

# Department of Pharmacological Sciences



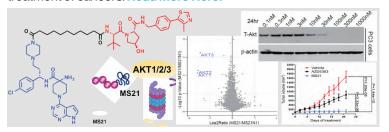
## **FEATURED NEWS**



JIAN JIN, PHD Professor

Professor Jian Jin, a leader in the proteolysis targeting chimera (PROTAC) field, and Professor Ramon Parsons, Director of The Tisch Cancer Institute at Mount Sinai, have together developed a highly potent and selective AKT PROTAC degrader MS21, enabling robust AKT degradation and tumor growth suppression in a large panel of cancer cells harboring Pl3K/PTEN signaling mutation (*Cancer Discov.* 2021). Pl3K/AK-

T/m-TOR signaling pathway is frequently hyperactivated in human cancers and other human diseases. As a central node, AKT is an attractive therapeutic target. Drs. Jin and Parsons reported several additional novel AKT PROTAC degraders, MS98 and MS170 (*J. Med. Chem.* 2021), MS143 and MS5033 (*J. Med. Chem.* 2022) derived from different ATP- competitive inhibitors. These studies lay a solid foundation for the clinical development of AKT degraders for the treatment of cancers. Read More Here!



lan Maze, PhD, Professor of Neuroscience and Pharmacological Sciences, Howard Hughes Medical Institute (HHMI) Investigator, is the director of a new research center devoted to understanding how epigenomics influences the nervous system under both healthy and disease conditions has launched at the Icahn School of Medicine at Mount Sinai (ISMMS). The Center for Neural Epigenome Engineering aims to position



Professor

the ISMMS at the forefront of neuroepigenetics research by dramatically expanding Mount Sinai's ability to conduct research in this field, facilitating new discoveries and the development of long-sought treatments for a variety of neurological and psychiatric disorders. Areas of expansion include chromatin biochemistry, chemical biology, protein engineering, and single-cell "omics." It is the first center devoted exclusively to neuroepigenetics engineering in the United States. Read More Here!



#### **AWARDS**

Mone Zaidi, MD, PhD, Professor, was awarded the Austrian International Research Prize. This prestigious prize acknowledges an individual whose recent work in the fields of molecular, cellular, material science, (patho)physiological or clinical aspects of bone and mineral metabolism has resulted in a novel finding or concept. This Prize is awarded every three years and is highly coveted in bone and mineral research.



M. ZAIDI, MD, PHI

Soledad Maria Sosa, PhD, Assistant Professor, has received the 2022 Pershing Square Sohn for Young Investigators Cancer Research. This highly competitive award cancer research scientists in the field provides them the freedom to take risks and pursue their boldest research at a when traditional stage funding is not feasible.



MARIA SOSA, PHD

Sarah E. Montgomery Graduate Assistant, received the Social and Racial Justice Award to a Graduate Student. Sarah has been involved in outreach programs focused on providing mentorship and professional resources to under-served groups. While at Sinai, She co-directed the First Generation Scholars program, served on the Diverse Brains Committee, and the Student and Postdocs Association (SPA).



S. MONTGOMERY

## **PAPERS AND GRANTS**

#### **PAPERS**

Wang J, Yu X, Gong W, Liu X, Park KS, Ma A, Tsai YH, Shen Y, Onikubo T, Pi WC, Allison DF, Liu J, Chen WY, Cai L, Roeder RG, **Jin J**, Wang GG. EZH2 noncanonically binds cMyc and p300 through a cryptic transactivation domain to mediate gene activation and promote oncogenesis. **Nature Cell Biol.** 2022 Mar;24(3):384-399.

Xiang Y, Huang W, Liu H, Sang Z, Nambulli S, Tubiana J, Williams KL, Duprex WP, Schneidman-Duhovny D, Wilson IA, Taylor DJ, **Shi Y**. Super-immunity by broadly protective nanobodies to sarbecoviruses. *Cell Reports*. 2022. Epub ahead of print.

