

### **Myles A. Brown, MD**

**Director, Center for Functional Cancer Epigenetics, Dana-Farber Cancer Institute; Emil Frei III Professor of Medicine, Harvard Medical School, Boston, MA**

For elucidating the role of steroid hormones and their receptors in promoting the onset and progression of various hormone-dependent malignancies and for the discovery of regulatory complex components such as the p160 class of transcriptional co-activators that facilitate the epigenetic regulation of steroid receptor activity.



### **Judith Campisi, PhD**

**Professor, Buck Institute for Research on Aging, Novato CA; Senior Scientist, Lawrence Berkeley National Laboratory, Berkeley, CA**

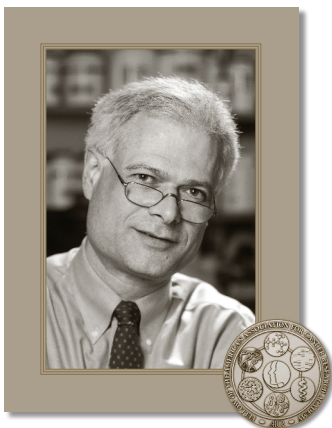
For groundbreaking contributions to the understanding of the links between aging and cancer and for her research related to identifying the molecular mechanisms associated with cellular senescence, aging, and tumorigenesis that has defined the role of DNA damage and repair in genomic stability and premature aging.



### **Arul Chinnaiyan, MD, PhD**

**Director, Michigan Center for Translational Pathology; S.P. Hicks Endowed Professor of Pathology; Investigator, Howard Hughes Medical Institute; American Cancer Society Research Professor; Professor of Urology, University of Michigan, Ann Arbor, MI**

For demonstrating the presence of chromosomal rearrangements in solid tumors including the identification of the TMPRSS2-ETS family of gene fusions and for harnessing such discoveries to define novel underlying pathologies in prostate cancer as well as other epithelial cancers.



## Alan D. D'Andrea, MD

Director, Susan F. Smith Center for Women's Cancers; Director of the Center for DNA Damage and Repair, Dana-Farber Cancer Institute; Alvan T. and Viola D. Fuller American Cancer Society Professor of Radiation Oncology, Harvard Medical School, Boston, MA

For pivotal contributions to the field of DNA damage and repair that have defined the specific defects responsible for the development of Fanconi Anemia and for elucidating the role of nuclear protein complexes on chromatin remodeling, cell cycle checkpoints, and DNA repair.



## Mark M. Davis, PhD

Director, Stanford Institute for Immunity, Transplantation and Infection; The Burt and Marion Avery Family Professor of Immunology, Stanford University School of Medicine, Stanford, CA

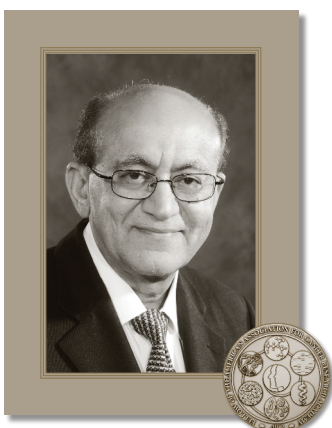
For identifying the first T cell receptor genes responsible for the detection of foreign antigens, contributing to the characterization of T cell receptor variable regions, and for developing imaging techniques capable of capturing interactions that occur at immunological synapses.



## Gregory J. Hannon, PhD

Director and Senior Group Leader, Cancer Research UK Cambridge Institute; Professor of Oncology, University of Cambridge, Cambridge, United Kingdom

For fundamental contributions to characterizing the role of cyclin-dependent kinases and small RNAs including microRNAs, piwi-interacting, and short-hairpin RNAs in cell cycle regulation, carcinogenesis, and drug development.



## Rakesh K. Jain, PhD

A. W. Cook Professor of Radiation Oncology (Tumor Biology); Director, E.L. Steele Laboratories, Department of Radiation Oncology, Harvard Medical School and Massachusetts General Hospital, Boston, MA

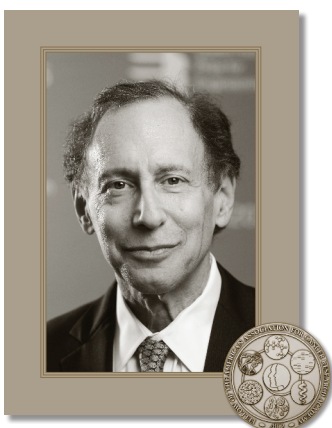
For landmark studies describing and highlighting the relationship between the tumor microenvironment and surrounding vasculature and for his investigations involving antiangiogenic therapy to induce tumor vascular normalization that have resulted in improved survival rates for a number of solid tumors.



