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CANCER PREVENTION & RESEARCH  
INSTITUTE OF TEXAS

### Awards and Prestigious Appointments for CPRIT Grantees in FY 2021

- Pope Francis appointed Rice University physicist and CPRIT Established Investigator **José Onuchic**, Ph.D., to the Pontifical Academy of Sciences on September 2, 2020. As one of the 80 members of the academy, Dr. Onuchic will advise the Catholic Church on major scientific issues (such as climate change, energy resources, global poverty, infectious diseases, and genetic engineering) and their impacts on society. Dr. Onuchic, who grew up in a Catholic family in Brazil, said that joining this esteemed group—a third of whom are Nobel laureates—is an honor for him and for Rice University. His appointment, he explained, emphasizes the global recognition of the university’s achievements in the field of science. With the help of a \$6 million Recruitment of Established Investigators grant (R1110), Rice University recruited Dr. Onuchic to Houston from the University of California, San Diego in 2011.
- On September 10, 2020, the National Cancer Institute renewed funding for the Specialized Programs of Research Excellence (SPORE) in breast cancer at **Baylor College of Medicine**. Receiving more than \$11 million for the next five years of research, SPORE can continue its state-of-the-art translation research on treatment barriers in advanced breast cancer. As the new principal investigator of SPORE, Matthew Ellis, M.B., B.Chir., Ph.D., CPRIT investigator and director of the Lester and Sue Smith Breast Center at Baylor College of Medicine, will lead three key projects. Dr. Ellis’s research team will conduct clinical trials to study biomarkers associated with endocrine therapy resistance, metastasis in triple negative breast cancer, and MYC-positive breast cancer; their work has the potential to lead to new precision-therapy and cancer-targeting treatments. Baylor College of Medicine recruited Dr. Ellis to Houston from Washington University in 2014 with support from a \$6 million CPRIT Recruitment of Established Investigators grant (RR140033).
- On September 23, 2020, the Postdoctoral Association at The University of Texas Southwestern Medical Center awarded CPRIT Scholar **Sean Morrison**, Ph.D., director of the Children’s Medical Center Research Institute at UT Southwestern, the 2020 Excellence in Postdoctoral Mentoring Award. With the help of a \$10 million CPRIT Recruitment of Established Investigators award (R1109), UT Southwestern recruited Dr. Morrison from the University of Michigan in 2011.
- On September 25, 2020, the Cancer Research Institute awarded the 2020 William B. Coley Award for Distinguished Research in Basic and Tumor Immunology to **Zhijian (James) Chen**, Ph.D., professor of molecular biology and director of the Center for Inflammation Research at The University of Texas Southwestern Medical Center. Dr. Chen received two CPRIT Individual Investigator Academic Research awards in February of 2015 (RP150498) and October of 2010 (RP110430) for investigating novel immunotherapies and precision targeting drugs.

