Prince Mahidol Award Foundation
Faculty of Medicine Siriraj Hospital and Ministry of Foreign Affairs

Press Conference
Announcement of the Prince Mahidol Award 2017

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Today (16 November 2016) at 13.30 hrs., **Professor Dr. Prasit Watanapa**, Dean of the Faculty of Medicine, Siriraj Hospital, Mahidol University, in the capacity of Vice President of the Prince Mahidol Award Foundation; **Ms. Busadee Santipitaks**, Director-General of the Department of Information, Ministry of Foreign Affairs, in the capacity of the Chairman of the Sub-Committee on Public Relations of the Prince Mahidol Award Foundation, and **Professor Vicharn Panich**, Chairman of the International Award Committee of the Prince Mahidol Award Foundation, held a joint press conference to announce the 26th Prince Mahidol Award for 2017 at the Prince Mahidol Memorial Room, 2nd Floor, Syamindra Building, Siriraj Hospital.

The Prince Mahidol Award Foundation of which H.R.H. Princess Maha Chakri Sirindhorn is the President, has decided to confer Prince Mahidol Award in the field of Medicine to The Human Genome Project from the United States of America. In the field of Public Health, the Prince Mahidol Award is conferred to Professor Porter W. Anderson, Jr., Dr. John B. Robbins,
Dr. Rachel Schneerson and Professor Mathuram Santosham from the United States of America.

There were 45 nominations from 27 countries in total. The Scientific Advisory Committee carefully screened all candidates from the year 2017, 2016, 2015 and subsequently submitted a short list of the candidates to the International Award Committee who scrutinized and made a recommendation to the Board of Trustees. H.R.H. Princess Maha Chakri Sirindhorn presided over the meeting of the Board of Trustees held on 2 November 2017 during which the final decision on the Prince Mahidol Award 2017 was made.

In the past 26 years, 74 individuals, groups of individuals, and institutions had received the Prince Mahidol Award. Among them, 4 subsequently received the Nobel Prize. More importantly, 2 of the most the recent Nobel Prize (2015) laureates in physiology or medicine were conferred the Prince Mahidol Award prior to their continual prestigious recognition namely:

- Professor Dr. Satoshi Omura was conferred the Prince Mahidol Award in the field of Medicine in 1997. He is known for the discovery and development of various pharmaceuticals originally occurring in microorganisms. His research group isolated a strain of Streptomyces avermitilis that produce the anti-parasitical compound avermectin—which contributed to the development of the drug ivermectin that is today used against river blindness, lymphatic filariasis and other parasitic infections.

- Professor Tu You You, a member of The China Cooperative Research Group on Qinghaosu and its Derivatives as Antimalarials, was conferred the Prince Mahidol Award in the field of Medicine in 2003 as an organizational category—for the discovery of qinghaosu as a new drug for treatment of the P.falciparum malaria.

Honorable Mention of the Prince Mahidol Award Laureates, who later received further recognition:

- Professor Barry J. Marshall from Australia was conferred the Prince Mahidol Award in the field of Public Health in 2001 for the discovery of the new bacterium identified as Helicobacter pylori that caused severe gastritis, and its sensitivity to particular antibacterial drugs. He later received the Nobel Prize in the field of Medicine in 2005 for the same discovery.
- Professor Harald Zur Hausen from Germany was conferred the Prince Mahidol Award in the field of Medicine in 2005 for the discovery of the virus, namely human papilloma virus HPV16 and HPV18, from the cancer tissue and elucidated the mechanism that the viruses turn the normal cell into cancer cells. He later received the Nobel Prize in the field of Medicine in 2008 for the same discovery.
- Dr. Margaret F.C. Chan, the Director-General of the World Health Organization, was conferred the Prince Mahidol Award in the field of Public Health in 2006.

Honorable Mention of the Thai laureates of the Prince Mahidol Award:

- Professor Dr. Prasong Tuchinda was conferred the Prince Mahidol Award in the field of Medicine in 1996.
- Dr. Suchitra Nimmannitya was conferred the Prince Mahidol Award in the field of Public Health in 1996.
- Dr. Wiwat Rojanapithayakorn was conferred the Prince Mahidol Award in the field of Public Health in 2009.
- Mr. Mechai Viravaidya was conferred the Prince Mahidol Award in the field of Public Health in 2009.

