

CURRICULUM VITAE

Robert Kendall McGinty, M.D., Ph.D.

A) PERSONAL INFORMATION

Division of Chemical Biology and Medicinal Chemistry
UNC Eshelman School of Pharmacy
3210 Marisco Hall Campus Box # 7363
125 Mason Farm Road
UNC-Chapel Hill, NC 27599-7363

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B) EDUCATION

2011 Doctor of Medicine (M.D.) as part of the Tri-Institutional MD-PhD Program
Weill Cornell Medical College
New York, NY

2010 Doctor of Philosophy (Ph.D.) as part of the Tri-Institutional MD-PhD Program
The Rockefeller University
New York, NY

2003 Bachelor of Science (B.S.) in Biochemistry, with Distinction Honors Program
Iowa State University, Ames, IA

C) PROFESSIONAL EXPERIENCE

11/2017 – present **Member**, Molecular Therapeutics Program,
Lineberger Comprehensive Cancer Center, The University of North Carolina at
Chapel Hill, Chapel Hill, NC

07/2016 – present **Assistant Professor**, Division of Chemical Biology and Medicinal Chemistry,
UNC Eshelman School of Pharmacy, The University of North Carolina at Chapel
Hill, Chapel Hill, NC

07/2016 – present **Joint Assistant Professor**, Department of Biochemistry and Biophysics,
UNC School of Medicine, The University of North Carolina at Chapel Hill, Chapel
Hill, NC

05/2016 – 06/2016 **Visiting Scientist**, Structural Studies Division,
MRC Laboratory of Molecular Biology, Cambridge, UK

07/2011 – 06/2016 **Post-doctoral Fellow**, Department of Biochemistry and Molecular Biology,
The Pennsylvania State University, University Park, PA

D) HONORS AND AWARDS

- 2020 Instructor worthy of recognition, UNC Eshelman School of Pharmacy
- 2020 UNC nominee for Blavatnik Award for Young Scientists, Life Sciences
- 2020 Division of Chemical Biology and Medicinal Chemistry Certificate of Excellence in Teaching
- 2019 Division of Chemical Biology and Medicinal Chemistry Certificate of Excellence in Teaching
- 2019 NIGMS Maximizing Investigators' Research Award (R35)
- 2017 Pew-Stewart Scholar in Cancer Research
- 2017 Searle Scholar
- 2015 Damon Runyon Dale F. Frey Breakthrough Scientist Award
- 2012 Damon Runyon Post-doctoral Fellowship
- 2003 Top graduate in Liberal Arts and Sciences, Iowa State University
- 2003 Chad Hoffman Undergraduate Achievement Award
- 2001 T.A. and Grace Wilson Endowed Scholarship

E) BIBLIOGRAPHY & PRODUCTS OF SCHOLARSHIP

BOOK CHAPTERS

1. **McGinty RK**, and Tan S. Histone, nucleosome, and chromatin structure. Fundamentals of Chromatin. 2013 J. L. Workman and S. M. Abmayr, eds. New York: Springer, pp. 1–28.

REFEREED PAPERS

Publications from work at UNC:

#Corresponding authorship, *Co-corresponding authorship

1. Budziszewski GR, Zhao Y, Spangler CJ, Kedziora KM, Williams MR, Azzam DN, Skrajna A, Koyama Y, Cesmat AP, Simmons HC, Strauss JD, Kireev D, **McGinty RK**#. Multivalent DNA and nucleosome acidic patch interactions specify VRK1 mitotic localization and activity. (in review at Nucleic Acids Res)
2. Spangler CJ, Yadav SP, Dongxu L, Geil CN, Smith CB, Wang GG*, Lee T-H*, and **McGinty RK***. Dot1L activity in leukemia cells requires interaction with ubiquitylated H2B that promotes productive nucleosome binding. Cell Reports. 2022 (accepted)
3. Spangler CJ and **McGinty RK**#. Determination of histone methyltransferase structures in complex with the nucleosome by cryogenic electron microscopy. Methods Mol Biol. 2022 (accepted)
4. Waybright JM, Clinkscales SE, Barnash KD, Budziszewski GR, Rectenwald JM, Chiarella AM, Norris-Drouin JL, Cholensky SH, Pearce KH, Herring LE, **McGinty RK**, Hathaway NA, and James LI. A peptidomimetic ligand targeting the chromodomain of MPP8 reveals MPP8's association with the HUSH complex. ACS Chem Biol. 2021 Sep 17;16(9):1721-1736.
5. **McGinty RK*** and Tan S*. Principles of nucleosome recognition by chromatin factors and enzymes. Curr Opin Struct Biol. 2021 Jun 28;71:16-26.
6. Boyer JA, Spangler CJ, Strauss JD, Cesmat AP, Liu P, **McGinty RK***, Zhang Q*. Structural basis of nucleosome-dependent cGAS inhibition. Science. 2020 Oct 23;370(6515):450-454.

7. Skrajna A, Goldfarb D, Kedziora KM, Cousins EM, Grant GD, Spangler CJ, Barbour EH, Yan X, Hathaway NA, Brown NG, Cook JG, Major MB, **McGinty RK#**. Comprehensive nucleosome interactome screen establishes fundamental principles of nucleosome binding. *Nucleic Acids Res.* 2020 Sep 25;48(17):9415-9432.
8. Anderson CJ, Baird MR, Hsu A, Barbour EH, Koyama Y, Borgnia MJ, **McGinty RK#**. Structural Basis for Recognition of Ubiquitylated Nucleosome by Dot1L Methyltransferase. *Cell Reports.* 2019 Feb 12;26(7):1681-1690.
9. Jeon J, **McGinty RK**, Muir TW, Kim JA, Kim J. Crosstalk among Set1 complex subunits involved in H2B ubiquitylation-dependent H3K4 methylation. *Nucleic Acids Res.* 2018 Nov 30;46(21):11129-11143.

Publications prior to independence:

10. **McGinty RK**, Makde RD, Tan S. Preparation, Crystallization, and Structure Determination of Chromatin Enzyme/Nucleosome Complexes. *Methods Enzymol.* 2016;573:43-65.
11. Girish TS, **McGinty RK**, Tan S. Multivalent Interactions by the Set8 Histone Methyltransferase With Its Nucleosome Substrate. *J Mol Biol.* 2016 Apr 24;428(8):1531-43.
12. **McGinty RK**, Tan S. Recognition of the nucleosome by chromatin factors and enzymes. *Curr Opin Struct Biol.* 2016 Apr;37:54-61.
13. **McGinty RK**, Tan S. Nucleosome structure and function. *Chem Rev.* 2015 Mar 25;115(6):2255-73.
14. **McGinty RK**, Henrici RC, Tan S. Crystal structure of the PRC1 ubiquitylation module bound to the nucleosome. *Nature.* 2014 Oct 30;514(7524):591-6.
15. Tang Z, Chen WY, Shimada M, Nguyen UT, Kim J, Sun XJ, Sengoku T, **McGinty RK**, Fernandez JP, Muir TW, Roeder RG. SET1 and p300 act synergistically, through coupled histone modifications, in transcriptional activation by p53. *Cell.* 2013 Jul 18;154(2):297-310.
16. Kim J, Kim JA, **McGinty RK**, Nguyen UT, Muir TW, Allis CD, Roeder RG. The n-SET domain of Set1 regulates H2B ubiquitylation-dependent H3K4 methylation. *Mol Cell.* 2013 Mar 28;49(6):1121-33.
17. Whitcomb SJ, Fierz B, **McGinty RK**, Holt M, Ito T, Muir TW, Allis CD. Histone monoubiquitylation position determines specificity and direction of enzymatic cross-talk with histone methyltransferases Dot1L and PRC2. *J Biol Chem.* 2012 Jul 6;287(28):23718-25.
18. Ruthenburg AJ, Li H, Milne TA, Dewell S, **McGinty RK**, Yuen M, Ueberheide B, Dou Y, Muir TW, Patel DJ, Allis CD. Recognition of a mononucleosomal histone modification pattern by BPTF via multivalent interactions. *Cell.* 2011 May 27;145(5):692-706.
19. Fierz B, Chatterjee C, **McGinty RK**, Bar-Dagan M, Raleigh DP, Muir TW. Histone H2B ubiquitylation disrupts local and higher-order chromatin compaction. *Nat Chem Biol.* 2011 Feb;7(2):113-9.
20. Scheuermann JC, de Ayala Alonso AG, Oktaba K, Ly-Hartig N, **McGinty RK**, Fraterman S, Wilm M, Muir TW, Müller J. Histone H2A deubiquitinase activity of the Polycomb repressive complex PR-DUB. *Nature.* 2010 May 13;465(7295):243-7.
21. Chatterjee C, **McGinty RK**, Fierz B, Muir TW. Disulfide-directed histone ubiquitylation reveals plasticity in hDot1L activation. *Nat Chem Biol.* 2010 Apr;6(4):267-9.

