

Ting Wang, Ph.D., FAIMBE

Inaugural Sanford and Karen Loewentheil Distinguished
Professor of Medicine
Head, Department of Genetics
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EDUCATION

- 08/2001 — 05/2006 **Ph. D.** in Computational biology, **Washington University**, St. Louis, MO. Division of Biology and Biomedical Sciences, Program of Computational Biology.
- 01/1999 — 08/2001 **M.S.** in Computer Sciences, **Washington University**, St. Louis, MO. Department of Computer Sciences, School of Engineering and Applied Sciences.
- 09/1993 — 09/1997 **B. S.** in Biochemistry and Molecular Biology, **Peking University**, Beijing, China. Department of Biochemistry and Molecular Biology, College of Life Sciences.

POSITIONS

- 08/2023 — present **Head**, Department of Genetics, Washington University School of Medicine,
- 07/2018 — present **Inaugural Sanford and Karen Loewentheil Distinguished Professor of Medicine**, Department of Genetics, Edison Family Center for Genome Sciences and Systems Biology, McDonnell Genome Institute, Washington University School of Medicine.
Research focus: 3D genome evolution; transposable element and oncogene activation; genetic and epigenetic impact of transposable elements on regulatory networks; epigenetic determinants of cell fate; epigenome evolution; integrative genomics and epigenomics; cancer epigenomics; epigenetic therapy; algorithms in computational biology; genome browsers; human pangenome; genetic variation and epigenetic variation; somatic mosaicism;
- 07/2015 — 07/2018 **Associate Professor**, Department of Genetics, Washington University School of Medicine.
Research focus: Genetic and epigenetic impact of transposable elements on regulatory networks; epigenetic determinants of cell fate; epigenome evolution; integrative genomics and epigenomics; cancer epigenomics; algorithms in computational biology; genome browsers
- 10/2009 — 06/2015 **Assistant Professor**, Department of Genetics, Washington University School of Medicine.
Research focus: Genetic and epigenetic impact of transposable elements on regulatory networks; integrative genomics and epigenomics; algorithms in computational biology; genome browsers
- 09/2006 — 10/2009 **Helen Hay Whitney Fellow**, Laboratory of Dr. David Haussler, University of California at Santa Cruz.
Research focus: evolution of mammalian regulatory networks; identification of conserved regulatory modules in human genome; design and implementation of new UCSC Cancer Genomics Browser
- 08/2001 — 09/2006 **Pre-doctoral Researcher**, Laboratory of Dr. Gary Stormo, Washington University School of Medicine
Dissertation: Identification of gene regulatory networks with computational comparative genomics
Research focus: development of algorithms that identify regulatory motifs for transcription factors; application of these algorithms in multiple experimental settings and model systems
- 03/1998 — 08/2001 **Medical Research Technician**, Laboratory of Dr. Rainer Brachmann, Washington University School of Medicine
Research focus: characterization of hADA3, a component of histone acetylase complexes that regulate p53 activity; identification of intragenic p53 suppressor mutations for p53 cancer mutations

TEACHING

- 2012-present **Course director**, Bio5488, Genomics, Washington University School of Medicine
- 2011-present **Lecturer**, Genomics in Medicine, Washington University School of Medicine
- 2012-present **Lecturer**, PRIDE-GE. Course Master: Prof. DC Rao, Washington University School of Medicine
- 2010-2022 **Lecturer**, Medical genetics. Course Master: Profs. Susan Dutcher/Sabrina Nunez, Washington University School of Medicine
- 2015-2019 **Lecturer**, Bio5924, Modern Genetics. Course Master: Prof. Sally Elgin, Washington University

2011-2019	Lecturer , Bio4342, Research Exploration in Genomics. Course Master: Prof. Sarah Elgin, Washington University School of Medicine
2011-2018	Lecturer , GEMS 550, Introduction to Bioinformatics. Course Master: Prof. Charles Gu, Washington University School of Medicine
2016	Course director , Current topics in epigenomics. Two-week intense course. Tsinghua University, Beijing
2015	Lecturer , Bio5436, Applied Bioinformatics. Course Master: Wendy Olivas, University of Missouri St. Louis
2014-2015	Lecturer , IPNG. Course Master: Drs. Arpana Agrawal and Ryan Bogdan, Washington University School of Medicine
2012	Course director , Computational Epigenomics, Dragon Star course (40 hours, 300 students). Jilin, China.
2009-2012	Lecturer , Computational Molecular Biology. Course Master: Prof. Michael Brent, Washington University School of Medicine
2010-2011	Lecturer , Genomics. Course Master: Prof. Barak Cohen, Washington University School of Medicine

PROFESSIONAL ACTIVITIES

- Reviewer**, Science, Nature, Nature Genetics, Nature Biotechnology, Nature Communications, Nature Methods, Science Advances, Genome Research, PLoS Genetics, Cell Reports, Cell Stem Cells, Bioinformatics, Genome Biology, Genome Medicine, Journal of Biological Systems, Genetics, Nuclei Acid Research, BMC Genomics, BMC Bioinformatics, Biostatistics, Human Molecular Genetics, PLoS Computational Biology, PLoS ONE, Epigenetics, Trends In Genetics, JAMA Neurology, eLife, G3, Cancer Research, Nature Structural Molecular Biology, Nature Review Genetics, Cell Systems, Science Bulletin; Human Mutation, Cell Genomics; Asian Journal of Urology;
- Grant Reviewer**, NIH; Discovery Grants Program, Research Council of Canada; Funds Quebec, Canada; Strategic Opportunities Fund, Genome British Columbia; American Cancer Society; European Research Council (ERC); French National Research Agency; KWF Kankerbestrijding (Dutch Cancer Society); HKUST-MIT Research Alliance Consortium; Cancer Prevention and Research Institute of Texas, Academic Research Program; Marsden Fund Council, New Zealand; Swiss National Science Foundation; Swiss Cancer League Grant; French National Cancer Institute (INCa); The Wellcome Trust; DOD;
- Conference Organizer**, First International Epigenomics Conference, Shanghai (2015); Epigenomics 2016, Puerto Rico (2016); 2017 Program in Quantitative Genomics (PQG) Conference of Harvard Chan School of Public Health (2017); Keystone Symposium on DNA methylation and RNA methylation (2018); 4DN/ASCB Satellite Symposium (2018, 2019); Gordon Research Conference, Cancer Genetics and Epigenetics (2019, 2023); Forbeck Forum on Cancer and Genomic Dark Matter (2022); The First Endogenous Retrotransposable Elements and Human Diseases Fusion Conference (2025); Keystone Symposium on Transposable Elements: From Evolution to Engineering (2027);
- Member**, Wellcome Discovery Research Genomics ELS Steering Group (2023-2024)
- Director**, WashU-VAI Genome Characterization Center, Somatic Mosaicism across Human Tissues (SMaHT) Consortium (2022-)
- Director**, Organization Center, Somatic Mosaicism across Human Tissues (SMaHT) Consortium (2022-)
- Director**, Data Analysis and Coordination Center, Impact of Genetic Variation on Function (IGVF) Consortium (2021-)
- Faculty Opinions Faculty Member** (2021-)
- Director**, Data Coordination Center, Human Pangenome Reference Consortium (HPRC) (2019-)
- Internal Selections Review Committee**, Washington University (2019-2023)
- Scientific Council**, McDonnell Genome Institute, Washington University (2018-2023)
- Director**, Computational and Systems Biology Program, DBBS, Washington University (2016-2023)
- Director**, Environmental Epigenomics Data Center, TaRGET Consortium (2016-)
- Faculty Search Committee**, Department of Genetics, Washington University School of Medicine (2011), Department of Biology, Washington University (2015), Department of Developmental Biology and Regenerative Medicine, Washington University (2016), Department of Neurosciences and Anatomy (2017)
- Director**, Data Coordination and Visualization Center, 4D Nucleome Consortium (4DN) (2015-2021)
- External Advisory Committee**, Center of Excellence for Big Data Computing, UIUC (2015)

- 17 **Editorial Board**, Physiological Genomics, Genome Research, Genomics, Proteomics, and Bioinformatics, Quantitative Biology
- 18 **Session Chair**, Midwest Zebrafish Conference, St. Louis (2015)
- 19 **Program Committee**, BioVis 2014 (the 4th IEEE Symposium on Biological Data Visualization), Boston (2014).
- 20 **Session Chair**, Genome-wide DNA methylation analysis, Educational Session, AACR 2012, Chicago (2012).
- 21 **Graduate admission committee**, Division of Biological and Biomedical Sciences, Washington University School of Medicine (2012-2021).
- 22 **Session Chair**, Genome Informatics, Cold Spring Harbor Laboratory (2011).
- 23 **International Program Committee Member**, BioVis 2011: 1st IEEE Symposium on Biological Data Visualization, Providence, RI (2011).
- 24 **Session Chair**, VizBi 2011, Workshop on Visualization Biological Data, MIT (2011).
- 25 **Scientific Advisory Board**, GTAC (Genomic Technology Access Center), Washington University School of Medicine (2009-present).
- 26 **Co-chair**, Tutorial Committee, 7th Annual International Conference on Computational Systems Bioinformatics, Stanford, CA (2008).
- 27 **Session Chair**, The Cancer Genome Atlas (TCGA) Data Portal Use Case Workshop, National Cancer Institute, Bethesda (Jan 2008).
- 28 **TV anchorman and program host** (1994-1997), China Central TV station (CCTV) and Department of Education, Beijing 1st TV station, Beijing, China

