

# Michael P. Meers

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## RESEARCH EXPERIENCE AND EDUCATION

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<b>Assistant Professor</b>	<b>Washington University School of Medicine</b>	2022-
Epigenome profiling to study transcription factor function in development		
<b>Postdoctoral Fellow</b>	<b>Fred Hutchinson Cancer Research Center</b>	2017-2022
Design of high-throughput chromatin profiling and analysis tools Study of pioneer transcription factor molecular function in development		
<b>Advisor:</b> Steven Henikoff, PhD		
<b>Graduate Student</b>	<b>University of North Carolina at Chapel Hill</b>	2010-2017
Implementation of metazoan histone replacement genetic models Study of the function of histone H3 lysine 36 methylation in RNA processing		
<b>Advisor:</b> A. Gregory Matera, PhD		
<b>Undergraduate Research</b>	<b>Duke University</b>	2007-2010
<b>Advisor:</b> Claudia Gunsch, PhD, Duke University Study of mechanisms of bacterial toluene biosynthesis (2009-2010)		
<b>Advisor:</b> Nathan Yee, PhD, Rutgers University Genomic analysis of <i>E. cloacae</i> pathways conferring selenium compound reducing activity (2007)		

## FELLOWSHIPS AND AWARDS

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Cancer Research Foundation Young Investigator Award	2023
K99/R00 Pathway to Independence Award, NIGMS	2021-Present
William Guy Forbeck Foundation Scholar	2021-Present
Intersections Science Symposium Fellow	2021-2022
Ruth N. Kirchstein NRSA F32 Postdoctoral Fellowship, NIGMS	2020-2021
Washington Research Foundation Postdoctoral Fellowship: Finalist	2018
Ruth N. Kirchstein NRSA F31 Predoctoral Fellowship, NCI	2014-2017

## FEATURED PUBLICATIONS ([Google Scholar](#))

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- Meers MP**, Llagas G, Janssens DH, Codomo CA, Henikoff S. Multifactorial profiling of epigenetic landscapes at single-cell resolution using MuTI-Tag. *Nature Biotechnology* 2022, doi: [10.1038/s41587-022-01522-9](https://doi.org/10.1038/s41587-022-01522-9)
- Janssens DH, **Meers MP**, Wu SJ, Babaeva E, Meshinchi S, Sarthy JF, Ahmad K, Henikoff S. Automated CUT&Tag profiling of chromatin heterogeneity in KMT2Ar leukemia. *Nature Genetics* 2021, doi: [10.1038/s41588-021-00941-9](https://doi.org/10.1038/s41588-021-00941-9)
- Sarthy JF, **Meers MP**, Janssens DH, Henikoff JG, Feldman H, Paddison PJ, Lockwood CM, Vitanza NA, Olson JM, Ahmad K, Henikoff S. Histone deposition pathways determine the chromatin landscapes of H3.1 and H3.3 K27M oncohistones. *eLife* 2020, doi: [10.7554/eLife.61090](https://doi.org/10.7554/eLife.61090)
- Meers MP**, Janssens DH, Henikoff S. Pioneer factor-nucleosome binding events during differentiation are motif-encoded. *Molecular Cell* 2019, doi: [10.1016/j.molcel.2019.05.025](https://doi.org/10.1016/j.molcel.2019.05.025)
- Meers MP**, Tenenbaum D, Henikoff S. Peak calling by Sparse Enrichment Analysis for CUT&RUN chromatin profiling. *Epigenetics Chromatin* 2019, doi: [10.1186/s13072-019-0287-4](https://doi.org/10.1186/s13072-019-0287-4)
- Meers MP**, Bryson TD, Henikoff JG, Henikoff S. Improved CUT&RUN chromatin profiling tools. *eLife* 2019, doi: [10.7554/eLife.46314](https://doi.org/10.7554/eLife.46314)
- Meers MP**, Henriques T, Lavender CA, McKay DJ, Strahl BD, Duronio RJ, Adelman K, Matera AG. Histone gene replacement reveals a post-transcriptional role for H3K36 in maintaining metazoan transcriptome fidelity. *eLife* 2017, doi: [10.7554/eLife.23249](https://doi.org/10.7554/eLife.23249)