22. **McGinty RK**, Köhn M, Chatterjee C, Chiang KP, Pratt MR, Muir TW. Structure-activity analysis of semisynthetic nucleosomes: mechanistic insights into the stimulation of Dot1L by ubiquitylated histone H2B. *ACS Chem Biol*. 2009 Nov 20;4(11):958-68.
23. **McGinty RK**, Chatterjee C, Muir TW. Semisynthesis of ubiquitylated proteins. *Methods Enzymol*. 2009;462:225-43.
24. Chiang KP, Jensen MS, **McGinty RK**, Muir TW. A semisynthetic strategy to generate phosphorylated and acetylated histone H2B. *Chembiochem*. 2009 Sep 4;10(13):2182-7.
25. Kim J, Guermah M, **McGinty RK**, Lee JS, Tang Z, Milne TA, Shilatifard A, Muir TW, Roeder RG. RAD6-Mediated transcription-coupled H2B ubiquitylation directly stimulates H3K4 methylation in human cells. *Cell*. 2009 May 1;137(3):459-71.
26. **McGinty RK**, Kim J, Chatterjee C, Roeder RG, Muir TW. Chemically ubiquitylated histone H2B stimulates hDot1L-mediated intranucleosomal methylation. *Nature*. 2008 Jun 5;453(7196):812-6.
27. Chatterjee C, **McGinty RK**, Pellois JP, Muir TW. Auxiliary-mediated site-specific peptide ubiquitylation. *Angew Chem Int Ed Engl*. 2007;46(16):2814-8.

INVITED ORAL PRESENTATIONS

1. Telluride Workshop on Chromatin Structure and Dynamics, June 26-30, 2022. (Scheduled)
2. Johns Hopkins University, invited seminar, April 18, 2022. (Scheduled)
3. National Cancer Institute, Laboratory of Biochemistry and Molecular Biology Virtual Seminar Series, invited seminar, February 17, 2022. (Scheduled)
4. UTSW Department of Biochemistry Seminar Series, invited seminar, TBD. (Seminar originally scheduled for May 14, 2020, postponed due to COVID-19 pandemic, rescheduled for February 3, 2022, and postponed again)
5. ARPA-H Initiative Meeting, UNC, virtual. August 30, 2021.
6. EBML Conference: Chromatin and Epigenetics. Virtual, May 17-20, 2021. (Talk selected from abstract)
7. Carolina Chromatin Consortium, UNC, virtual. April 1, 2021.
8. Pew Scholars Retreat, virtual. March 8-10 and 24-26, 2021.
9. St. Jude Children's Research Hospital, Structural Biology Department, invited seminar, virtual, February 22, 2021.
10. Washington State University, School of Molecular Biosciences, invited seminar, virtual, February 18, 2021.
11. UNC Lineberger Comprehensive Cancer Center Seminar Series, UNC, virtual. September 30, 2020.
12. Telluride Workshop on Chromatin Structure and Dynamics, virtual. August 3-7, 2020.
13. Iowa State University Structural Biology Symposium. May 28, 2020. (Symposium canceled due to COVID-19 pandemic)
14. Searle Scholars Meeting. April 19-22, 2020. (Meeting canceled due to COVID-19 pandemic)
15. First Triangle Area Cryo-EM Symposium. December 16-17, 2019.
16. Toxicology Department, North Carolina State University. September 10, 2019.
17. Summer Symposium in Molecular Biology: Chromatin and Epigenetic Regulation of Transcription. July 30-August 2, 2019. (Talk selected from abstract)
18. Lineberger Comprehensive Cancer Center Scientific Retreat. October 16, 2018.
19. Carolina Chromatin Consortium, UNC. September 6, 2018.
20. Telluride Workshop on Chromatin Structure and Dynamics. July 30-August 3, 2018.
21. Pew Scholars Retreat. March 18-23, 2018

