

Curriculum Vitae
Sarah J. Hainer, Ph.D.

Department of Biological Sciences
University of Pittsburgh
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Current Position

Assistant Professor

University of Pittsburgh, Pittsburgh, Pennsylvania
Department of Biological Sciences
01/2018 – present

Education and Training

Postdoctoral Fellow

University of Massachusetts Medical School, Worcester, Massachusetts
Department of Molecular, Cell, and Cancer Biology
09/2012 – 12/2017

Doctor of Philosophy

University of Pittsburgh, Pittsburgh, Pennsylvania
Department of Biological Sciences
Molecular, Cellular, and Developmental Biology Program
08/2007 – 08/2012

Bachelor of Science

University of Pittsburgh, Pittsburgh, Pennsylvania
College of Arts and Sciences
Major: Molecular Biology and Biochemistry
Minors: Chemistry and Statistics
08/2003 – 04/2007

Research Experience

Postdoctoral Fellow

University of Massachusetts Medical School, Worcester, Massachusetts
Advisor: Thomas Fazio, Department of Molecular, Cell, and Cancer Biology
Project Title: *The Role of esBAF in Regulating ncRNA mediated Gene Expression in ES cells*
2012 – 2017

Doctoral Student

University of Pittsburgh, Pittsburgh, Pennsylvania
Advisor: Joseph Martens, Department of Biological Sciences
Project Title: *The Contribution of Chromatin and Chromatin Associated Factors to Transcription Regulation in Saccharomyces cerevisiae*
2007 – 2012

Curriculum Vitae
Sarah J. Hainer, Ph.D.

Undergraduate Research Assistant

University of Pittsburgh, Pittsburgh, Pennsylvania

Advisor: Jeffrey Lawrence, Department of Biological Sciences

Project Title: *The Influence of Protozoan Predation on Antigenic Diversity in Salmonella enterica*
2004 – 2007

Honors and Fellowships

Leukemia and Lymphoma Special Fellow

Individual Postdoctoral Fellowship/Transition Award (3 year award; \$65,000/year)

2016 – present

Leukemia and Lymphoma Fellow

Individual Postdoctoral Fellowship (3 year award; \$55,000/year)

2013 – 2016

Postdoctoral Training Program Fellowship (T32)

University of Massachusetts Medical School, Cancer Biology Department

2012 – 2013

Andrew Mellon Pre-doctoral Fellowship

University of Pittsburgh, College of Arts and Sciences

2011 – 2012

Mary P. Edmonds Graduate Student Award

University of Pittsburgh, Molecular, Cellular, and Developmental Biology Program

2011

Honorable Mention for Poster and Poster Presentation

Pennsylvania State University, Summer Symposium on Chromatin and Epigenetics

2011

Graduate Student Expo Outstanding Poster Award

University of Pittsburgh, School of Arts & Sciences

2011

Pisum Prize Poster Award

University of Pittsburgh, Department of Biological Sciences

2010

Samuel D. Colella Award for Undergraduate Research

University of Pittsburgh, Department of Biological Sciences

2006

Teaching and Mentoring Experience

Research Mentor: Advised one undergraduate student and two rotation students

University of Massachusetts Medical School, Laboratory of Thomas Fazio

2013 – 2017

Curriculum Vitae
Sarah J. Hainer, Ph.D.

Teaching Assistant: Introduction to Biology Laboratory II
University of Pittsburgh, Department of Biological Sciences
Summer 2012

Teaching Assistant: Introduction to Biology Laboratory I
University of Pittsburgh, Department of Biological Sciences
Summer 2012

Teaching Assistant: Virology
University of Pittsburgh, Department of Biological Sciences
Fall 2010

Research Mentor: Advised three undergraduate students and two rotation students
University of Pittsburgh, Laboratory of Joseph Martens
2008 – 2012

Research Mentor: Advised two undergraduate students
University of Pittsburgh, Laboratory of Jeffrey Lawrence
2004 – 2007

Seminars and Presentations

SJ Hainer, A Boskovic, OJ Rando, TG Fazio. “Profiling of pluripotency factors in individual stem cells and early embryos”. Pittsburgh Chromatin Mini-Symposium. May 2018, [Seminar](#)

