

# SETHI LAB NEWSLETTER

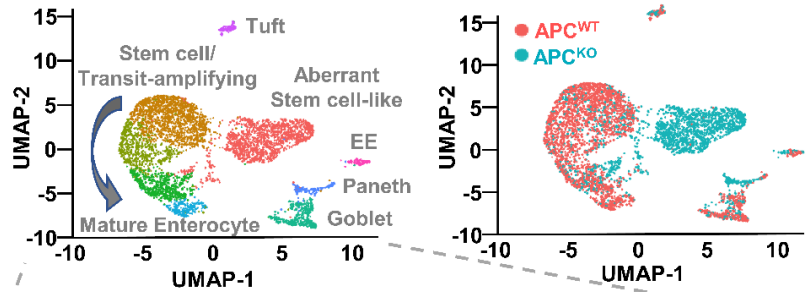
JULY 28<sup>TH</sup>, 2021

As you know, 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 particularly committed to defining the fundamental mechanisms underlying gastrointestinal cancers with the hope that such insight will translate into new prevention and treatment methods



## RESEARCH UPDATES

- **February 2020** – we demonstrated that environmental exposures cooperate with genetic mutations to promote gastrointestinal premalignancy using a new mouse model. The study was published in [Nature Genetics](#).
- **September 2020** – using single cell profiling of human and mouse adenomas, we identified an aberrant transcriptional program that blocks intestinal maturation and may be a conserved event in colon cancer initiation.
- **December 2020** – we established a new drug discovery platform using genome editing of human colon cancer cell lines (filed disclosures and a provisional patent)
- **April 2021** – we performed a focused library drug screen using this platform and identified three promising candidates for further preclinical evaluation
- **June 2021** – we submitted a study to a gastroenterology journal describing a key functional mediator that blocks intestinal maturation in colorectal cancer



## LAB MEMBERS AND MENTORSHIP

### Departing Members:

- [Xiaoyan Liang](#): a visiting postdoctoral fellow and gastroenterologist at The First Affiliated Hospital of Chongqing Medical University who returned to China during the COVID pandemic.
- [Gina Duronio](#): a Northeastern undergraduate who spent 3 years in the lab before starting in the MD/PhD program at Stanford

### New Members:

- [Daulet Aitymbayev](#): a research technician in the lab from Nazarbayev University in Kazakhstan
- [Pratyusha Bala](#): a postdoctoral fellow in the lab from South India

- [David Chen](#): a Western Ontario undergraduate from Canada
- [Paul Doan](#): a Harvard undergraduate from Vietnam and California
- [Prajna Hebbar](#): a NIT Karnataka undergraduate from India
- [David Huffman](#): a DFCI oncology fellow from Missouri
- [Pornlada Likasitwatanakul](#): a visiting physician scientist from Sirirag Hospital in Thailand
- [Clare Morris](#): a Harvard undergraduate from Seattle
- [Massimo Saputo](#): a research technician from Boston College and Long Island

## FUNDING & PHILANTHROPY

- **December 2020** - We received a four-year award by the Department of Defense to study the function of hyperactive stem cell programs in colorectal cancer.
- **January 2021** - We received a two-year grant by the Degregorio Foundation to determine the therapeutic value of DNA-damage response inhibitors in gastrointestinal cancers.
- To support the lab, please consider donating to our [Jimmy Fund Team](#).

## DEDICATION

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