22. UNC Structural Biology Interest Group. February 7, 2018.
23. Frontiers of Protein Chemistry Symposium, Princeton University. June 24, 2017.
24. National Institute of Environmental Health Sciences (NIEHS), Epigenetics and Stem Cell Biology Seminar Series. May 11, 2017.
25. Lineberger Comprehensive Cancer Center, Cancer Cell Biology and Molecular Therapeutics Program Joint Retreat, UNC. April 6, 2017.
26. UNC Biochemistry and Biophysics Seminar Series. September 20, 2016.
27. Carolina Chromatin Consortium, UNC. September 1, 2016.
28. UNC Biochemistry and Biophysics Departmental Retreat. April 28-29, 2016.
29. 34th Summer Symposium in Molecular Biology: Chromatin and Epigenetic Regulation of Transcription. July 21-July 24, 2015. (Talk selected from abstract)
30. The Wistar Institute. April 14, 2015.
31. Van Andel Research Institute. April 7, 2015.
32. The Rockefeller University. March 2, 2015.
33. Harvard Medical School, Department of Biological Chemistry and Molecular Pharmacology. February 24, 2015.
34. Stanford University, ChEM-H Institute. February 12, 2015
35. Brandeis University, Department of Biochemistry. February 3, 2015.
36. Fred Hutchinson Cancer Research Center, Basic Sciences Division. January 22, 2015.
37. University of North Carolina, School of Medicine, Biochemistry Seminar Series. January 13, 2015.
38. Yale University, Department of Molecular Biophysics and Biochemistry. January 8, 2015.
39. Northwestern University, Feinberg School of Medicine, Department of Biochemistry and Molecular Genetics. December 9, 2014.
40. 34th Summer Symposium in Molecular Biology, Chromatin and Epigenetic Regulation of Transcription, Penn State. July 21-24, 2015. (Talk selected from abstract)
41. EMBO Ubiquitin and UBLs: At the crossroads from chromatin to protein. October 19-24, 2014. (Talk selected from abstract)
42. Damon Runyon Cancer Research Foundation, Annual Fellows' Retreat. September 28-October 1, 2014.
43. Cold Spring Harbor Laboratories, Epigenetics & Chromatin. September 9-13, 2014. (Talk selected from abstract)
44. Telluride Workshop on Chromatin Structure and Function. August 6-10, 2012.
45. Penn State Hershey M.D./Ph.D. Program Annual Retreat. March 18, 2012.
46. New York Academy of Sciences, Chemical Biology Discussion Group, End of Year Meeting. June 5, 2007.

POSTER PRESENTATIONS

1. Pew Scholars Meeting. March 8-13, 2020. Southampton, Bermuda. (meeting canceled due to COVID-19 pandemic)
2. Searle Scholars Retreat. April 14-17, 2019. Chicago, IL
3. Pew Scholars Meeting. March 3-8, 2019. Sarasota, FL
4. Searle Scholars Retreat. April 2-4, 2018. Chicago, IL
5. Gordon Research Conference, Chromatin Structure and Function, Regulating and Re-Engineering Chromatin: Control of Genome Function. May 22-27, 2016. Les Diablerets, Switzerland
6. Damon Runyon Cancer Research Foundation, Annual Fellows' Retreat. October 3-6, 2012. San Jose, CA
7. Keystone Symposium, Molecular basis for chromatin modifications and epigenetic phenomena. April 7-12, 2008. Snowmass, CO

8. Keystone Symposium, Epigenetics: Regulation of chromatin structure in development and disease. April 11-16, 2007. Breckenridge, CO.

