CURRICULUM VITAE March 17, 2024

# Morgan A. Sammons, PhD

Department of Biological Sciences University at Albany, State University of New York Life Sciences 2078 1400 Washington Ave Albany, NY 12222 masammons@albany.edu

### **EDUCATION**

Doctor of Philosophy in Biology
Vanderbilt University, Nashville, TN

December 2010

Bachelor of Science in Biology
University of Toledo, Toledo, OH

May 2005

Bachelor of Arts in Chemistry

May 2005

University of Toledo, Toledo, OH

#### **EMPLOYMENT**

State University of New York at Albany

September 2022 - Present

Associate Professor, Department of Biological Sciences

Associate Member, The RNA Institute

State University of New York at Albany September 2016 - August 2022

Assistant Professor, Department of Biological Sciences

Associate Member, The RNA Institute

University of Pennsylvania September 2010 - August 2016

Postdoctoral Fellow, Department of Cell and Developmental Biology

Vanderbilt University September 2005 - August 2010

Graduate Research Scientist, Department of Biological Sciences

## **PUBLICATIONS**

- 1. Badu P, Baniulyte G, **Sammons MA**, and Pager CT (2024) Activation of ATF3 via the Integrated Stress Response Pathway Regulates Innate Immune response to Restrict Zika Virus. Revision at *Journal of Virology*
- 2. Fischer M, and **Sammons MA** (2024) Determinants of p53 DNA binding, gene regulation, and cell fate decisions. Under Review at *Cell Death and Differentiation*

- 3. Wiechens E, Vigliotti F, Siniuk K, Schwarz R, Schwab K, Riege K, van Bömmel A, Görlich, Bens M, Sahm A, Groth M, **Sammons MA**, Loewer A, Hoffmann S, and Fischer M. (2024) Backwards ahead: Cooperating convergent promoters. Revision Under Review at *Nature Genetics*
- 4. Sarkar K, Kotb NM, Lemus A, Martin ET, McCarthy A, Camacho J, Iqbal A, Valm AM, **Sammons MA**, and Rangan P (2023) A feedback loop between heterochromatin and the nucleopore complex controls germ-cell-to-oocyte transition during *Drosophila* oogenesis. Developmental Cell. DOI: 10.1016/j.devcel.2023.08.014
- 5. Baniulyte, G, Durham SA, Merchant LE, and **Sammons MA** (2023) Shared Gene Targets of the ATF4 and p53 Transcriptional Networks. Molecular and Cellular Biology. 2023 Aug 2;1-24. DOI: 10.1080/10985549.2023.2229225.
- Reverdatto S, Prasad A, Belrose JL, Zhang X, Sammons MA, Gibbs KM, and Szaro BG (2021) Developmental and Injury-induced Changes in DNA Methylation in Regenerative versus Nonregenerative Regions of the Vertebrate Central Nervous System. BMC Genomics. 2022 Jan 04; 23(2) DOI: 10.1186/s12864-021-08247-0
- 7. Woodstock DL\*, **Sammons MA**, and Fischer M (2021) p63 and p53: collaborative partners or dueling rivals?. Frontiers in Cell and Developmental Biology. DOI: 10.3389/fcell.2021.701986
- 8. **Sammons MA**, Nguyen TT, McDade SS, and Fischer M. (2020) Tumor suppressor p53: From engaging DNA to target gene regulation. Nucleic Acids Research. DOI: 10.1093/nar/gkaa666
- 9. Belrose JL, Prasad A, **Sammons MA**, Gibbs KM, and Szaro B. (2020) Comparative Gene Expression Profiling between Optic Nerve and Spinal Cord Injury in *Xenopus laevis* Reveals a Core Set of Genes Inherent in Successful Regeneration of Vertebrate Central Nervous System Axons. BMC Genomics. 2020 Aug 5;21(1):540. DOI: 10.1186/s12864-020-06954-8
- 10. Bonenfant G, Meng R, Shotwell C, Badu P, Payne A, Ciota A, **Sammons MA**, Berglund JA, and Pager CT. (2020) Asian Zika virus isolate significantly changes the transcriptional profile and alternative RNA splicing events in a neuroblastoma cell line. Viruses. 2020 May 5; 12(5):E510. DOI:10.3390/v12050510
- 11. Naik AS, Lin JM, Taroc EZM, Katreddi RR, Frias JA, **Sammons MA**, and Forni P. (2020) Smad4 signaling establishes the somatosensory map of basal vomeronasal sensory neurons. Development. 2020 147: dev184036 DOI: 10.1242/dev.184036
- 12. Link AJ, Niu X, Weaver CM, Jennings JL, Duncan DT, McAfee KJ, **Sammons M**, Gerbasi VR, Farley AR, Fleischer TC, Browne CM, Samir P, Galassie A, and Boone B. (2020) Targeted identification of protein interactions in eukaryotic mRNA translation. Proteomics. 2020 Apr; 20(7)e1900177. DOI: 10.1022/pmic.201900177
- 13. Catizone AN\*, Karsli Uzunbas G\*, Celadova P, Kuang S\*, Bose D, and **Sammons MA**. (2020) Locally acting transcription factors are required for p53-dependent cis-regulatory element activity. Nucleic Acids Research. 2020 Mar 5 DOI: 10.1093/nar/gkaa147
- 14. Karsli Uzunbas G\*, Ahmed F\*, and **Sammons MA**. (2019) Control of p53-dependent transcription and enhancer activity by the p53 family member p63. Journal of Biological Chemistry. DOI: 10.1074/jbc.RA119.007965
- 15. Lin-Shiao E, Lan Y, Welzenbach J, Alexander KA, Zhang Z, Knapp M, Mangold E, **Sammons M**, Ludwig KU and Berger SL (2019) p63 establishes epithelial enhancers de novo at critical craniofacial development genes. Science Advances. 2019 May 1; 5(5):eaaw0946. DOI: 10.1126/sciadv.aaw0946.