STUDY SECTIONS

- 1 **NIH**, BDMA (June 2014, Oct 2015, Oct 2016, regular member 2017-2022);
- 2 **NIH**, EBIT (June 2015);
- 3 **NIH Special Emphasis Panel**, ZDK1-GRB8-O3 (August 2015);
- 4 **NIH Special Emphasis Panel**, ZES1 LWJ-J (P) (November 2015);
- 5 **NIH**, GCAT (February 2016);
- 6 **American Cancer Society**, DMC (June 2014, Jan 2015, Jan 2016, regular member 2016-2023, Aug 2025).
- 7 **NIH**, SIEE (March, 2017)
- 8 **NIH Special Emphasis Panel**, ZHG1 HGR-M (M2) 1 (March 2018)
- 9 **NIH Special Emphasis Panel**, ZRG1- OTC-W-55 (May 2018)
- 10 **CPRIT**, Cancer Prevention and Research Institute Texas Academic Research Program (May 2018, Oct 2018, May 2019, Oct 2019, May 2020, May 2021, April 2022, Oct 2022, Oct 2023, April 2024, Oct 2024, March 2025, Sept 2025)
- 11 **NIH Special Emphasis Panel**, ZHG1 HGR-M (O2) (June 2019)
- 12 **NIH Special Emphasis Panel**, ZHG1 HGR-P (M3) (February 2021)
- 13 **NIH Special Emphasis Panel**, ZHG1 HGR-M (J2) (October 2021)
- 14 **NIH Special Emphasis Panel**, ZHG1 HGR-N (J1) (November 2021)
- 15 **NIH Special Emphasis Panel**, ZCA1 RPRB-J (O1) (June 2022)
- 16 **NIH Special Emphasis Panel**, ZDA1 BSW-A (J1) R (November 2022)
- 17 **NIH Special Emphasis Panel**, ZHG1 HGR-M M5 1, Genomic Community Resources (April 2023)
- 18 **NIH Special Emphasis Panel**, ZRG1 BBBT L 52 R, (November 2023)
- 19 **NIH Special Emphasis Panel**, ZAG1 ZIJ-I (M4), (January 2024)
- 20 **NIH Special Emphasis Panel**, NCI Program Project (P01) Review SEP- C, (June 2024)
- 21 **NIH Special Emphasis Panel**, ZHG1 HGR-M (O2), (July 2024)
- 22 **DOD 2024 Glioblastoma Research Program on the Resource Development - 4 (RD-4)**, (February 2025)
- 23 **NIH Special Emphasis Panel**, ZAG1 ZIJ-I (M3), (February 2025)
- 24 **NIH Special Emphasis Panel**, ZRG1 BN- J (53), (June 2025)

HONORS AND AWARDS

- 1 **Fellow (FAIMBE)**, the American Institute for Medical and Biological Engineering (2024)
- 2 **Eminent Scholar**, The International Conference on Intelligent Biology and Medicine (ICIBM 2018)
- 3 **Special recognition** for excellence in mentoring, Twelfth Annual Faculty Mentor Awards, Washington University in St. Louis (2011).
- 4 **Tomorrow's PI**, Genome Technology, nominated by Francis Collins (2011).
- 5 **Basil O'Connor Scholar**, March of Dimes foundation (2011).
- 6 **Outstanding Poster Award**, April 2007, the 11th Annual International Conference on Research in Computational Molecular Biology (RECOMB 2007).
- 7 **Helen Hay Whitney Award**, 2007~2010, Helen Hay Whitney Foundation.
- 8 **Travel Fellowship**, March 2006, System Biology: Global Regulation of Gene Expression Meeting at Cold Spring Harbor Laboratory (2006).
- 9 **GlaxoSmithKline Bioinformatics Prize**, the 13th Annual International Conference on Intelligent Systems for Molecular Biology (ISMB 2005).
- 10 **Travel Fellowship**, June 2005, the 13th Annual International Conference on Intelligent Systems for Molecular Biology (ISMB 2005).
- 11 **Kauffman Fellowship** in Life Science Entrepreneurship, 2004~2005
- 12 **Best Presentation Award**, September 2004, Annual Genetics Retreat, Washington University Medical School.
- 13 **Travel Fellowship**, March 2004, the Eighth Annual International Conference on Research in Computational Molecular Biology (RECOMB 2004).
- 14 Bachelor of Science with Honors, Magna Cum Laude, Peking University, China.

GRANTS

- 2009 — 2013 Integrated epigenetic maps of human and embryonic and adult cells
NIH, 1U01 ES017154, PI: Joe Costello (UCSF)
Role: Co-investigator. Total direct cost: \$456,909
- 2010 — 2012 Sequencing for genetic mutations in promoters via integrative epigenomics
Goldhirsh Foundation, PI: Joe Costello (UCSF)
Role: Co-PI. Total direct cost: \$80,000
- 2010 — 2013 The role of transposable elements in cancer gene regulatory networks
Edward Mallinckrodt, Jr. Foundation
Role: PI. Total direct cost: \$180,000
- 2010 — 2011 The role of transposable elements in endometrial cancer gene regulatory networks
Siteman Cancer Center, Washington University, Research Development Award
Role: PI. Total direct cost: \$50,000
- 2010 — 2013 Supplement to Integrated epigenetic maps of human and embryonic and adult cells
NIH, 3U01ES017154-03S1
Role: PI. Total direct cost: \$719,059
- 2011 — 2013 Decoding role of transposable elements and epigenetic regulation in birth defect related gene regulatory networks
March of Dimes
Role: PI. Total direct cost: \$150,000
- 2011 — 2014 Epigenetic Regulation as a Mechanism Underlying Host-Bacterial Relationships in the Gut
Digestive Diseases Research Core Center, Pilot/Feasibility Studies Program, Washington University
Role: PI. Total direct cost: \$45,875
- 2013 — 2017 Advanced epi/genome browser with enhanced visualization and analysis tools
NIH, R01HG007354.

Role: PI. Total direct cost: \$950,000

- 2014 — 2018 Epigenetic control of transposable element derived enhancers in cancer
American Cancer Society Research Scholar Grant
126059-RSG-14-049-01-DMC
Role: PI. Total cost: \$792,000
- 2014 — 2022 Decoding the impact of transposable elements on gene regulation
NIH, R01HG007175.
Role: PI. Total cost: \$1,140,000
- 2014 — 2016 Charting the epigenetic landscape of human transposable elements
NIH, ES024992.
Role: PI. Total cost: \$341,600
- 2015 — 2020 Research education program on computational and statistical tool development for addiction genetics
NIH, R25DA027995, PI: Pamela Madden
Role: co-PI. Total cost: \$2,120,422
- 2015 — 2020 The WashU 4DN Network Data Coordination and Integration Center
NIH, U01CA200060.
Role: PI. Total cost: \$1,991,375
- 2016 — 2022 The WashU TaRGET Environmental Epigenomics Data Center
NIH, U24ES026699.
Role: PI. Total cost: \$4,382,827
- 2016 — 2021 Epigenetic Signatures of Developmental Reprogramming in Target and Surrogate Tissues
NIH, U01ES026719.
Role: co-I (PI: Walker). Total direct cost: \$250,000
- 2017 — 2022 Connecting transposable elements and regulatory innovation using ENCODE data
NIH, U01HG009391.
Role: PI. Total cost: \$1,682,593
- 2017 — 2022 Global Analyses of the Placental Epigenome in Preeclampsia
NIH, R01HD092419.
Role: co-I (PI: Costello). Total direct cost: \$500,000
- 2017 — 2018 Identification of regulatory elements responsible for zebrafish regeneration
The Children's Discovery Institute's Zebrafish Models for Pediatric Research Services Cooperative (ZRSC) micro-grant
Role: PI. Total direct cost: \$10,000
- 2018 — 2019 Cell-State Transition in Zebrafish Caudal Fin Regeneration
The Children's Discovery Institute's Zebrafish Models for Pediatric Research Services Cooperative (ZRSC) micro-grant
Role: PI. Total direct cost: \$10,000
- 2018 — 2019 Evolution of 3D cancer genome under epigenetic therapy
McDonnell Genome Institute, Washington University Collaboration Pilot Grants
Role: PI. Total direct cost: \$96,240
- 2019 — 2020 Charting the epigenetic landscape of pigment cell differentiation
The Children's Discovery Institute's Zebrafish Models for Pediatric Research Services Cooperative (ZRSC) micro-grant
Role: PI. Total direct cost: \$10,000
- 2019 — 2024 The WashU-UCSC-EBI Human Genome Reference Center
NIH, U41HG010972.
Role: PI. Total cost: \$12,602,165
- 2020 — 2021 The role of DNA methylation in defining cell identity during zebrafish fin regeneration
The Children's Discovery Institute's Zebrafish Models for Pediatric Research Services Cooperative (ZRSC) micro-grant
Role: PI. Total direct cost: \$10,000

2020 — 2025 Center for Integrated Multi-modal and Multi-scale Nucleome Research
NIH, 5UM1HG011585
Role: MPI. (Contact PI: Bing Ren, UCSD). Total direct cost: \$500,000 (Wang's portion only)

2021 — 2024 The WashU-UCSC-EBI Human Genome Reference Center (Supplement)
NIH, 3U41HG010972-03S1.
Role: PI. Total cost: \$727,667