F) TEACHING ACTIVITIES

LECTURES

Year	Course Name	Course No.	Lectures	Enrolled	Course Type	Evaluation
2017 F	BBSP First Year Group	BBSP 902	8	18	Graduate	NA
2017 F	Scientific Writing (small group)	BIOC 712	3	4	Graduate	NA
2018 S	BBSP First Year Group	BBSP 902	6	18	Graduate	NA
2018 S	Biochem. Found. Chem. Biol.	CBMC 804A	2	10	Graduate	4.60/5
2018 S	Biochem. Found. Journ. Club**	CBMC 804B	13	7	Graduate	4.30/5
2018 F	Adv. Topic. Chromatin Epigen.	BIOC 702	1	22	Graduate	NA
2018 F	Phcy. Bridg. Course: Biochem.	PHCY 500	4	145	Professional	4.35/5
2018 F	BBSP First Year Group	BBSP 902	7	13	Graduate	NA
2019 S	BBSP First Year Group	BBSP 902	3	13	Graduate	NA
2019 S	Biochem. Found. Chem. Biol.	CBMC 804A	2	8	Graduate	NA
2019 S	Biochem. Found. Journ. Club**	CBMC 804B	9	5	Graduate	5.0/5
2019 S	Responsible Conduct Reseach	BIOC888	1	9	Graduate	NA
2019 F	Phcy. Bridg. Course: Biochem.	PHCY 500	4	160	Professional	3.90/5
2019 F	Adv. Topic. Chromatin Epigen.	BIOC 702	1	13	Graduate	NA
2019 F	BBSP First Year Group	BBSP 902	3	14	Graduate	NA
2019 F	Seminar in Pharm. Sciences*	PHRS 899	0	33	Graduate	NA
2019 F	MiBioX	BIOC 690	2	6	Graduate	NA
2020 S	BBSP First Year Group	BBSP 902	2	13	Graduate	NA
2020 S	Biochem. Found. Chem. Biol.	CBMC 804A	2	12	Graduate	4.55/5
2020 S	Biochem. Found. Journ. Club**	CBMC 804B	11	9	Graduate	4.78/5
2020 S	Seminar in Pharm. Sciences*	PHRS 899	0	33	Graduate	NA
2020 S	Responsible Conduct Reseach	BIOC888	1	16	Graduate	NA
2020 F	BBSP First Year Group	BBSP 902	3	15	Graduate	NA
2020 F	Seminar in Pharm. Sciences*	PHRS 899	0	37	Graduate	NA
2020 F	Phcy. Bridg. Course: Biochem.	PHCY 500	4	124	Professional	4.60/5
2021 S	BBSP First Year Group	BBSP 902	2	15	Graduate	NA
2021 S	Biochem. Found. Chem. Biol.	CBMC 804A	2	8	Graduate	4.67/5
2021 S	Biochem. Found. Journ. Club**	CBMC 804B	12	7	Graduate	4.60/5
2021 S	Seminar in Pharm. Sciences*	PHRS 899	0	36	Graduate	NA
2021 F	BBSP First Year Group	BBSP 902	3	13	Graduate	NA
2021 F	Seminar in Pharm. Sciences*	PHRS 899	0	37	Graduate	NA
2021 F	Phcy. Bridg. Course: Biochem.	PHCY 500	4	147	Professional	4.57/5
2021 F	Adv. Topic. Chromatin Epigen.	BIOC 702	1	15	Graduate	NA

*Course director, ** Course co-director

CURRENT GRADUATE STUDENTS

Yani Zhao, Chemical Biology and Medicinal Chemistry, 2020-present

Nathaniel Wesley, Biochemistry and Biophysics Curriculum (Biophysics Track), 2018-present

