

MARCH OF DIMES AND RICHARD B. JOHNSTON, JR., MD PRIZE IN DEVELOPMENTAL BIOLOGY AWARDEES

2022-3

Patricia A. Hunt, PhD
Regents Professor
School of Molecular Biosciences
Washington State University

For her instrumental discoveries in how prenatal development is impacted by aging, mistakes in cell division, and environmental exposures.

2021

Alan Flake, PhD
Director
Center for Fetal Research
Children's Hospital of Philadelphia
Professor of Surgery
Perelman School of Medicine
University of Pennsylvania

For his development of advanced fetal surgical techniques and therapies to help babies with life-threatening or devastating fetal conditions and those experiencing preterm birth

2020

Susan Fisher, PhD
Director, Translational Research in Perinatal Biology & Medicine
Center for Reproductive Sciences
Professor, Obstetrics, Gynecology, Reproductive Sciences
University of California – San Francisco

For her research on the human placenta and its role in preeclampsia and other events that lead to preterm labor.

2019

Myriam Hemberger, PhD
Director, Precision Medicine & Disease Mechanisms Program
Alberta Children's Hospital Research Institute
Professor, Biochemistry & Molecular Biology, Medical Genetics
University of Calgary

For her leading research on the crucial role and impact of the placenta on pregnancy outcomes and embryonic defects.

2018

Allan C. Spradling, PhD
Director, Department of Embryology
Carnegie Institution for Science
Investigator, Howard Hughes Medical Institute
Carnegie Institution

For discovering the concept of the "stem cell niche", the process by which embryogenesis proceeds sequentially.

2017

C. David Allis, PhD
The Joy and Jack Fishman Professor

**Head of the Laboratory of Chromatin
Biology and Epigenetics
The Rockefeller University**

For unveiling the importance of histone acetylation and an epigenetic code in the control of gene expression through chromatin.

2016

**Victor R. Ambros, PhD
Silverman Professor of Natural Science
Co-Director, RNA Therapeutics Institute,
University of Massachusetts Medical School**

**Gary B. Ruvkun, PhD
Professor of Genetics,
Harvard Medical School
Hans-Hermann Schoene
Distinguished Investigator,
Massachusetts General Hospital**

For making the seminal discovery of the conservation of short noncoding microRNAs and elucidating the mechanism by which translation of target mRNAs is controlled by microRNAs, thus providing explanations for developmental and physiological processes of great medical significance.

2015

**Rudolf Jaenisch, MD
Whitehead Institute for Biomedical Research,
Professor of Biology
Massachusetts Institute of Technology**

For devising innovative technologies that elucidated long-standing dilemmas in developmental biology, for recognizing the transformative significance on cellular function of epigenetic programming, and for applying the power of induced pluripotent stem cells to novel discoveries.

2014

**Huda Y. Zoghbi, MD
Professor, Departments of Pediatrics;
Molecular and Human Genetics; Neurology; Neuroscience;
Programs in Cell and Molecular Biology and Developmental Biology
Baylor College of Medicine**

For pioneering work evolving from discovery that mutations in the X-linked MECP2 cause Rett syndrome and for studies elucidating the maintenance role of this epigenetic regulator in different neurons.

2013

**Eric Olson, PhD
Annie and Willie Nelson Professorship in Stem Cell Research
Pogue Distinguished Chair in Research on Cardiac Birth Defects
Robert A. Welch Distinguished Chair in Science
Department of Molecular Biology
University of Texas Southwestern Medical Center**

For discovering genes and regulatory pathways governing development and growth of the cardiovascular system, and establishing a framework for how they function.

2012

Howard Green, MD
George Higginson Professor of Cell Biology
Department of Cell Biology
Harvard Medical School

Elaine Fuchs, PhD
Rebecca C. Lancefield Professor
Laboratory of Mammalian Cell Biology & Development
Rockefeller University
Investigator, Howard Hughes Medical Institute
Professor, Institute for Frontier Medical Sciences
Kyoto University

For discovering how to reprogram adult skin cells into pluripotent embryonic-like adults stem cells.

2011

Patricia Ann Jacobs, OBE, DSc, FRS
Co-Director of Research,
Wessex Regional Genetics Laboratory
Professor of Human Genetics,
Southampton University Medical School

David C. Page, MD
Director, Whitehead Institute
Professor of Biology,
Massachusetts Institute of Technology
Investigator, Howard Hughes Medical Institute

For pioneering work in human cytogenetics and the normal and abnormal function and behavior of the X and Y chromosomes.

2010

Shinya Yamanaka, MD, PhD
L.K. Whittier Foundation Investigator in Stem Cell Biology
Gladstone Institute of Cardiovascular Disease
Professor, University of California, San Francisco
Director, Center for iPS Cell Research and Application

For research on how certain master genes and protein signals regulate formation and growth of organs such as the brain and limbs during embryonic and fetal development.