2021 — 2026 WashU-Northwestern Genomic Variation and Function Data and Administrative Coordinating Center
NIH, U24HG012070.
Role: PI. Total cost: \$7,321,014

2021 — 2023 Neoantigens Arising from Genomic Dark Matters
Emerson Collective Cancer Research Fund.
Role: PI. Total cost: \$400,000

2022 — 2023 Medical Study as a Service (MSaaS) Leveraging Secure Execution Containers for Accountable Medical
Machine Learning on Patient Data with Controlled Privacy Leakage
McKelvey Collaboration Initiation Grant (CIG).
Role: co-PI (with Ning Zhang). Total direct cost: \$25,000

2022 — 2024 Exploring Precision Oncology Opportunities Contributed by Transposable Elements
Siteman Investment Program.
Role: PI. Total direct cost: \$198,000

2022 — 2027 Identification and Characterization of Cell-Specific Transposable Elements Implicated on Alzheimer
Disease and Healthy Aging
NIH, R01AG078964.
Role: MPI (with Cruchaga, Frost, Karch, Yoo). Total cost: \$9,085,972

2022 — 2027 The role of retrotransposons in female reproductive aging
NIH, R01AG078958.
Role: MPI (with Lin He). Total cost: \$3,055,013

2022 — 2027 Center for Multiomic Human Brain Cell Atlas
NIH, UM1MH130994.
Role: MPI (with Ecker, Ren, Xu, and Behrens). Total cost: \$126,156,471

2023 — 2028 WashU Somatic Mosaicism across Human Tissues (SMaHT) Program Organizational Center
NIH, U24NS132103.
Role: PI. Total cost: \$7,470,939

2023 — 2028 WashU-VAI Somatic Mosaicism across Human Tissues (SMaHT) Program Genome Characterization
Center
NIH, UM1DA058219.
Role: PI. Total cost: \$14,999,999

2023 — 2028 Endogenous retrovirus in joint aging and osteoarthritis development
NIH, R01AG083568.
Role: MPI (with Tao Yang). Total cost: \$2,974,097

2023 — 2028 Washington University Omics Production Center
NIH, U01HG013227.
Role: MPI (with Gary Patti). Total cost: \$19,147,059

2024 — 2029 The Human Pangenome Reference Consortium Coordination Center
NIH, U41HG010972.
Role: PI. Total cost: \$14,410,830

2024 — 2029 Center for Human Genome Reference Diversity
NIH, U41HG010971.
Role: MPI (With Miga, Cook-Deegan, Eichler, Jarvis, Kenny). Total cost: \$14,179,828

2025 — 2028 WashU-VAI Somatic Mosaicism across Human Tissues (SMaHT) Program Genome Characterization
Center (Supplement)
NIH, 3UM1DA058219-03S1.
Role: PI. Total cost: \$12,145,211

PUBLICATIONS (h-index: 73; i10-index: 147; total citation: 40,534)

- 1 Grinwald MF, Saintilnord WN, **Wang T.** (2025) Unmasked: transposable elements as drivers and targets in cancer. *Trends Genet.* 2025 Sep 10:S0168-9525(25)00199-4. doi: 10.1016/j.tig.2025.08.002. Epub ahead of print. PMID: 40935685.
- 2 Xavier Raj I, Kyun Koh W, Harrison J, Zhang CR, Soares B, Amato R, Krishnan A, O'Leary DR, Bjeije H, Parsons TM, Han W, Young AL, **Wang T,** Batista LFZ, Challen GA. Non-canonical functions of DNMT3A in hematopoietic stem cells regulate telomerase activity and genome integrity. (2025) *Cell Stem Cell.* 2025 Jul 10:S1934-5909(25)00256-5. doi: 10.1016/j.stem.2025.06.010. Epub ahead of print. PMID: 40680747.
- 3 Coorens THH, Oh JW, Choi YA, Lim NS, Zhao B, Voshall A, Abyzov A, Antonacci-Fulton L, Aparicio S, Ardlie KG, Bell TJ, Bennett JT, Bernstein BE, Blanchard TG, Boyle AP, Buenrostro JD, Burns KH, Chen F, Chen R, Choudhury S, Doddapaneni HV, Eichler EE, Evrony GD, Faith MA, Fazio TG, Fulton RS, Garber M, Gehlenborg N, Germer S, Getz G, Gibbs RA, Hernandez RG, Jin F, Korbel JO, Landau DA, Lawson HA, Lennon NJ, Li H, Li Y, Loh PR, Marth G, McConnell MJ, Mills RE, Montgomery SB, Natarajan P, Park PJ, Satija R, Sedlazeck FJ, Shao DD, Shen H, Stergachis AB, Underhill HR, Urban AE, VonDrán MW, Walsh CA, **Wang T,** Wu TP, Zong C, Lee EA, Vaccarino FM; Somatic Mosaicism across Human Tissues Network. (2025) *The Somatic Mosaicism across Human Tissues Network. Nature.* 2025 Jul;643(8070):47-59. doi: 10.1038/s41586-025-09096-7. Epub 2025 Jul 2. PMID: 40604182.
- 4 Qu X, Liang Y, McCormack C, Xing X, Schmidt H, Tomlinson C, Fronick C, Belter EA Jr, Macias-Velasco JF, **Wang T.** (2025) Charting the regulatory landscape of TP53 on transposable elements in cancer. *Genome Res.* 2025 Jun 2;35(6):1456-1471. doi: 10.1101/gr.279398.124. PMID: 40360186; PMCID: PMC12129084.
- 5 Seng C, Liu S, Zhang W, Zhuo X, Li D, **Wang T.** (2025) WashU Epigenome Browser update 2025. *Nucleic Acids Res.* 2025 May 5:gkaf387. doi: 10.1093/nar/gkaf387. PMID: 40322916.
- 6 Zhang X, Zhang W, Zhang J, Lyu X, Pan H, Jia T, **Wang T,** Wang X, Guo H. (2025) Simulation-guided pan-cancer analysis identifies a novel regulator of CpG island hypermethylation heterogeneity. *Brief Bioinform.* 2025 May 1;26(3):bbaf252. doi: 10.1093/bib/bbaf252. PMID: 40452146; PMCID: PMC12127147.
- 7 Caballero-Campo P, Lira-Albarrán S, Amaral A, Hong C, Shah N, Carles A, Li D, Barrera D, Hernández-Silva G, Ramalho-Santos J, **Wang T,** Hirst M, Larrea F, Costello J, Rinaudo P, Chirinos M. (2025) Integrative Molecular and Functional Analysis of Human Sperm Subpopulations to Identify New Biomarkers of Fertilization Potential. *Arch Med Res.* 2025 Mar 31;56(5):103210. doi: 10.1016/j.arcmed.2025.103210. Epub ahead of print. PMID: 40168948.
- 8 Fan C, Wu J, Barisas DAG, Xing X, Kwon Y, Choi K, **Wang T.** (2025) Transcriptional and chromatin accessibility landscapes of hematopoiesis in a mouse model of breast cancer. *J Immunol.* 2025 Mar 27:vkaf026. doi: 10.1093/jimmun/vkaf026. Epub ahead of print. PMID: 40152115.
- 9 Shen J, Cheng S, Purushotham D, Zhuo X, Du AY, Zhang W, Li D, **Wang T.** (2025) Exploring the epigenome profiles of repetitive elements with the WashU Repeat Browser. *Genome Res.* 2025 Feb 21:gr.279764.124. doi: 10.1101/gr.279764.124. Epub ahead of print. PMID: 39984199.
- 10 Quaid K, Xing X, Chen YH, Miao Y, Neilson A, Selvamani V, Tran A, Cui X, Hu M, **Wang T.** (2025) iPSCs and iPSC-derived cells as a model of human genetic and epigenetic variation. *Nat Commun.* 2025 Feb 18;16(1):1750. doi: 10.1038/s41467-025-56569-4. PMID: 39966349; PMCID: PMC11836351.
- 11 Fischer LA, Meyer B, Reyes M, Zemke JE, Harrison JK, Park KM, **Wang T,** Jüppner H, Dietmann S, Theunissen TW. (2025) Tracking and mitigating imprint erasure during induction of naive human pluripotency at single-cell resolution. *Stem Cell Reports.* 2025 Feb 8:102419. doi: 10.1016/j.stemcr.2025.102419. Epub ahead of print. PMID: 39952244.
- 12 Zhang W, Macias-Velasco JF, Zhuo X, Belter EA Jr, Tomlinson C, Garza J, Tekkey N, Li D, **Wang T.** (2025) methylGrapher: genome-graph-based processing of DNA methylation data from whole genome bisulfite sequencing. *Nucleic Acids Res.* 2025 Jan 24;53(3):gkaf028. doi: 10.1093/nar/gkaf028. PMID: 39868538; PMCID: PMC11770346.
- 13 Chen Y, Hou Y, Zeng Q, Wang I, Shang M, Shin K, Hemauer C, Xing X, Kang J, Zhao G, **Wang T.** (2025) Common and specific gene regulatory programs in zebrafish caudal fin regeneration at single-cell resolution. *Genome Res.* 2025 Jan 22;35(1):202-218. doi: 10.1101/gr.279372.124. PMID: 39809530; PMCID: PMC11789645.
- 14 IGVF Consortium. (2024) Deciphering the impact of genomic variation on function. *Nature.* 2024 Sep;633(8028):47-57. doi: 10.1038/s41586-024-07510-0. Epub 2024 Sep 4. PMID: 39232149.
- 15 Jang HJ, Shah NM, Maeng JH, Liang Y, Basri NL, Ge J, Qu X, Mahlokozera T, Tzeng SC, Williams RB, Moore MJ, Annamalai D, Chen JY, Lee HJ, DeSouza PA, Li D, Xing X, Kim AH, **Wang T.** (2024) Epigenetic therapy potentiates transposable element transcription to create tumor-enriched antigens in glioblastoma cells. *Nat Genet.* 2024 Sep 2. doi: 10.1038/s41588-024-01880-x. Epub ahead of print. PMID: 39223316.
- 16 Du AY, Chobirko JD, Zhuo X, Feschotte C, **Wang T.** (2024) Regulatory transposable elements in the encyclopedia of DNA elements. *Nat Commun.* 2024 Aug 31;15(1):7594. doi: 10.1038/s41467-024-51921-6. PMID: 39217141; PMCID: PMC11366022.

