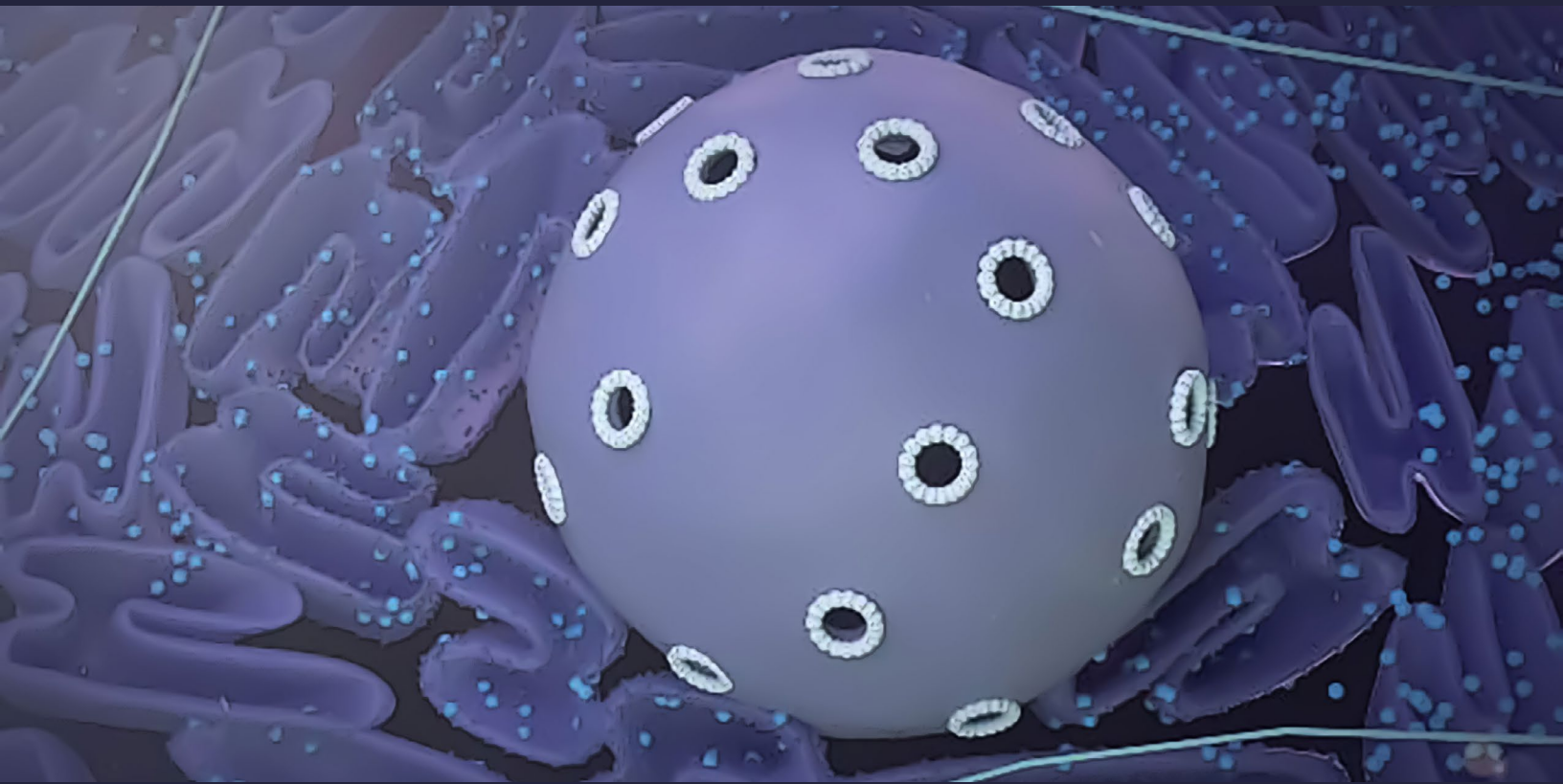
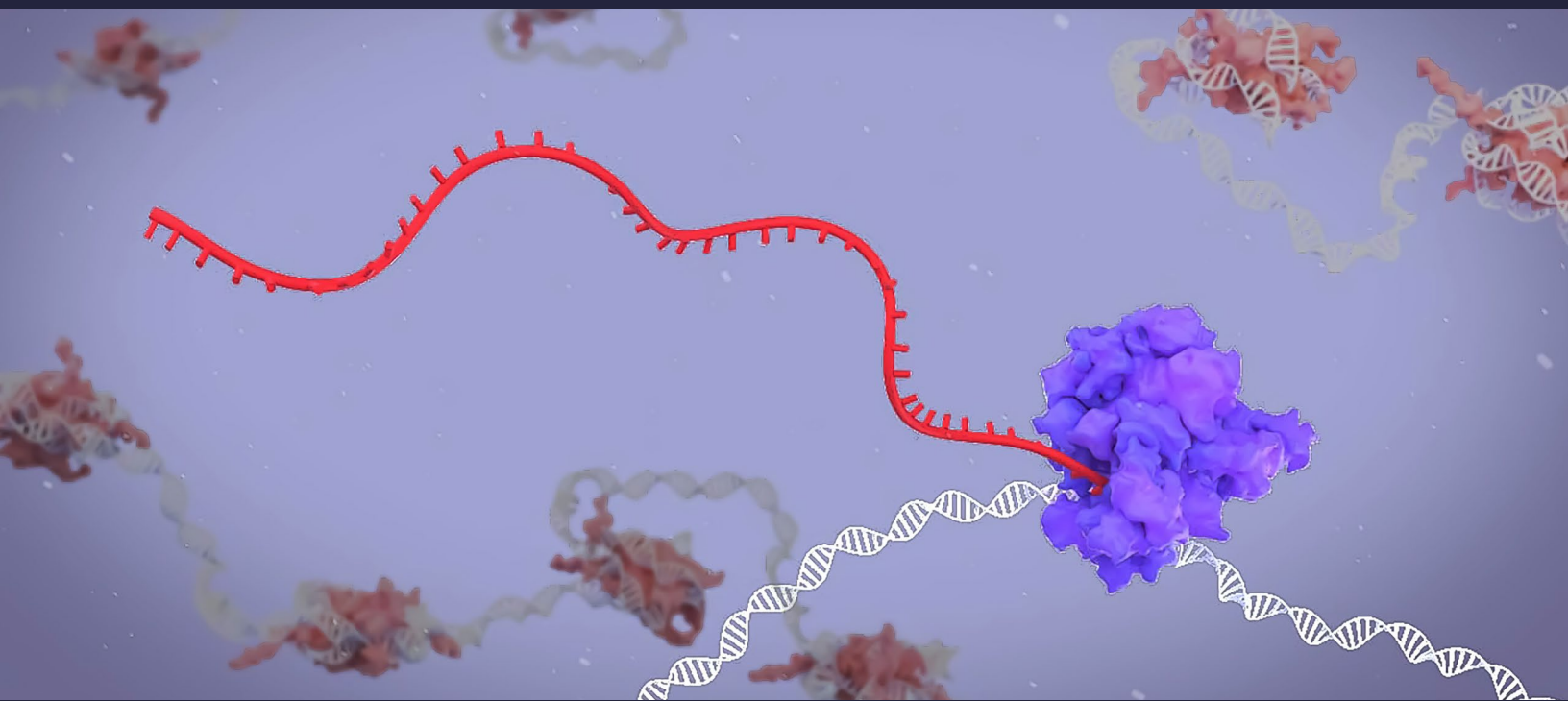