## **Maria Jasin, PhD**

**Laboratory Head, Memorial Sloan Kettering Cancer Center, New York, NY**

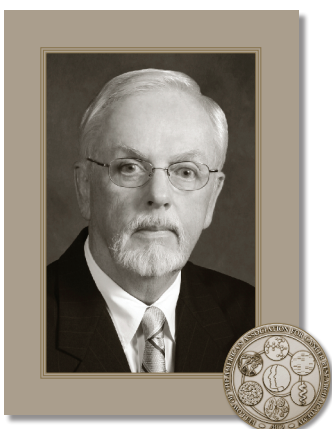
For illuminating the role of homologous recombination in maintaining genetic stability, demonstrating the crucial role of BRCA1 and BRCA2 in facilitating such genetic events, and for proving that BRCA2 loss, coupled with aberrant p53 activity in breast cells, can result in replication stress and subsequent tumorigenesis.



## **Robert S. Langer, ScD**

**David H. Koch Institute Professor, Massachusetts Institute of Technology, Cambridge, MA**

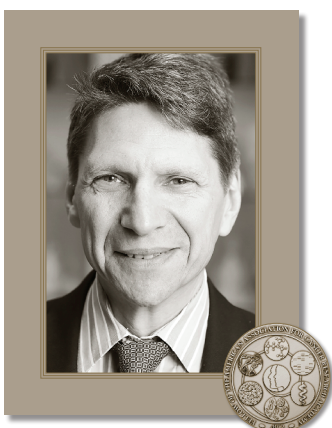
For vast contributions and discoveries in the field of drug delivery systems and for spearheading the fields of tissue engineering and regenerative medicine, generating synthetic polymer systems capable of facilitating controlled-drug release as well as serving as platforms for the engineering of blood vessels, cartilage, and skin.



## **Bert W. O'Malley, MD**

**Thomas C. Thompson Chair in Molecular and Cellular Biology; Chancellor, Baylor College of Medicine and Associate Director of Basic Research, Dan L Duncan Comprehensive Cancer Center, Baylor College of Medicine, Houston, TX**

For pioneering research focused on the understanding of molecular endocrinology, gene regulation, and steroid receptor biology that has revealed how intracellular hormones and cofactors function at the DNA level to regulate protein production, affect cellular function, and modulate cancer cell metastasis.



## **Drew M. Pardoll, MD, PhD**

**Professor of Oncology; Director of Bloomberg~Kimmel Institute for Cancer Immunotherapy; Director of Cancer Immunology, The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University, Baltimore, MD**

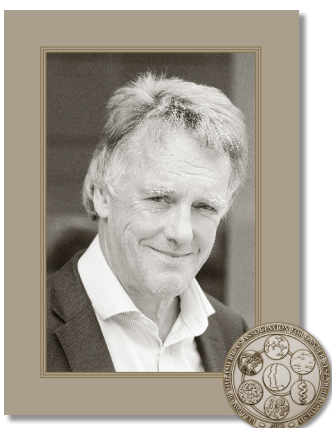
For enriching the understanding of tumor immunology and immunotherapy through his discovery of gamma-delta T cells and interferon-producing killer dendritic cells, and for his contributions to developing GVAX and Listeria monocytogenes-based cancer vaccines.



## **Kornelia Polyak, MD, PhD**

**Professor of Medicine, Harvard Medical School; Dana-Farber Cancer Institute, Boston, MA**

For dissecting the role of intratumor heterogeneity in breast cancer and metastatic disease to develop risk assessment and personalized cancer therapy models and for extensively characterizing the metastatic potential of polyclonal tumors compared to monoclonal tumors.



## **Peter J. Ratcliffe, FRS, FMedSci**

**Professor of Clinical Medicine; Distinguished Scholar, Ludwig Institute for Cancer Research and Director, Target Discovery Institute, Nuffield Department of Medicine, University of Oxford; Director of Clinical Research, Francis Crick Institute, London, United Kingdom**

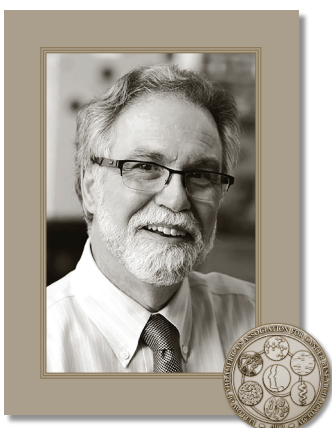
For his landmark, Nobel Prize-winning contributions to the understanding of the molecular responses to oxygen depletion, specifically the identification of oxygen sensing and signaling pathways that link hypoxia-inducible factor 1 to the availability of oxygen, which has proven critically important to the understanding of tumor initiation and progression.



