

# 2020 Scientific Research Grant Recipients



## Senior Investigator Award Recipients \$500,000

Tower recognizes just how important it is to support senior investigators in their well-established research programs. To that end, Tower awards five-year grants up to \$1 million to world-renowned scientists to fund their novel biomedical research hypotheses related to the etiology, mechanisms, and treatment of cancer.



**John Carpten, PhD**

**The Barry Rosenbloom, MD Senior Investigator Research Grant**

**Amount Funded:** \$500,000

**Institution:** Keck School of Medicine of University of Southern California (USC)

**Title:** Chair of Translational Genomics and Director, Institute of Translational Genomics, Keck School

of Medicine of USC. He has also worked at the NIH in the National Human Genome Research Institute and was mentored by Francis Collins.

**Funded Project:** The impact of alpha catenin loss on DNA repair defects in triple negative breast cancer

**Funded Research Project Summary:**

Triple negative breast cancer (TNBC) is a type of breast cancer lacking the usual types of markers as estrogen, progesterone or HER2-neu. It is aggressive and has a high death rate, especially in black women. We have found a gene marker that may make these tumors escape chemotherapy. Our research also shows that when this marker is not present, the tumor cells respond to a very specific type of cancer therapy. Therefore, we wish to expand our research to better understand the role of this marker in this type of breast cancer to improve treatment.

### GET TO KNOW JOHN CARPTEN, PHD

**Who or what was your greatest influence growing up?** My mother.

**Why did you decide to get into cancer research?** I was studying human genetics and right around the time that my postdoc was starting, the BRCA1 Gene was cloned and identified. When I began my fellowship I was asked to join a hereditary prostate cancer project. I took the opportunity and everything grew from that.

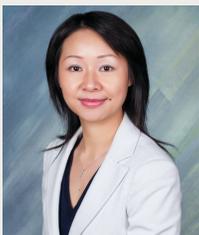
**Favorite food/restaurant?** I grew up in the Mississippi Delta so the local cuisine there. I'm an eclectic though so I like a lot of different things.

**A favorite book recommendation?** Nathan McCall's *Makes Me Wanna Holler*.

**Favorite place to travel?** Africa.

**Favorite hobby or what you enjoy doing when not working?** Music Audio Engineering.

**Do you have any pets?** Yes, an American Standard Pitbull named Koby.



**Lili Yang, PhD**

**The Magnolia Council Senior Investigator Research Grant**

**Amount Funded:** \$500,000

**Institution:** UCLA

**Title:** Associate Professor of Immunology at UCLA (PhD from CalTech) tumors escape chemotherapy.

**Funded Project:** Targeting Monoamine Oxidase A to Expand Cancer Immune Checkpoint Blockade Therapy

**Funded Research Summary:**

Immune checkpoint blockade (ICB) therapies have revolutionized the treatment of many cancers; however, the existing ICB therapies can only benefit a small fraction of cancer patients. Monoamine oxidase A (MAO-A) is an enzyme best known for its function in the brain; small molecule MAO inhibitors (MOIs) have been developed and are clinically used for treating depression. Our research aims to study MAO-A regulation of antitumor immunity and evaluate MAO-A blockade for cancer immunotherapy. The project has the potential to identify MAO-A as a new immune therapy.

### GET TO KNOW LILI YANG, PHD

**Who or what was your greatest influence growing up?** My parents. Both are electronic engineers, who have inspired me and supported me to explore science since I was a little girl.

**Why did you decide to get into cancer research?** My grandpa died of cancer at the year when I entered college—he did not get the chance to see it, just a few weeks apart. I was very close to my grandpa; it hurt me deeply losing him to cancer. Therefore I chose Biology as my major in College, and focused on cancer research in graduate school and thereafter.

**Favorite food/restaurant?** Chinese food :). In the LA area, the restaurant is Din Tai Fung (known for handmade dumplings & Chinese fare).

**A favorite book recommendation?** *The Selfish Gene* by Richard Dawkins. A fantastic book about gene-centered view of evolution. Very fun to read!

**Favorite place to travel?** National parks. I love to embrace nature.

**Favorite hobby or what you enjoy doing when not working?** Playing with my two daughters (Lisa, 8 & Amy, 5). Honestly, this is probably all I have time to do now—really enjoy it though.

**Do you have any pets?** No. I do have two kids :).

# THE JUDITH AND FRANK E. ROSENFELT CAREER DEVELOPMENT GRANT PROGRAM

## Career Development Grant Recipients \$100,000

While there are many brilliant scientists in the world conducting cancer research, Tower recognizes that many important breakthroughs come from unexpected directions and differing perspectives. Tower encourages young physician-scientists to explore novel research hypotheses by offering one-year Career Development Grants.