BIOCHEMISTRY AND MOLECULAR GENETICS



Chair Newsletter 2022



Newsletter 2022

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- 3** Letter from the Chair
- 4** Department News
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- 8-10** Grants and Awards
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- 21-22** Upcoming Events

ON THE COVER.

Cover design by Brianna Monroe, MS.



LETTER FROM THE CHAIR

“Never give up, never give up, never give up.”

-Attributed to Winston Churchill
October 29, 1941

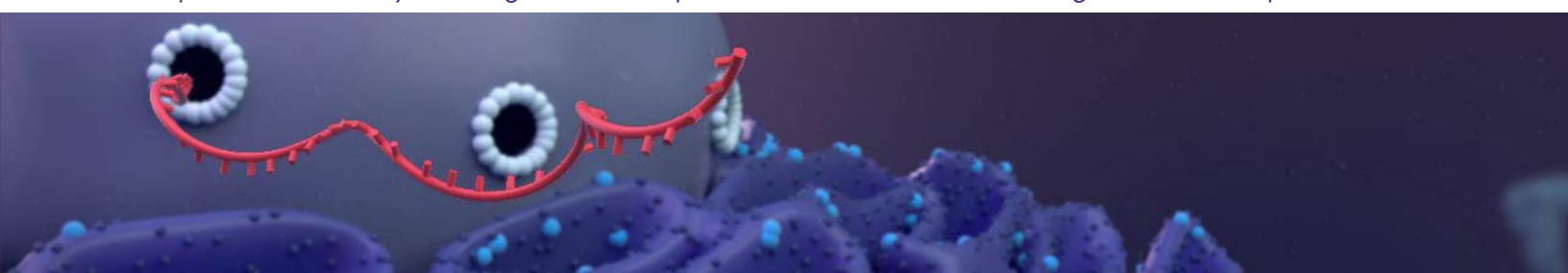
This quote may seem cliché, and its significance brushed over due to its widely and oft referenced use. However, it is one of my favorites. The actual quote from Winston Churchill's speech is: “Never give in. Never give in. Never, never, never--in nothing, great or small, large or petty--never give in, except to convictions of honour and good sense. Never yield to force. Never yield to the apparently overwhelming might of the enemy.” We may not call disappointments in science, or the sense that there are forces acting against us, enemies, but hurdles, setbacks, and disappointments to our progress do exist and the commitment to never give up and to keep working diligently and taking the steps towards improving should ultimately lead to positive results. Disappointments in science can be numerous such as failed experiments, rejected papers, poor scores on grants, and therefore, lack of funding or recognition to do what you want to do to move forward. It is important to take a step back to look at the big picture, the long-term goals, and re-evaluate how to modify your plans, build collaborations, seek mentorship, give mentorship, and to increase your knowledge to improve your and your colleagues' chances of addressing a roadblock. Never give up! I am very proud of the great progress being made in the Biochemistry and Molecular Genetics Department at Northwestern Medicine and without a doubt it didn't come to fruition without having a few setbacks before achieving success. We are very lucky to have great colleagues, a great department, institute, and university. I encourage all of you whether a staff, technician, student, postdoc, clinical fellow, or PI to reach out to each other in times of need and to help and inspire others to never give up. We must believe that tomorrow will be a better day than today.

Ali Shilatifard

Professor and Chairman



Below please find many of the great accomplishments of our BMG colleagues from the past 9 months.



DEPARTMENTAL NEWS

∞ We would like to extend our thanks and congratulations to the following BMG members who received promotions this year or are moving on in their careers:



Jaehyuk Choi, MD, PhD- *Jack W. Graffin Professor*

Promoted to Associate Professor of Dermatology and Biochemistry and Molecular Genetics



Dan Foltz, PhD

Promoted to Professor of Biochemistry and Molecular Genetics with Tenure



Marc Morgan, PhD- *Shilatifard Lab*

Promoted to Research Associate Professor of Biochemistry and Molecular Genetics



Ben Singer, MD- *Lawrence Hicks Professor of Pulmonary Medicine*

Promoted to Associate Professor of Medicine (Pulmonary and Critical Care) and Biochemistry and Molecular Genetics with Tenure



**Feng Yue, PhD- *Director, Institute for Augmented Intelligence in Medicine - Center for Advanced Molecular Analysis*
*Duane and Susan Burnham Professor of Molecular Medicine***

Promoted to Professor of Biochemistry and Molecular Genetics with Tenure



Roger Smith, MSTP Student- *Mendillo Lab*

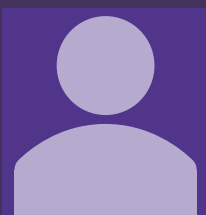
Thesis Defense: Elucidating the Role of Heat Shock Factor 2 (HSF2) in Cancer

NEW HIRES

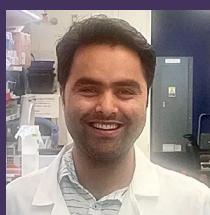
Ben-Sahra Lab



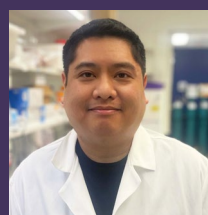
HINA ANJUM
Volunteer at NU



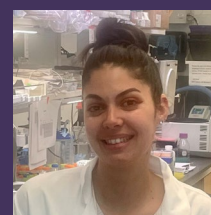
HUNTER LEE
Undergraduate
Student



**MUSHTAQ
NENGROO**
Postdoctoral
Fellow



**MICHAEL
TORNO**
Research Lab
Manager



**OLIVIA VIDAL-
CRUCHEZ**
Postdoctoral
Fellow

Eichner Lab

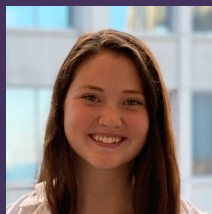


**IRENA
GUSHTEROVA**
DGP Graduate
Student



**AMBRYN
MEEHAN**
Research
Technician

Foltz Lab



**ANDREA
TIGGES**
Research
Technician

Gao Lab



**DR. HSIAO-YUN
LIN**
Lab Manager

Lauberth Lab



**DR. PEDRO
AVILA-LOPEZ**
Postdoctoral
Fellow

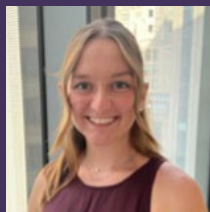
Lauberth Lab Cont.