## REVIEWS AND BOOK CHAPTERS

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1. Talbert PB, **Meers MP**, Henikoff S. Old cogs, new tricks: the evolution of gene expression in a chromatin context. *Nature Reviews Genetics* 2019, doi: [10.1038/s41576-019-0105-7](https://doi.org/10.1038/s41576-019-0105-7)
2. **Meers MP**, Leatham-Jensen M, Penke TJR, McKay DJ, Duronio RJ, Matera AG. An Animal Model for Genetic Analysis of Multi-Gene Families: Cloning and Transgenesis of Large Tandemly Repeated Histone Gene Clusters. *Methods in Molecular Biology* 2018, doi: [10.1007/978-1-4939-8663-7\\_17](https://doi.org/10.1007/978-1-4939-8663-7_17)
3. Wigington CP, Williams KR, **Meers MP**, Bassell GJ, Corbett AH. Poly(A) RNA-binding proteins and polyadenosine RNA: new members and novel functions. *Wiley Interdisciplinary Reviews: RNA* 2014, doi: [10.1002/wrna.1233](https://doi.org/10.1002/wrna.1233)

## SELECTED ORAL PRESENTATIONS

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Gordon Research Seminar: Cancer Genetics and Epigenetics	2023
Forbeck Scholars Fall Retreat	2022
ASBMB Special Symposium: Transcriptional Regulation by Chromatin and RNA Polymerase II	2022
Forbeck Forum in Dynamic Histone Methylation and Chromatin Organization in Tumor Suppression	2022
Chan Zuckerberg Initiative Single Cell Biology Symposium	2021
Next Generation Genomics Symposium	2021
Intersections Science Fellows Symposium	2021
Cell Symposia: Transcriptional Regulation in Evolution, Development, and Disease	2019
Penn State Summer Symposium: Chromatin and Epigenetic Regulation of Transcription	2019

## SELECTED POSTER PRESENTATIONS

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EMBL Chromatin and Epigenetics Conference	2023
HHMI Annual Science Meeting	2019
Annual ENCODE Users Meeting	2019
Cold Spring Harbor: Epigenetics & Chromatin	2018
The 21 <sup>st</sup> Annual RNA Society Meeting	2016

## TEACHING AND MENTORING EXPERIENCE

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**Washington University School of Medicine in St. Louis** 2023  
Lecturer for core Genomics course (Bio 5488)

**University of North Carolina at Chapel Hill** 2010  
Co-instructed Advanced Biochemistry Lab

### Mentored Trainees:

Arnold Federico, PhD Graduate Student (Washington University School of Medicine)	2023-Present
Yu-Liang Yeh, PhD Graduate Student (Washington University School of Medicine)	2023-Present
Brittany Johnson, Research Technician (Washington University School of Medicine)	2022-Present
Trizia Llagas, Research Technician (Fred Hutchinson Cancer Research Center)	2020-2022
Kirsten Adams, Undergraduate Assistant (UNC Chapel Hill)	2016-2017
Nathan Spain, Undergraduate Assistant (UNC Chapel Hill)	2014-2016
Katie Bolling, Rotation Graduate Student (UNC Chapel Hill)	2013
Casey Schmidt, Rotation Graduate Student (UNC Chapel Hill)	2012
Stephen Cooper, Undergraduate Assistant (UNC Chapel Hill)	2011-2014

## PROFESSIONAL AFFILIATIONS AND SERVICE

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**Reviewer:** Science, Molecular Cell, Nature Cell Biology, Nature Genetics, Nature Structural & Molecular Biology, Genome Biology, Genome Research, Communications Biology 2018-Present

**Member,** The Genetics Society of America 2014-2017

**Graduate Student Representative,** The International RNA Society 2012-2015  
Organized/coordinated Junior Scientist social and professional development programming at annual International RNA Society meetings

**Member,** The International RNA Society 2012-2017