2009 ALBERT B. SABIN GOLD MEDAL

Awarded to
Ríno Rappuoli, Ph.D.
For his many contributions in the field of vaccinology and commitment to life-saving medical discoveries

Harborside Foyer
Baltimore Marriott Waterfront
Baltimore, Maryland
6:00 p.m.,
Tuesday, April 28, 2009
Rino Rappuoli, Ph.D.
2009 Albert B. Sabin Gold Medal Recipient

Rino Rappuoli
Born in 1952 in a small town in the heart of Tuscany, Italy, Dr. Rino Rappuoli went to school at the University of Siena and graduated with a degree in Biology in 1976. His education included a period at the Washington University in St. Louis (1975), and subsequent visiting scientist positions at the Rockefeller University (1979) and Harvard Medical School (1980-81). In 1982 he established his own laboratory at the Sclavo Research Center in Siena, where he became head of Sclavo R&D in 1987. In 1992 he was named head of IRIS, Chiron’s European Research facility, and he was named head of Chiron’s Global Vaccine Research in 1997. In 2002 he became Chief Scientific Officer of Chiron Corporation. Since 2006 he has been Global Head of Research for Novartis Vaccines and Diagnostics.

Dr. Rappuoli is an elected member of the European Molecular Biology Organization (EMBO) and in 2005 he was elected Foreign Associate in the US National Academy of Sciences (NAS). He has received several awards, including the Paul Ehrlich and Ludwig Darmstaedter Prize (1991) and the Gold Medal awarded by the Italian President for contributions to public healthcare (2005). He has a publication record of more than 450 works in peer-reviewed journals.

Dr. Rappuoli has introduced several novel scientific concepts which have become popular within the scientific community. Among these the most important are the concept that bacterial toxins can be detoxified by genetic manipulation (genetic detoxification, 1987); the concept that microbes are better studied in the context of the cells they interact with instead of in artificial laboratory conditions (cellular microbiology, 1996); the use of genomes to develop new vaccines (reverse vaccinology, 2000); and the observation that the genome of a species (pangenome, 2005) is larger than the genome of an organism of the same species.

Several molecules Dr. Rappuoli has worked with have become part of licensed vaccines. The first one was CRM197, a molecule discovered at Harvard by A.M. Pappenheimer Jr. in 1972 that Dr. Rappuoli characterized, sequenced and engineered for industrial scale production. This molecule is today the most widely used carrier for vaccines against Hemophilus influenzae, Neisseria meningitidis, and pneumococcus vaccines and is used multiple times to vaccinate most children of the world. Then he developed a vaccine against pertussis based on an engineered strain of Bordetella pertussis able to produce a mutagenized, non toxic pertussis toxin antigen. This was the first rationally designed molecule approved for human use. Later he developed the first conjugate vaccines against meningococcus C that made possible the elimination of the disease in the UK and the subsequent development of conjugate vaccines against meningococcus A, C, Y and W135. He pioneered the use of genomic information for vaccine development. The first genome-derived vaccine against meningococcus B is now in Phase III clinical trials. Several others are in earlier stages of development. Finally, in 1997, he obtained the regulatory approval for MF59, the first vaccine adjuvant approved for human use since the approval of aluminium salts in the 1920s. MF59 is now being used in many other experimental vaccines, the most advanced of which is a vaccine against pandemic influenza.
Sabin Gold Medal Ceremony Agenda

April 28, 2009
6:00 pm

Welcome and Introductions

Peter J. Hotez, MD, PhD
President, Sabin Vaccine Institute
Distinguished Research Professor
The George Washington University

Awarding of the
Albert B. Sabin Gold Medal

Myron M. Levine, MD, DTPH
Grollman Distinguished Professor and Director
University of Maryland School of Medicine
Center for Vaccine Development

Acceptance

Rino Rappuoli, PhD
Global Head of Vaccines Research
Novartis Vaccines & Diagnostics
THE ALBERT B. SABIN GOLD MEDAL
The Albert B. Sabin Vaccine Institute annually recognizes and honors those who have made extraordinary contributions to the field of vaccinology by awarding the Albert B. Sabin Gold Medal.

PAST HONOREES
1994~Donald A. Henderson, MD, MPH • 1995~Robert M. Chanock, MD
1996~Joseph L. Melnick, PhD (d. 2001) • 1997~Maurice R. Hilleman, PhD, DSc (d. 2005)
1998~Myron M. Levine, MD, DTPH

2000~Ciro A. de Quadros, MD, MPH • 2001~John B. Robbins, MD
2002~Stanley A. Plotkin, MD • 2003~Samuel L. Katz, MD

2004~William S. Jordan, Jr., MD (d. 2008) • 2005~Albert Z. Kapikian, MD
2006~William H. Foege, MD, MPH • 2007~Hilary Koprowski, MD
2008~Ruth S. Nussenzweig, MD, PhD

SABIN VACCINE INSTITUTE
The Sabin Mission: To reduce needless human suffering from infectious and neglected tropical diseases through innovative vaccine research and development; and to advocate for improved access to vaccines and essential medicines for citizens around the globe.

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