**DR. SAIKAT
CHAKRABORTY**
Postdoctoral
Fellow



PRACHI PATEL
Research
Technician

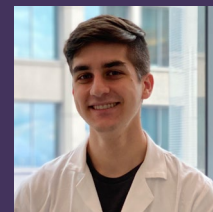


TAHLIA SMITH
Research
Technician

Mendillo Lab



**IBRAHIM
AHMAD**
Undergraduate
Student



SAMMY ALHAYEK
Research
Technician

NEW HIRES CONT.

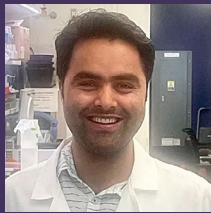
Mendillo Lab Cont.



**SEAN
FLANNERY**
MBP Student

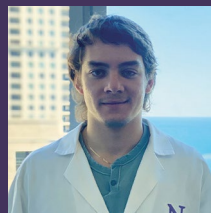


AUSTIN KLEIN
DGP Graduate
Student



**MUSHTAQ
NENGROO**
Postdoctoral
Fellow

Shilatifard Lab



DAN BALLARIN
Undergraduate
Intern (Summer)



YUE HE
DGP Graduate
Student

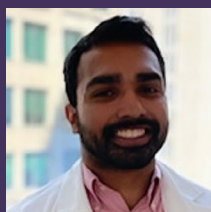
Shilatifard Lab Cont.



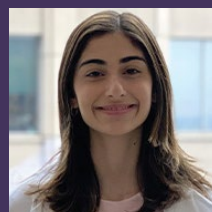
LEILA IRAVANI
MBP Student



**LINDA
JACKSON**
Administrative
Assistant



JORDAN JOHN
Medical
Student



**JENNIFER
KAVINA**
Undergraduate
Intern (Summer)

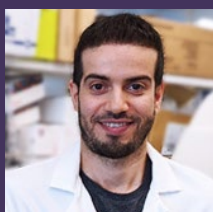


**ISABELLA
MROCZEK**
Undergraduate
Intern

Shilatifard Lab Cont.



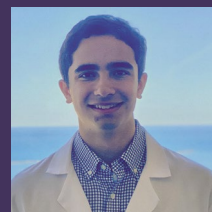
**MAEVE
MURDOCK**
Undergraduate
Intern (Summer)



**DR. SAEID
PARAST**
Postdoctoral
Fellow

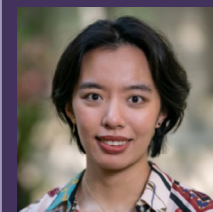


**CASSY
PHILLIPS, MS**
Research
Technician



WILL THAKUR
Undergraduate
Intern

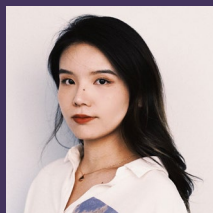
Singer Lab



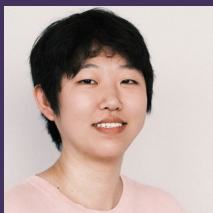
IRIS LIU
DGP Graduate
Student

NEW HIRES CONT.

Yue Lab



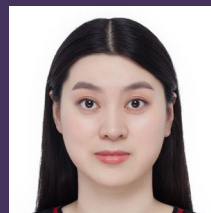
ZOE CHEN
Research
Technician



YANG CHENG
Master Student

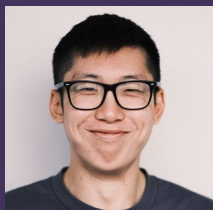


**DR. ALOK
SWAROOP**
Fellow
(Hematology &
Medical Oncology)



QIXUAN WANG
DGP Graduate
Student

Yue Lab Cont.



JOSIAH WONG
DGP Graduate
Student



**DR. MARK
YOUNGBLOOD**
Neurological
Surgery resident

NEW FACULTY HIRE

Yue Lab



PING WANG
Research Assistant
Professor

GRANTS AND AWARDS

Issam Ben-Sahra, Assistant Professor- Ben-Sahra Lab

NIH/NIGMS 5R01GM143334-02 (2022) Control of RNA methylation by growth signals through the mTORC1 pathway

Issam Ben-Sahra, Assistant Professor- Ben-Sahra Lab

NIH/NIGMS 5R01GM135587-03 (2022) Regulation of de novo purine synthesis by the MAPK/ERK pathway

Lillian Eichner, Assistant Professor- Eichner Lab

received the NCI Transition Career Development Award (K22)

Irena Gushterova, DGP Graduate Student- Eichner Lab

received a predoctoral fellowship from the Cellular and Molecular Basis for Disease (CMBD) Training Program at Northwestern University

Dan Foltz, Professor- Foltz Lab

NIH/NIGMS 5R01GM143638-02 (2022) Histone chaperone networks for new and evicted histones

Dan Foltz, Professor- Foltz Lab

NIH/NIGMS 5R01GM111907-09 (2022) Assembly and epigenetic inheritance of the human centromere

Ruli Gao, Assistant Professor- Gao Lab

R01 (4/01/2022-3/31/2026; Title: Defining cellular mechanisms of chronic graft failure in transplanted hearts with single cell multi-omics
Role: PI

Monica Laronda, Assistant Professor- Gao Lab

U01 (7/01/2022-6/30/2026; Title: Reverse Engineering the Extracellular Neighborhood to Support the Functional Tissue Unit: A Use Case to Restore Ovarian Function
Role: Co-I

Marc Mendillo, Assistant Professor- Mendillo Lab

NIH/NIGMS 1R01GM144617-01 (9/1/22 - 8/31/27) Regulation and interplay of Heat Shock Factors in growth-associated proteotoxic stresses

Marc Mendillo, Assistant Professor- Mendillo Lab

American Cancer Society RSG-22-086-01-TBE (4/1/22 - 3/31/26) Role of C16orf72 in Response to Complex and Multifactorial Cancer-Associated Molecular Stresses

Marc Mendillo, Assistant Professor- Mendillo Lab

U.S. Army Medical Research and Materiel Command W81XWH2210018 (1/15/22 - 1/14/24)
Leveraging Systematic Chemical-Genetic Profiling as a Path to Expand Precision Medicine in Breast Cancer



GRANTS AND AWARDS, CONT.

