

# Department of Pharmacological Sciences



## PROF. ARTHUR CEDERBAUM RETIRING AFTER 50 YEARS



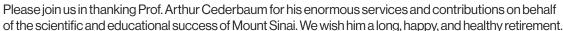
Prof. Arthur Cederbaum retires in June 2021 after his remarkable 50-year academic career at Icahn School of Medicine at Mount Sinai. In honor of his life-time achievements as an exceptional scientist and educator, he is named as Professor Emeritus in Pharmacological Sciences upon his retirement.

A nation's leading investigator in liver metabolism and liver disorders, Prof. Cederbaum's research is centered on the study of biochemistry, metabolism and toxicology of alcohol in the liver. Over the past 50 years, Prof. Cederbaum and his team investigated substrate shuttle mechanisms of ethanol derived NADH transport to the mitochondria, and the effects of chronic ethanol consumption and ethanol metabolite acetaldehyde on mitochondrial functions using rat models. They further elucidated the production of reactive oxygen species (ROS) by liver microsomes and P450 enzymes. These studies have broad implications, particularly for the developing new treatment options for alcohol-associated liver diseases and combating alcoholism that has profound impact in health and wellbeing of our society.

Prof. Cederbaum has had highly productive research career as demonstrated by his over 400 original research articles and expert reviews featured in the top-tier scientific journals, as well as by a long track record of research funding by NIH. His contributions to science are well recognized through honors and awards that he has received, including the MERIT Award from National Institute of Alcohol Abuse and Alcoholism (NIAAA) (1990-1999), Ronald G. Thurman Lectureship Award (2003), Lifetime Achievement Award from Research Society on Alcoholism (2011), and Hiromasa Ishii Memorial Award from the International Society for Biochemical Research on Alcoholism (2016).

Prof. Cederbaum's contributions in science are further celebrated in his career-long education and training of generations of scientists and physician-scientists at Mount Sinai. He has directed and taught many courses on the topics including Molecules and Cells, General Biochemistry, Molecular to Systems Pharmacology – Drug Metabolism, and Pharmacogenetics. Prof. Cederbaum's dedication to education and training is

well recognized by his colleagues and trainees at Mount Sinai, as reflected by his honors and awards, including Outstanding Faculty Achievement Award (1993), Excellence in Teaching Award (1988, 1990-1992, 1996, 1999, 2001, 2003, 2007-2010), Mount Sinai Faculty Council Award for Academic Excellence (2008), Mount Sinai Alumni Award for Achievement in Medical Education (2009), Dr. Arthur Aufses, Jr. Career Achievement Award in Medical Education (2015), Lifetime Achievement Award (2016), and most notably, the Arthur Cederbaum Mentorship Award that was established in 2018 by Mount Sinai Graduate School of Biomedical Sciences.





# PAPERS, GRANTS AND AWARDS

#### **PAPERS**

Fan Yang, Bogdan Tanasa, Rudi Micheletti, Kenneth A. Ohgi, **Aneel K. Aggarwal** & Michael G. Rosenfeld. Shape of Promoter Antisense RNAs
Regulates Ligand-induced Transcription Activation. *Nature*, 2021 https://doi.org/10.1038/s41586-021-03589-x

Jing Liu, He Chen, Yi Liu, Yudao Shen, Fanye Meng, H. Ümit Kaniskan, **Jian Jin** & Wenyi Wei. Cancer Selective Target Degradation by Folate-Caged PROTACs. *J. Am. Chem.* **Soc.**, 2021, 143 (19), 7380-7387

Brandon Dale, Meng Cheng, Kwang-Su Park, H. Ümit Kaniskan, Yue Xiong & **Jian Jin**. Advancing Targeted Protein Degradation for Cancer Therapy. *Nature Rev. Cancer*, https://doi.org/10.1038/s41568-021-00365-x







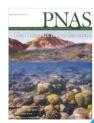
Olga Rechkoblit, Robert E. Johnson, Yogesh Gupta, Louise Prakash, Satya Prakash & **Aneel K. Aggarwal**. Structural Basis of DNA Synthesis Opposite 8-Oxoguanine by Human PrimPol Primase-Polymerase. *Nature Commun.*, 2021 https://doi.org/10.1038/s41467-021-24317-z

Jing Liu, He Chen, H. Ümit Kaniskan, Ling Xie, Xian Chen, **Jian Jin** & Wenyi Wei. TF-PROTACs Enable Targeted Degradation of Transcription Factors. **J. Am. Chem. Soc.**, 2021, 143 (23), 8902-8910

Rayees Rahman, Jens Hansen, ..., Eric A. Sobie, Marc R. Birtwistle, Evren U. Azeloglu, Ravi lyengar, ... & **Avner Schlessinger**. Protein Structure-Based Gene Expression Signatures. **Proc. Natl. Acad. Sci. USA** 2021, 118 (19) e2014866118







