

LANDRY
CANCER BIOLOGY
CONSORTIUM



**ANNUAL
SPRING SYMPOSIUM
2023**

**WEDNESDAY MAY 31
1-6PM**

featuring
**KARIN GRUNEBAUM
CANCER RESEARCH FOUNDATION
POSTER COMPETITION**

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LANDRY CANCER BIOLOGY CONSORTIUM – WHO WE ARE

The Landry Cancer Biology Consortium is an educational consortium that aims to bring together the cancer biology community at Harvard and its affiliates. We seek to provide advanced training and opportunities for students to extend their studies and community beyond the classroom and thesis lab. The overarching mission of the Landry Cancer Biology Consortium is **to provide a framework for multidisciplinary approaches to cancer and expose a broader range of minds at every level of training to the challenges of cancer research** and thus achieve a more multidisciplinary perspective – spurring the kind of innovative, non-traditional ideas that often result from recruiting new kinds of expertise.

WE ACHIEVE OUR MISSION –

- By providing a **competitive research fellowship** to graduate students that includes tuition and stipend benefits
- By planning and designing **cancer-related curriculum**
- By planning, organizing, and executing **professional development opportunities** in order to foster the development of the future leaders in cancer biology

This work is made possible by the generous support to Harvard Faculty of Arts and Sciences of the late C. Kevin Landry and his family, colleagues, and friends. This gift represents a transformative investment in some of the best and brightest young minds in cancer biology. Through the Landry Cancer Biology Consortium, Harvard is leveraging the strength of its scientific community to encourage new breakthroughs in cancer research and treatment.

CONNECT WITH US

If you want to learn more about Landry Cancer Biology Consortium, visit our website <https://landrycancer.hms.harvard.edu>.

Follow us on Twitter [@LandryCancerBio](https://twitter.com/LandryCancerBio)

If you have any questions don't hesitate to reach out to Jelena Patrnogić, Jelena_Patrnogic@hms.harvard.edu



KARIN GRUNEBAUM CANCER RESEARCH FOUNDATION

Additional support for cancer biology program at Harvard comes from the Karin Grunebaum Cancer Research Foundation (KGCRF), **established in 1958 in loving memory of Karin Grunebaum** by her husband, Fritz Grunebaum, in order to invest in researchers who have made cancer research their life's work.

KGCRF MISSION

Because Karin Grunebaum died at age 39 from an unknown primary site malignancy, the overriding objective of the Karin Grunebaum Cancer Research Foundation is the eradication of all types of cancer. The Foundation's original Declaration of Trust, written in 1958, mandates that the Foundation's funds be exclusively used for **"...aiding research in and study of the cause, treatment and cure of cancer."**

The Foundation's Trustees firmly believe that the eradication of cancer will only occur through successful research accomplishments which are followed by successful practical/commercial application. Thus, **the Foundation has chosen to invest its funds directly in dedicated cancer researchers in hope of helping them achieve significant accomplishments to eliminate all types of carcinomas and thereby eradicate each and every type of cancer.**

If you want to learn more about the Karin Grunebaum Cancer Research Foundation, visit the website <https://www.grunebaumfoundation.org>.

KGCRF SUPPORT FOR PROFESSIONAL DEVELOPMENT AT HARVARD

The Foundation's slogan is *"Over 60 years of developing cancer researchers"* and their generous gift to the graduate training at Harvard directly supports professional development of our students. Since 2017, the funds are used for a graduate student poster competition held annually during the Spring Symposium where cancer biology trainees have the opportunity to compete for **KGCRF Professional Development Awards**. In addition to the KGCRF Professional Development Awards, KGCRF's generous gift provides fund for the **Karin Grunebaum Career Catalyst Awards** (KGCCA). The KGCCA are designed to support student professional development training by providing opportunities to enhance and expand the scope of their research through new collaborations, skills and knowledge. The KGCCA aim to fund student-conceived proposals that complement, and directly impact their ongoing thesis research, or bring new approaches to the research questions through establishing collaborations.

SYMPOSIUM SCHEDULE

SEMINARS

TMEC 227

- 1-1:05pm Introduction & Welcome
- 1:05-2:05pm Single-Cell Landscape of Melanoma Progression: Insights and Career Reflection
Ajit Nirmal, PhD
- 2:05-2:15pm Improving the efficacy of KRAS inhibitors in lung cancer by co-targeting a MYC-eIF4A survival axis
Francesca Nardi, Karen Cichowski Lab
- 2:15-2:25pm Epigenetic and oncogenic inhibitors drive differentiation and death in KRAS mutant colorectal cancers
Patrick Loi, PhD, former graduate student, Karen Cichowski Lab
- 2:25-2:35pm Break
- 2:35-2:45pm Cholesterol biosynthesis inhibition selectively synergizes with AKT inhibition in TNBC
Alissandra Hillis, PhD, former graduate student, Alex Toker Lab
- 2:45-2:55pm Functional diversification of plant small molecules by the gut microbiome tunes intestinal homeostasis
Gavin Kuziel, Seth Rakoff-Nahoum Lab
- 2:55-3:55pm How it started, how it's going: Targeting the Lymphatic Microenvironment to Inhibit Metastasis
Jessalyn Ubellacker, PhD, MPH, MA

KGCRF POSTER COMPETITION & RECEPTION

TMEC Atrium

- 4:00-6:00pm KGCRF Poster Competition & Reception
- 6:15pm KGCRF Poster Competition Winners Announcement

SPEAKER BIOGRAPHIES *(in alphabetical order)*

ALISSANDRA HILLIS, PhD

Alissandra graduated from the Massachusetts Institute of Technology in 2018 with a Bachelor of Science in Chemistry and Biology. Alissandra spent her four years at MIT in Dr. Matthew Vander Heiden's lab studying the role of the glycolytic enzyme, pyruvate kinase 2 (PKM2), in pancreatic cancer. At Harvard, Alissandra joined the lab of Dr. Alex Toker, and her thesis work aims to exploit signaling signatures in triple-negative breast cancer (TNBC) to identify targetable vulnerabilities. Alissandra was a 2020 LCBC fellow and the recipient of an NSF GRFP. She recently defended her thesis and will be pursuing an academic post-doctoral fellowship in the field of cancer biology.