\\ **Arthur Prindle, Assistant Professor-** Prindle Lab
NIGMS R35 Grant Funded 2022

\\ **Ali Shilatifard, Chair, Director, and Professor-** Shilatifard Lab
NCI R35 Grant Renewal until 2030

\\ **Marta Iwanaszko, Research Assistant Professor-** Shilatifard Lab
NCI R50 funded

\\ **Ben Singer, Associate Professor-** Singer Lab
Genomics Network (GeNe) Pilot Grant (Stanley Manne Children's Research Institute/Lurie Children's Hospital)

\\ **Carla Reyes Flores, DGP Graduate Student-** Singer Lab
Dr. John N. Nicholson Fellowship, T32 HL076139 Diversity Supplement

\\ **Manuel Torres Acosta, MSTP Student-** Singer Lab
F31 HL162490

\\ **Anthony Joudi, MD, Postdoctoral Fellow-** Singer Lab
F32 HL162418

\\ **Manuel Torres Acosta, MSTP Student-** Singer Lab
received the Minority Trainee Development Scholarship from the American Thoracic Society

\\ **Lu Wang, Assistant Professor-** Wang Lab
NIGMS Maximizing Investigators' Research Award (MIRA) (R35)

\\ **Lu Wang, Assistant Professor-** Wang Lab
Research Scholar Award from American Cancer Society

\\ **Lu Wang, Assistant Professor-** Wang Lab
Lynn Sage cancer research foundation

\\ **Jindan Yu, Professor of Medicine and BMG-** Yu Lab
PC210266, Department of Defense, Translational Science Award
Title: Enhanced Targeting of CBP/p300 in a Subtype of Metastatic Prostate Cancer

\\ **Lourdes Brea, DGP Graduate Student-** Yu Lab
F31CA271826-01 NIH/NCI, NRSA Fellowship
Title: FOXA1 loss-of-function in lethal prostate cancer

GRANTS AND AWARDS, CONT.

Feng Yue, Professor of Molecular Medicine and BMG- Yue Lab

Molecular and cellular characterization of essential human genes. MPI grant (Mazhar Adli, Paul W. Burrige, Feng Yue)

Feng Yue, Professor of Molecular Medicine and BMG- Yue Lab

Yue was appointed as Co-chair for the Steering Committee of the Impact of Genomic Variation on Function Consortium (IGVF). This is a \$185 million initiative funded by the NIH to researchers across 30 U.S. research sites.

Feng Yue, Professor of Molecular Medicine and BMG- Yue Lab

NIGMS R35 Grant 2022

PUBLICATIONS

BARTOM LABORATORY

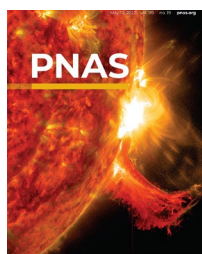


Sharma AM, Birkett R, Lin ET, Ernst LM, Grobman WA, Swaminathan S, Abdala-Valencia H, Misharin AV, Bartom ET, Mestan KK

Placental dysfunction influences fetal monocyte subpopulation gene expression in preterm birth

JCI Insight, 06/2022

 [Read more](#)



Cenik BK, Sze CC, Ryan CA, Das S, Cao K, Douillet D, Rendleman EJ, Zha D, Khan NH, Bartom E, Shilatifard A.

A synthetic lethality screen reveals ING5 as a genetic dependency of catalytically dead Set1A/COMPASS in mouse embryonic stem cells

PNAS, 05/2022

 [Read more](#)



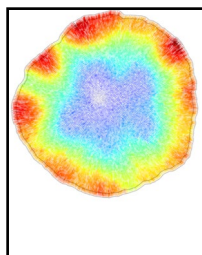
Carr T, McGregor S, Dias S, Verykokakis M, Le Beau MM, Xue HH, Sigvardsson M, Bartom ET, Kee BL

Oncogenic and Tumor Suppressor Functions for Lymphoid Enhancer Factor 1 in E2a -/- T Acute Lymphoblastic Leukemia

Front Immunol, 03/2022

 [Read more](#)

BARTOM LABORATORY



Bartom ET, Kocherginsky M, Paudel B, Vaidyanathan A, Haluck-Kangas A, Patel M, O'Shea KL, Murmann AE, Peter ME

SPOROS: A pipeline to analyze DISE/6mer seed toxicity

PLoS Comput Biol, 03/2022

 [Read more](#)



Patel M, Bartom ET, Paudel B, Kocherginsky M, O'Shea KL, Murmann AE, Peter ME

Identification of the toxic 6mer seed consensus for human cancer cells

Sci Rep, 03/2022

 [Read more](#)



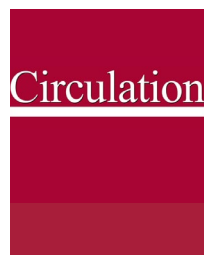
Han C, Khodadadi-Jamayran A, Lorch AH, Jin Q, Serafin V, Zhu P, Politanska Y, Sun L, Gutierrez-Diaz BT, Pryzhkova MV, Abdala-Valencia H, Bartom ET, Buldini B, Basso G, Velu SE, Sarma K, Mattamana BB, Cho BK, Obeng RC, Goo YA, Jordan PW, Tsirigos A, Zhou Y, Ntziachristos P

SF3B1 homeostasis is critical for survival and therapeutic response in T cell leukemia

Sci Adv, 01/2022

 [Read more](#)

BEN-SAHRA LABORATORY

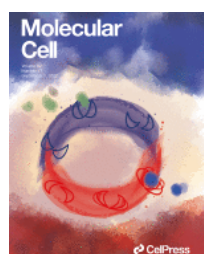


Ma Q, Yang Q, Xu J, Zhang X, Kim D, Liu Z, Da Q, Mao X, Zhou Y, Cai Y, Pareek V, Kim HW, Wu G, Dong Z, Song WL, Gan L, Zhang C, Hong M, Benkovic SJ, Weintraub NL, Fulton D Jr, Asara JM, Ben-Sahra I, Huo Y

ATIC-Associated De Novo Purine Synthesis Is Critically Involved in Proliferative Arterial Disease

Circulation, 09/2022 ahead of print

 [Read more](#)



Ali ES, Lipońska A, O'Hara BP, Amici DR, Torno MD, Gao P, Asara JM, Yap MF, Mendillo ML, Ben-Sahra I

The mTORC1-SLC4A7 axis stimulates bicarbonate import to enhance de novo nucleotide synthesis

Mol Cell, 09/2022

 [Read more](#)

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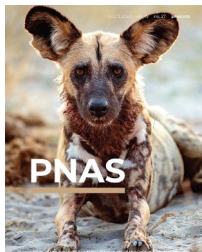


Khan MW, Terry AR, Priyadarshini M, Ilievski V, Farooq Z, Guzman G, Cordoba-Chacon J, Ben-Sahra I, Wicksteed B, Layden BT

The hexokinase “HKDC1” interaction with the mitochondria is essential for liver cancer progression.

