David C. Klein

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EDUCATION

In Progress — **Ph.D., Molecular, Cellular, and Developmental Biology**
Department of Biological Sciences, University of Pittsburgh

May 2017 — **B.S., Biology and Religion** Furman University

CURRENT POSITION

2018 – Present — **Graduate Student**
Advisor: Dr. Sarah J. Hainer. Department of Biological Sciences, University of Pittsburgh. *Determining whether the GBAF complex regulates enhancers to control oncogenes in acute myeloid leukemia.*

PREVIOUS POSITIONS

2018 — **Rotation Student**
Advisor: Dr. Sarah J. Hainer. Department of Biological Sciences, University of Pittsburgh. *The essential histone chaperone Spt16 is necessary for maintenance of pluripotency in murine embryonic stem cells*

2017 — **Rotation Student**
Advisor: Dr. Karen M. Arndt. Department of Biological Sciences, University of Pittsburgh. *Differential expression of Cdc73 in S. cerevisiae with implications for human cancer*

2017 — **Rotation Student**
Advisor: Dr. Anthony Schwacha. Department of Biological Sciences, University of Pittsburgh. *A novel system for production and purification of the Mcm2-7 replicative helicase*

2015 – 2017 — **Undergraduate Research Assistant**
Advisor: Dr. Renee J. Chosed. Department of Biology, Furman University; Department of Biochemistry, University of South Carolina School of Medicine – Greenville. *Modeling the MLL1 multiprotein complex in S. cerevisiae*

HONORS, SCHOLARSHIPS, AND FUNDING SOURCES

	Year(s)
University of Pittsburgh Arts and Sciences Graduate Fellowship	2017 – 2018
Rex Eugene Kerstetter Award for Excellence in Biology, Undergraduate Award	2017
Beta Beta Beta, Biological Honor Society Inductee	2016 – 2017
Theta Alpha Kappa, Religion Honor Society Inductee	2016 – 2017
National Institutes of Health – SC-INBRE, Undergraduate research stipend	2016
Furman Advantage Fellow, Undergraduate research stipend	2015
Phi Eta Sigma, Undergraduate Honor Society Inductee	2014 – 2017

Furman University Bell Tower Scholar, Undergraduate scholarship 2013 – 2017
South Carolina Palmetto Fellow with Enhancement, Undergraduate scholarship 2013 – 2017
Furman Honors Award, Undergraduate Scholarship 2013 – 2017

PUBLICATIONS

DC Klein and SJ Hainer. "Chromatin Regulation and Dynamics in Stem Cells". 2020. *Current Topics in Developmental Biology*. DOI:10.1016/bs.ctdb.2019.11.002
DC Klein and SJ Hainer. "Genomic Methods in Profiling DNA Accessibility and Factor Localization". 2020. *Chromosome Research.* DOI: 10.1007/s10577-019-09619-9
DC Klein, A Lal, E Longan, M Baker, S Gogoli, J Wang, S Alkoutami, E Zibas, and RJ Chosed. "Construction of hybrid yeast-human histone methyltransferase complexes in *Saccharomyces cerevisiae* clarifies the roles of Bre2 and Ash2L for mixed lineage leukemia." 2019. *Biomedical Genetics and Genomics*. DOI: 10.15761/BGG.1000142

PRESENTATIONS

Seminar, "Determining whether the GBAF complex regulates enhancers to promote oncogene transcription in acute myeloid leukemia." Department of Biological Sciences Seminar, Dec. 2019
Seminar, "Determining the role of the essential histone chaperone FACT in maintenance of pluripotency." Department of Biological Sciences Seminar, Oct. 2018
Rotation Talk, "The essential histone chaperone Spt16 is necessary for maintenance of pluripotency in murine embryonic stem cells." Apr. 2018
Rotation Talk, "Differential expression of Cdc73 in *S. cerevisiae* with implications for human cancer. Feb. 2018
Rotation Talk, "A novel system for production and purification of the Mcm2-7 replicative helicase." Nov. 2017
Paper Presentation, "The Theravada Kathina Rite at a Carolina Wat: a Reinterpretation" Furman Engaged Symposium, Apr. 2017
Poster Presentation, "Modeling the MLL1 multiprotein complex in *Saccharomyces cerevisiae*" NIH-SC-INBRE Conference, Aug. 2016
Poster Presentation, "Modeling the MLL1 multiprotein complex in *Saccharomyces cerevisiae*" Furman Engaged Symposium Apr. 2016
Poster Presentation, "Modeling the MLL1 multiprotein complex in *Saccharomyces cerevisiae*" Association of Southeastern Biologists Conference, Apr. 2016
Poster Presentation, "Modeling the MLL1 multiprotein complex in *Saccharomyces cerevisiae*" South Carolina EPSCoR IDEA Conference, Jan. 2016

MENTORING AND PROFESSIONAL SERVICE

Teaching Assistant, BIOSCI-1005: Introduction to Biochemistry Lab. Spring 2019. Professor: Dr. Anthony Schwacha. Prepared materials and oversaw experimental procedures in lab course
Reviewer, University of Pittsburgh Arts and Sciences Graduate Student Organization Elizabeth Baranger Teaching Awards Committee. 2018, 2019. Reviewed applications for graduate teaching assistants nominated by undergraduate students
Research Assistant, Furman University. 2015 – 2018. Mentored eight undergraduate researchers, teaching techniques, practices, and theory of working in a biochemistry laboratory

Manuscripts Co-reviewed

Nature Reviews Methods Primers, 2020 (1); Genetics, 2020 (1); Cell Reports, 2020 (1); BMC Genomics, 2020 (1); Nature Communications, 2019-2020 (2); WIREs System Biology and Medicine, 2019 (1).

Professional Affiliations

Association of Southeastern Biologists. 2016 – 2017