2009

Kevin P. Campbell, PhD
Carver Chair, Department of Molecular Physiology & Biophysics
Director of the Wellstone Muscular Dystrophy Cooperative Research Center
Professor of Neurology and Internal Medicine
University of Iowa, Roy J. and Lucille A. Carver College of Medicine

Louis M. Kunkel, PhD
Professor of Pediatrics and Genetics, Harvard Medical School
Chief of the Division of Genetics
The Children's Hospital, Boston

For their pioneering research that has led to major new insights into the genetic and molecular causes of muscular dystrophy.

2008

Clifford J. Tabin, PhD
George Jacob and Jacqueline Hazel Leder Professor
Chair, Department of Genetics
Harvard Medical School

Philip A. Beachy, PhD
The Ernest and Amelia Gallo Professor
Institute for Stem Cell Biology and Regenerative Medicine
Stanford University School of Medicine
Investigator, Howard Hughes Medical Institute
Distinguished Professor and Co-Chairman
Department of Human Genetics
University of Utah School of Medicine

For original research on how certain master genes and their protein signals regulate the formation and growth of organs during embryonic and fetal development.

2007

Dame Anne McLaren, DBE, DPhil, FRS, FRCOG
Principal Research Associate
Wellcome Trust/Cancer Research UK Gurdon Institute
University of Cambridge

Janet Rossant, PhD, FRS, FRS(C)
Chief of Research, The Hospital for Sick Children
University Professor,
Departments of Medical Genetics & Microbiology and Obstetrics & Gynecology
University of Toronto

For their remarkable contributions to our understanding of the entire cycle of mammalian reproduction and development, using the mouse as a model system.

2006

Alexander Varshavsky, PhD
Howard and Gwen Laurie Smits Professor of Cell Biology
Division of Biology
California Institute of Technology

For explaining how ubiquitin, a tiny protein found in all living things, plays a major role in our lives by helping to regulate many crucial processes in human cells.

2005

Mario Capecchi, PhD
Boswell Professor of Neurosciences Emeritus

**Division of Biology
California Institute of Technology**

**Oliver Smithies, DPhil, FRS
Excellence Professor of Pathology and Laboratory Medicine
University of North Carolina**

For the development of gene targeting in mice as a means of determining how genes function.

2004

**Mary F. Lyon, PhD, FRS
Former Head, Genetic Section, MRC Mammalian Genetics Unit
Medical Research Council**

For discovery of the process of X-chromosome inactivation.

2003

**Pierre Chambon, MD
Professor and Director
Institute for Genetics and Cellular and Molecular Biology, INSERM,**

**Ronald M. Evans, PhD
Professor, Gene Expression Laboratory
The Salk Institute for Biological Studies**

For discovering nuclear hormone receptors and characterizing their structure and function.

2002

**Seymour Benzer, PhD
Boswell Professor of Neurosciences Emeritus
Division of Biology
California Institute of Technology**

**Sydney Brenner, DPhil, FRS
Distinguished Professor
The Salk Institute for Biological Studies**

For their tremendously influential bodies of work which have helped to revolutionize and open up productive new fields of study in molecular biology and genetics.

2001

**Corey S. Goodman, PhD
Evan Rauch Professor of Neuroscience
Director, Wills Neuroscience Institute
University of California, Berkeley**

**Thomas M. Jessell, PhD, FRS
Professor, Department of Biochemistry and Molecular Biophysics
Columbia University**

For their extraordinary body of work that has helped revolutionize the molecular understanding of central nervous system development and function.

2000

**H. Robert Horvitz, PhD
Professor of Biology
Massachusetts Institute of Technology**

For pioneering work in revealing genetic control over the active process of programmed cell death or apoptosis.

1999

**Sir Richard L. Gardner, PhD, FRS
Henry Dale Research Professor of the Royal Society
Oxford University**

**Sir Martin J. Evans, PhD, DSc, FRS
Professor of Mammalian Genetics
University of Cambridge**

For pioneering techniques to identify and grow the embryonic stem cells of mice in vitro and to introduce specific mutations into these cells.

1998

**Davor Solter, MD, PhD
Director and Member, Max-Planck-Institute of Immunobiology
Department of Developmental Biology
Adjunct Senior Staff Scientist
The Jackson Laboratory**

For pioneering the concept of gene imprinting.

1997

**Walter J. Gehring, PhD
Professor of Developmental Biology and Genetics, Biozentrum
University of Basel, Switzerland**

**David S. Hogness, PhD
Munzer Professor of Developmental Biology and Biochemistry
Stanford University School of Medicine**

For discovery and analysis of homeobox genes.

1996

**Beatrice Mintz, PhD
Senior Member, Institute for Cancer Research
Fox Chase Cancer Center**

**Ralph L. Brinster, VMD, PhD
Richard King Mellon Professor of Reproductive Physiology
University of Pennsylvania School of Veterinary Medicine**

For development of the transgenic mouse.