Jun Gong, PhD

### The Rosen-Cherney Tower Golf Tournament Career Development Research Grant

**Amount Funded:** \$100,000

**Institution:** Cedars-Sinai Medical Center

**Title:** Assistant Professor, Division of Hematology

**Funded Project:** Performance of

hypermethylated circulating tumor DNAs in colorectal cancer

#### Funded Research Project Summary:

Measuring DNA produced by colorectal cancer (CRC) in blood (ctDNA) is a new method to detect return (recurrence) of CRC. We developed a blood-based ctDNA test that is less costly and easier to apply in practice. We will compare our ctDNA test's performance to a commercial ctDNA test for detecting recurrence in patients who no longer have CRC and tumor growth or spread in patients with existing CRC. We will also analyze our test's potential to predict recurrence in localized rectal cancer, which can be helpful to identify candidates who can be spared from unnecessary surgery (ostomy bags).

### GET TO KNOW JUN GONG, PHD

#### Who or what was your greatest influence growing up?

All my mentors throughout my career that have greatly influenced the way I care for my patients.

**Why did you decide to get into cancer research?** Cancer will become the leading cause of U.S. deaths in the next decade or two and has impacted almost all of us either personally or through friends and acquaintances. I have always been captivated by our global effort to develop new diagnostics, preventative strategies, and therapies to improve outcomes in this area with high unmet need.

**Favorite food/restaurant?** Anything my wife cooks!

**A favorite book recommendation?** *20,000 Leagues Under the Sea* by Jules Verne.

**Favorite place to travel?** I miss traveling, in general, since we've been isolating for the pandemic.

**Favorite hobby or what you enjoy doing when not working?**

Basketball, tennis, movies, sightseeing.

**Do you have any pets?** No.



Evanthia Roussos Torres, MD-PhD

### The Howard and Reva Colover Trust Career Development Research Grant

**Amount Funded:** \$100,000

**Institution:** Keck School of Medicine of USC

**Title:** Assistant Professor of Medicine, Division of Oncology at USC

**Funded Project:** Sensitizing the tumor immune microenvironment of breast cancer

#### Funded Research Project Summary:

Breast cancer is the second leading cause of cancer-related death in women. Immunotherapies harness the body's immune system to fight cancer, holding great promise to prevent recurrence and prolong survival. Immunotherapies have been less effective in patients with breast cancer in part due to certain cells that suppress the immune system. We will investigate means to decrease these suppressive cells to successfully eliminate tumor growth. We will also determine differences in suppressive cells between early versus metastatic breast cancers to improve the response to immunotherapy for patients with all stages of disease.

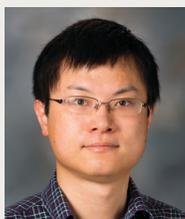
### GET TO KNOW EVANTHIA ROUSSOS TORRES, MD-PHD

#### Why did you decide to get into cancer research?

One week before I graduated medical school my mother was diagnosed with a paraneoplastic syndrome that manifested as a devastating encephalopathy. This experience fuels my desire to expand the efficacy of immunotherapy so that future patients and their families never have to experience what my family endured.

**Favorite food/restaurant/ favorite place to travel/ favorite hobby or what you enjoy doing when not working?** In non-covid times of course, I love to travel with my family! We try to take at least one international trip per year to a few countries and explore new places through our love of food.

**Do you have any pets?** We have two Chesapeake Bay retrievers, Jackson (9 years old) and Emma (6 years old).



Wenqi Wang, PhD

### The Cancer Free Generation Career Development Research Grant

**Amount Funded:** \$100,000

**Institution:** University of California, Irvine

**Title:** Assistant Professor

**Funded Project:** Harnessing the Hippo signaling

pathway to counteract chemoresistance

#### Funded Research Project Summary:

Cisplatin-based chemotherapy has been widely used for treating a variety of solid tumors including breast, lung and ovarian cancers. Although initial therapeutic success is achieved, a number of tumors are found to be resistant or gradually develop resistance to cisplatin treatment, which greatly limits its therapeutic potential. Our proposed research will focus on a growth-related pathway, named the Hippo pathway. By understanding this pathway we may be able to overcome chemotherapy resistance.

### GET TO KNOW WENQI WANG, PHD

#### Who or what was your greatest influence growing up?

My mother.

**Why did you decide to get into cancer research?** My wife was a surgical nurse before we moved to the United States. So, I had many chances to see patients who were suffering from cancers in the hospital and decided to do something to help them.

**Favorite food/restaurant?** Dumplings made by my wife.

**Favorite place to travel?** Yellowstone National Park.

**Favorite hobby or what you enjoy doing when not working?**

Watching soccer games.

**Do you have any pets?** No.