- 17 Wu J, Fan C, Kabir AU, Krchma K, Kim M, Kwon Y, Xing X, **Wang T**, Choi K. (2024) Baf155 controls hematopoietic differentiation and regeneration through chromatin priming. *Cell Rep.* 2024 Jul 30;43(8):114558. doi: 10.1016/j.celrep.2024.114558. Epub ahead of print. PMID: 39088321.
- 18 Liang Y, **Wang T**. (2024) LINE1 mediates long-range DNA interactions. *Nat Genet.* 2024 Jul 4. doi: 10.1038/s41588-024-01824-5. Epub ahead of print. PMID: 38965415.
- 19 Foltz JA, Tran J, Wong P, Fan C, Schmidt E, Fisk B, Becker-Hapak M, Russler-Germain DA, Johnson J, Marin ND, Cubitt CC, Pence P, Rueve J, Pureti S, Hwang K, Gao F, Zhou AY, Foster M, Schappe T, Marsala L, Berrien-Elliott MM, Cashen AF, Bednarski JJ, Fertig E, Griffith OL, Griffith M, **Wang T**, Petti AA, Fehniger TA. (2024) Cytokines drive the formation of memory-like NK cell subsets via epigenetic rewiring and transcriptional regulation. *Sci Immunol.* 2024 Jun 28;9(96):eadk4893. doi: 10.1126/sciimmunol.adk4893. Epub 2024 Jun 28. PMID: 38941480.
- 20 Tian W, Ding W, Shen J, Li D, **Wang T**, Ecker JR. (2024) BAIC and BAICools: Efficient formatting and operating for Single-Cell DNA methylation data. *Bioinformatics.* 2024 Jun 21:btac404. doi: 10.1093/bioinformatics/btac404. Epub ahead of print. PMID: 38905499.
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- 177 **Wang, T.**, Kobayashi, T., Takimoto, R., Denes, A. E., Snyder, E. L., el-Deiry, W. S., and Brachmann, R. K. (2001). hADA3 is required for p53 activity. *Embo J* 20, 6404-6413. PMID: PMC125723.

PATENTS

- 1 Therapeutic splice-switching oligonucleotides for cancer. (2024) N. Basri, **T. Wang**. US Patent App. 18/503,495, 2024

INVITED TALKS

- 1 Invited speaker, Gene Regulation and Genomics Seminar Series, UT Southwestern Medical Center, Dallas, TX (2025)
- 2 Invited speaker, Coucher Advanced Study Institute, Retrotransposons, Hong Kong University of Science and Technology, Hong Kong (2025)
- 3 Invited speaker, Aspen Cancer Conference, Aspen CO (2025)
- 4 Invited speaker, UCI Center for Neural Circuit Mapping and Institute for Clinical and Translational Science, UC Irvine, Irvine, CA (2025)
- 5 Keynote speaker, Decoding the Cancer Genome and Epigenome, Gordon Research Conference on Cancer Genetics and Epigenetics, Lucca (Barga), Lucca, Italy (2025)
- 6 Invited speaker, Human Oncology and Pathogenesis Program (HOPP), Memorial Sloan Kettering Cancer Center, New York, NY (2025)

- 7 Invited speaker, AACR 2025, Chicago, IL (2025)
- 8 Invited speaker, Serican Academy of Urology, virtual presentation (2025)
- 9 Invited speaker, Biomedical Pioneering Innovation Center, Peking University, Beijing, China (2025)
- 10 Keynote speaker, Annual Genetics & Genomics + Bioinformatics Annual Symposium, North Carolina State University (NCSU), Raleigh, NC (2025)
- 11 Invited speaker, AACR Special Conference in Cancer Research: DNA Methylation, Clonal Hematopoiesis, and Cancer. San Diego, CA (2025)
- 12 Invited speaker, The First Barbados Pangenome Graph workshop, Barbados (2025)
- 13 Invited speaker, The 9 Annual Conference of the Society of the Indian Academy of Medical Genetics, Ahmedabad, Gujarat, India (2024)
- 14 Invited speaker, Chromatin from Biochemistry to Bedside, UCSF, San Francisco, CA (2024)
- 15 Invited speaker, Frontiers in Biological Structures Series, Beijing Frontier Research Center For Biological Structure, Tsinghua University, Beijing, China (2024)
- 16 Invited speaker, The 11th International Symposium on 3D Genomics, Sanya, China (2024)
- 17 Invited speaker, Shanghai Jiaotong University, Shanghai, China (2024)
- 18 Invited speaker, Cold Spring Harbor Asia meeting on Computational Biology of the Genome, Suzhou, China (2024)
- 19 Keynote speaker, Micro & MMMP retreat, Washington University School of Medicine, Grafton, IL (2024)
- 20 Invited speaker, Altius Symposium on Genome Function, Seattle, WA (2024)
- 21 Invited speaker, AstraZeneca Oncology Data Science (ODS) Seminar, Boston, MA (2024)
- 22 Keynote speaker, Environmental Mutagenesis & Genomics Society 55th Annual Meeting, Palm Spring, CA (2024)
- 23 Session chair, Epigenetics and Transcription Regulation, 2024 International Conference on Life Sciences, The 19th SCBA/14th CBIS Biennial Symposium, Guiyang, China (2024)
- 24 Invited speaker, Fusion Conference, From Genetic Discoveries to Gene Function in Human Diseases Conference, Lisbon, Portugal (2024)
- 25 Invited speaker, 15th International Conference on Genomics and Systems Biology of Human Disease and Aging, Chania, Crete, Greece (2024)
- 26 Invited speaker, Department of Systems Biology at Columbia University Medical Center, New York, NY (2024)
- 27 Student Invited speaker, Department of Biochemistry and Molecular Biology, The University of Texas Medical Branch at Galveston, Galveston, TX (2024)
- 28 Invited speaker, Cellular and Molecular Biology (CMB), Department of Cell Biology, and Department of Molecular Genetics and Microbiology, Duke University, Durham, NC (2024)
- 29 Invited speaker, Molecular and Human Genetics seminar series, Baylor College of Medicine, Houston, TX (2024)
- 30 Invited speaker, AACR 2024, San Diego, CA (2024)
- 31 Invited speaker, NIEHS DERT Precision Environmental Health Retreat, Raleigh, NC (2024)
- 32 Invited speaker, Indiana University School of Medicine, Center for Computational Biology and Bioinformatics, Indianapolis, IN (2024)
- 33 Invited speaker, The University of British Columbia, Edwin S.H. Leong Centre for Healthy Aging, Healthy Aging Research Seminar. Vancouver, Canada (2024)
- 34 Invited speaker, 171th Meeting of the National Advisory Environmental Health Sciences Council (2024)
- 35 Invited speaker, Ottawa Hospital Research Institute, Ottawa, ON, Canada (2023)
- 36 Invited speaker, Cancer Cell Biology Seminar Series, West Virginia University Cancer Institute, Morgantown, WV (2023)
- 37 Invited speaker, Sequencing Strategies for Population and Cancer Epidemiology Studies (SeqSPACE) Webinar Series, National Cancer Institute (2023)
- 38 Invited speaker, Global Health Work in Progress Meeting, Institute for Public Health, Washington University School of Medicine, St. Louis, MO (2023)
- 39 Invited speaker, virtual presentation, 4th International Young Scholar Forum, Beijing Chest Hospital, Capital Medical University, Beijing Tuberculosis and Thoracic Tumor Research Institute, Beijing, China (2023)
- 40 Invited speaker, Cold Spring Harbor Asia meeting on Systems Biology of Gene Regulation and Genome Editing. Suzhou, China (2023)
- 41 Invited speaker, Tsinghua University, Beijing, China (2023)
- 42 Invited speaker, Quantitative Biology 2023: AI and Cell Fate. Peking University, Beijing, China (2023)
- 43 Invited speaker, Stanford Genetics Conference on Structural Variants and DNA Repeats, Palo Alto, CA (2023)
- 44 Invited speaker, Keystone Symposia, Transposable Elements at the Crossroads of Evolution, Health and Disease. Whistler, BC, Canada (2023)
- 45 Invited speaker, Fudan-WestLake Summer School, Shanghai, China (2023)
- 46 Invited speaker, Beijing Genome Institute, Beijing, China (2023)
- 47 Invited speaker, the 10th International Symposium on 3D Genomics, Hangzhou, China (2023)
- 48 Invited speaker, State-of-the-Science speech, Molecular Signatures of Exposure in Cancer: A Joint NIEHS and NCI Workshop (2023)
- 49 Invited speaker, virtual presentation, Qatar Genome Programme, Doha, Qatar (2023)
- 50 Invited speaker, Gordon Research Conference, Genome Architecture in Cell Fate and Disease, Ventura, CA (2023)
- 51 Invited speaker, The University of Chicago's Committee on Cancer Biology Seminar Series (2023)
- 52 Keynote speaker, Beer and Bioinformatics Symposium, Danforth Plant Science Center and St. Louis University, St. Louis MO (2023)
- 53 Workshop, Human Pangenome Reference Consortium, Advances in Genome Biology and Technology (AGBT 2023), Hollywood, FL (2023)
- 54 Invited speaker, The 3rd Barbados meeting on Transposable Elements, Barbados (2023)