Rodriguez-Tirado C, Kale N, Carlini MJ, Shrivastava N, Rodrigues AA, Khalil BD, Bravo-Cordero JJ, Hong Y, Alexander M, Ji J, Behbod F, **Sosa MS**. NR2F1 Is a Barrier to Dissemination of Early-Stage Breast Cancer Cells. **Cancer Res**. 2022 Jun 15;82(12):2313-2326. **Full Publications List!** 

#### **GRANTS**

**Jian Jin** & Greg Wang, MPI, "Discovery of First-in-class WDR5 PROTACs as a Novel Therapeutic Strategy for MLL-rearranged Leukemias", R01, NCI, 05/2022-04/2027, \$3,289,020

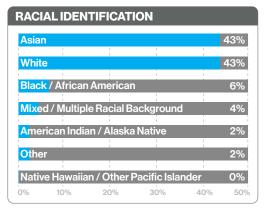
**Avi Ma'ayan** & Allan D. Attie, MPI, "Diabetes Data and Hypothesis Hub (D2H2)," RC2, NIDDK, 07/2022-06/2024, \$2,144,050

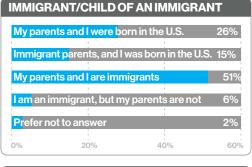
Pei Wang & Avi Ma'ayan, MPI, "Proteogenomic translator for cancer biomarker discovery towards precision medicine," U24, NCI, 07/2022- 04/2027, \$4,254,785

Maria Sosa, PI, "Crosstalk and immune education by evolutionarily distinct disseminated cancer cells during the invisible phase of metastasis," The Pershing Square Sohn Cancer Research Alliance, 04/2022-03/2027, \$600,000

## **DIVERSITY SURVEY**

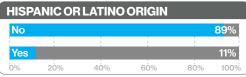
Results of the short, six-question, anonymous survey conducted in May 2022. This survey helps us better understand the diversity of the work environment in our Department.

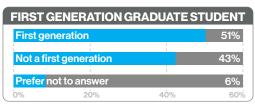




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DPSRC	DLE			
Faculty				36%
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Staff				34%
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<b>Trainee</b>				30%
0%	10%	20%	30%	40%







## **UPCOMING EVENTS**

#### THE 15TH JACK PETER GREEN LECTURESHIP

Brian K. Shoichet, Dr PH

Damin Runyon-Walter Winchell Cancer Research Fellow Professor

Department of Pharmaceutical Chemistry University of California San Francisco

"Following the Rabbit into Chemical Space"

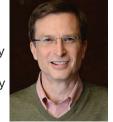
Thursday, October 6th, 11AM Hybrid Event - Hatch Auditorium



#### THE 22<sup>ND</sup> IRVING L SCHWARTZ LECTURESHIP

Craig M. Crews, PhD

American Cancer Society Professor John C. Malone Professor of Molecular, Cellular, and Developmental Biology Dept. of Chemistry, Dept. of Pharmacology Exe. Director, Yale Center for Molecular Discovery Yale University School of Medicine



"PROTACs and Targeted Protein Degradation: A New Therapeutics Modify"

Thursday, October 27th, 11AM Hybrid Event - Hatch Auditorium

### **MEMBER SPOTLIGHT**

DeAnalisa Jones, MD/PhD student, Sobie lab, uses mathematical modeling of Ca2+ signaling pathways in heart cells to study arrhythmia mechanisms. She was recently awarded the National Heart Lung and Blood Institute's Ruth L. Kirschstein National Research Service Award for her project "Modeling the spatiotemporal properties of crosstalk between RyR-mediated and IP3R-mediated calcium signaling in cardiac myocytes" (NIH F31HL160182-01A1, 12/1/22- end date, \$46,752). Outside of the lab, she leads the Association of Native American Medical Students (ANAMS) at the Icahn School of Medicine at Mount Sinai, serves on the ANAMS National Executive Board, and is a founding board member of the non-profit Lucinda Hickory Research Institute. DeAnalisa also enjoys reading, fashion, drinking with her friends, and spending time with her nephew Zade.



#### DPS MEMBER UPDATE

#### **NEW MEMBERS**



Research Assoc. Zaidi Lab



Postdoctoral Fellow



TanChun Kuo Stoney Brook



Tech. Analyst Intern



**TRAINEES** 

Clara Chen Harvard University



Princeton University

# **PROMOTIONS**

Snr. Budget Analyst Admin Team



Yan Xiong, PhD Asst. Professor Jin Lab



Research Associate Ramirez Lab



Postdoctoral Fellow Filizola Lab



/udao Shen, PhD Assoc. Professor Shanghai J Tong Uni.



Gen Suomyo, PhD Snr. Research Inv. BBRC, Bangalore



**Duke University** 





Lauren Druz Cornell University



**PUBLICATIONS** 

**MEMBERS** 

**GRANTS** 

information click the links below!