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Thomson Reuters Predicts 2014 Nobel Laureates, Researchers Forecast for Nobel Recognition

Discovery of OLED, Advances in Pain Management and Genetic Predisposition to Disease Lead 2014 Picks

PHILADELPHIA, PA – The Intellectual Property & Science business of Thomson Reuters, the world leader in intelligent information for businesses and professionals, announced its 2014 "Nobel-class" Citation Laureates today. Having accurately forecast 35 Nobel Prize winners since its inception in 2002, the annual Thomson Reuters Citation Laureates study mines scientific research citations to identify the most influential researchers in the fields of chemistry, physics, medicine and economics.

This year, noteworthy nominees on the Thomson Reuters list include, in the field of physiology or medicine, David Julius, for elucidating the molecular workings of how our nerves process the sensation of pain, opening the way to new advances in pain management; and, Charles Lee, Stephen W. Scherer, and Michael H. Wigler, for their research clarifying how specific genetic variations link to disease. In physics, the list includes Peidong Yang, for his work with light-generating nanowires which can be used for data storage and optical computing. In chemistry, Ching W. Tang and Steven Van Slyke are notable for their invention of the organic light emitting diode, a technology that is now ubiquitous in smartphones, tablets and high definition televisions. In economics, William J. Baumol and Israel M. Kirzner are noted for their advancement of the study of entrepreneurism.

The complete list of the 2014 Nobel predictions includes 27 researchers representing 27 distinct academic and research organizations across nine different countries.

"Scientific literature citations are one of the greatest dividends of a researcher's intellectual investment," said Basil Moftah, president of Thomson Reuters IP & Science. "Our aggregation and analysis of citation information provides unique insight into individuals contributing highly impactful work and enables us to identify candidates likely to receive a Nobel Prize."

The annual Thomson Reuters Citation Laureates study is based on an analysis of proprietary data within the Web of ScienceTM -- the premier global search and discovery platform for the sciences, social sciences and arts and humanities--which identifies the most influential researchers in the categories of chemistry, physics, physiology or medicine, and economics. After a thorough review of citations, along with various qualitative measures, Thomson Reuters analysts identify the highest-impact researchers to be included among its Citation Laureates, who are likely winners of the Nobel Prize now or in the future.

For detailed information on the methodology of this study, the Citation Laureates, and their fields of research, visit ScienceWatch, an open-Web resource for science metrics and research performance analysis.

Follow @TR_ScienceWatch on Twitter for up-to-the-minute news on the predictions and deeper insight into their fields of research. Facebook users are encouraged to submit their own predictions for the 2014 Nobel Prize winners and take part in Nobel discussions on the Web of Science Facebook page.

The 2014 Thomson Reuters Citation Laureates by Nobel Prize category are:

PHYSIOLOGY or MEDICINE

James E. Darnell, Jr.
Vincent Astor Professor Emeritus, Laboratory of Molecular Cell Biology, Rockefeller University
New York, NY USA

-and-

Robert G. Roeder
Arnold and Mabel Beckman Professor, Laboratory of Biochemistry and Molecular Biology, Rockefeller University
New York, NY USA

-and-

Robert Tjian
Professor of Biochemistry, Biophysics, and Structural Biology, Department of Molecular and Cell Biology, University of California Berkeley, and President, Howard Hughes Medical Institute
Berkeley, CA, and Chevy Chase, MD USA

For fundamental discoveries concerning eukaryotic transcription and gene regulation

David Julius
Morris Herzstein Chair in Molecular Biology and Medicine,
Professor and Chair of Physiology, University of California San Francisco
San Francisco, CA USA

For elucidating molecular mechanisms of pain sensation

Charles Lee
Professor and Scientific Director of the Jackson Laboratory for Genomic Medicine
Farmington, CT USA

-and-

Stephen W. Scherer
Senior Scientist and Director, The Centre for Applied Genomics, The Hospital for Sick Children,
Professor and Director, McLaughlin Centre, University of Toronto
Toronto ON CANADA