55 Invited speaker, virtual presentation, Forum on Translational Medicine, Shanghai, China (2022)
56 Invited speaker, virtual presentation, 9th International Workshop on 3D Genomics, Wuhan, China (2022)
57 Invited speaker, The Brain Tumor Center Research Retreat, Washington University School of Medicine (2022)
58 Invited speaker, Association for Molecular Pathology (AMP) 2022 Annual Meeting & Expo, Phoenix, AZ (2022)
59 Invited speaker, The Brain Tumor Center, Siteman Cancer Center, Washington University School of Medicine (2022)
60 Invited speaker, The IHEC Annual Meeting & The 8th Canadian Conference on Epigenetics (CEEHRC-IHEC Joint meeting), Estérel, Quebec, Canada (2022)
61 Invited speaker, Department of Biochemistry, McGill University, Montreal, Canada. (2022)
62 Invited speaker, Department of Genetics and Genome Sciences, Case Western Reserve University. (2022)
63 Invited speaker, Annual Meeting Virtual Seminar Series, Association of Chinese Americans in Cancer Research. (2022)
64 Invited speaker, VAI Epigenetics Symposium: 20(+2) years of the histone code. Grand Rapids, MI (2022)
65 Panelist, Undiagnosed Disease Network, St. Louis, MO (2022)
66 Workshop, Human Pangenome Reference Consortium, Advances in Genome Biology and Technology (AGBT 2022), Orlando, FL (2022)
67 Speaker and chair, Forbeck Forum “Cancer and Genomic Dark Matter”, Monterey, CA (2022)
68 Invited speaker, Gilead Sciences, Inc. Foster City, CA (2022)
69 Invited speaker, Biomedical Sciences Program, UCSF, San Francisco, CA (2022)
70 Keynote speaker, Sixth Annual Translational and Transformative Informatics Symposium, The University of Alabama at Birmingham, Birmingham, AL (2022)
71 Invited speaker, Center for Computational and Integrative Biology, Rutgers University – Camden, Camden, NJ (2022)
72 Invited speaker, Department of Genetics and Genomic Sciences, Icahn School of Medicine, Mount Sinai, New York, NY (2022)
73 Invited speaker, Van Andel Institute, Grand Rapids, MI (2022)
74 Invited speaker, Department of Biochemistry and Molecular Genetics, Northwestern University, Feinberg School of Medicine, Chicago, IL (2022)
75 Invited speaker, Joint Keystone Symposia, Epigenetic Mechanisms and the Treatment of Cancer, Transposable Elements at the Crossroads of Evolution, Health and Disease, Whistler, Canada (2022)
76 Keynote speaker, virtual presentation, the Hong Kong Epigenomics Project Winter 2021 Virtual Symposium (2021)
77 Invited speaker, virtual presentation, 8th International Symposium on 3D Genomics, Beijing (2021)
78 Keynote speaker, 5th Annual Wisconsin Epigenetics Group Symposium (2021)
79 Invited speaker, virtual presentation, BICCN (BRAIN Initiative Cell Census Network) (2021)
80 Invited speaker, virtual presentation, Translating Epigenomics in the Clinic and Drug Development, EMBL-EBI Industry Programme Workshop (2021)
81 Invited speaker, virtual presentation, Genomics Education Partnership (2021)
82 Invited speaker, virtual presentation, SMMART (Serial Measurements of Molecular and Architectural Responses to Therapy), Oregon Health & Science University (2021)
83 Invited speaker, virtual presentation, Penn Epigenetics Institute (2021)
84 Invited speaker, virtual presentation, GPB Frontier Symposium, Beijing, China (2020)
85 Invited speaker, virtual presentation, Chinese Academic Conference on Tumor Biomarker, Guangzhou, China (2020)
86 Keynote speaker, the 42nd Asilomar Chromatin, Chromosomes, and Epigenetics Conference (a.k.a. the West Coast Chromatin and Chromosomes Meeting) (Virtual Meeting) (2020)
87 Invited speaker, virtual seminar, Pathology Department, NYU (2020)
88 Invited speaker, ClinGen Virtual Steering Committee Meeting (2020)
89 Invited speaker, virtual seminar, Michigan Lifestage Environmental Exposures and Disease (M-LEEaD) Center, University of Michigan (2020)
90 Invited speaker, AACR 2020 (Virtual Meeting) (2020)
91 Selected speaker, the 20th Advances in Genome Biology and Technology (AGBT 2020), Marco Island, FL (2020)
92 Speaker for Common, John Burroughs School, St. Louis, MO (2020)
93 Invited speaker, MD Anderson – Houston, Houston, TX (2019)
94 Invited speaker, MD Anderson – Science Park, Smithville, TX (2019)
95 Invited speaker, Frontiers in Biology Seminar Series, Stanford University School of Medicine, Palo Alto, CA (2019)
96 Invited speaker, Tsinghua University, Beijing, China (2019)
97 Invited speaker, The 3rd International Epigenomics Conference, Shanghai, China (2019)
98 Invited speaker, Fudan University Medical Center, Shanghai, China (2019)
99 Invited speaker, SDG Speaker Series, SpringerNature Shanghai Office, Shanghai, China (2019)
100 Keynote speaker, International Stroke Genetics Consortium 26th Workshop, St. Louis, MO (2019)
101 Keynote speaker, Center for Computational Biology and Bioinformatics (CCBB) School of Medicine, Indiana University (2019)
102 Invited speaker, Colloquium Series of Bioinformatics and Computational Biology (BCB), St. Louis University (2019)
103 Invited speaker, Xiangya Medical School and Hunan Children’s Hospital, Changsha, Hunan, China (2019)
104 Invited speaker, GPB Outstanding Scientist Forum, Beijing Institute of Genomics, Beijing, China (2019)
105 Invited speaker, IBW2019, The 14th International Bioinformatics Workshop, Beijing, China (2019)
106 Invited speaker, ENCODE Research Applications and Users Meeting, Seattle (2019)
107 Invited speaker, People’s Hospital of Sichuan, China (2019)
108 Invited speaker, The Jackson Laboratory for Genomic Medicine, Farmington, CT (2019)
109 Invited speaker, UNC Chapel Hill, NC (2019)
110 Invited speaker, Princess Margaret Cancer Centre, University Health Network, Canada (2019)
111 Invited speaker, Gordon Research Conference, Cancer Genetics and Epigenetics, Lucca, Italy (2019)