Cell Death & Disease, 07/2022

 [Read more](#)

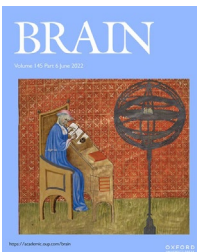


Amici DR, Ansel DJ, Metz KA, Smith RS, Phoumyvong CM, Gayatri S, Chamera T, Edwards SL, O'Hara BP, Srivastava S, Brockway S, Takagishi SR, Cho BK, Goo YA, Kelleher NL, Ben-Sahra I, Foltz DR, Li J, Mendillo ML

C16orf72/HAPSTR1 is a molecular rheostat in an integrated network of stress response pathways

PNAS, 07/2022

 [Read more](#)



Calhoun JD, Aziz MC, Happ HC, Gunti J, Gleason C, Mohamed N, Zeng K, Hiller M, Bryant E, Mithal DS, Bellinski I, Kinsley L, Grimm M, Schwaibold EMC, Smith-Hicks C, Chassevent A, Scala M, Accogli A, Torella A, Striano P, Capra V, Bird LM, Ben-Sahra I, Ekhilevich N, HersHKovitz T, Weiss K, Millichap J, Gerard EE, Carvill GL

mTORC1 functional assay reveals SZT2 loss-of-function variants and a founder in-frame deletion

Brain, 06/2022

 [Read more](#)



Kouzu H, Tatekoshi Y, Chang HC, Shapiro JS, McGee WA, De Jesus A, Ben-Sahra I, Arany Z, Leor J, Chen C, Blackshear PJ, Ardehali H

ZFP36L2 suppresses mTORC1 through a P53-dependent pathway to prevent peri-partum cardiomyopathy in mice

J Clin Invest, 05/2022

 [Read more](#)



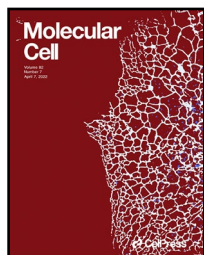
Soflaee MH, Kesavan R, Sahu U, Tasdogan A, Villa E, Djabari Z, Cai F, Tran DH, Vu HS, Ali ES, Rion H, O'Hara BP, Kelekar S, Hallett JH, Martin M, Mathews TP, Gao P, Asara JM, Manning BD*, Ben-Sahra I*, Hoxhaj G*

Purine nucleotide depletion prompts cell migration by stimulating the serine synthesis pathway

Nature Communications, 05/2022

 [Read more](#)

BEN-SAHRA LABORATORY



De Jesus A, Keyhani-Nejad F, Pusec CM, Goodman L, Geier JA, Stoolman JS, Stanczyk PJ, Nguyen T, Xu K, Suresh KV, Chen Y, Rodriguez AE, Shapiro JS, Chang HC, Chen C, Shah KP, Ben-Sahra I, Layden BT, Chandel NS, Weinberg SE, Ardehali H

Hexokinase 1 cellular localization regulates the metabolic fate of glucose

Mol Cell, 04/2022

 [Read more](#)

GAO LABORATORY



Abdelfattah N, Kumar P, Wang C, Leu JS, Flynn WF, Gao R, Baskin DS, Pichumani K, Ijare OB, Wood SL, Powell SZ, Haviland DL, Parker Kerrigan BC, Lang FF, Prabhu SS, Huntoon KM, Jiang W, Kim BYS, George J, Yun K

Single-cell analysis of human glioma and immune cells identifies S100A4 as an immunotherapy target

Nature Communications, 02/2022

 [Read more](#)

KELLEHER LABORATORY

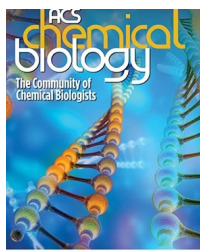


Su P, McGee JP, Durbin KR, Hollas MAR, Yang M, Neumann EK, Allen JL, Drown BS, Butun FA, Greer JB, Early BP, Fellers RT, Spraggins JM, Laskin J, Camarillo JM, Kafader JO, Kelleher NL

Highly multiplexed, label-free proteoform imaging of tissues by individual ion mass spectrometry

Sci Adv, 08/2022

 [Read more](#)

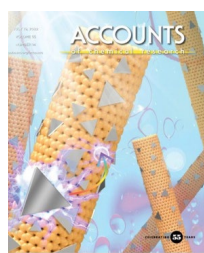


Schachner LF, Soye BD, Ro S, Kenney GE, Ives AN, Su T, Goo YA, Jewett MC, Rosenzweig AC, Kelleher NL

Revving an Engine of Human Metabolism: Activity Enhancement of Triosephosphate Isomerase via Hemi-Phosphorylation

ACS Chem Biol, 08/2022

 [Read more](#)



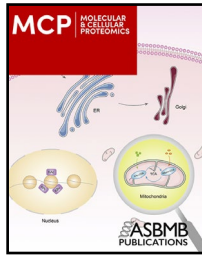
Jooß K, McGee JP, Kelleher NL

Native Mass Spectrometry at the Convergence of Structural Biology and Compositional Proteomics

Acc Chem Res, 07/2022

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KELLEHER LABORATORY

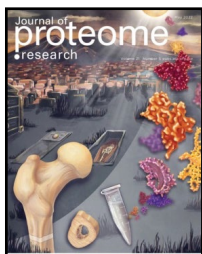


Burnum-Johnson KE, Conrads TP, Drake RR, Herr AE, Iyengar R, Kelly RT, Lundberg E, MacCoss MJ, Naba A, Nolan GP, Pevzner PA, Rodland KD, Sechi S, Slavov N, Spraggins JM, Van Eyk JE, Vidal M, Vogel C, Walt DR, Kelleher NL

New Views of Old Proteins: Clarifying the Enigmatic Proteome

Mol Cell Proteomics, 07/2022

 [Read more](#)



Drown BS, Jooß K, Melani RD, Lloyd-Jones C, Camarillo JM, Kelleher NL

Mapping the Proteoform Landscape of Five Human Tissues

J Proteome Res, 05/2022

 [Read more](#)