Cathy (Anderson) Spangler, Biochemistry and Biophysics Curriculum (Biophysics Track), 2017-present

Gabrielle Budziszewski, Biochemistry and Biophysics Curriculum (Biochemistry Track), 2017-present

CURRENT POSTDOCTORAL SCHOLARS

Chien-Chu (Ken) Lin, Ph.D., 2020-present

Aleksandra Skrajna, Ph.D., 2017-present

CURRENT AND FORMER UNDERGRADUATE STUDENTS

Dalal Azzam, 2018-present

Maya Logan, 2019-2020

Carinne Geil, 2017-2020

Madelyn Srochi, 2017-2019

FORMER HIGH SCHOOL STUDENTS

Jessica Gomez-Zamudio, Northern High School, WinSPIRE, Summer 2019

Erin Blanding, Sun Valley High School, Young Innovators Program, Summer 2017

Current position: Duke University, class of 2023

CURRENT TECHNICIANS

Eyla Arteaga, 2021-present

FORMER TECHNICIANS

Holly Simmons, 2020-2021

Current position: Research Technician, University of Pittsburgh

Andrew Cesmat, 2019-2020

Current position: M.D. program UNC School of Medicine, class of 2024

Charlotte Smith, 2019-2020

Current position: M.D. program UNC School of Medicine, class of 2024

Yuka Koyama, 2018-2019

Current position: Master of Biomedical Science in Biochemistry and Molecular Biology, Tulane University

Emily Howe Barbour, 2017-2018

Current position: Pharm.D. program UNC Eshelman School of Pharmacy, class of 2023

Matthew Baird, 2015-2017

Current position: Ph.D. program Department of Cell Biology, Harvard Medical School

AWARDS WON BY MEMBERS OF MCGINTY LAB

2021 MiBio Branching Out Best Graduate Student Presentation (G. Budziszewski)

2021 UNC Biochemistry-Biophysics Student Oral Presentation Award (G. Budziszewski)

2021 ASBMB Student Travel Award (G. Budziszewski)

2020-2022 NIH NCI F99 K00 2022-2025 (C. Anderson)

2020 Best postdoctoral poster, 2nd place, Lineberger Comprehensive Cancer Center Postdoc-Faculty Research Day (A. Skrajna)

2019-2020 MiBio NIH T32 (G. Budziszewski)

2019-2022 American Cancer Society Postdoctoral Fellowship (A. Skrajna)

2018-2021 NSF Graduate Research Fellowships Program (N. Wesley)

2018-2019 Cancer Epigenetics Training Program (A. Skrajna)

2018 Best postdoctoral poster, 1st place, Lineberger Comprehensive Cancer Center Postdoc-Faculty Research Day (A. Skrajna)

2018 Best postdoctoral poster, UNC Biochemistry-Biophysics Retreat (A. Skrajna)

2017-2018 Biophysics NIH T32 (C. Anderson)

NOTABLE PRESENTATIONS BY MEMBERS OF MCGINTY LAB

2021 Biophysical Society Annual Meeting (C. Anderson, oral presentation selected from abstract)

2021 Keystone Symposia: Frontiers in Cryo-Electron Microscopy (C. Anderson, oral presentation selected from abstract)

2020 Fragile Nucleosome Seminar Series (A. Skrajna)

G) GRANTS

CURRENT GRANT SUPPORT

Source of Support: NIGMS 1R35GM133498-01
Principal Investigator: R. McGinty
Total Direct Funding: \$1,250,000
Total Period of Support: 8/01/2019-07/31/2024
Percent Effort: 40.8%
Project Title: Molecular Mechanisms of Chromatin Recognition

COMPLETED GRANT SUPPORT

Source of Support: Pew-Steward Scholars in Cancer Research, Stewart Family Trust
Principal Investigator: R. McGinty
Total Direct Funding: \$277,778
Total Period of Support: 7/01/2017-06/30/2021
Percent Effort: 6%
Project Title: Deciphering the nucleosome interactome

