

SETHI LAB NEWSLETTER

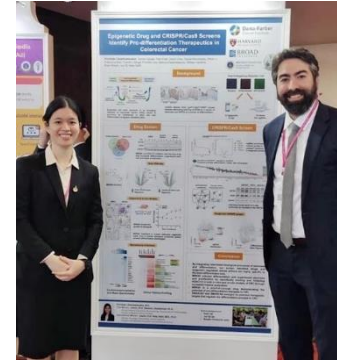
AUGUST 1ST, 2023

The [overall goal](#) of the lab is to combine clinical observations and patient-derived data with rigorous basic science investigation to yield opportunities for impactful translational advances. Our passion for investigative research is fundamentally dependent upon its power to generate a deeper understanding of human disease and ultimately improve patient care. We are committed to better understanding gastrointestinal cancers with the hope that such insight will translate into new prevention and treatment methods



RESEARCH UPDATES

- **August 2022** – David, Paul, Pornlada, and Sandor identified new potential regulators of colorectal cancer differentiation using our novel cellular system (*in revision*)
- **October 2022** – Pratyusha/Nilay presented work on colon cancer at AACR Colorectal Cancer Research Conference in Portland, Oregon; **another successful Jimmy Fund Walk!**
- **November 2022** – Pornlada/Paul provide preclinical evidence of an epigenetic inhibitor that promotes differentiation in colorectal cancer
- **December 2022** – Raghawan joined the lab to lead drug discovery efforts at Harvard ICCB enabled by timely philanthropic support from Howard and Wendy Cox
- **January 2023** – Pornlada/Nilay presented lab research at the annual Prince Mahidol Award Conference in Bangkok, Thailand; we met the royal family!
- **January 2023** – We contributed to a study on the molecular evolution of inflammatory bowel disease related colon cancer (**Sydney**, *Nature Communications*)
- **January 2023** – We contributed to a study that demonstrated the therapeutic efficacy of FAK inhibitors in diffuse subtype of gastric cancer (**Pranshu**, *Clinical Cancer Research*)
- **March 2023** – We led a study showing reactivation of developmental genes in colorectal cancer initiation by single cell evaluation of human and mouse models, building further evidence that SOX9 is a therapeutic target (**Pratyusha, Daulet**, *Science Advances*)



LAB MEMBERS AND MENTORSHIP

Updates:

[David Chen](#): a University of Toronto medical student is providing computational support for multiple projects.

[Zhixin Li, PhD](#): a new computational biologist joined the lab to study single cell RNA and epigenetic programs

[Paul Doan](#): a Harvard undergraduate from Vietnam and California will transition to a research technician

[Daulet Aitymbayev, MSc](#): an undergraduate from Kazakhstan earned his master's, published a 2nd author paper, and was accepted to Yale Graduate School year!

[Pratyusha Bala, PhD](#): a postdoctoral fellow led the newly published study and presented her work at regional and national conferences last year.

[Pornlada Likasitwatanakul, MD](#): a physician from Sirirag Hospital (Thailand) brings new understanding to a pro-differentiation therapeutic and matched for a US residency!

[Raghawan Akhouri, PhD](#): a new postdoctoral fellow who will lead drug discovery efforts in partnership with Harvard ICCB.

[Yashika Parashar, MD](#): a physician from India and Harvard master's student studying therapy-associated polyposis.

[Shagun Nasta, MD](#): a physician from India studying HER2+ gastric cancer.

A record number of undergraduates joined the lab this year! Welcome [Ting Ting](#), [Anna](#), [Evan](#), [Sophie](#), [Tracy](#), & [Shweta](#)!

Departing Members:

[Brandon Huffman](#): a DFCI oncology fellow began as a clinical investigator in the gastrointestinal cancer center

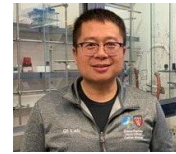
[Sandor Spisak](#): an instructor started his own lab in Hungary; he collaborates on exciting projects

[Pranshu Sahgal](#): a postdoctoral fellow looking towards academic positions soon.



FUNDING & PHILANTHROPY

- We continue to rely on a four-year award from the **Department of Defensive** (2021-2025) to study the function of hyperactive stem cell programs in colorectal cancer ([CSVCC](#); [8 scholars](#))
- We continue to benefit from a [five-year award](#) from the **NIH** (2019-2024) to study the connection between inflammation and GI cancer initiation using an integrative mouse model
- We are fortunate to receive a generous donation by **Howard and Wendy Cox** to fund a five-year drug discovery effort to identify next-generation colorectal cancer therapeutics using a novel cellular platform. This project involves close collaborations with [James Cleary](#), [Jun Qi](#), & [Harvard ICCB](#).
- We received a [one-year grant](#) from **Gastric Cancer Foundation** to study PARP inhibitors in DNA repair deficient cancers.
- We received a two-year grant from **Colorectal Cancer Alliance** to understand the mechanism of action of a pro-differentiation therapeutic.
- We received a one-year grant from the **Bridge Project** to develop SOX9 directed therapeutics (a collaboration with [Angela Koehler](#))!
- Please consider joining our [Jimmy Fund Team](#) and walking with us on **Oct 1st** in Boston, MA. We have raised over 63,000 dollars for colorectal cancer research over the past two years. We hope to continue this amazing partnership between research and community this year!



Jun Qi,
PhD



James
Cleary,
MD, PhD



Angela
Koehler,
PhD



DEDICATION

We dedicate our efforts in memory of [Adam Opiela](#), a 30-year-old young man who passed away on July 25th, 2021 from metastatic colorectal cancer. He was a kind and compassionate person who will be missed dearly by everyone he touched.