## **Antoni Ribas, MD, PhD**

**Professor of Medicine, Surgery and Molecular and Medical Pharmacology, University of California Los Angeles Medical Center, Los Angeles, CA**

For his seminal clinical research contributions that have led to the development of pembrolizumab as the first-in-class approved anti-PD-1 immunotherapy for the treatment of melanoma, for his characterization of BRAF, CTLA-4, and MEK in cancer, and for deciphering the molecular mechanisms responsible for immunotherapeutic resistance, which have since fueled additional efforts to understand the relationship between the immune system and cancer.

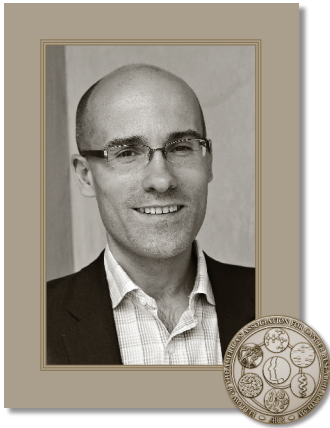


## **Gregg L. Semenza, MD, PhD**

**Director, Vascular Program, Institute for Cell Engineering; C. Michael Armstrong Professor of Genetic Medicine, Johns Hopkins University School of Medicine, Baltimore, MD**

For his revolutionary, Nobel Prize-winning contributions to uncovering the molecular mechanisms of oxygen regulation within cells and for discovering hypoxia-inducible factor 1, critical for cellular adaptation to changing oxygen levels, which has far-reaching implications for the treatment of numerous diseases characterized by low oxygen levels, including diabetes, heart disease, and cancer.

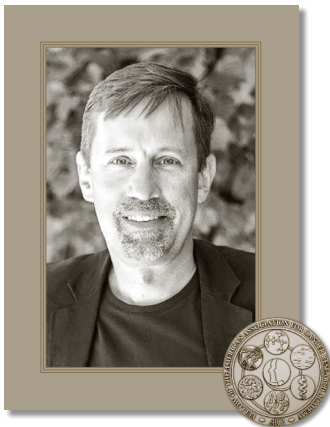




## **Charles Swanton, MD, PhD**

**Group Leader, The Francis Crick Institute and University College London Cancer Institute; Thoracic Oncologist University College London Hospitals, London, United Kingdom**

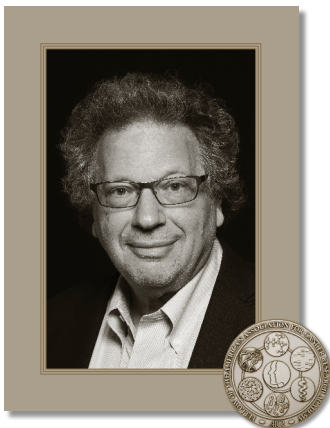
For his innovative research focused on identifying molecular mechanisms of cancer evolution and its impact on drug resistance and patient stratification and for demonstrating the crucial biological connection between intratumor heterogeneity and clinical cancer biomarker efficacy.



## **David A. Tuveson, MD, PhD**

**Roy J. Zuckerberg Professor of Cancer Research; Director, Cold Spring Harbor Laboratory Cancer Center, Cold Spring Harbor, NY**

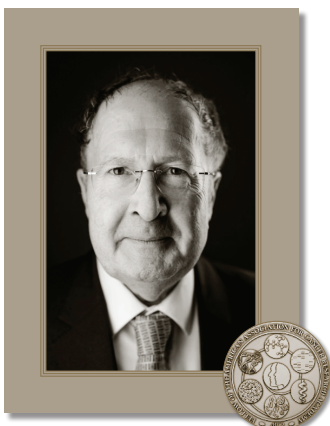
For his trailblazing contributions to establishing human pancreatic cancer mouse models, for developing preclinical and clinical therapeutic strategies for the disease, and for characterizing many of the barriers to successful pancreatic cancer treatment, including poor drug delivery and the presence of survival factors in the microenvironment.



## **Michael Wigler, PhD**

**Russell and Janet Doubleday Professor of Cancer Research, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY**

For his renowned contributions to cancer genetics and the establishment of genetically engineered animal cells, and for first describing a role for the RAS gene family in human cancer and describing how point mutations are capable of activating the oncogenic potential of select genes.



## **Sir Gregory P. Winter, CBE, FRS, FMedSci**

**Master, Trinity College; Professor Emeritus, Medical Research Council Laboratory of Molecular Biology, Cambridge, United Kingdom**

For Nobel Prize-winning scientific breakthroughs including the development of the first humanized antibodies, for the establishment of refined phage display technology that has led to the development of adalimumab, the first marketed fully human antibody approved by the FDA, and for collective contributions to the generation of therapeutic antibodies for the treatment of various cancer and autoimmune diseases.