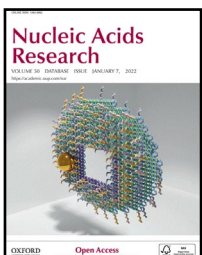


Melani RD, Gerbasi VR, Anderson LC, Sikora JW, Toby TK, Hutton JE, Butcher DS, Negrão F, Seckler HS, Srzentić K, Fornelli L, Camarillo JM, LeDuc RD, Cesnik AJ, Lundberg E, Greer JB, Fellers RT, Robey MT, DeHart CJ, Forte E, Hendrickson CL, Abbatiello SE, Thomas PM, Kokaji AI, Levitsky J, Kelleher NL

The Blood Proteoform Atlas: A reference map of proteoforms in human hematopoietic cells

Science, 01/2022

 [Read more](#)

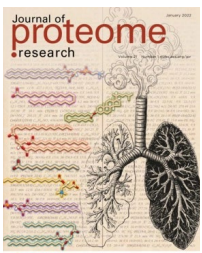


Hollas MAR, Robey MT, Fellers RT, LeDuc RD, Thomas PM, Kelleher NL

The Human Proteoform Atlas: a FAIR community resource for experimentally derived proteoforms

Nucleic Acids Res, 01/2022

 [Read more](#)



Melani RD, Des Soye BJ, Kafader JO, Forte E, Hollas M, Blagojevic V, Negrão F, McGee JP, Drown B, Lloyd-Jones C, Seckler HS, Camarillo JM, Compton PD, LeDuc RD, Early B, Fellers RT, Cho BK, Mattamana BB, Goo YA, Thomas PM, Ash MK, Bhimalli PP, Al-Harthi L, Sha BE, Schneider JR, Kelleher NL

Next-Generation Serology by Mass Spectrometry: Readout of the SARS-CoV-2 Antibody Repertoire

J Proteome Res, 01/2022

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LAUBERTH LABORATORY



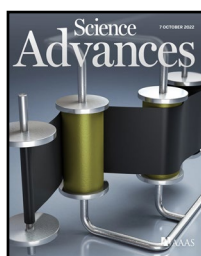
Morgan, M, Shiekhattar, R, Shilatifard A, and Laubert, SM

It's A DoG-Eat-DoG World - Altered Transcriptional Mechanisms Drive Downstream-of-Gene (DoG) Transcript Production

Mol Cell, 06/2022

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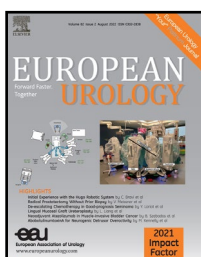


Piunti A, Meghani K, Yu Y, Robertson AG, Podojil JR, McLaughlin KA, You Z, Fantini D, Chiang M, Luo Y, Wang L, Heyen N, Qian J, Miller SD, Shilatifard A, Meeks JJ

Immune activation is essential for the antitumor activity of EZH2 inhibition in urothelial carcinoma

Sci Adv, 10/2022

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Meghani K, Cooley LF, Choy B, Kocherginsky M, Swaminathan S, Munir SS, Svatek RS, Kuzel T, Meeks JJ

First-in-human Intravesical Delivery of Pembrolizumab Identifies Immune Activation in Bladder Cancer Unresponsive to Bacillus Calmette-Guérin

Eur Urol, 08/2022

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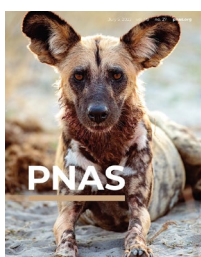
Robertson AG, Groeneveld CS, Jordan B, Lin X, McLaughlin KA, Das A, Fall LA, Fantini D, Taxter TJ, Mogil LS, Lindskrog SV, Dyrskjot L, McConkey DJ, Svatek RS, de Reyniès A, Castro MAA, Meeks JJ

Corrigendum to “Identification of Differential Tumor Subtypes of T1 Bladder Cancer”

Eur Urol, 02/2022

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MENDILLO LABORATORY



Amici DR, Ansel DJ, Metz KA, Smith RS, Phoumyvong CM, Gayatri S, Chamera T, Edwards SL, O'Hara BP, Srivastava S, Brockway S, Takagishi SR, Cho BK, Goo YA, Kelleher NL, Ben-Sahra I, Foltz DR, Li J, Mendillo ML

C16orf72/HAPSTR1 is a molecular rheostat in an integrated network of stress response pathways

PNAS, 07/2022

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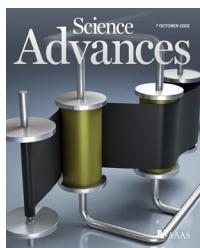
Smith RS, Takagishi SR, Amici DR, Metz K, Gayatri S, Alasady MJ, Wu Y, Brockway S, Taiberg SL, Khalatyan N, Taipale M, Santagata S, Whitesell L, Lindquist S, Savas JN, Mendillo ML

HSF2 cooperates with HSF1 to drive a transcriptional program critical for the malignant state

Sci Adv, 03/2022

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SHILATIFARD LABORATORY

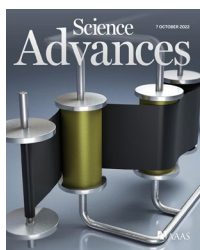


Piunti A, Meghani K, Yu Y, Robertson AG, Podojil JR, McLaughlin KA, You Z, Fantini D, Chiang M, Luo Y, Wang L, Heyen N, Qian J, Miller SD, Shilatifard A, Meeks JJ

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Sci Adv, 10/2022

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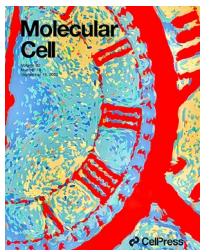


Zhao Z, Rendleman EJ, Szczepanski AP, Morgan MA, Wang L, Shilatifard A

CARM1-mediated methylation of ASXL2 impairs tumor-suppressive function of MLL3/COMPASS

Sci Adv, 10/2022

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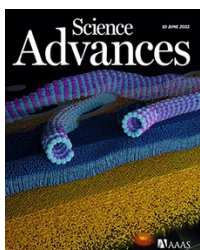


Aoi Y, Shah AP, Ganesan S, Soliman SHA, Cho BK, Goo YA, Kelleher NL, Shilatifard A

SPT6 functions in transcriptional pause/release via PAF1C recruitment

Mol Cell 09/2022

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Shilatifard A.