- 112 Invited speaker, City of Hope Medical Center, CA (2019)
- 113 Invited speaker, ActiveMotif, CA (2018)
- 114 Invited speaker, Bioinformatics seminar, UCLA (2018)
- 115 Invited speaker, Science at the Edge seminar, Department of Biochemistry & Molecular Biology, Michigan State University (2018)
- 116 Invited speaker, Nutritional Sciences and Toxicology Department, UC Berkeley (2018)
- 117 Invited speaker, International Human Epigenome Consortium (IHEC) 2018, Hong Kong (2018)
- 118 Invited speaker, Center for Biostatistics, Peking University, Beijing, China (2018)
- 119 Invited speaker, The 2nd Oriental Congress of Urology and Andrology, Shanghai, China (2018)
- 120 Eminent Scholar talk, The International Conference on Intelligent Biology and Medicine (ICIBM 2018), Los Angeles, CA (2018)
- 121 Invited speaker, Department of Bioinformatics and Genomics at UNC Charlotte, Charlotte, NC (2018)
- 122 Invited speaker, Department of Genetics, Rutgers, The State University of New Jersey, Piscataway, NJ (2018)
- 123 Invited speaker, AACR Special Conference on Targeting DNA Methylation and Chromatin for Cancer Therapy, Atlanta, GA (2018)
- 124 Invited speaker, Keystone Symposium on DNA methylation and RNA methylation, Vancouver, Canada (2018)
- 125 Invited workshop, Keystone Symposium on DNA methylation and RNA methylation, Vancouver, Canada (2018)
- 126 Invited speaker, The American Society for Cell Biology ASCB/EMBO Annual meeting 2017, Philadelphia PA (2017)
- 127 Invited speaker, International Human Epigenome Consortium (IHEC) 2017, Berlin, Germany (2017)
- 128 Invited speaker, Joint conference, The 5th International Symposium of Genetics and The 2nd International Epigenomics Conference, Fudan University, Shanghai, China (2017)
- 129 Invited speaker, Gordon Research Conference, Cellular and Molecular Mechanisms of Toxicity, Andover, NH (2017)
- 130 Invited speaker, The 13th International Bioinformatics Workshop, Harbin, China (2017)
- 131 Invited speaker, Inaugural SUSTech Biomedical Engineering Summit Symposium, Southern University of Science and Technology, Shenzhen, China (2017)
- 132 Invited speaker, FASEB Science Research Conferences, Mobile DNA in Mammalian Genomes, Big Sky, Montana (2017)
- 133 Invited speaker, Gordon Research Conference, Cancer Genetics and Epigenetics, Lucca, Italy (2017)
- 134 Invited speaker, Long Life Family Study (LLFS) Bioinformatics meeting, Bethesda, MD (2017)
- 135 Invited speaker, Adler Symposium, Salk Institute, San Diego, CA (2017)
- 136 Invited speaker, NeuroOncology focus group, Washington University, St. Louis, MO (2017)
- 137 TEDxSTL, TED talk at St. Louis University, St. Louis, MO (2017)
- 138 Invited speaker, Workshop on 3D Genome Mapping Technology, The Jackson Laboratory for Genomic Medicine, Farmington, CT (2016)
- 139 Invited speaker, Toxicoeugenetics: The Interface of Epigenetics and Risk Assessment, Tysons, Virginia (2016)
- 140 Invited workshop, American Society of Human Genetics annual meeting, Vancouver, Canada (2016)
- 141 Invited speaker, The Seventh Chinese Conference on Bioinformatics and Systems Biology, Chengdu, China (2016)
- 142 Invited speaker, The third International Conference on 3D Genomics, Wuhan, China (2016)
- 143 Invited speaker, Van Andel Institute, Grand Rapids, MI (2016)
- 144 Invited speaker, Center for Environmental Genetics, University of Cincinnati, Cincinnati, OH (2016)
- 145 Invited speaker, Department of Pathology, John Hopkins University (2016)
- 146 Invited speaker, NIEHS Keystone Science Lecture Seminar, NIEHS (2016)
- 147 Invited speaker, Beijing Institute of Genomics, Chinese Academy of Sciences, Beijing, China (2016)
- 148 Invited speaker, College of Life Sciences, Tsinghua University, Beijing, China (2016)
- 149 Invited speaker, UT/KBRIN Bioinformatics Summit, Cadiz, KY (2016)
- 150 Invited speaker, New York University, Abu Dhabi (2016)
- 151 Invited workshop, Keystone Symposia on Chromatin and Epigenetics, Whistler, British Columbia, Canada (2016)
- 152 Invited workshop, Society of Toxicology annual meeting, New Orleans, LA (2016)
- 153 Invited speaker, Department of Human Genetics, University of Chicago (2016)
- 154 Invited speaker, Epigenetic Modifications in Aging and Disease, Hope Center seminar series, Washington University, St. Louis, MO (2016)
- 155 Invited speaker, Vision Science Seminar (VSS), Department of Ophthalmology and Visual Sciences, Washington University, St. Louis, MO (2016)
- 156 Susan Dutcher Lecture speaker, Department of Genetics, Washington University, St. Louis, MO (2016)
- 157 Invited speaker, Center for Translational Environmental Health Research, Institute of Biosciences and Technology, Texas A&M Health Science Center, Houston, TX (2015)
- 158 Invited speaker, Integrative Genetics and Genomics Graduate group, UC Davis, CA (2015)
- 159 Invited speaker, Cancer Epigenomics Symposium, MD Anderson Cancer Center, Houston, TX (2015)
- 160 Invited speaker, Shanghai Second Military Medical School, Institute of Translational Medicine, Shanghai, China (2015)
- 161 Invited speaker, The First International Epigenomics Conference, Fudan University, Shanghai, China (2015)
- 162 Invited speaker, ASBMR 2015 Annual Meeting, Seattle, WA (2015)
- 163 Invited speaker, Cedars-Sinai Medical Center, Los Angeles, CA (2015)
- 164 Invited speaker, Basic Seminar series at the Keck School of Medicine, University of Southern California, Los Angeles, CA (2015)
- 165 Plenary talk, EMBO/EMBL Symposium: The Mobile Genome: Genetic and Physiological Impacts of Transposable Elements. Heidelberg, Germany (2015)
- 166 Predoctoral Seminar Series for the 2015 WUSM Summer Research Program (SRP), Washington University, St. Louis MO (2015)

- 167 Platform speaker, ASBMB Special Symposium on Evolution and Core Processes in Gene Regulation, St. Louis, MO (2015)
- 168 Invited speaker, FASEB Summer Research Conference on Mobile DNA in Mammalian Genomes, Palm Beach, FL (2015)
- 169 Invited speaker, Musculoskeletal Summer Educational Series, Musculoskeletal Research Center, Department of Orthopaedic Surgery, Washington University, St. Louis, MO (2015)
- 170 Session chair and speaker, 2015 Midwest Zebrafish Conference, St. Louis, MO (2015)
- 171 Invited speaker, Clontech Laboratories, Inc., Mountain View, CA (2015)
- 172 Invited speaker, Gladstone Institute of Cardiovascular Disease, San Francisco, CA (2015)
- 173 Invited speaker, Genetics Research Club, Department of Medical and Molecular Genetics, Indiana University-Purdue University Indianapolis, IN (2015)
- 174 Invited speaker, Medical Sciences Program, Indiana University Bloomington, IN (2015)
- 175 Keynote speaker, Joint Meeting of NIEHS Core Centers and Training Directors, The Southwest Environmental Health Sciences Center, University of Arizona, Tucson, AZ (2015)
- 176 Invited workshop, Joint 2015 Keystone Symposia on DNA Methylation/Epigenomics, Keystone, CO (2015)
- 177 Invited speaker, Department of Epidemiology and Biostatistics, Institute for Computational Biology, Case Western Reserve University School of Medicine (2015)
- 178 Invited speaker, Department of Molecular Microbiology and Immunology, St. Louis University (2014)
- 179 Invited speaker, Beijing Institute of Genomics, Chinese Academy of Sciences, Beijing, China (2014)
- 180 Invited speaker, College of Life Sciences, Tsinghua University, Beijing, China (2014)
- 181 Invited speaker, Department of Bioinformatics, China Agriculture University, Beijing, China (2014)
- 182 Invited Workshop, "Epigenetic annotation of genetic variants", American Society of Human Genetics 2014 Annual Meeting, San Diego (2014)
- 183 Invited speaker, Genetics/Bioinformatics and Systems Biology Seminar, UC San Diego (2014)
- 184 Invited speaker, Biomedical Science (BMS) Graduate Program, Penn State College of Medicine (2014)
- 185 Invited speaker, Department of Computational Biology, St. Jude Children's Research Hospital (2014)
- 186 Invited speaker, Department of Developmental Biology, Washington University (2014)
- 187 Invited speaker, Bioinformatics seminar, UCLA (2013)
- 188 Invited speaker, International Human Epigenome Consortium meeting and Science Days, Berlin, Germany (2013)
- 189 Invited speaker, Interdisciplinary Graduate Program in Molecular & Cellular Biology and the Cancer Genomics and Cell Growth Program, University of Iowa (2013)
- 190 Invited speaker, BioVis, 3rd IEEE Symposium on Biological Data Visualization, Atlanta (2013)
- 191 Invited speaker, Department of Biology, St. Louis University (2013)
- 192 Invited speaker, Biotech Seminar Series, Monsanto, St. Louis (2013)
- 193 Invited speaker, Department of Pathology, UCSF (2013)
- 194 Invited speaker, RIKEN Center for Life Science Technologies, Yokohama, Japan (2013)
- 195 Invited speaker, National Cancer Center Research Institute, Tokyo, Japan (2013)
- 196 Invited speaker, 10th International Workshop on Advanced Genomics, Tokyo, Japan (2013)
- 197 Invited speaker, Gordon Research Conference: Cancer Genetics and Epigenetics, Lucca, Italy (two oral presentations) (2013)
- 198 Invited speaker, College of Life Sciences, Peking University, Beijing (2013)
- 199 Invited speaker, Department of Urology, PLA 301 General Hospital, Beijing (2013)
- 200 Invited speaker, 17th Annual International Conference on Research in Computational Molecular Biology (RECOMB), Beijing (2013)
- 201 Invited speaker, Center for Functional Cancer Epigenetics, Dana Farber Cancer Institute, Harvard (2013)
- 202 Invited speaker, The 4th international meeting on Visualizing Biological Data (VizBi 2013), Broad Institute, Cambridge, MA (2013)
- 203 Invited speaker, NIEHS Center for Environmental Health in Northern Manhattan, Columbia University (2013)
- 204 Invited speaker, Siteman Cancer Center, Endometrial Cancer SPORE program, Washington University in St. Louis (2012)
- 205 Invited speaker, Department of Genetics, Emory University, Atlanta, GA (2012)
- 206 Invited speaker, Epigenetic Actions of Environmental Arsenicals Workshop, University of Arizona (2012)
- 207 Invited speaker, Department of Bioinformatics, Tongji University, Shanghai, China (2012)
- 208 Invited speaker, Cancer Research Center, PLA 301 General Hospital, Beijing, China (2012)
- 209 Invited speaker, Department of Statistics, Northeast Normal University, Changchun, China (2012)
- 210 Invited speaker, The 10th International Bioinformatics Workshop, Jilin University, Changchun, China (2012)
- 211 Invited speaker, AACR2012, Annual meeting of American Association for Cancer Research, Chicago, Illinois (2012)
- 212 Invited speaker, ABRF2012, Annual meeting of Association of Biomolecular Resource Facilities, Orlando, Florida (2012)
- 213 Invited speaker, The Genome Institute, Washington University, St. Louis, MO (2012)
- 214 Invited speaker, Hope Center, Washington University, St. Louis, MO (2012)
- 215 Invited speaker, Genome Informatics, Cold Spring Harbor Laboratory (2011)
- 216 Invited speaker, St. Louis University, St. Louis, MO (2011)
- 217 Invited speaker and panelist, SB5.0, the 5th International Meeting on Synthetic Biology, Stanford, CA (2011)
- 218 Invited speaker, Gladstone Institute and UC San Francisco, CA (2011)
- 219 Invited speaker, Center for Cancer Computational Biology, Dana-Farber Cancer Institute, Harvard (2011)
- 220 Invited speaker, Siteman Cancer Center, Washington University in St. Louis School of Medicine (2010)
- 221 Invited speaker, Department of Bioengineering, University of Illinois at Urbana-Champaign (2010)

