NEUROENDOCRINE TUMOR RESEARCH FOUNDATION

DEDICATED TO CURING NEUROENDOCRINE CANCER

RESEARCH GRANT AWARDS

January 2025

INVESTIGATOR AWARDS

Po Hien Ear, PhD

Assistant Professor, University of Iowa

Role of Nrf2 in SBNET drug resistance and development of a novel inhibitor

Few medical therapies are available for patients with small bowel neuroendocrine tumors (SBNETs) and the existing options are not very effective at eliminating the cancer because SBNET has a unique tumor biology. Dr. Ear's project will address the cause of drug resistance in SBNET and the development of a novel inhibitor to resensitize SBNET to FDA-approved anti-cancer therapies.

Grant Sponsor: Carol DeBacker Charitable Trust

Carl Gay, MD, PhD

Assistant Professor, University of Texas MD Anderson Cancer Center

Tumor cell surface targeting of high-grade neuroendocrine carcinomas

For years, drug development for neuroendocrine carcinomas has tried to mimic approaches used for non-neuroendocrine tumors at the same site. Dr. Gay and his team are taking a different approach, focusing on unique proteins found on neuroendocrine carcinoma cells and creating antibodies against them as a foundation for new treatments.

Grant Sponsor: The Martha O'Donnell Pagel Fund for Rare Cancer Research

William Hwang, MD, PhD

Assistant Professor, Massachusetts General Hospital

Role of the peripheral nervous system in pancreatic neuroendocrine tumors

The environment around neuroendocrine tumors significantly impacts how the cancer progresses and patient outcomes. While nerve involvement in these tumors is linked to worse prognoses, its role is not fully understood. Dr. Hwang and his team will explore how tumor-nerve interactions in pancreatic neuroendocrine tumors contribute to disease progression, aiming to uncover the underlying mechanisms.

Philippe Joubert, MD, PhD

Pathologist and Scientist, Laval University, Quebec, Canada

Deciphering clonal evolution and tumor microenvironment in patients with DIPNECH

Despite increased detection of diffuse idiopathic pulmonary neuroendocrine cell hyperplasia (DIPNECH) in recent years, little is known about its genetic background or how it develops. Dr. Joubert's project will study a rare group of well-characterized DIPNECH patients with lung cancer resections to better understand the condition. By analyzing tissue samples and profiling lesions, the research will explore the link between DIPNECH and lung neuroendocrine tumors. These findings could improve diagnosis and provide new insights into how DIPNECH progresses to malignancy.

Christin Kuo, MD

Assistant Professor, Stanford University

Elucidating the origin of pulmonary carcinoids and molecular diversity of human neuroendocrine cells

Lung neuroendocrine tumors vary widely in how they present and progress. Even tumors within the same organ differ in their clinical, cellular, genetic, and molecular traits. Dr. Kuo's team will study the cellular and molecular diversity of normal pulmonary neuroendocrine cells in the airway regions where most lung carcinoids develop, aiming to identify their origin. This research will fill a key gap in understanding the functions, signaling, and stem cell roles of neuroendocrine cells in the central airways.

Grant Sponsor: Karpus Family Foundation

INVESTIGATOR AWARDS

Ramesh Shivdasani, MD, PhD

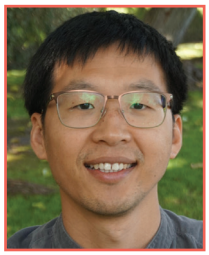
Professor of Medicine, Dana-Farber Cancer Institute

Modeling intestinal neuroendocrine tumor biology in vitro

Neuroendocrine tumors are malignant forms of relatively rare neuroendocrine cells in various organs. Dr. Shivdasani's project aims to understand how normal intestinal neuroendocrine cells become cancerous. His team has developed a laboratory model to culture large numbers of normal human intestinal neuroendocrine cells and their precursors, providing a new and powerful opportunity to investigate the origins of intestinal neuroendocrine tumors. Dr. Shivdasani and his team expect to identify cellular pathways that may be targets for new therapeutic approaches.

Grant Sponsor: Partial funding from Carol DeBacker Charitable Trust

MENTORED RESEARCH AWARDS



Qianjin Guo, PhD

Postdoctoral Researcher, Stanford University School of Medicine

Exploring new therapeutic avenues for SDHB-deficient metastatic PPGL

Although surgery can often cure pheochromocytoma and paraganglioma (PPGL), some tumors recur or spread to other parts of the body. PPGLs with an SDHB mutation have a significantly increased metastatic risk, with about 30% of these tumors becoming metastatic. Dr. Guo's study aims to identify and understand the vulnerabilities of SDHB-deficient PPGL.

Majid Momeny, PhD

Postdoctoral Researcher, the University of Texas Health Science Center at Houston

Dual specificity phosphatase 6 is a novel therapeutic target in neuroendocrine tumors

Dr. Momeny aims to explore the role of dual specificity phosphatase 6 (DUSP6) in neuroendocrine cancer. DUSP6 is an enzyme that plays a key role in cancer growth and progression and is a promising target for overcoming resistance to treatments like chemotherapy. This project aims to understand how DUSP6 drives neuroendocrine cancer development and to investigate whether blocking DUSP6 can improve treatment success. By combining advanced methods, laboratory models, and patient samples, this study seeks to develop personalized, more effective therapies for better outcomes.

Grant Sponsor: Jim Rodin in memory of Sandy Teorey-Rodin

PILOT AWARDS

Dongyoul Lee, PhD

Assistant Professor, Korea Military Academy, Seoul, Korea

Optimizing chelator compositions for alpha particle-based PRRT in neuroendocrine tumors

A major challenge in treating neuroendocrine tumors with alpha-particle therapy is the inability of current chelators—molecules that bind to radioactive materials—to securely hold all radionuclides. This leads to the release of radioactive particles that can damage healthy tissues, particularly the kidneys and bone marrow. To address this, Dr. Lee's project focuses on designing a next-generation chelator with improved stability and retention. By preventing the release of harmful radionuclides, this new chelator aims to enhance the precision, safety, and effectiveness of targeted alpha therapy for neuroendocrine cancers.

Grant Sponsor: Laura and Lew Moorman

Tanya Stoyanova, PhD

Associate Professor, David Geffen School of Medicine at the University of California, Los Angeles

UCHL1 as a minimally invasive molecular indicator for gastroenteropancreatic neuroendocrine tumors

Finding effective, minimally invasive ways to detect and treat gastroenteropancreatic neuroendocrine tumors is a critical need. Dr. Stoyanova's project will evaluate the UCHL1 novel blood biomarker—a protein hydrolase—as a potential molecular indicator for these tumors in the gastrointestinal tract and pancreas. The research will also explore whether protein hydrolase inhibitors can serve as a therapeutic option, aiming to improve both diagnosis and treatment for gastroenteropancreatic neuroendocrine cancers.

Grant Sponsor: Katherine's Light Foundation