FENG YUE, Ph.D.

CONTACT INFORMATION

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ACADEMIC APPOINTMENTS

2022.09 –	Professor, Department of Biochemistry and Molecular Genetics Professor, Department of Pathology Northwestern University Feinberg School of Medicine
2022.07 –	Co-leader, Cancer Epigenetic and Nuclear Dynamics (CEND) Program Robert H. Lurie Comprehensive Cancer Center of Northwestern University
2020.03 –	Founding Director, Center for Advanced Molecular Analysis Northwestern Institute for Augmented Intelligence in Medicine
2019.09 -	Duane and Susan Burnham Professor of Molecular Medicine Northwestern University Feinberg School of Medicine
2019.07 –	Founding Director, Center for Cancer Genomics, Robert H. Lurie Comprehensive Cancer Center of Northwestern University
2019.07 – 2022.08	Associate Professor with Tenure, Dept. of Biochemistry and Molecular Genetics Northwestern University Feinberg School of Medicine
2015.01 – 2019.06	Director, Bioinformatics Division, Institute for Personalized Medicine, Pennsylvania State University
2013.10 – 2019.06	Assistant Professor, Pennsylvania State University, College of Medicine

EDUCATION AND TRAINING

Ludwig Inst. for Cancer Research, UC San Diego	Postdoc	2013.09	Dr. Bing Ren's group, Functional Genomics/Epigenomics
University of South Carolina	Ph.D.	2008.05	Computer Science & Engineering
University of South Carolina	M.S.	2003.08	Computer Science
Peking University	B.A.	2000.07	English

HONORS AND AWARDS

- Eminent Scholar, The International Conference on Intelligent Biology and Medicine (ICIBM 2021)
- **Presidential Early Career Award for Scientists and Engineers (PECASE)**, nominated by National Human Genome Research Institute Home (NHGRI/NIH), 2019
- Leukemia Research Foundation Young Investigator Award, 2016
- Recipient of The Pharmaceutical Research and Manufacturers of America (phRMA) Research Starter Grant in Informatics, 2015
- 23rd International conference on Intelligent Systems for Molecular Biology (ISMB 2015) Travel Fellowship

EXTERNAL PROFESSIONAL LEADERSHIP AND SERVICE

Co-chair, Joint Analysis Workgroup, NIH 4D Nucleome Project (4DN).
Co-chair, Steering Committee, 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.

EDITORIAL SERVICE

I am on the editorial board for the following three journals: 1) Science Advances; 2) Genome Research; 3) Leukemia and Lymphoma.

I also routinely review over 30 manuscripts each year for journals such as Nature, Cell, Nature Biotechnology, Nature Genetics, Nature Methods, Nature Cancer, Molecular Cell, Genome Biology, Genome Research, etc.

NIH GRANT REVIEW

2021 – 2024	Chartered member, NIH Genomics, Computational Biology and Technology (GCAT) Study Section.
2018 -	NIH Director's New Innovator Award Program (**DP2**); NCI Special Emphasis Panel, **Beau Biden Cancer Moonshot Initiatives**, Develop New Cancer Technologies; NIDDK Catalyst Award (**DP1**); NIGMS Maximizing Investigators' Research Award (MIRA) (**R35**) for Early-Stage Investigators, co-chair; NIGMS Maximizing Investigators' Research Award (MIRA) (**R35**) for Established Investigators, co-chair; NIDDK Special Emphasis Panel, Type 1 Diabetes Disease-associated Variants (**T1D**); NIDDK Special Emphasis Panel, Ancillary Studies to the NIDDK Inflammatory Bowel Disease Genetics Consortium.

ACTIVE EXTERNAL GRANTS

Agency: NIH/NIGMS
ID#: 2R35GM124820-06
Title: High throughput interrogation of non-coding variants and 3D genome organization
Principal Investigator: Feng Yue
Role on project: PI
Project period: 09/01/2017 - 08/31/2027

Agency: NIH/NHGRI
ID#: R01HG011207-01A1
Title: Computational methods to identify neo-TADs and enhancer-hijacking in rearranged genomes
Principal Investigator: Feng Yue
Role on project: PI
Project period: 06/07/2021 – 03/31/2025

Agency: NIH/NHGRI
ID#: 5R01HG009906-05
Title: Visualization, modeling and validation of chromatin interaction data
Principal Investigator: Feng Yue
Role on project: PI
Project period: 07/01/2019-12/31/2022

Agency: NIH/NHGRI
ID#: U24HG012070
Title: WashU-Northwestern Genomic Variation and Function Data and Administrative Coordinating Center
Principal Investigator: Ting Wang (Contact), Feng Yue (MPI)
Role on project: MPI
Project period: 07/01/2021 - 06/30/2026

Agency: NIH/NHGRI
ID#: UM1 HG012649-01
Title: Molecular and cellular characterization of essential human genes.
Principal Investigator: Mazhar Adli (Contact), Feng Yue (MPI)
Project period: 09/2022 – 08/2027

REPRESENTATIVE PUBLICATIONS (Link to all publications, Citations 13278, h-index 26, i10-index 37**)**