The dire need for federal support of molecular research, then and now

Sci Adv, 06/2022

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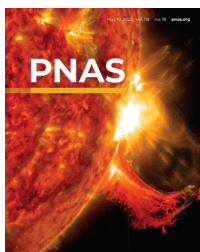


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It's A DoG-Eat-DoG World - Altered Transcriptional Mechanisms Drive Downstream-of-Gene (DoG) Transcript Production

Mol Cell, 06/2022

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Cenik BK, Sze CC, Ryan CA, Das S, Cao K, Douillet D, Rendleman EJ, Zha D, Khan NH, Bartom E, Shilatifard A

A synthetic lethality screen reveals ING5 as a genetic dependency of catalytically dead Set1A/COMPASS in mouse embryonic stem cells

PNAS, 05/2022

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Ishi Y, Zhang Y, Zhang A, Sasaki T, Piunti A, Suri A, Watanabe J, Abe K, He X, Katagi H, Bhalla P, Natsumeda M, Zou L, Shilatifard A, Hashizume R

Therapeutic Targeting of EZH2 and BET BRD4 in Pediatric Rhabdoid Tumors

Mol Cancer Ther, 05/2021

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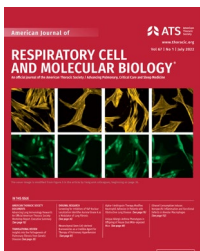
Shilatifard A.

On Healthy Scientific Debates

Sci Adv, 04/2021

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SINGER LABORATORY



Rahimi RA, Cho JL, Jakubczik CV, Khader SA, Lambrecht BN, Lloyd CM, Molofsky AB, Talbot S, Bonham CA, Drake WP, Sperling AI, Singer BD

Advancing lung immunology research: an official American Thoracic Society workshop report

Am J Respir Cell Mol Biol, 07/2022

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SINGER LABORATORY



Singer BD, Chotirmall SH, Leither LM, Meldrum O, Joudi AM, Seam N, Brown SM, Çoruh B

Update in COVID-19 2021

Am J Respir Crit Care Med, 04/2022 ahead of print

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Joudi AM, Reyes Flores CP, Singer BD

Epigenetic control of regulatory T cell stability and function: implications for translation

Front Immunol, 03/2022

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WANG LABORATORY

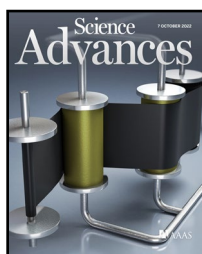


Piunti A, Meghani K, Yu Y, Robertson AG, Podojil JR, McLaughlin KA, You Z, Fantini D, Chiang M, Luo Y, Wang L, Heyen N, Qian J, Miller SD, Shilatifard A, Meeks JJ

Immune activation is essential for the antitumor activity of EZH2 inhibition in urothelial carcinoma

Sci Adv, 10/2022

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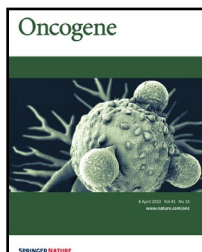


Natsumi Tsuboyama, Ru Wang, Aileen Patricia Szczepanski, Huanhuan Chen, Zibo Zhao, Lei Shi, Lu Wang

CARM1-mediated methylation of ASXL2 impairs tumor-suppressive function of MLL3/COMPASS

Sci Adv, 10/2022

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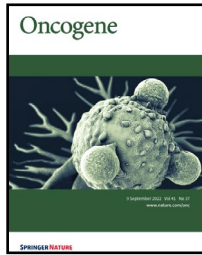
Natsumi Tsuboyama, Ru Wang, Aileen Patricia Szczepanski, Huanhuan Chen, Zibo Zhao, Lei Shi, Lu Wang

Therapeutic targeting of BAP1/ASXL3 sub-complex in ASCL1-dependent small cell lung cancer

Oncogene, 02/2022

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YU LABORATORY



Wang X, Brea L, Lu X, Gritsina G, Park SH, Xie W, Zhao JC, Yu J

FOXA1 inhibits hypoxia programs through transcriptional repression of HIF1A

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Lu X, Fong KW, Gritsina G, Wang F, Baca SC, Brea LT, Berchuck JE, Spisak S, Ross J, Morrissey C, Corey E, Chandel NS, Catalona WJ, Yang X, Freedman ML, Zhao JC, Yu J

HOXB13 suppresses de novo lipogenesis through HDAC3-mediated epigenetic reprogramming in prostate cancer

Nat Genet, 04/2022

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YUE LABORATORY



Wang X, Luan Y, Yue F, EagleC

EagleC: A deep-learning framework for detecting a full range of structural variations from bulk and single-cell contact maps

Sci Adv, 06/2022

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Emerson DJ, Zhao PA, Cook AL, Barnett RJ, Klein KN, Saulebekova D, Ge C, Zhou L, Simandi Z, Minsk MK, Titus KR, Wang W, Gong W, Zhang D, Yang L, Venev SV, Gibcus JH, Yang H, Sasaki T, Kanemaki MT, Yue F, Dekker J, Chen CL, Gilbert DM, Phillips-Cremins JE

Cohesin-mediated loop anchors confine the locations of human replication origins

Nature, 06/2022

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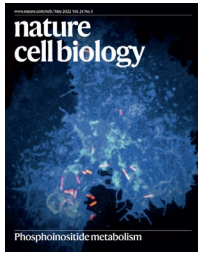
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Epigenomic analysis reveals prevalent contribution of transposable elements to cis-regulatory elements, tissue-specific expression, and alternative promoters in zebrafish

Genome Res, 06/2022

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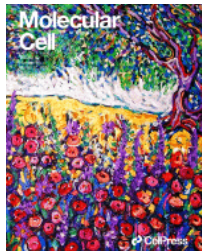


Sun F, Ou J, Shoffner AR, Luan Y, Yang H, Song L, Safi A, Cao J, Yue F, Crawford GE, Poss KD

Enhancer selection dictates gene expression responses in remote organs during tissue regeneration

Nat Cell Biol, 05/2022

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Wei X, Xiang Y, Peters DT, Marius C, Sun T, Shan R, Ou J, Lin X, Yue F, Li W, Southerland KW, Diao Y

HiCAR is a robust and sensitive method to analyze open-chromatin-associated genome organization

