

# Biochemistry and Molecular Genetics

# Winter 2019-2020

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### ON THE COVER.

The binding of an epigenetic regulator to the nucleosome.  
Cover design by Nicole Ethen, MS.



## LETTER FROM THE CHAIR

Winter is a time associated with hibernation, most commonly associated with bears, however, due to cold temperatures here in Chicago, we also find ourselves less inclined to spend a lot of time outside, and more inclined to spend time inside, and perhaps more time in the lab. I don't know I haven't collected any data, but it seems like it might correlate. Hibernating so to say is a good time to reflect as well, a good time to ask yourself important questions and to personally evaluate your goals, check your own scientific progress, and to refresh your plans to implement them. Perhaps it is a good time to talk to Nature, and I mean of the natural world, not the journal. Max Planck has a few wise words in this regard you might enjoy. He says, "An experiment is a question which science poses to Nature, and a measurement is the recording of Nature's answer."

The Biochemistry and Molecular Genetics Department is a great hub of important experiments being done and important questions being asked. I am very proud of the continued success of the department, especially the recent scientific accomplishments and funding in the department which stems from the success from many of your individual labs. Please be sure to read of the news, awards and publications of your fellow colleagues included in this newsletter, and please take the time to congratulate them.

### Ali Shilatifard

Professor and Chairman



***"An experiment is a question  
which science poses to Nature,  
and a measurement is the  
recording of Nature's answer."***

-Max Planck





## THE DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR GENETICS WINTER 2020

### DEPARTMENT NEWS

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\\ We would like to extend our thanks and congratulations to the following BMG members who are moving on to new positions in their careers:




#### **John Crispino**

has accepted a position as the Wall Street Committee Endowed Chair and Chief of the Division of Experimental Hematology at St. Jude Children's Research Hospital.



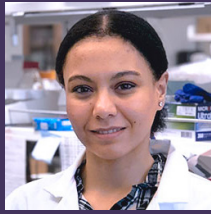
#### **Andrew Volk**

has accepted a position as Assistant Professor at Cincinnati Children's Hospital.

\\ Take a moment to read about the work of Jaehyuk Choi, assistant professor of Dermatology and Biochemistry and Molecular Genetics featured on page 5 in the Breakthroughs Feinberg Medicine Newsletter  [Read more](#)

## NEW HIRES

### Shilatifard Lab



**SHIMAA SOLIMAN**

Pre-Postdoctoral  
Researcher



**MARTA IWANASZKO**

Assistant Research  
Professor in  
Bioinformatics



**YIBO ZHU**

Bioinformatics Intern

### Yue Lab



**YIHAO FU**

Computer Programmer

## GRANTS AND AWARDS

**Issam Ben-Sahra**, *Assistant Professor* - Ben-Sahra Lab  
has been awarded a NIH R01 grant (Notice of Award: January 16, 2020)

**Marc Mendillo**, *Assistant Professor* and **Liming Li**, *Associate Professor* - Mendillo and Li Labs  
have been awarded the Liz and Eric Lefkowsky Family Foundation Innovation Research Continuation Award for the project "Elucidating the Role of Protein Aggregation and Amyloidogenesis in BAF-linked Tumorigenesis."

**Panos Ntziachristos**, *Assistant Professor* - Ntziachristos Lab  
received a score of 22 (12<sup>th</sup> percentile) for his R01 grant, "Therapeutic targeting of demethylation-deubiquitination axis in acute leukemia" from the NCI (National Cancer Institute).

**Clara Peek**, *Assistant Professor* - Peek Lab  
received a score of 27 (10<sup>th</sup> percentile) for her R01 grant, "Clock Control of Muscle Glucose Metabolism and HIF Activity" from the NIDDK (National Institute of Diabetes and Digestive and Kidney Disease).

**Leon Platanias**, *Professor* - Platanias Lab  
has been awarded an R01 renewal (R01CA77816) on IFN signaling in MPN renewed with a score of 1%.

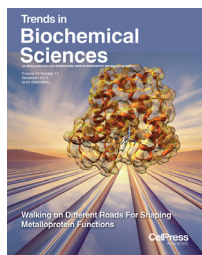
**Alisha Blake**, *Lab Assistant* - Shilatifard Lab  
has been accepted into the "I am Abel Medical Mentoring Program."

