Leading Edge of Cancer Research Symposium

www.mdanderson.org/Research2020

Virtual platform: **Zoom**

Thursday, Oct. 22
8 a.m. – 3 p.m.

Friday, Oct. 23
8:45 a.m. – 3 p.m.

THE UNIVERSITY OF TEXAS
MD Anderson Cancer Center
Making Cancer History®


The University of Texas
MD Anderson Cancer Center
R. Lee Clark Clinic

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Goal

Over the past decade, cancer research has yielded a wealth of therapeutic options for patients for many different subtypes of cancer, as well as greater knowledge of this disease. In particular, agents targeting oncogenic drivers and immunotherapeutic approaches have transformed the management of cancer patients in recent years.

This symposium will discuss emerging concepts across the breadth of cancer research, including COVID-19 and Cancer, Emerging Technologies, Microenvironmental Influences and Molecular Mechanisms of Cancer Biology and Therapeutics. Among our outstanding speakers at the Symposium are 2020 Ernst W. Bertner Memorial Awardee, **Angelika Amon, Ph.D.** (Massachusetts Institute of Technology), our 2020 Health Memorial Awardee, **Elizabeth M. Jaffee, M.D.** (Johns Hopkins University) and our 2020 Wilson S. Stone Memorial Awardee, **Pawel K. Mazur, Ph.D.** (MD Anderson Cancer Center).

The Symposium begins Thursday morning and will end Friday afternoon.

THURSDAY, OCT. 22 PROGRAM

8 a.m.

Symposium Opening and Welcome

Giulio Draetta, M.D., Ph.D.
Senior Vice President, Chief Scientific Officer
MD Anderson Cancer Center

8:15 a.m.

SESSION I: MOLECULAR MECHANISMS OF CANCER BIOLOGY AND THERAPEUTICS

Junjie Chen, Ph.D.

8:20 a.m.

Boyi Gan, Ph.D.
Associate Professor, Experimental Radiation Oncology
MD Anderson Cancer Center
Metabolic Regulation of Ferroptosis, Nutrient Dependency, and Cancer Therapy

8:50 a.m.

Rene Bernards, Ph.D.
Professor, Molecular Carcinogenesis
Netherlands Cancer Institute
Thinking differently about cancer treatment regimen

9:20 a.m.

Maria Jasin, Ph.D.
Member, Developmental Biology Program
Memorial Sloan Kettering Cancer Center
Protecting the genome by homologous recombination: BRCA2 and RAD51 paralogs

9:50 a.m.

Andrew Rhim, M.D.
Assistant Professor, Gastroenterology, Hepatology and Nutrition
Ahmed Center for Pancreatic Cancer Research
MD Anderson Cancer Center
Apobec3A: A novel driver of chromosome instability, metastasis and BRCAness in pancreas and other cancers

10:20 a.m.

KEYNOTE ADDRESS: HEATH MEMORIAL AWARD LECTURE AND PRESENTATION

Heath Award Introduction
Florencia McAllister, M.D.

10:30 a.m.

Keynote Lecture
Elizabeth M. Jaffee, M.D.
The Dana and Albert "Cubby" Professor of Oncology
Johns Hopkins University
Pancreatic Cancer is PRIMED to Become an Immunologic Disease

11:30 a.m.

Break

11:40 a.m.

SESSION II: MICROENVIRONMENT INFLUENCES

Florencia McAllister, M.D.

11:45 a.m.

Mara Sherman, Ph.D.
Assistant Professor, Cell, Developmental and Cancer Biology
Oregon Health and Science University
Mechanisms and consequences of pancreatic cancer stromal evolution

12:15 p.m.

Wenyi Wang, Ph.D.
Professor, Bioinformatics and Computational Biology
MD Anderson Cancer Center
Differing total mRNA expression shapes the molecular and clinical phenotype of cancer

12:45 p.m.