- 222 Invited speaker, Sigma-Aldrich, St. Louis (2010)
- 223 Invited speaker, Endometrial Cancer SPORE, Washington University in St. Louis School of Medicine (2010)
- 224 Invited speaker, BIRS Workshop on Statistical Genomics in Biomedical Research, Banff, Canada (2010)
- 225 Invited speaker, Department of Psychiatry, Washington University in St. Louis School of Medicine (2010)
- 226 Invited speaker, National Institute of Aging, Workshop "An Integrated Epigenetic-Genetic Approach to Alzheimer's Disease", Bethesda (2010)
- 227 Invited speaker, The Biology of Genomes, Cold Spring Harbor Laboratory (2010)
- 228 Invited speaker, EMBO Workshop, Visualizing Biological Data (VizBi), EMBL Heidelberg, Germany (2010)
- 229 Invited speaker, NIH Intramural Sequencing Center, Bethesda (2008).
- 230 Invited speaker, Janelia Farm, Howard Hughes Medical Institute, Virginia (2008).
- 231 Invited speaker, The Cancer Genome Atlas steering committee meeting, New York (2008).
- 232 Selected speaker, System Biology: Global Regulation of Gene Expression Meeting at Cold Spring Harbor Laboratory (2008).
- 233 Invited speaker, The Cancer Genome Atlas Data Portal Use Case Workshop, Bethesda (2008).
- 234 Selected speaker, The 13th Annual International Conference on Intelligent Systems for Molecular Biology, Detroit, MI (ISMB 2005).

SOFTWARE

- 1 PhyloCon: Phylogenetic Consensus. <http://ural.wustl.edu/~twang/PhyloCon/>
- 2 MatAlign: Matrix Aligner. <http://ural.wustl.edu/~twang/MatAlign/>
- 3 PhyloNet: Phylogenetic Network. <http://ural.wustl.edu/~twang/PhyloNet/>
- 4 UCSC Cancer Genomics Browser: <http://genome-cancer.ucsc.edu/>
- 5 Human Epigenome Browser at Washington University in St. Louis: <http://epigenomegateway.wustl.edu/>
- 6 Roadmap Epigenomics program data Visualization Hub: <http://VizHub.wustl.edu/>
- 7 MethyLCRF: conditional random field based algorithm to predict genome-wide DNA methylation level at single CpG resolution: <http://methylcrf.wustl.edu/>
- 8 M&M: an algorithm and R package to predict differentially methylated regions by combining MeDIP-seq and MRE-seq data: <http://epigenome.wustl.edu/MnM/>
- 9 EpiCompare: An online tool to define and explore genomic regions with tissue or cell type-specific epigenomic features: <http://epigenome.wustl.edu/EpiCompare/>.
- 10 DeepH&M: Estimating single-CpG hydroxymethylation and methylation levels from enrichment and restriction enzyme sequencing methods: <https://epigenome.wustl.edu/DeepHM/>
- 11 WashU Virus Genome Browser: <https://virusgateway.wustl.edu/>
- 12 WashU Comparative Epigenome Browser: <https://comparativegateway.wustl.edu>
- 13 methylGrapher: Genome-Graph-Based DNA Methylation Analysis Using Whole Genome Bisulfite Sequencing: <https://github.com/twlab/methylGrapher>
- 14 WashU Repeat Browser: <https://repeatbrowser.org>

TRAINEES

Graduate students

- Junchen Gu (2010-2015, defended PhD August 2015, McDonnell Scholar at McDonnell International Scholars Academy)
- GiNell Elliott (2010-2015, joint with Dr. Gary Stormo, defended PhD April 2015, winner of Chancellor's Fellowship)
- Michael Stevens (2011-2014, defended PhD May 2014)
- Vasavi Sundaram (2011-2016, defended PhD April 2016, winner of Cancer Biology Fellowship)
- Hyung Joo Lee (2011-2017, defended PhD April 2017, McDonnell Scholar at McDonnell International Scholars Academy)
- Rebecca Lowdon (2012-2016, defended PhD September 2016, winner of NSF Fellowship)
- Jia Zhou (2012- 2014, defended PhD Nov 2014)
- Jing Li (2013-2014, visiting student from 2nd Military Medical University, defended PhD 2015)
- Renee Sears (2014-2019, defended PhD September 2019)
- Wint Yan (Arthur) Aung (2014-2015, Master)
- Josh Jang (2015-2020, defended PhD January 2020)
- Yu He (2015-2020, defended PhD March 2020)
- Mayank Choudhary (2015-2021, defended PhD August 2021)
- Jennifer Flynn (2015-2021, defended PhD October 2021)
- Yiran Hou (2016-2022, defended PhD July 2022)
- Alan Du (2017-2023, defended PhD May 2023)
- Ju Heon Maeng (2017-2023, defended PhD May 2023)
- Ivy Chen (2018-2024, defended PhD May 2024)
- David Ayeke (2018)
- Kara Quaid (2019-2024, defended PhD June 2024)
- Changxu Fan (2019-2025, defended PhD January 2025)
- Jessica Harrison (2020-)
- Holden (Yong Hao) Liang (2020-2025, defended PhD May 2025)
- Aparna Anand (2021-)

Noah Basri (MSTP, 2021-)
Celine St. Pierre (2021-2025, defended PhD May 2025)
Xuan Qu (MSTP, 2022-2024, defended PhD May 2024)
Prashant Kumar Kuntala (2022-)
Jiawei Shen (Computer Science and Engineering, 2022-)
Siyuan Cheng (Master in Biostatistics, 2022-2023)
Wenjin Zhang (2022-)
Mitchell Grinwald (MSTP, 2023-)
Michael Moore (MSTP, 2023-)
Qinglin Zeng (2023-)
Justin Chen (2023-)
Colin McCornack (MSTP, 2024-)
Rachel Wu (2024-)
Qichen Fu (2024-)
Sheikh Saifur Rahman Jony (2025-)
Ronghan Li (2025-)

Postdoctoral scholars

Michael Mahowald, M.D. Ph.D. (2010-2011, W. M. Keck Fellow)
Xin Zhou, Ph.D. (2010-2014, R25 trainee)
Jiexun (Jessie) Wang, Ph.D. (2011)
Bo Zhang, Ph.D. (2011-2015, R25 trainee)
Daofeng Li, Ph.D. (2011-2016)
Erica Pehrsson (2016-2020, Keck fellow and ACS fellow)
Xiaoyu Zhuo (2016-2021, R25 trainee)
Vasavi Sundaram (2016-2017)
Ananda Datta (2016-2017)
Hyung Joo Lee (2017-2021)
Wanqing Shao (2018-2021)
Benpeng Miao (2018-2023)
Gavriel Matt (2019-2020)
Caryn Carson (2020-2021)
Juan Macias (2022-)
Shihua Dong (2023-)
Alan Du (2023-2024)
Ju Heon Maeng (2023-)
Wesley Saintilnord (2024-)
Tianjie Liu (2024-)
Zheng Dong (2024-)
Juan Jiang (2024-)
Turan Tufan (2024-)
Holden (Yong Hao) Liang (2025-)
Celine St. Pierre (2025-)

Rotation graduate students

Chris Fiore
Kevin Forsberg
Gaurav Singhal
Ruteja Barve
Molly Gibson
Ashley Quiggle
Yuan Zhang
Zane Goodwin
Taylor Southwick
Madeline Keleher
Cheng Cheng
Manishy Pandey
Nicholas Jacobs
Chengran Yang
Aldrin Yim
Juan Macias
Daniel Cui
Jonathan Spalding
Erika Schumacher
Kyle Burbach
Paula Godoy
Ryan Friedman
Andy Yize Li

Julia Wang
Wenwei Liao
Xinxin Wang
Geng Wang
Yawei Wu
Rafael Feliciano
Ji-Sun Kwon
Joseph Bradley
Changfeng Chen
Clara Liu
Aaron Anderson
Wenjin Zhang
Dian Li
Lisa Liao
Clinton Jules
Ariya Chaloemtoem
Mitchell Grinwald
Michael Moore
Nahyun Kong
Qinglin Zeng
Emma Bartley-Dier
Doris Wu
Ling Liao
Ai Zhang
Justin Chen
Evan Peng
Qichen Fu
Alaina Urman
Edward Kang
Evelyn Yang
Bruktawit Amare
Rachel Wu
Saifur Jony
Ronghan Li
Yuchen (Alana) Cheng
Tingkuan Chu
Yuelai Wang
Xiran Song
Sophia Arana