The Prince Mahidol Award Foundation under the Royal Patronage was established in commemoration of the centenary of the birth of His Royal Highness Prince Mahidol of Songkla, on 1 January 1992. The Foundation is under the Royal Patronage, with Her Royal Highness Princess Maha Chakri Sirindhorn as President. The Foundation annually confers two Prince Mahidol Awards upon individual(s) or institution(s), which have demonstrated outstanding and exemplary contributions to the advancement of the world's medical and public health services. Each Award consists of a medal, a certificate and a sum of US $100,000.

Her Royal Highness Princess Maha Chakri Sirindhorn will preside over the Presentation Ceremony of the Prince Mahidol Award 2017 at the Chakri Throne hall on 31 January 2018 at 17.30 hours. Prior to the Ceremony, Siriraj Hospital, as a founder of the Prince Mahidol Award, will invite the 2017 Prince Mahidol Award Laureates to give lectures based on their achievements on 30 January 2018.

Prince Mahidol Award Laureate 2017
in the Field of Medicine

The Human Genome Project
National Human Genome Research Institute, National Institutes of Health
the United States of America

The Human Genome Project (HGP) was a large research project that significantly advanced knowledge in genetics and the human genome. The project, launched in 1990, was led by the National Human Genome Research Institute (NHGRI), National Institutes of Health (NIH), USA. It was a collaborative task involving many researchers from 20 institutes in 6 countries (USA, France, Germany, United Kingdom, Japan and China). The project announced its success in 2000. The collected human genetic codes became a mega biological database publicly available for scientists worldwide.

The main mission of the HGP was to decipher human genetic codes. These codes are the core elements that determine biological life. The HGP thus contributed to the better understanding of cellular and organ functions, mutation processes and the mechanisms of diseases. Knowledge of the human genome, including technology used to analyze and interpret genetic codes, facilitated the evolution of medicine in many aspects, from understanding rare hereditary diseases to common illnesses (e.g. cancers, infectious diseases). Screenings for at risk patients and early detection are critical in the control and prevention of the aggravation of diseases. In addition, knowing personal genetic information helps improve drug development that can be tailored to individual patients, so called precision medicine, for highly efficient treatment.

The information provided by the HGP has helped make significant progress in medical science, a branch of science essential to the comprehension of how diseases occur. It has changed the medical paradigm, shifting focus on diagnosis and treatment to the investigation of the causes and identification of the related genetic risks of diseases.

The Prince Mahidol Award (in the Field of Medicine 2017) recognizes the Human Genome Project for its collaborative success that has contributed to the remarkable advancement of medicine to the enormous benefit of mankind.

Prince Mahidol Award Laureate 2017
in the Field of Public Health

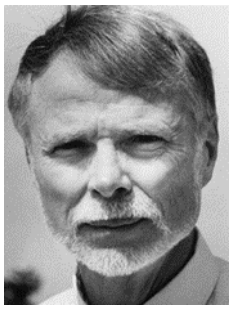
Professor Porter W. Anderson, Jr., Dr. John B. Robbins, Dr. Rachel Schneerson and Professor Mathuram Santosham
the United States of America

Since 1970, Professor Porter W. Anderson, Jr. and Dr. David H. Smith of the Harvard University (USA), and Dr. John B. Robbins and Dr. Rachel Schneerson of the National Institute of Child Health and Human Development (NICHD), focused on research to understand the mechanisms of disease and vaccine development for *Haemophilus influenzae* type b (Hib) as a part of the National Institutes of Health (USA). Hib is one of the core causes of meningitis, particularly in children under the age of five. The disease has a high mortality rate and if not fatal, could result in permanent disabilities. The research teams were the first to introduce the polysaccharide vaccine which is based on a sugar molecule derived from a part of the Hib's capsule. It was, however, shown that this vaccine was not effective among children younger than 18 months old, the group at most risk of contracting the disease. This is in part was due to the fact that polysaccharides are a weak inducer to boost immunity. They then developed conjugate vaccines, a technique that linked a protein with the polysaccharide to strengthen its immune inducing capacity. The Hib conjugate vaccine was much more effective in younger children and was licensed in 1989 for use on children at the age of 2 months old.

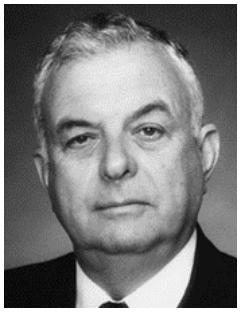
Professor Mathuram Santosham of the Johns Hopkins University studied the epidemiology of Hib. He demonstrated clinically that Hib disease was preventable by immunization and conducted several vaccine trials, which included Hib conjugate vaccines. The results of his studies had a great impact on encouraging the use of Hib conjugate vaccines for all children. Later, he became the leader of the "Hib Initiative" funded by the Global Alliance for Vaccines and Immunization (GAVI). This project has supported the Hib conjugate vaccine as a part of national immunization programs in up to 190 countries.

