Scholar Justin Becker, MD, PhD, and Mentor Bradley Bernstein, MD, PhD

Justin Becker, MD, PhD is a physician-scientist in the hematology/oncology fellowship of Dana-Farber Cancer Institute and Massachusetts General Hospital. He completed his MD and PhD degrees at the University of Pennsylvania, followed by residency in internal medicine at Mass General. As a fellow, Justin takes care of patients with lung cancer at Mass General and conducts laboratory research at Dana-Farber under the mentorship of Dr. Bradley Bernstein. Justin’s research focuses on particular stretches of the human genome, derived from viruses, that may play a critical role in how the immune system fights cancer. He hopes that his work may inform the development of a new class of therapies for melanoma, lung cancer, and other malignancies.

Bradley Bernstein, MD, PhD is Chair of Cancer Biology at the Dana-Farber Cancer Institute, where he holds the Richard and Nancy Lubin Family Chair. He is also the Director of the Gene Regulation Observatory at the Broad Institute, a Professor of Cell Biology and Pathology at Harvard Medical School, and an Investigator in Harvard’s Ludwig Institute. He served on the faculty at Massachusetts General Hospital from 2005 to 2021.

Bernstein’s research focuses on epigenetic gene regulation in stem cells and cancer. His work has been recognized by an Early Career Scientist Award from the Howard Hughes Medical Institute, a Career Award in the Biomedical Sciences from the Burroughs Wellcome Fund, the NIH Director’s Pioneer Award, an American Cancer Society Professorship, and the Paul Marks Prize for Cancer Research.
Scholar Cynthia Hahn, MD, PhD, and Mentor Catherine Wu, MD

Cynthia Hahn, MD, PhD, grew up in the small town of Mahomet, Illinois, then came east to attend Amherst College, where she majored in chemistry. She discovered a passion for scientific research and spent three years after graduation working in cancer genomics at Dana-Farber Cancer Institute and the Broad Institute. She then completed her MD-PhD training at Dartmouth Medical School, studying post-transcriptional mechanisms of fetal hemoglobin induction in β-hemoglobinopathies. Hahn returned to Boston to complete her internal medicine residency at Brigham and Women's Hospital and is now a Dana-Farber/Mass General Brigham Hematology/Oncology Fellow, specializing in lymphoma. Her current research spans cancer genomics and immunology, focusing on elucidating mechanisms of immune evasion in B-cell malignancies.

Catherine J. Wu, MD, is a Professor of Medicine and Chief, Division of Stem Cell Transplantation and Cellular Therapies at Dana-Farber. She is a member of the National Academy of Medicine and the Association of American Physicians. Wu received her MD from Stanford University School of Medicine and completed her clinical training in Internal Medicine and Hematology/Oncology at Brigham and Women's Hospital and Dana-Farber Cancer Institute.

Wu joined the Dana-Farber staff in 2000. At Dana-Farber, she has initiated an integrated program of research and clinical activities that focuses on dissecting the basis of effective anti-tumor immunity. Her laboratory has focused on the use of genomics-based approaches to discover immunogenic antigen targets and to understand the molecular basis of therapeutic response and resistance. She has led early-phase clinical trials to test personalized tumor vaccines in melanoma and glioblastoma.
Diana Shi, MD, was born and raised in Morgantown, West Virginia. She attended Princeton University, where her research focused on chemical synthesis of light-sensitive “caged” neurotransmitters. Shi went on to attend Harvard Medical School, where she joined the laboratory of William G. Kaelin Jr., at Dana-Farber as a medical student during a year-long Howard Hughes Medical Research Fellowship. This experience solidified her interest in oncology and led her to pursue clinical training in radiation oncology. Following medical school graduation in 2018, Shi completed a medicine internship at Brigham and Women's Hospital, and she is currently a resident in the Research track of the Harvard Radiation Oncology Program.

William G. Kaelin Jr., MD, is the 2019 Nobel Prize recipient in Medicine or Physiology. He received his MD from Duke University in 1982 and was a house officer and chief resident in internal medicine at Johns Hopkins Hospital. Kaelin was a Medical Oncology Clinical Fellow at Dana-Farber and a postdoctoral fellow in the laboratory of David Livingston, MD, where he began his studies of tumor suppressor proteins. He became an independent investigator at Dana-Farber in 1992, and a Howard Hughes Medical Institute Investigator and Professor of Medicine at Harvard Medical School in 2002. The 2019 Nobel was awarded jointly to Kaelin, Sir Peter J. Ratcliffe and Gregg L. Semenza for their discoveries of how cells sense and adapt to oxygen availability.

Daphne Haas-Kogan, MD, MBA, is Chair of the Department of Radiation Oncology at Dana-Farber Cancer Institute, Brigham and Women's Hospital, and Boston Children's Hospital. She is the Willem and Corrie Hees Family Professor of Radiation Oncology at Harvard Medical School. Haas-Kogan received her undergraduate degree in biochemistry and molecular biology magna cum laude from Harvard University and her MD from the University of California, San Francisco, where she was elected to the Alpha Omega Alpha Medical Honor Society. She completed her residency in radiation oncology and post-doctoral fellowship in molecular neuro-oncology at UCSF in 1997.

While in medical school, Haas-Kogan received the Henry J. Kaiser Award for Excellence in Teaching at the UCSF School of Medicine and was nominated for the UCSF Teaching Award for students and trainees. Her dedication to education and mentorship continued as she served at UCSF as Residency Director for eight years and Vice-Chair for Research and Education for nine years. Most recently, Haas-Kogan was awarded the highest mentorship recognition at Dana-Farber as the 2021 recipient of the Edward J. Benz Jr., Award for Advancing the Careers of Women Faculty.
Scholar Jonathan Tsai, MD, PhD, and Mentor Benjamin Ebert, MD, PhD

Jonathan Tsai, MD, PhD, completed his undergraduate at the California Institute of Technology, where he worked in the laboratory of David Baltimore, PhD, on T-cell receptor biology. He was a Fulbright Scholar at the Weizmann Institute of Science in Rehovot, Israel, before receiving his MD and PhD from Stanford University. At Stanford, Tsai worked with Irving Weissman, MD, to characterize tissue-specific stem cells and their contributions to fibrosis and regeneration. Tsai completed his Clinical Pathology residency and Molecular Genetics Pathology fellowship at Brigham and Women's Hospital. He is currently a post-doctoral researcher at Dana Farber in the laboratory of Benjamin Ebert, MD, PhD, where he is investigating degradation pathways governing nuclear hormone receptors.

Benjamin Ebert, MD, PhD, is Chair of Medical Oncology at Dana-Farber, the George P. Canellos, MD, and Jean S. Canellos Professor of Medicine at Harvard Medical School, a Howard Hughes Medical Institute Investigator, and an Institute Member of the Broad Institute. The Ebert Laboratory focuses on the biology and therapy of hematologic malignancies. The laboratory has elucidated multiple novel mechanisms of targeted protein degradation, beginning with the mechanism of action lenalidomide, a derivative of thalidomide. Additional work has focused on the biology and genetics of myeloid malignancies, including the characterization of clonal hematopoiesis, a pre-malignant state for blood cancers.