developed a method allowing the chemical synthesis of insulin, which until then had had to be extracted, through a very laborious and expensive process, from the pancreas of animals. The production of synthetic insulin to combat diabetes, hailed internationally as a scientific milestone, marked the birth of modern biotechnology and earned Crea, in 1979, the prestigious Rumbough Award for Scientific Contribution, conferred by the Juvenile Diabetes Foundation of America.

Working, over the years, in several prestigious chemical companies in the United States, Crea has always put his creativity at the service of the community, combining scientific expertise and an extraordinary entrepreneurial spirit. Crea, who is the founder of several biotech startups in Silicon Valley and Italy, was Director of the DNA Chemistry Department at Genentech, Inc. in San Francisco in the late 1970s-early 1980s, leading the team responsible for the gene synthesis for numerous therapeutic products, such as human interferons and growth hormone. In the 1980s, he founded and directed Creative Biomolecules, Inc. (specializing in the development of healthcare products for tissue repair) and in the 1990s Creagen, Inc., both based in Massachusetts. He has been Senior Vice President and Scientific Director of the Neurex Corporation, in California, renowned in the field of neuroscience for the discovery of the ziconotide, used in the treatment of pain, while in the first decade of the new century he founded Bioren, Inc., which specializes in the production of antibodies for diagnostic and therapeutic use. He is currently President of two California-based companies: ProtElix, Inc., which produces vaccines and proteins for therapeutic use, and CreAgri, Inc., which is involved in the production of polyphenols, derived from olives, which have antioxidant and anti-inflammatory properties and are used in the food, cosmetics and pharmaceutical industries. Crea is also to be credited with the birth, in Italy, of Agroils Technologies, a Florence-based startup that, uniting the bio and clean tech fields, offers an economical approach that respects resources and is therefore sustainable.