After the Hib conjugate vaccine was made available worldwide, the incidence of Hib disease and its mortality among young children has dropped as much as 95 – 99%. Millions of children have been saved from Hib disease. Few would have anticipated that by the year 2020, over 7 million lives would been saved due to the use of Hib vaccine.

Prince Mahidol Award (in the Field of Public Health 2017) recognizes the successful efforts of Professor Anderson, Dr. Robbins and Dr. Schneerson in developing the Hib vaccine, from research in polysaccharides to conjugate vaccines which is now being used as a standard for vaccination (Dr. Smith passed away in 1999). The Award also recognizes Professor Santosham as a leader of the Hib Initiative who elevated his scientific discovery into a widely used vaccine among children, especially in many developing countries.

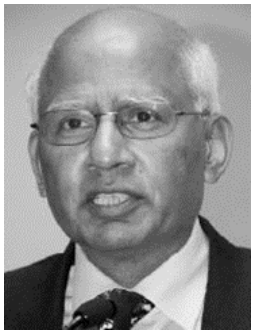


Professor Porter W. Anderson, Jr. received his PhD in Bacteriology from Harvard University. His current position is Professor Emeritus at the Department of Pediatric Infectious Diseases, University of Rochester Medical Center. He was previously Associate Professor at Boston Children's Hospital Harvard Medical School.



Dr. John B. Robbins received his MD from New York University Medical School. He had Clinical Training at Massachusetts General Hospital, Harvard University in 1961 – 1964, and Graduate Training in Infectious Disease and Immunology at University of Florida. He was Associate Professor of Pediatrics and Immunology at Albert Einstein College of Medicine for 3 years before beginning his career at the Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health, in 1970. He retires in 2012

Dr. Rachel Schneerson received her MD from Hebrew University, Jerusalem, Israel, in 1958. She did her pediatrics residency in Israel and later came to the United States to work for the Eunice Kennedy Shriver National Institute of Child Health and Human Development until her retirement in 2012.



Professor Mathuram Santosham received his MD from Madras University, India, in 1970. He subsequently moved to the US and obtained an MPH degree from the Johns Hopkins University in 1975. He also completed a Fellowship in Pediatric Infectious Diseases at Johns Hopkins Hospital. He is currently the Director Emeritus of Johns Hopkins Center for American Indian Health (CIAH). He holds Professorships in the Departments of International Health and Pediatrics at Johns Hopkins University

Tentative Programme
The Announcement Ceremony of the Prince Mahidol Award 2017
16 November 2017, at 13.30 hrs.
At the Prince Mahidol Memorial Room, 2nd Floor,
Siammintr Building, Siriraj Hospital

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13.00 hrs.	-	Distinguished guests and media arrive at the Prince Mahidol Memorial Room, 2nd Floor, Siammintr Building, Siriraj Hospital.
	-	Snacks and Beverages
13.30 hrs.	-	Press Conference hosted by **Clinical Professor Supat Vanichakarn**, Secretary-General of the Prince Mahidol Award Foundation under the Royal Patronage
	-	Introduction of the Prince Mahidol Award Foundation by **Professor Dr. Prasit Watanapa**, Dean of Faculty of Medicine Siriraj Hospital, Mahidol University, in the capacity of Vice President of the Board of Trustees of the Prince Mahidol Award Foundation
	-	Announcement of the Prince Mahidol Laureates 2017 by **Ms. Busadee Santipitaks**, Director-General of the Department of Information, Ministry of Foreign Affairs, and Chairman of the Sub-Committee on Public Relations of the Prince Mahidol Award Foundation
	-	Explanation on the decision to confer the Prince Mahidol Award 2017 conducted by **Professor Vicharn Panich**, Chairman of the International Award Committee of the Prince Mahidol Award Foundation
	-	Short remarks to the distinguished guests and media delivered by Ambassadors or representatives from the embassies of the countries of which the 2017 Prince Mahidol Award Laureates are citizens H.E. Mr. Glyn T. Davies, Ambassador of the United States of America to Thailand

Clinical Professor Supat Vanichakarn
Secretary – General
Prince Mahidol Award Foundation