Mol Cell, 03/2022

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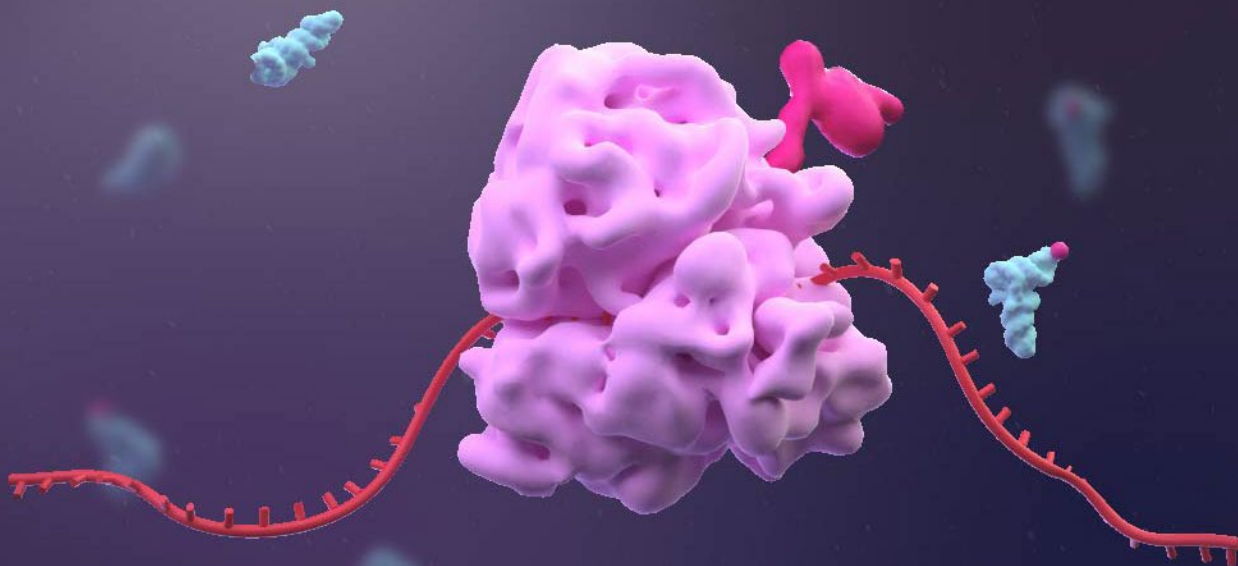


Yang H, Zhang H, Luan Y, Liu T, Yang W, Roberts KG, Qian MX, Zhang B, Yang W, Perez-Andreu V, Xu J, Iyyanki S, Kuang D, Stasiak LA, Reshmi SC, Gastier-Foster J, Smith C, Pui CH, Evans WE, Hunger SP, Platanias LC, Relling MV, Mullighan CG, Loh ML, Yue F, Yang JJ

Noncoding genetic variation in GATA3 increases acute lymphoblastic leukemia risk through local and global changes in chromatin conformation

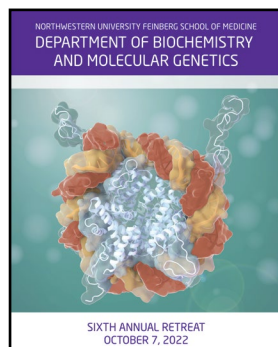
Nat Genet, 02/2022

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Upcoming Events

BMG RETREAT



Friday, October 7, 2022

8:30 a.m. – 3:00 p.m.

Breakfast

8:30 a.m. – 9:15 a.m.

Opening Remarks, Poster Session, and Keynote Address

9:15 a.m. – 12:30 p.m.

Simpson Querrey Biomedical Research Center
303 E. Superior Street
Chicago, Illinois

Lunch and Cruise

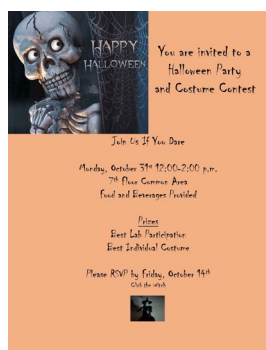
12:30 p.m. – 3:00 p.m.

Anita Dee II

DuSable Harbor

200 N. Breakwater Access
Chicago, Illinois

BMG HALLOWEEN



Monday, October 31st, 2022

12:00-2:00 p.m.

7th Floor Common Area

Food and Beverages Provided

Prizes

Best Lab Participation

Best Individual Costume

BMG HOLIDAY LUNCHEON



Friday, December 9, 2022

12:30-2:30 p.m.

Woodwind Restaurant, Birch Room
259 E Erie, 18th Floor

RSVP by Friday, October 28, 2022

SQE SPEAKERS



Wednesday, October 12, 2022

10:00 a.m. – 11:00 a.m.

SQE Distinguished Lecturer: Danny Reinberg, PhD

Howard Hughes Medical Institute
Terry and Mel Karmazin Professor of Biochemistry and Molecular Pharmacology
NYU Langone School of Medicine at Smilow Research Center, NY

“Polycomb, Inheritance, and Disease”

Simpson Querrey
Biomedical Research
Center
Simpson Querrey
Auditorium
303 E. Superior Street
Chicago, Illinois



Thursday, October 20, 2022

10:00 a.m. – 11:00 a.m.

BMG Invited Speaker: Robert Roeder, PhD

Arnold and Mabel Beckman Professor
Head of Laboratory of Biochemistry and Molecular Biology
The Rockefeller University, New York, NY

“Mechanistic Studies of Transcriptional Regulation in Hematopoietic Malignancies”

Simpson Querrey
Biomedical Research
Center
Simpson Querrey
Auditorium
303 E. Superior Street
Chicago, Illinois



Tuesday, October 25, 2022

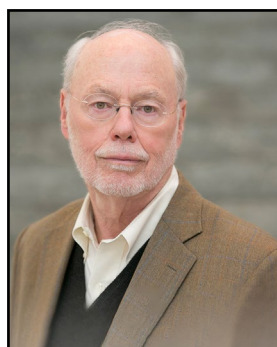
10:00 a.m. – 11:00 a.m.

SQE Distinguished Lecturer: Riccardo Dalla-Favera, MD

Uris Professor of Clinical Medicine; Professor, Pathology and Cell Biology; Professor, Genetics & Development; Professor, Microbiology & Immunology
Director, Institute for Cancer Genetics, Columbia University, NYC

“Genomics of B Cell Lymphoma: Role of Super-Enhancer Hypermethylation”

Simpson Querrey
Biomedical Research
Center
Simpson Querrey
Auditorium
303 E. Superior Street
Chicago, Illinois



Tuesday, November 1, 2022

10:00 a.m. – 11:00 a.m.

SQE Distinguished Lecturer: Phillip Sharp, PhD

Professor
The Koch Institute for Cancer Research
MIT

“Biochemistry and Cell Biology of Multivalent Condensates in Regulation of Gene Expression”

Simpson Querrey
Biomedical Research
Center
Simpson Querrey
Auditorium
303 E. Superior Street
Chicago, Illinois

Department of Biochemistry and Molecular Genetics

Simpson Querrey Biomedical Research Center

303 East Superior Street
Simpson Querrey, 7th Floor
Chicago, IL 60611

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