Source of Support: Searle Scholars Program, Kinship Foundation
Principal Investigator: R. McGinty
Total Direct Funding: \$300,000
Total Period of Support: 8/01/2017-07/31/2020
Percent Effort: 10%
Project Title: Deciphering the nucleosome interactome

Source of Support: North Carolina Biotechnology Center
Principal Investigator: R. McGinty, B. Button
Total Direct Funding: \$3,000
Total Period of Support: 10/9/2019
Percent Effort: 0%
Project Title: 2019 UNC-CH Dept. of Biochemistry and Biophysics Research Retreat

Source of Support: Eshelman Institute for Innovation
Principal Investigator: R. McGinty
Total Direct Funding: \$50,000
Total Period of Support: 6/01/2018-05/31/2019
Percent Effort: 10%
Project Title: Orthogonal Nucleosomes to Transform Epigenetics Research

Source of Support: Qura Therapeutics
Principal Investigator: D. Margolis
Role: Project Leader (R. McGinty)
Total Direct Funding: \$59,041
Total Period of Support: 7/01/2017-12/31/2017
Percent Effort: 5%
Project Title: Structural studies of the HUSH epigenetic silencing complex

Source of Support: Damon Runyon Dale F. Frey Breakthrough Scientist Award
Principal Investigator: R. McGinty
Total Direct Funding: \$100,000
Total Period of Support: 4/01/2015-3/31/2017
Percent Effort: 10%

Project Title: Structural Studies of the MLL1 Core Methyltransferase Complex
Source of Support: Damon Runyon Postdoctoral Fellowship Award
Principal Investigator: R. McGinty
Total Direct Funding: \$208,000
Total Period of Support: 3/01/2012-2/29/2016
Percent Effort: 100%
Project Title: Structural Studies of the MLL1 Core Methyltransferase Complex

H) PROFESSIONAL SERVICE PROFESSIONAL SERVICE TO THE DISCIPLINE

2019-present Editorial Board Member, Nucleic Acids Research Cancer
2021 Promotion reviewer, Penn State

Grant Review:
2019-present Ad-hoc reviewer, DNA Mechanisms in Cancer, American Chemical Society
2021 External reviewer, Ph.D. scholarships, University of Iceland

Journal Review:
Ad-hoc reviewer- Science, Science Advances, Nature, Nature Structural & Molecular Biology, Nature Communications, Molecular Cell, Proceedings of the National Academy of Sciences, eLife, FEBS Letters, Nucleic Acids Research, Journal of Biological Chemistry, Journal of Molecular Biology, BBA Gene Regulatory Mechanisms, Structure, PLOS Biology, Theranostics

UNIVERSITY SERVICE School of Pharmacy and Chemical Biology and Medicinal Chemistry Committees

2021 Effective Mentoring Relationships Training Series
2019-2020 Planning Committee Pharmaceutical Sciences Research & Graduate Education Retreat, poster judge
2019-present Coordinator of Joint Seminars in Chemical Biology and Bioorganic Chemistry
2019-present Recruitment and Admissions Committee (PharmD Program)
2018-2019 ACPE School Accreditation Standards 2-4, Reviewer
2018-present Eshelman School of Pharmacy Multiple Mini Interviewer
2018-present Search Committee for Director of Center for Integrative Chemical Biology and Drug Discovery
2017-present Chemical Biology and Medicinal Chemistry (CBMC) Graduate Admissions Committee
2016-present Bill and Karen Campbell Faculty Mentoring Program, mentee

Institutional for University of North Carolina at Chapel Hill

2022-present Advisory Board Member, Molecular and Cellular Biophysics Training Program (T32)
2020-present Participant in Cryo-EM journal club
2020 Poster judge Annual Chromatin and Epigenetics Symposium
2020-2021 Search Committee for Open Rank Professor in Biophysics
2020 Search Committee for Cryo-EM facility research technician
2020 Natural Sciences SURF Review Subcommittee
2018-2021 Biochemistry and Biophysics Cumulative Exam Committee
2018-present Ad-hoc member of Limited Submission Awards Committee (Packard, Pew, Searle, etc.)
2018-present Biological and Biomedical Sciences Program (BBSP) Admissions Committee