GAVIN KUZIEL

Gavin is an NDSEG research fellow and PhD candidate in the Harvard Chemical Biology PhD program. The primary focus of his research in the laboratory of Dr. Seth Rakoff-Nahoum has been dissecting the molecular interactions between the human gut microbiome and dietary plant small molecules in health and disease, identifying novel genes, molecules, and enzymes responsible for protection from or exacerbation of intestinal disease. Gavin received his BS in chemistry from the University of Tokyo where he evolved molecular glues for therapeutically relevant protein-protein interactions in the laboratory of Dr. Hiroaki Suga.



PATRICK LOI, PhD

Patrick is a recent graduate of the Biological and Biomedical Sciences (BBS) PhD program. He works in Karen Cichowski's lab investigating therapeutic combination strategies targeting epigenetic and oncogenic signaling for Ras driven colon cancers. Prior to Harvard, Patrick graduated from Cornell University in 2017 with a BS in Biological Sciences. He was a previous member of the LCBC Steering Committee and a recipient of an NIH F31 fellowship for his graduate work. Beyond grad school, Patrick is interested in drug development within the oncology space in the biotech/pharmaceutical industry, and life sciences venture.



FRANCESCA NARDI

Francesca is a 4th year graduate student in the Biological and Biomedical Sciences (BBS) PhD Program, who joined the Cichowski Lab in March 2020. She completed her Bachelor's and Master's degrees in Italy. Her current research is focused on testing novel combination therapies in lung adenocarcinoma, specifically targeting the inhibition of the MAPK pathway and translation initiation. Besides science, she loves to travel, explore new places and cultures, cook, and enjoy her time with family and friends.



AJIT JOHNSON NIRMAL, PhD

Principal Investigator

Director of Next Generation Tissue Analysis and Imaging

Brigham and Women's Hospital

Harvard Medical School



Dr. Ajit Johnson Nirmal is a Faculty at Harvard Medical School and Brigham and Women's Hospital. His research is focused on investigating the role of tumor microenvironment on tumor progression and drug resistance. Dr. Nirmal utilizes a combination of computational analysis and highly multiplexed imaging techniques to integrate omics data to decipher the regulatory networks that contribute to cancer development and drug resistance. Ultimately, his objective is to establish personalized medicine frameworks that can provide clinically relevant therapeutic strategies tailored to individual patients.

JESSALYN UBELLACKER, PhD, MPH, MA

Assistant Professor

Department of Molecular Metabolism

Harvard T.H. Chan School of Public Health



Jessalyn Ubellacker grew up in Lexington, Kentucky where she completed her B.S. and M.P.H degrees (University of Kentucky). She earned an M.A. in Medical Science (Boston University) prior to earning her Ph.D. in Biological and Biomedical Sciences (Harvard Medical School). During her doctoral training, she investigated the influence of the microenvironment on breast cancer metastasis in the lab of Dr. Sandra S. McAllister. Jessalyn completed her postdoctoral work in the laboratory of Dr. Sean J. Morrison at the Children's Research Institute (UT Southwestern). During her postdoctoral training, she discovered that melanoma cells in lymph nodes experience less oxidative stress and form more metastasis than melanoma cells in the blood. Jessalyn's work suggests initial metastasis through lymph nodes allows the cells to survive subsequent metastasis through the blood by protecting cancer cells from lipid reactive oxygen species. She established her lab in July 2022 at the Harvard T.H. Chan School of Public Health in the Department of Molecular Metabolism to work toward uncovering novel metabolic and lipidomic vulnerabilities in metastasizing cancer cells.

POSTER COMPETITION & GUESTS

Poster competition abstracts will be available after May 19.

We will host two groups that will showcase their efforts during the poster competition –

- Camp Casco
- PATHFINDER

CAMP CASCO

At Camp Casco, we create epic camp experiences that give kids affected by cancer fun, friendship, and a place where they can feel free to be themselves—and our amazing volunteers make it all possible! From being a camp counselor, to our Young Professionals Committee, to athletics, there's a volunteer opportunity for everyone!



More info here - <https://www.campcasco.org>

PATHFINDER

PATHFINDER is a new Dana-Farber/Harvard Cancer Center's (DF/HCC) initiative, launched in the fall of 2022, with the goal to meet the needs of DF/HCCs early-stage career investigators, and support their educational, training, and career development.



Our initial efforts are focused on developing support for our postdoctoral community through programming and technology that provide a wider perspective to available career options. Partnering with member institution postdoc offices and associations, PATHFINDER aims to:

- Improve access to educational resources
- Support career development and transitions
- Broaden the diversity of the cancer research workforce
- Build community among DF/HCC researcher

More info here - <https://www.dfhcc.harvard.edu/insider/training-and-education/pathfinder-office/>