## FY 2021 Awards and Prestigious Appointments

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- Announced on October 19, 2020, **Ralph DeBerardinis**, M.D., Ph.D., Joel B. Steinberg Distinguished Chair in Pediatrics at The University of Texas Southwestern Medical Center, was selected to join the National Academy of Medicine. Dr. DeBerardinis received two CPRIT Individual Academic Research awards, one in December of 2012 (RP130272) and one in November of 2015 (RP160089), to study metabolic reactions and new therapies for patients with aggressive lung cancer.
- Reported on November 10, 2020, The V Foundation for Cancer Research awarded CPRIT Scholar **Sam McBrayer**, Ph.D., a V Scholar Grant to study glioma—a type of cancerous tumor found in the brain and spinal cord. In 2019, Dr. McBrayer was a post-doctoral fellow with Nobel Laureate William Kaelin at the Dana Farber Cancer Institute when he joined the faculty at the Children’s Medical Center Research Institute at The University of Texas Southwestern Medical Center. He was recruited to Dallas with the help of a \$2 million CPRIT First-Time, Tenure-Track Faculty grant (RR190034).
- Announced on December 3, 2020, *Forbes* magazine featured CPRIT Scholar and Rice University chemist **Julian West**, Ph.D., in its 10th annual [30 Under 30 List](#)—a group of people under the age of 30 chosen, by Forbes, to be featured for the work they have done. With the help of a \$2 million CPRIT Recruitment of First-Time, Tenure-Track Faculty grant (RR190025), Rice University recruited Dr. Julian West from the California Institute of Technology in February of 2019.
- CPRIT Scholar **Hao Zhu**, M.D., associate professor at The University of Texas Southwestern Medical Center, received the 2021 Mark Foundation Emerging Leader Award on February 1, 2021, for identifying therapeutic approaches that increase the effectiveness of immune checkpoint inhibitors in various cancers. In 2012, UT Southwestern recruited Dr. Zhu with the support of a \$2 million CPRIT Recruitment of First-Time, Tenure-Track Faculty grant (R1209). Dr. Zhu has received three additional CPRIT research awards (DP150077, RP170267, and RP180268) for his work on detecting and treating liver cancer.
- On [February 17, 2021](#), the Alfred P. Sloan Foundation announced that CPRIT scholar **Urbain Weyemi**, Ph.D., assistant professor of molecular biosciences at The University of Texas at Austin, is among the 128 scholars to receive a 2021 Sloan Research Fellowship. Every two years, Sloan fellowships are awarded to outstanding early-career scientists in the U.S. who specialize in eight different fields. Each fellowship recipient receives \$75,000 to support his or her research projects over a two-year term. As a new faculty member at UT Austin, Dr. Weyemi leads research in cancer biology, neurodegeneration, and epigenetics to better understand how DNA damage leads to cancer and other diseases. In 2019, Dr. Weyemi joined the College of Natural Sciences at UT Austin with support from a \$2 million CPRIT Recruitment of First-Time, Tenure-Track Faculty grant (RR190101).

- The Welch Foundation announced on March 3, 2021, that CPRIT Scholar **Ilya Finkelstein**, Ph.D., associate professor of molecular biosciences at The University of Texas at Austin, received the 2021 Norman Hackerman Award in Chemical Research. Presented to early-career chemists in Texas each year, this award is designed to encourage innovations that will increase our fundamental understanding of chemistry. Most recently, Dr. Finkelstein collaborated with fellow molecular biologist Jason McLellan, Ph.D., and his colleagues at The University of Texas to optimize the coronavirus spike protein in the COVID-19 vaccines released by Moderna, which resulted in a more effective vaccine. With the help of a \$2 million CPRIT First-Time, Tenure-Track Faculty grant (R1214), UT Austin recruited Dr. Finkelstein from the Columbia University Medical Center in 2012. Dr. Finkelstein also received a \$900,000 Individual Investigator Academic Research award (RP190301) in February of 2019 to study cancer-causing mechanisms in DNA repair.
- Announced on March 26, 2021, Baylor undergraduate **Alexis Simmons**, a former CPRIT CURE intern at The University of Texas MD Anderson Cancer Center, received a 2021 Goldwater Scholarship, a prestigious award designed to encourage students to pursue careers in STEM fields (i.e., science, technology, engineering, and mathematics). Ms. Simmons is one of seven CPRIT CURE summer 2020 program participants to receive the Goldwater Scholarship. Since the CURE program's 2010 inception, CPRIT has granted more than \$5.7 million in Academic Research awards (RP140106, RP170067) to MD Anderson faculty mentors, who have trained more than 447 undergraduates, 52 postdoctoral graduates, and 36 postdoctoral trainees through the CURE program.
- Announced in April 2021, the American College of Medical Genetics and Genomics appointed **Shweta Dhar**, M.D., professor of molecular and human genetics at Baylor College of Medicine, as the Subject Matter Expert for Genomics and the lead for Genomic Medicine of the South-Central Veterans Integrated Service Network for the Department of Veterans Affairs. Dr. Dhar and her colleagues lead research projects for the Comprehensive Cancer Epigenomics Core (CCEC) program at Baylor. The CCEC program, which is the first and only CPRIT core facility dedicated to epigenomics, received a \$3.9 million CPRIT Core Facility Support award (RP200504) in August of 2021.
- Announced on March 29, 2021, CPRIT grantee **Guillermina Lozano**, Ph.D., was inducted into the 2021 class of Fellows of the American Association for Cancer Research (AACR). The AACR inducted Dr. Lozano, department chair of Genetics at The University of Texas MD Anderson Cancer Center, for her remarkable contributions to cancer research, including her work on gene p53—a tumor suppressor gene that, when neutralized, plays a critical role in tumor growth and development in many types of cancer. Dr. Lozano was the first to establish p53 as a transcriptional activator for other genes, and in 2017, she was elected as a member of the National Academy of Sciences. CPRIT has awarded four individual investigator research awards to Dr. Lozano to investigate the p53 tumor suppressor pathway role in liver cancer (RP200240), triple negative breast cancer (RP180313, RP100535), and osteosarcoma and pancreatic cancer (RP170231).