Medical students

Diana Jiang (2015)
Nakul Shah (2016-2020, HHMI fellow, Master 2019)
Eileen Chen (2016)
Lucas Thomas (2017)
Benjamin Katz (2018)
Noah Basri (2019-2021)
Ruthy Mamo (2019, 2020, Meharry Summer Research Program)
Alina Ulezko Antonova (2020)
Omobosola Salisu (2023, Meharry Summer Research Program)

Undergraduate students and high school students

David Russo (2010)
Ava Hughes (2012, YSP)
Peter Edge (2013, Univ. of Minnesota)
Methma Udawatta (2014, Brown Univ.)
Kenzie Foster (2014, South Carolina Governor's School)
Duc Ngo (2014, YSP)
David Zhang (2015-2017, Washington University)
Asia M. Paguntalan (2015, South Carolina Governor's School)
Tammy Ray (2015, South Carolina Governor's School)
Justin Chen (2015-2017, Ladue High School)
Mikayla Choi (2015-2017, Washington University)
Abbie Bowman (2016, South Carolina Governor's School)
Julia Altman (2016, South Carolina Governor's School)
Silas Hsu (2016-2018, Washington University)
Ali Wilkening (2017-2020, Washington University)
Aiyana Riddihough (2017-2019, Washington University)

Jiaxin Ge (2018-2020, Washington University)
Jeffery McMillian (2019, YSP)
Vincent Xu (2018-2022)
Justin Xu (2019, Parkway west)
Jason Xu (2019, Ladue High School)
Ann Zhang (2019, John Burroughs School)
Justin Chen (2019, Columbia University)
Chris Hemauer (2020-, Washington University)
Sophie Xu (2020, Darien High School)
Tami Wong (2020, Washington University, U-STAR summer program)
Eric Yin (2020, Ladue High School)
Alina Chen (2020)
Reeve Sobol (2020-2022, Washington University)
Hannah Chay (2020-2022, Washington University)
Ann Zhang (2020-2021, Yale University)
Amy Li (2021-2023, Boston University)
Miray Murry (2021, Washington University, OGR Summer Undergrad Program)
Max Wrubel (2021, Portland State University, Opportunities in Genomics Research Post-bacc program)
Irene Wang (2021-, Washington University)
Shane Liu (2021-, University of Michigan)
Harsh Wadhwa (2022-, Washington University)
Mary Shang (2022-, Washington University)
Marina Sha (2022-, Carnegie Mellon University)
Sonali Sharma (2022, YSP program, Metro Academic and Classical High School)
Erica Shi (2022, Ladue High School)
Sarah Xie (2022, Washington University)
Nina Tekkey (2022-, Washington University)
Anderson Dai (2023, Ladue High School)
Everett Cui (2023, Ladue High School)
Eva Kasal (2023, John Burroughs School)
Junsik Yun (2023, Sungkyunkwan University)
Ana Welge (2024, St. Olaf College, OGR Summer Lab)
Carlos Saeh (2024, University of Illinois at Urbana-Champaign, MSTP Access Summer Program)
Anyi Sun (2024, Bowdoin College)
Stephen Li (2025, Washington University)
Theo Berenson (2025, Washington University)
Jeremy Schreiner (2025, St. Olaf College, OGR Summer Lab)
Katie Gu (2025, Washington University)
Lucy Chen (2025, Washington University)
Claire Xiao (2025, Metro Academic and Classical High School)

THESIS COMMITTEE

Graduate students (degree granted)

Alan Kwan (D.S., 2011)
Diana Kolbe (Ph.D., 2010)
Nnamdi Ihuegbu (Ph.D., 2011)
Monica Sentmanat (Ph.D., 2012)
Yue Zhao (Ph.D., 2011)
Katherine Bakshian Chiappinelli (Ph.D., 2012)
Lala Motlhabi (M.S., 2011)
Francesco Vallania (Ph.D., 2013)
Keryn Gold (Ph.D., 2013)
Christine Carle (Ph.D. 2013)
Britta Anderson (Ph.D., 2014)
Maximiliaan Schillebeeckx (Ph.D., 2014)
Doyoung Chung (M.S., 2014)
Sheng Chih (Peter) Jin (Ph.D., 2014)
Jing Xia (D.S., 2014)
Scott Higdon (Ph.D., 2015)
Zheng Zuo (Ph.D., 2015)
Chris Fiore (Ph.D., 2015)
Chi Zhang (Ph.D., 2016)
James McDonalds (Ph.D., 2017)
Kiri Ulmschneider (M.S., 2017)
Enrique Ramos (Ph.D., 2015)
Patrick Gonzales (Ph.D., 2015)
Susan Shen (Ph.D., 2016)

Madeline Keleher (Ph.D., 2017)
Philip Ruzycki (Ph.D., 2017)
Shamika Ketkar-Kulkarni (Ph.D., 2018)
Nick Semenkovich (Ph.D., 2016)
Jiangyang Zhao (Ph.D., 2017)
Hemangi Chaudhari (Ph.D., 2018, committee chair)
Boahemaa Adu-Oppong (Ph.D., 2018)
Marcus Mahar (Ph.D., 2019, committee chair)
Mark Lewis (Ph.D., 2019)
Lu Yu (Ph.D., 2018)
William Zhang (Ph.D., 2016)
Hamid Mohamadi (Ph.D., 2017, University of British Columbia, external committee member)
Manish Boolchandani (Ph.D., 2020, committee chair)
Manishi Pandey (Ph.D., 2019, committee chair)
Christopher Bulow (Ph.D., 2018, committee chair)
Seongmi Kim (Ph.D., 2021)
Christopher Yoon (committee chair, committee dissolved)
Jared Goodman (Ph.D., 2020)
Dennis Wu (Ph.D., 2020)
Ji Woong Park (Ph.D., 2019, committee chair)
Jared Andrews (Ph.D., 2019)
Adam Clemens (Ph.D., 2020)
Xiaoyu Dai (Ph.D., 2018, Math)
Juan F. Macias-Velasco (Ph.D., 2022, committee chair)
Jeff Hansen (Ph.D., 2022, committee chair)
Wei Wang (Ph.D., 2019, Math)
Artem Babaian (Ph.D., 2019, University of British Columbia, external committee member)
Paula Godoy (Ph.D., 2022, committee chair)
Ellie Wilson (Ph.D., 2024)
Yiming Zhang (Ph.D., 2024, committee chair)
Sharon Freshour (Ph.D., 2024, committee chair)
Vincent Peng (M.D., Ph.D., 2022)
Yawei Wu (committee chair)
Haikuo Li (Ph.D., 2024, committee chair)
Natalia Jaeger (Ph.D., 2023)
Nicole Hamagami-Samson (Ph.D., 2024)
Alina Ulezko Antonova (M.D., Ph.D., 2024)
Jennifer Tran (Ph.D., 2024)
Nahyun Kong
Jordan Prael (Van Andel Institute, external committee member, Ph.D., 2022)
Turan Tufan (Ph.D., 2024)
Feiya Ou
Shujuan Zhao (committee chair)
Zitian Tang (committee chair)
Dereck Alleyne
Joshua Tobin
Rachel DeWeerd (committee chair)
Zheng Dong (Ph.D., 2024, University of British Columbia, external committee member)
Paige Matusiak (Van Andel Institute, external committee member)
Yingzi Zhang (Ph.D., 2024, King Abdullah University of Science and Technology, external committee member)
Qian Zhang (committee chair)

JUNIOR FACULTY MENTORING

Heather Lawson (Assistant Professor, Washington University, co-mentor, K01 award)
Sungsu Kim (Instructor, Washington University, co-mentor, K01 application)
Harrison Gabel (Assistant Professor, Washington University, mentoring committee member)
Charles Kaufman (Assistant Professor, Washington University, co-mentor, Damon Runyon Clinical Investigator application)
Jing Li (Instructor, Shanghai 2nd Military Academy Medical School, mentor, Yang Fang award)
Kate Chiapponelli (Assistant Professor, George Washington University, co-mentor, K99/R00 award)
Andrew Williams (Assistant Professor, Temple University, mentor, NIH PRIDE-CGE program)
Genesio Karere (Staff Scientist, Texas Biomedical Research Institute, mentor, NIH PRIDE-CGE program)
Alison L. Antes (Division of General Medical Sciences and PSI Lab Co-Investigator, mentoring committee member)
Sid Puram (Department of Otolaryngology/Head and Neck Surgery, K08 advisory committee)
Aadel Ahmed Chaudhuri (Department of Radiation Oncology)
Thorold Theunissen (Department of Developmental Biology, mentoring committee member)

Carlos Barrero (Assistant Professor, Temple University, K01 mentor)
Yong Cheng (Assistant Member, St. Jude Hospital, Grant Mentoring Committee)
Tristan Qingyun Li (Department of Neurosciences, mentoring committee member)
Parker Wilson (Department of Pathology & Immunology, K08 mentor)
David Chen (Division of Dermatology, Department of Medicine, Cancer Research Foundation mentor)
Priyanka Verma (Department of Medicine, mentor for Pew grant)
Kaye Brathwaite (Division of Pediatric Nephrology)
Dimitrios Mathios (Department of Neurosurgery)
Yang (Eric) Li (Department of Neurosurgery)
Rui Tang (Department of Neurosurgery)
Charles Kaufman (Department of Medicine)