2018-present Molecular Microscopy Steering Committee, UNC
2018-present Training Faculty UNC MioBio Graduate Training Program (Ongoing T32)
2017-present BBSP First Year Group Co-Faculty Mentor (Wolberg Group, Purvis Group)
2017-2019 Search Committee for Open Rank Professor in Biochemistry and Biophysics
2017-2019 Department of Biochemistry and Biophysics Retreat Committee (Co-Faculty Chair)
2017-present MD-PhD Candidate Interviewer
2017-2020 Participant in Structural Biology Interest Group
2017 *Ad hoc reviewer* Qura Therapeutics
2016-present Training Faculty Molecular and Cellular Biophysics Training Program (Ongoing T32)
2016-present Participant in Carolina Chromatin Consortium (C3) Group
2016 Participant in Faculty Mentoring Workshop for Biomedical Researchers
2016 Member of UNC Structural Biology Task Force

Ph.D. Thesis Committees (14 total)

Peter Buttery (James Group, Chemical Biology and Medicinal Chemistry, 2020)
Thanh-Thanh Phan (Kuhlman Group, Biochemistry and Biophysics, 2020)
Alexis Stuntzman (Duronio Group, Genetics and Molecular Biology, 2020)
Yi-en Liao (Jian Liu Group, Chemical Biology and Medicinal Chemistry, 2019)
Bryce Hart (James & Frye Groups, Chemical Biology and Medicinal Chemistry, 2019-2022, chair)
Calvin Yeager (Cameron Group, Microbiology and Immunology, 2019)
Nicholas Martinez (Campbell Group, Biochemistry and Biophysics, 2019)
Odessa Goudy (Kuhlman Group, Biochemistry and Biophysics, 2019)
Rylee Wander (Jian Liu Group, Chemical Biology and Medicinal Chemistry, 2018-2021)
Sarah Clinkscales (Hathaway Group, Chemical Biology and Medicinal Chemistry, 2018)
Isabelle Engleberg (James & Frye Groups, Chemical Biology and Medicinal Chemistry, 2018-2021, chair)
Matthew Fleming (Bowers Group, Chemical Biology and Medicinal Chemistry, 2018, chair)
Xiaokang (Steve) Yan (Hathaway Group, Chemical Biology and Medicinal Chemistry, 2018, chair)
Maurice Horton (Jian Liu Group, Chemical Biology and Medicinal Chemistry, 2018-2020)
Kathleen Metz (Phanstiel Group, Genetics and Molecular Biology, 2018)
Jibo (Dylan) Zhang (Strahl Group, Biochemistry and Biophysics, 2018-2021, chair)
Justin Rectenwald (Pearce & Frye Group, Biochemistry and Biophysics, 2017-2020, chair)

Other Graduate Student Committees (4 total)

Benjamin Strickland (First Year Student Advisory Committee 2021-2022)

Michelle Thomas (First Year Student Advisory Committee 2020-2021)
Merrill Froney (First Year Student Advisory Committee 2019-2020)
Anthony Sanchez (First Year Student Advisory Committee 2019-2020)
Matthew Bowler (First Year Student Advisory Committee 2018-2019)
Sarah Clinkscales (First Year Student Advisory Committee 2017-2018)

DIVERSITY, EQUITY, AND INCLUSION

Effective Mentoring Relationships Training Series, session 2, fostering inclusivity (September 17, 2021)
BBSP First Year Group DEI Leveling Session (July 19, 2021)

Managing Bias Conversation/Equity and Inclusion Conversation – Division of Chemical Biology and Medicinal Chemistry (June 28, 2021)

Bias 101 Training - Department of Biochemistry and Biophysics (April 22, 2021)

Creating an Inclusive Learning Environment in the Graduate Education Setting – CiPhER (September 18, 2020)

McGinty Lab DEI Journal Club (June 2020)

Implicit Bias Training – BBSP Admissions Orientation (November 19, 2019)