#### **GRANTS**

Jian Jin, PI, "Targeting Lysine Methyltransferases EZH2 and EZH1 for Treating MLL-rearranged Leukemia", R01 Diversity Supplement, NCI, 03/2021-05/2024, \$116,404

Maria Sosa, Pl. "Targeting Disseminated Breast Cancer Cells to Prevent Metastasis", 2021 Young Investigator Award, Breast Cancer Alliance, Inc., 03/2021-02/2023. \$125.000

Ming-Hu Han, PI, "Role of VTA-Amygdala Neural Circuit in Mediating Anxiety-Related Behaviors", R01, NIMH, 04/2021-03/2023, \$846,668

Jian Jin & Hong Wen (Van Andel), MPIs, "Development of Novel PROTACs Targeting the ENL YEATS Domain for Treating MLL-rearranged Leukemias", R01, NCI, 04/2021-03/2026, \$2,587,072

Michael Lazarus, PI, "Exploring Autophagy as a Target for Alzheimer's Disease", R03, NIA, 04/2021-03/2023, \$338,375

Sander Houten & Robert DeVita, MPIs, "Substrate Reduction as a Novel Therapeutic Strategy for Glutaric Aciduria Type 1", R21, NICHD, 05/2021-04/2023, \$465,407

Tony Yuen, Mone Zaidi & Se-Min Kim, MPIs, "Proof-of-Concept and Mechanistic Studies to Repurpose Erectile Dysfunction Drugs for Elderly Females", R01, NIA, 05/2021-02/2026, \$3,464,000

Ming-Ming Zhou & Dongming Cai, MPIs, "Transcriptional Control of Neuroinflammation in Alzheimer's Disease", R01, NIA, 06/2021-02/2026, \$4.212.852

Andrew Stewart, Robert DeVita & Adolfo Garcia Ocana, MPIs, "DYRK Inhibitors for Human Beta Cell Expansion", R01, NIDDK, 07/2021-05/2025, \$2,872,474

Avi Ma'ayan, PI, "Cohen Lyme Project: Multiscale Integrated Network Model of Lyme Disease (LymeMIND)", The Steven & Alexandra Cohen Foundation, Inc., 08/2021-07/2026, \$1,083,938

#### **AWARDS**

Prof. Ming-Hu Han received The Mount Sinai Faculty Council Award for Academic Excellence in May 2021. The Faculty Council Awards are to recognize outstanding achievements in research, scholarship, teaching, clinical skills, leadership and mentoring. They reflect special respect and appreciation from all faculty at Mount Sinai.



Prof. Maria Sosa was named as one of the inaugural Exceptional Scholars at Mount Sinai. This prestigious Award recognizes outstanding achievements of Assistant Professors of underrepresented groups in science and propels their success toward a fully established independent investigator.



### **EVENTS**

#### **DIVERSITY SYMPOSIUM**

Thank you to those that attended the first annual DPS Diversity, Inclusion, and Training Symposium on May 25, 2021. View this year's brochure HERE. We would also like to welcome Md Kabir as the new President of the DPS-SPA.

#### **COMMISION OF DIVERSITY AND EQUITY SUPPORT**

Founded this year, the Commission of Diveristy and Equity Support (CoDES), directed by Drs. Maria Sosa and Avner Schlessinger, aims to increase diversity and equity among the members of DPS by formulating criteria for recruitment, retention, and development of faculty, trainees, and staff; promoting outstanding minority and woman faculty to leadership positions and defining educational goals for faculty, postdocs, and students. Visit our new page HERE.

## **NEW DPS MEMBERS**



Associate Researcher Zaidi Lab



Suomyo Sen, PhD Postdoctoral Fellow Filizola Lab



Yamuna Kalyani, PhD Postdoctoral Fellow Wacker Lab



**Eleanor Shelly** Associate Researcher Zaidi Lab



Maria Carlini, PhD Senior Staff Associate Uni. of Columbia



Steven Ramsey, PhD Comput. Chemist VantAl



Luz Dojer



Aleksandar Spasic, PhD Comput. Chemist Wuxi AppTec



Rachel-Ann Garibsingh, PhD Senior Scientist



Kisa Sung, PhD Snr. Research Scientist Arvinas Inc.



Pediatric Medical Res. Yale N.H. Hospital



Nilesh Zaware, PhD Principal Scientist Halda Therapeutics

## EQUIPMENT

#### **NEW NMR SYSTEM IN ICAHN 16-71**

A new Bruker AVANCE 400 MHz NMR spectrometer system configured with a high-performance Cryo-Probe and an automatic Sampler has recently been setup and fully operational. For new user training and scheduling, please contact: emmanel.antigua@mssm.edu and bharathkumar.gajjela@mssm.edu.



## CONTACT US

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