Chengcheng Jin, Ph.D.
Assistant Professor, Biology, Microbiology
Perelman School of Medicine, University of Pennsylvania
Microbiota-immune interaction in lung cancer

1:15 p.m.

Eleonora Dondossola, Ph.D.
Instructor, Genitourinary Medical Oncology
MD Anderson Cancer Center
Modeling and monitoring cell partners of progression and therapy response in prostate cancer bone metastasis

1:45 p.m.

KEYNOTE ADDRESS: WILSON S. STONE MEMORIAL AWARD LECTURE AND PRESENTATION

Stone Award Introduction
Tim Heffernan, Ph.D.

1:50 p.m.

Keynote Lecture
Pawel K. Mazur, Ph.D.
Assistant Professor, Experimental Radiation Oncology
MD Anderson Cancer Center
Identification of oncogenic mechanisms driving lung squamous cell carcinoma development and progression

2:40 p.m.

Closing Remarks

Tim Heffernan, Ph.D.

FRIDAY, OCT. 23 PROGRAM

8:45 a.m.

Symposium Opening and Welcome

Giulio Draetta, M.D., Ph.D.
Senior Vice President, Chief Scientific Officer
MD Anderson Cancer Center

9 a.m.

Opening Remarks

Peter WT Pisters, M.D.
President
MD Anderson Cancer Center

9:15 a.m.

KEYNOTE ADDRESS: ERNST W. BERTNER MEMORIAL AWARD LECTURE AND PRESENTATION

Bertner Award Introduction
Tim Heffernan, Ph.D.

9:25 a.m.

Keynote Lecture
Angelika Amon, Ph.D.
Kathleen and Curtis Marble Professor in Cancer Research,
Koch Institute for Integrative Cancer Research
Professor of Biology, Massachusetts Institute of Technology
Investigator, Howard Hughes Medical Institute
The Role of Aneuploidy in Tumorgenesis

10:30 a.m.

Break

10:40 a.m.

SESSION III: COVID-19 AND CANCER

Varsha Gandhi, Ph.D.

10:45 a.m.

Data-Driven Determinants of COVID-19 Oncology Discovery Effort (D3CODE)

Andy Futreal, Ph.D.
Chair and Professor, Genomic Medicine,
Chair *ad interim*, Systems Biology
MD Anderson Cancer Center

David Jaffray, Ph.D.
Senior Vice President and Chief Technology and Digital Officer
MD Anderson Cancer Center

11:15 a.m.

Nevan Krogan, Ph.D.
Professor, Cellular and Molecular Pharmacology
Director, QBI - Quantitative Biosciences Institute
Investigator, J. David Gladstone Institute
University of California San Francisco
An International Collaborative Effort to Identify Therapeutics for COVID-19

11:45 a.m. **Cassian Yee, M.D.**
Professor, Melanoma Medical Oncology and Immunology
MD Anderson Cancer Center
T cells in the Time of COVID

12:15 p.m. **Maryellen Giger, Ph.D.**
A.N. Pritzker Professor Radiology, Committee on Medical Physics, and the College Vice-Chair of Radiology (Basic Science Research)
University of Chicago
Datasets and AI for COVID-19 Diagnosis and Therapeutic Response

12:40 p.m. **Break**

12:45 p.m. **SESSION IV: EMERGING TECHNOLOGIES**
Kristy Brock, Ph.D.