SJ Hainer, A Boskovic, OJ Rando, TG Fazio. “Profiling of pluripotency factors in individual stem cells and early embryos”. Magee Women’s Health Institute WiP seminar series. March 2018, [Seminar](#)

SJ Hainer, A Boskovic, OJ Rando, TG Fazio. “Profiling of pluripotency factors in individual stem cells and early embryos”. Keystone Gene Control in Development Disease. March 2018, [Poster](#)

SJ Hainer, A Boskovic, OJ Rando, TG Fazio. “Single cell and single embryo profiling of transcription factors”. CSHL Systems Biology Conference. March 2018, [Poster](#)

Publications

1. **SJ Hainer***, A Boskovic, OJ Rando, TG Fazio*. Profiling of pluripotency factors in individual stem cells and early embryos. Currently under revision for Nature
*denotes co-corresponding authors
2. D Acharya, **SJ Hainer**, Y Yoon, F Wang, I Bach, JA Rivera-Perez, TG Fazio. KAT-independent gene regulation by Tip60 promotes ESC self-renewal but not pluripotency. Cell Reports. 2017 19: 671-679
3. **SJ Hainer**, KN McCannell, J Yu, L Ee, LJ Zhu, OJ Rando, TG Fazio. DNA methylation directs genomic localization of Mbd2 and Mbd3 in ES cells. Elife. 2016 Nov 16;5
4. **SJ Hainer** and JA Martens. Regulation of chaperone binding and nucleosome dynamics by key residues within the globular domain of histone H3. Epigenetics & Chromatin. 2016 Apr 30;9:17

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5. **SJ Hainer** and TG Fazio. Regulation of Nucleosome Architecture and Factor Binding Revealed by Nuclease Footprinting of the ESC Genome. *Cell Reports*. 2015 Oct 6;13(1):61-9
6. **SJ Hainer**, W Gu, BR Carone, BL Landry, OJ Rando, CC Mello, TG Fazio. Suppression of pervasive noncoding transcription in embryonic stem cells by esBAF. *Genes & Dev*. 2015 Feb 15;29(4): 362-378
7. PB Chen, LJ Zhu, **SJ Hainer**, KN McCannell, TG Fazio. Unbiased chromatin accessibility profiling by RED-seq uncovers unique features of nucleosome variants in vivo. *BMC Genomics*. 2014 15:1104
8. BR Carone, JH Hung, **SJ Hainer**, MT Chou, DM Carone, Z Weng, TG Fazio, OJ Rando. High-resolution mapping of chromatin packaging in mouse embryonic stem cells and sperm. *Dev Cell*. 2014 Jul 14: 11-22
9. **SJ Hainer**, BA Charsar, SB Cohen, JA Martens. Identification of mutant versions of the Spt16 histone chaperone that are defective for transcription-coupled nucleosome occupancy in *Saccharomyces cerevisiae*. *G3 (Bethesda)*. 2012 May 2:555-567
10. JA Pruneski, **SJ Hainer**, KO Petrov, JA Martens. The Paf1 complex represses *SER3* transcription in *Saccharomyces cerevisiae* by facilitating intergenic transcription-dependent nucleosome occupancy of the *SER3* promoter. *Eukaryotic Cell*. 2011 Oct;10(10):1283-94
11. **SJ Hainer** and JA Martens. Identification of histone mutations that are required for transcription-coupled nucleosome occupancy. *Mol Cell Biol*. 2011 Sep;31(17):3557-68
*This article was featured as a Spotlight article chosen by the editors in the same journal
12. **SJ Hainer** and JA Martens. Transcription of ncDNA across regulatory sequences: many roads lead to local gene regulation. *Transcription*. 2011 May/June 2(3):120-123
13. **SJ Hainer**, JA Pruneski, RD Mitchell, R Monteverde, JA Martens. Intergenic transcription causes repression by directing nucleosome assembly. *Genes & Dev*. 2011 Jan 1;25(1):29-40

References

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Job Dekker, HHMI Investigator, Joseph J. Byrne Chair in Biomedical Research, Professor
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Craig C. Mello, HHMI Investigator, Blais Chair of Molecular Medicine, Distinguished Professor
University of Massachusetts Medical School
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508-856-1602