1. Xu J, Song F, Lyu H, Kobayashi M, Zhang B, Zhao Z, Hou Y, Wang W, Luan Y, Jia B, Stasiak L, Wong JH, Wang Q, Jin Q, Jin Q, Fu Y, Yang H, Hardison RC, Dovat S, Platanias LC, Diao Y, Yang Y, Yamada T, Viny AD, Levine RL, Claxton D, Broach JR, Zheng H[#], **Yue F**[#]. Subtype-specific 3D genome alteration in acute myeloid leukaemia. **Nature.** 2022:611(387–398).
2. Wang X, Luan Y, **Yue F**. EagleC: A deep-learning framework for detecting a full range of structural variations from bulk and single-cell contact maps. **Science Advances.** 2022 June;8(24).
3. Yang H, Zhang H, Luan Y, Liu T, Roberts TG, Qian M, Zhang B, Yang W, Perez-Andreu V, Xu J, Iyyanki S, Kuang D, 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[#]. Non-coding germline GATA3 variants alter chromatin topology and contribute to pathogenesis of acute lymphoblastic leukemia. **Nature Genetics.** 2022:54, 170–179.
4. Wang X, Xu J, Zhang B, Hou Y, Song F, Lyu H, **Yue F**. Genome-wide detection of enhancer-hijacking events from chromatin interaction data in rearranged genomes. **Nature Methods**. 2021 Jun;18(6):661-668.
5. Wang J, Huang TY, Hou Y, Bartom E, Lu X, Shilatifard A, **Yue F**[#], Saratsis A[#]. Epigenomic landscape and 3D genome structure in pediatric high-grade glioma. **Science Advances.** 2021 Jun;7(23).
6. Iyyanki T, Zhang B, Wang Q, Hou Y, Jin Q, Xu J, Yang H, Liu T, Wang X, Song F, Luan Y, Yamashita H, Chien R, Lyu H, Zhang L, Wang L, Warrick J, Raman JD, Meeks JJ, DeGraff DJ, **Yue F**. Subtype-associated epigenomic landscape and 3D genome structure in bladder cancer. **Genome Biology.** 2021 Apr 15;22(1):105.
7. Yang H, Luan Y, Liu T, Lee HJ, Fang L, Wang Y, Wang X, Zhang B, Jin Q, Ang KC, Xing X, Wang J, Xu J, Song F, Sriranga I, Khunsriraksakul C, Salameh T, Li D, Choudhary MNK, Topczewski J, Wang K, Gerhard GS, Hardison RC, Wang T, Cheng KC, **Yue F**. A map of cis-regulatory elements and 3D genome structures in zebrafish. **Nature**. 2020 Dec;588(7837):337-343.
8. Salameh TJ, Wang X, Song F, Zhang B, Wright SM, Khunsriraksakul C, Ruan Y, **Yue F**. A supervised learning framework for chromatin loop detection in genome-wide contact maps. **Nature Communications.** 2020 Jul 9;11(1):3428.
9. Wang Y, Song F, Zhang B, Zhang L, Xu J, Kuang D, Li D, Choudhary MNK, Li Y, Hu M, Hardison R, Wang T, **Yue F**. The 3D Genome Browser: a web-based browser for visualizing 3D genome organization and long-range chromatin interactions. **Genome Biology.** 2018 Oct 4;19(1):151.
10. Dixon JR, Xu J, Dileep V, Zhan Y, Song F, Le VT, Yardımcı GG, Chakraborty A, Bann DV, Wang Y, Clark R, Zhang L, Yang H, Liu T, Iyyanki S, An L, Pool C, Sasaki T, Rivera-Mulia JC, Ozadam H, Lajoie BR, Kaul R, Buckley M, Lee K, Diegel M, Pezic D, Ernst C, Hadjur S, Odom DT, Stamatoyannopoulos JA, Broach JR, Hardison RC, Ay F, Noble WS, Dekker J, Gilbert DM, **Yue F**. Integrative detection and analysis of structural variation in cancer genomes. **Nature Genetics.** 2018 Oct;50(10):1388-1398.
11. Zhang Y, An L, Xu J, Zhang B, Zheng WJ, Hu M, Tang J, **Yue F**. Enhancing Hi-C data resolution with deep convolutional neural network HiCPlus. **Nature Communications.** 2018 Feb 21;9(1):750.
12. **Yue F**, Cheng Y, Breschi A, Vierstra J, Wu W, Ryba T, et al. A comparative encyclopedia of DNA elements in the mouse genome. **Nature**. 2014 Nov 20;515(7527):355-64.

COMMUNITY SERVICE

04/08/2022	Chair and organizer of the “New Concepts in Unraveling the 3D Genome” workshop, the American Association for Cancer Research Annual Meeting (AACR 2022)
03/19/2019	Chair, ENCODE Consortium Workshop, Keystone Symposia on 3D Genome: Gene Regulation and Disease, Banff, Alberta Canada.
May 2017 -	Co-chair, Integrative analysis working group, 4D Nucleome Consortium.
2015 – 2017	Co-chair, ENCODE Consortium outreach group.

Oct. 2016	Chair, Joint ENCODE and 4DN workshop American Society of Human Genetics annual meeting (ASHG 2016), Vancouver, Canada.
Jun. 2016	Co-organizer, ENCODE 2016: Research Applications and Users Meeting, Sanford, CA
Mar. 2016	Chair, ENCODE workshop, Annual Society of Toxicology Meeting (SOT 2016).
Oct. 2015	Chair, ENCODE workshop in ASHG (American Society of Human Genetics) annual meeting.
Jul. 2015	Co-organizer, 2015 Penn State Chromatin Summer Symposium.
Jun. 2015	Co-organizer, ENCODE 2015: Research Applications and Users Meeting.
Apr. 2015	Chair, ENCODE workshop, Keystone Symposia Epigenomics.
Oct. 2014	Co-organizer, ENCODE workshop in ASHG (American Society of Human Genetics) annual meeting.

PROFESSIONAL SOCIETY MEMBERSHIP

American Association for Cancer Research (AACR)
American Society of Human Genetics (ASHG)
American Society of Hematology (ASH)
International Society for Computational Biology (ISCB)