-and-

Michael H. Wigler
Professor and Head, Mammalian Cell Genetics Section, Cold Spring Harbor Laboratory
Cold Spring Harbor, NY USA

For their discovery of large-scale copy number variation and its association with specific diseases

PHYSICS

Charles L. Kane
Class of 1965 Endowed Term Chair Professor of Physics, University of Pennsylvania
Philadelphia, PA USA

- and-

Laurens W. Molenkamp
Professor of Physics and Chair of Experimental Physics, University of Würzburg
Würzburg, GERMANY

-and-

Shoucheng Zhang
J.G. Jackson and C.J. Wood Professor of Physics, Stanford University
Stanford, CA USA

For theoretical and experimental research on the quantum spin Hall effect and topological insulators

James F. Scott
Director of Research, Department of Physics, University of Cambridge
Cambridge, UK

-and-

Ramamoorthy Ramesh
Professor, Physics and MSE, and Associate Lab Director for Energy Technologies, University of California Berkeley
Berkeley, CA USA

-and-

Yoshinori Tokura*
Director, RIKEN Center for Emergent Matter Science, and
Professor, Department of Applied Physics, The University of Tokyo
Saitama and Tokyo, JAPAN

*For their pioneering research on ferroelectric memory devices (Scott) and new multiferroic materials (Ramesh and Tokura). *Tokura was previously named a Citation Laureate in 2002.*

Peidong Yang
S. K. and Angela Chan Distinguished Chair in Energy, Department of Chemistry, Materials Science and Engineering, University of California Berkeley, Kavli Energy Nanoscience Institute, and Materials Science Division, Lawrence Berkeley National Laboratory
Berkeley, CA USA

For his contributions to nanowire photonics including the creation of first nanowire nanolaser

CHEMISTRY
Charles T. Kresge
Chief Technology Officer, Saudi Aramco, Dhahran
SAUDI ARABIA

-and-

Ryong Ryoo
Director, Center for Nanomaterials and Chemical Reactions, Institute for Basic Science and Distinguished Professor, Department of Chemistry, Korea Advanced Institute of Science and Technology (KAIST)
Daejeon, SOUTH KOREA

-and-

Galen D. Stucky
E. Khashoggi Industries, LLC Professor in Letters and Science, University of California Santa Barbara
Santa Barbara, CA USA

For design of functional mesoporous materials

Graeme Moad
Chief Research Scientist, CSIRO
Clayton, Victoria, AUSTRALIA

-and-

Ezio Rizzardo
CSIRO Fellow, CSIRO
Clayton, Victoria, AUSTRALIA

-and-

San H. Thang
Chief Research Scientist, CSIRO
Clayton, Victoria, AUSTRALIA

For development of the reversible addition-fragmentation chain transfer (RAFT) polymerization process

Ching W. Tang
Professor of Chemical Engineering and Bank of East Asia Professor, Institute for Advanced Study, University of Rochester, and Chair Professor in the Departments of Electrical and Computer Engineering, Chemistry, and Physics, Hong Kong University of Science and Technology
Rochester, NY USA and Hong Kong, CHINA

-and-

Steven Van Slyke
Chief Technology Officer, Kateeva
Menlo Park, CA USA

For their invention of the organic light emitting diode

ECONOMIC SCIENCES
Philippe M. Aghion
Robert C. Waggoner Professor of Economics, Harvard University
Cambridge, MA USA

-and-

Peter W. Howitt
Lyn Crost Professor Emeritus of Social Sciences and Professor Emeritus of Economics, Brown University
Providence, RI USA

For contributions to Schumpeterian growth theory

William J. Baumol
Professor of Economics and Harold Price Professor of Entrepreneurship, New York University
New York, NY USA

-and-

Israel M. Kirzner
Emeritus Professor of Economics, New York University
New York, NY USA

For their advancement of the study of entrepreneurism

Mark S. Granovetter
Joan Butler Ford Professor and Chair of Sociology, and Joan Butler Ford Professor in the School of Humanities and Sciences, Stanford University
Stanford, CA USA

For his pioneering research in economic sociology

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