**Ben Singer**, *Assistant Professor* - Singer Lab  
has been elected as an American Thoracic Society Fellow.

**Lu Wang**, *Assistant Professor* - Wang Lab  
has been awarded an Institutional Research Grant, IRG-18-163-24.

## PUBLICATIONS

### EAGEN LABORATORY



Ge T\*, Rosencrance CD\*, Eagen KP  
\*Equal Contributions

**Contact Mapping to Unravel Chromosome Folding.**

*Trends in Biochemical Sciences*, 12/2019

 [Read more](#)

### CRISPINO LABORATORY



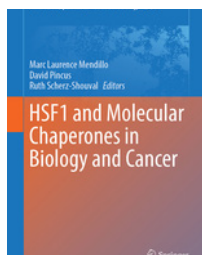
Ling T, Birger Y, Stankieqicz MJ, Ben-Haim N, Kalisky T, Rein A, Kugler E, Chen W, Fu C, Zhang K, Patel H, Sikora JW, Goo YA, Kelleher N, Zou L, Izraeli S, Crispino JD.

**Chromatin occupancy and epigenetic analysis reveal new insights into the function of the GATA1 N terminus in erythropoiesis.**

*Blood*, 11/2019

 [Read more](#)

### MENDILLO LABORATORY



Mendillo ML, Pincus D, Scherz-Shouval R (Editors)

**HSF1 and Molecular Chaperones in Biology and Cancer.**

Alasady, M. and Mendillo, M.L.

**The multifaceted role of HSF1 in tumorigenesis. (chapter in *HSF1 and Molecular Chaperones in Biology and Cancer*)**

*Advances in Experimental Medicine and Biology*, Springer Nature, 06/2020

 [Read more](#)

### NTZIACHRISTOS LABORATORY



Gutierrez-Diaz B, Gu W, Ntziachristos P.

**Deubiquitinases: Pro-oncogenic Activity and Therapeutic Targeting in Blood Malignancies**

◀ This article is featured on the cover of the journal

*Trends in Immunology*, 03/2020

 [Read more](#)

### SHILATIFARD LABORATORY



Zhao Z, Shilatifard A.

**Epigenetic modifications of histones in cancer**

*Genome Biology*, 11/2019  [Read more](#)

### SHILATIFARD LABORATORY



Birch NW, Shilatifard A

**The role of histone modifications in leukemogenesis**


*Journal of Biosciences*, 08/2020  [Read more](#)

### YUE LABORATORY



Zhang J, Lee D, Dhiman V, Jiang P, Xu J, McGillivray P, Yang H, Liu J, Meyerson W, Clarke D, Gu M, Li S, Lou S, Xu J, Lochovsky L, Ung M, Ma L, Yu S, Cao Q, Harmanci A, Yan K, Sethi A, Gursoy G, Schoenberg MR, Rozowsky J, Warrell J, Emani P, Yang YT, Galeev T, Kong X, Liu S, Li X, Krishnan J, Feng Y, Rivera-Mulia JC, Adrian J, Broach JR, Bolt M, Moran J, Fitzgerald D, Dileep V, Liu T, Mei S, Sasaki T, Trevilla-Garcia C, Wang S, Wang Y, Zang C, Wang D, Klein R, Snyder M, Gilbert DM, Yip K, Cheng C, Yue F, Liu XS, White K, Gerstein M

**An integrative ENCODE resource for cancer genomics**

*Preprint*, 07/2019  [Read more](#)

### YUE LABORATORY



Xiang G\*, Keller CA\*, Heuston E, Giardine BM, An L, Wixom AQ, Miller A, Cockburn A, Sauria MEG, Weaver K, Lichtenberg J, Göttgens B, Li Q, Bodine D, Mahony S, Taylor J, Blobel GA, Weiss MJ, Cheng Y, Yue F, Hughes J, Higgs DR, Zhang DR, Hardison RC\*.

**An integrative view of the regulatory and transcriptional landscapes in mouse hematopoiesis**

*Preprint*, 01/2020  [Read more](#)

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