- **Nicholas E. Navin**, Ph.D., associate professor of genetics at The University of Texas MD Anderson Cancer Center, received the 2021 American Association for Cancer Research Award for Outstanding Achievement in Basic Cancer Research on April 8, 2021, for his seminal contributions to the understanding of genome evolution and intratumor heterogeneity in breast cancer. In August of 2014, Dr. Navin received a \$4.8 million Core Facility Support award (RP180684) to direct the CPRIT Integrated Single Cell Genomics Core Facility at the MD Anderson Cancer Center.
- The American Association for Cancer Research (AACR) presented **Carol L. Prives**, Ph.D., with the 2021 Clowes Award for Outstanding Basic Cancer Research during the 2021 AACR Annual Meeting on April 8, 2021. Dr. Prives is a member of CPRIT's Scientific Review Council and the Da Costa Professor of Biology at Columbia University. She is an elected member of the National Academy of Sciences (2008) and the Institute of Medicine (2005) and is an elected fellow of the American Academy of Microbiology (2001) and the American Academy of Arts and Sciences (2000).
- On April 21, 2021, the American Society of Mechanical Engineers (ASME) named CPRIT Scholar **B.J. Fregly**, Ph.D., as an ASME fellow in honor of his significant engineering achievements. Rice University recruited Dr. Fregly, professor of mechanical engineering and bioengineering, to Houston in 2017 with support from a \$5 million CPRIT Recruitment of Established Investigators grant (RR170026). He has received numerous research grants from the National Institutes of Health and the National Science Foundation, including a CAREER Award.
- Announced on April 29, 2021, CPRIT grantee **Jonathan Sessler**, Ph.D., Roland K. Pettit Centennial Chair in Chemistry in the College of Natural Sciences at The University of Texas at Austin, was elected to the National Academy of Sciences, the country's most prestigious scientific organization. Specializing in the engineering of molecules, Dr. Sessler, a two-time cancer survivor, developed a class of experimental cancer-targeting drugs that had helped him join the National Academy of Inventors in prior years. Dr. Sessler has received more than \$4 million in CPRIT research grants (RP120393, RP140108, and DP150087) and a \$2.5 million CPRIT research training award (RP101501).
- On May 7, 2021, during the 2021 American Society of Clinical Oncology (ASCO) Annual Meeting, the American Cancer Society (ACS) presented its annual ASCO-ACS Award to **Banu Arun**, M.D., co-medical director of the clinical cancer genetics program at The University of Texas MD Anderson Cancer Center. Dr. Arun received this award for her groundbreaking work on aggressive breast cancer. Most recently, Dr. Arun led a team which discovered that women with BRCA1 gene mutations are more susceptible to triple negative breast cancers, an aggressive form of breast cancer that is difficult to treat and likely to spread and recur more than other breast cancers. CPRIT Prevention Award (PP100136) supports Dr. Arun's work to increase primary cancer provider's competence in recognizing and managing persons at higher risk for breast cancer; a CPRIT Individual Investigator Research Award (RP200383) funds her research to improve risk prediction for Li-Fraumeni syndrome, an inherited predisposition to a wide range of certain, often rare, cancers.