12:50 p.m. **Bissan Al-Lazikani, MBCS, FRSB**
Chair of Cancer and Drug Discovery Data Science
Head of Data Science
The Department of Data Science
The Institute of Cancer Research, London
AI-informed cancer drug discovery and tailored therapy

1:20 p.m. **Van Morris, M.D.**
Assistant Professor, Gastrointestinal Medical Oncology
MD Anderson Cancer Center
Circulating tumor DNA: a novel, biomarker-directed approach towards personalizing treatments for oncology clinical trials

1:50 p.m. **Daniel Nomura, Ph.D.**
Professor, Departments of Chemistry, Molecular and Cell Biology, and Nutritional Sciences and Toxicology
University of California, Berkeley
Reimagining Druggability using Chemoproteomic Platforms

2:20 p.m. **Stephen Lai, M.D., Ph.D.**
Professor, Head and Neck Surgery/Molecular and Cellular Oncology/ Radiation Oncology
MD Anderson Cancer Center
Novel Clinical Applications of Emerging Imaging Technologies

2:50 p.m. **Closing Remarks**
Giulio Draetta, M.D., Ph.D.
Senior Vice President, Chief Scientific Officer
MD Anderson Cancer Center

The Ernst W. Bertner Memorial Award

The Ernst W. Bertner Memorial Award is conferred annually on a physician or scientist who has made distinguished contributions to cancer research. It is the oldest award conferred by The University of Texas MD Anderson Cancer Center and is presented at the Annual Symposium on Cancer Research.

Established in 1950, the award honors the late Ernst William Bertner, M.D., who was the first acting director of MD Anderson and first president of the Texas Medical Center. The award is made possible by a gift from the former Bertner Foundation, now the Ernst W. Bertner Endowment at St. Luke's Episcopal Hospital. It is sustained by MD Anderson Cancer Center.

The bronze medallion for the award symbolizes the twin goals of cancer research: prevention and cure. The hands of Hygeia emerge from a star to hold a bowl from which the serpent, ancient symbol of medical wisdom, is fed. The goddess Hygeia, daughter of Aesculapius, Greco-Roman god of medicine, represents hygiene and prevention of disease. The star denotes both the State of Texas and the Texan for whom the award is named.

The Ernst W. Bertner Memorial Award

Angelika Amon, Ph.D.

Dr. Amon received her bachelor of science degree from the University of Vienna and continued her doctoral work there under Professor Kim Nasmyth at the Research Institute of Molecular Pathology, receiving her doctorate degree in 1993. She completed a two-year post-doctoral fellowship with Ruth Lehmann at the Whitehead Institute in Cambridge, Massachusetts and was subsequently named a Whitehead Fellow for three years. In 1999, she joined the MIT Center for Cancer Research, now the Koch Institute for Integrative Cancer Research, and the Department of Biology. Dr. Amon became a full professor in 2007 and is currently the Kathleen and Curtis Marble Chair for Cancer Research, a Howard Hughes Medical Institute investigator, the co-associate director of the Paul F. Glenn Center for Biology of Aging Research at MIT, and the inaugural co-director of the Alana Down Syndrome Center at MIT. Dr. Amon's honors include the 2003 Alan T. Waterman Award, the 2007 Paul Marks Prize, the 2008 National Academy of Sciences Molecular Biology Award, and the 2013 Ernst Jung Prize for Medicine. In 2019, she was awarded the 2019 Breakthrough Prize in Life Sciences and the 2019 Vilcek Prize in Biomedical Science. Dr. Amon is a member of the Howard Hughes Medical Institute, the National Academy of Sciences, the Austrian Academy of Science, and a foreign associate to EMBO.

At the Koch Institute, Dr. Amon studies the molecular mechanisms that control cell growth and division with a focus on the pathways that regulate chromosome segregation. Dr. Amon also studies how errors in this process, aneuploidy, lead to diseases such as cancer and Down syndrome and how they impact the aging process. Additionally, Dr. Amon explores how the vulnerabilities associated with aneuploidy could be exploited for new tumor therapies.

The Heath Memorial Award

The Heath Memorial Award honors those who have made outstanding contributions to cancer patient care through the clinical application of basic cancer knowledge. The award is conferred annually by The University of Texas MD Anderson Cancer Center at the Annual Symposium on Cancer Research.