- On April 29, 2021, the American Society of Clinical Oncology (ASCO) awarded CPRIT Scholar **Maura L. Gillison**, M.D., Ph.D., distinguished professor of medicine at The University of Texas MD Anderson Cancer Center, the David A. Karnofsky Memorial Award for her outstanding contributions to cancer research. Dr. Gillison is the world's foremost expert on head and neck cancers caused by the human papilloma virus (HPV) which account for 70% of oropharyngeal cancers in the United States. MD Anderson recruited Dr. Gillison from The Ohio State University in November of 2016 with support from a \$6 million CPRIT Recruitment of Established Investigators award (RR170005).
- Announced in May 2021, CPRIT Scholar **Rosa Uribe**, Ph.D., assistant professor of biosciences at Rice University won a \$2 million grant from the National Institutes of Health to study the development of the enteric nervous system, a major segment of the atomic nervous system that governs gastrointestinal functions. Disrupted development of the enteric nervous system can lead to chronic, life altering illnesses—including neuroblastoma, a common form of pediatric cancer, and Hirschsprung disease, a congenital condition that causes intestinal obstructions. Rice recruited Dr. Uribe from the California Institute of Technology in August of 2017 with the help of a \$2 million CPRIT First-Time, Tenure-Track Faculty grant (RR170062).
- Announced in June 2021, CPRIT awarded the **University of North Texas Health Science Center** in Fort Worth \$3.9 million to expand programs that promote diversity among professionals in the medical and biomedical science fields. “The program offers a well-designed recruitment plan to attract underrepresented and disadvantaged scholars for research training and to stimulate interest in careers in the treatment of cancer and health disparities,” said Jamboor Vishwanatha, Ph.D., director of the Center for Health Disparities at North Texas. “Improving patient outcomes requires more diverse teams of health care professionals with complementary expertise.” In November of 2016, CPRIT granted Dr. Vishwanatha a \$800,000 Academic Research award (RP170301) to lead a diversity training program for osteopathic scholars at North Texas.
- On July 5, 2021, CPRIT Scholar and chemist **Julian West**, Ph.D., won the National Institutes of Health's \$1.8 million Maximizing Investigators Research Award to develop simplified methods for synthesizing organic chemicals at his lab at Rice University. “[This award] allows us to work on what excites us, and what we believe is going to help with human health, without having to stay within the narrow limitations of an initial project,” said Dr. Julian West. With the help of a \$2 million CPRIT Recruitment of First-Time, Tenure-Track Faculty grant (RR190025), Rice University recruited Dr. Julian West from the California Institute of Technology in February of 2019.
- Announced in August 2021, the Department of Defense presented a \$2.3 million Breast Cancer Research Program Breakthrough award to CPRIT Scholar **Han Xiao**, Ph.D., of Rice University and **Xiang Zhang**, Ph.D., of Baylor College of Medicine for their work on bone cancer metastasis. With support from CPRIT's \$2 million First-Time, Tenure-Track Faculty grant (RR170014), Rice University recruited Dr. Xiao, assistant professor of chemistry and biosciences, from Stanford University in February of 2017.

- Researchers at Rice University led by **Yang Gao**, Ph.D., assistant professor of biosciences, received a \$1.9 million grant from the National Institute of General Medical Sciences to continue research on the structural framework of DNA replication. The research conducted at Gao Labs could lead to new precision targeting methods for treating cancer and other life-altering diseases. With the help of a \$2 million CPRIT Recruitment of First-Time, Tenure-Track Faculty grant (RR190046), Rice University recruited Dr. Gao to Houston in May of 2015.
- The National Cancer Institute renewed the comprehensive-designation status of the **Harold C. Simmons Comprehensive Cancer Center at The University of Texas Southwestern Medical Center**. The Simmons Cancer Center is one of 51 facilities in the U.S. to receive this comprehensive designation, reaffirming its elite standing among the country's leading cancer research facilities. Over the last 10 years, CPRIT has provided the Simmons Cancer Center more than \$493 million for its cancer research, training, and prevention efforts.
- CPRIT core director **Abbey Berenson**, M.D., Ph.D., was named as a 2021 Immunization Champion by the American College of Obstetricians and Gynecologists (ACOG) in August 2021. As the director of the Center for Interdisciplinary Research in Women's Health at The University of Texas Medical Branch at Galveston, Dr. Berenson has led HPV vaccination projects across Texas with the help of more than \$15 million in CPRIT grant funding. Dr. Berenson credits her award to her outstanding work she has conducted through CPRIT's Prevention Program.