The late William W. Heath, a former chairman of The University of Texas System Board of Regents and past American ambassador to Sweden, and his wife, Mavis, established the award in 1965 in memory of Mr. Heath's brothers Guy H. and Dan C. The name of a third brother, Gilford G., was added after his death three years later.

The medallion for the Guy H., Dan C., and Gilford G. Heath Memorial Award symbolizes the care and protection of the cancer patient through the services of the physician, supported by research. Two central figures on the face of the medallion represent the physician tending his patient. Below the figures is the tree of life. To the left above them is the alpha superimposed on the omega, representing the continuing role of the physician in the care of his patients from birth to death. To the right of the figures is the retort, indicating the prominent part played by research in the physician's role as healer. All the figures and symbols emerge from the artist's interpretation of the sun, which represents life itself.

The Heath Memorial Award

Elizabeth M. Jaffee, M.D.

Dr. Jaffee is an internationally recognized expert in cancer immunology and pancreatic cancer. She is deputy director of the Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, co-director of the Skip Viragh Pancreatic Cancer Center and associate director of the Bloomberg Kimmel Institute for Cancer Immunotherapy. Her research focus is on developing novel immunotherapies for the treatment and prevention of pancreatic cancer. Dr. Jaffee is a past president of AACR. She has served on a number of committees at the National Cancer Institute, including co-chair of the Blue Ribbon Panel that provided scientific advice to Vice President Biden's Moonshot Initiative and as past chair of the National Cancer Advisory Board. She currently serves as chief medical advisor to the Lustgarten Foundation for Pancreatic Cancer Research. She is the inaugural director of the new Convergence Institute at Johns Hopkins. She was recently elected to the National Academy of Medicine and is a fellow of the American College of Physicians.

The Wilson S. Stone Memorial Award

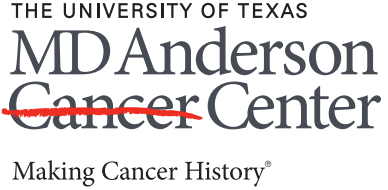
The Wilson S. Stone Memorial Award was created in 1971 to recognize young researchers who have made outstanding contributions to biomedical sciences in the United States. The award honors the late Wilson S. Stone, Ph.D., a brilliant researcher and educator who helped develop the sciences within The University of Texas System.

The award is presented at the Annual Symposium on Cancer Research sponsored by The University of Texas MD Anderson Cancer Center.

The Wilson S. Stone Memorial Award

Pawel K. Mazur, Ph.D.

Pawel K. Mazur, Ph.D. is an Assistant Professor in the Department of Experimental Radiation Oncology at MD Anderson Cancer Center. Dr. Mazur received his doctorate degree in Cancer Biology at the Max Planck Institute of Biochemistry and the University of Munich in Germany. He then completed his post-doctoral fellowship at Stanford University in the laboratory of Dr. Julien Sage. In February 2017, Dr. Mazur was recruited to MD Anderson. Dr. Mazur has established an active research laboratory, focusing on the mechanisms that control cancer progression and drug resistance. His recent work has shown promising methods to block the effects of the KRAS oncogene on pancreatic and lung cancer growth including a new mechanism controlling protein synthesis in the cancer cell. Dr. Mazur's research has been published in leading biomedical journals including *Nature*, *Cell*, *Nature Medicine*, *Cancer Cell* and *JCI*, among others, since joining MD Anderson. Dr. Mazur's lab funding includes NIH K99 and two R01 grants, a Department of Defense grant, the UT Rising Stars Award, several foundation grants from the AACR, the Lung Cancer Research Foundation, the Neuroendocrine Tumor Research Foundation, the American Gastroenterological Association Research Foundation and Sanofi Innovation Grant. Dr. Mazur is a Sabin Family Foundation Scientist and CPRIT Scholar. Dr. Mazur is the scientific founder of "Amplified Medicines," a startup biotech company now part of "Ikena Oncology" developing inhibitors to overcome cancer's therapeutic resistance.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