- 16. Catizone AN\*, Good CR, Alexander KA, Berger SL, and **Sammons MA** (2019). Comparison of genotoxic versus non-genotoxic stabilization of p53 provides insight into parallel stress-responsive transcriptional networks. Cell Cycle. Apr;18(8):809-823. DOI:10.1080/15384101.2019.1593643
- 17. Lin JM, Taroc EZM, Frias JA, Prasad A, Catizone AN\*, **Sammons MA**, and Forni PE. (2018) The transcription factor Tfap2e/AP-2 plays a pivotal role in maintaining the identity of basal vomeronasal sensory neurons. Developmental Biology. 2018 June 19. DOI: 0.1016/j.ydbio.2018.06.007
- 18. Fraietta J, Nobles C, Sammons MA, Lundh S, Carty S, Reich T, Cogdill A, Wang Y, Gohil M, Kulikovskaya I, Nazimuddin F, Gupta M, Gee M, Liu X, Young R, Ambrose D, Jordan M, Marcucci K, Levine B, Garcia KC, Zhao Y, Kalos M, Porter D, Lacey S, Berger S, Bushman F, June C, Morrissette J, DeNizio J, Reddy S, Hwang Y, Everett J, Alexander K, Lin-Shiao E, Kohli R, Chen F, and Melenhorst J. (2018) Disruption of TET2 Promotes the Therapeutic Efficacy of CD19-targeted T-cells. Nature. 2018 May 30. DOI: 10.1038/s41586-018-0178-z
- 19. Pauken KE, **Sammons MA**, Odorizzi PM, Manne SK, Godec J, Khan O, Drake AM, Chen Z, Sen D, Kurachi M, Barnitz RA, Bartman C, Bengsch B, Huang AC, Schenkel HM, Vahedi G, Haining WN, Berger SL, and Wherry EJ, (2016). Epigenetic stability of exhausted T cells limits the durability of reinvigoration by PD-1 blockade. Science. 354(6316): 1160-1165
- 20. Zhu, J, Dou, Z, **Sammons**, **MA**, Levine, AJ., and Berger SL. (2016) Lysine methylation represses p53 activity in teratocarcinoma cells. Proceedings of the National Academy of Sciences. 113(35):9822-7.
- 21. **Sammons, MA.**, Zhu, J, and Berger, SL. (2016). A chromatin-focused siRNA screen for regulators of p53-dependent transcription. G3 (Bethesda) 6(8), 2671-8.
- 22. Monteith, JA., Mellert, HS., **Sammons, MA,** Kuswanto, LA., Sykes, SM., Berger, SL., and McMahon, SB. (2016) A rare tumor-derived mutation in p53 provides pro-survival gain of function via induction of anti-apoptotic molecule TNFAIP8. Molecular Oncology. (8):1207-20.
- 23. Capell, B.C., Drake, A.M., Zhu, J., Shah, P.P., Dou, Z., Dorsey, J., Simola, D.F., Donahue, G., Sammons, M.A, Singh Rai, R., Natale, C., Ridky, T.W., Adam, P.D., and Berger, S.L. (2016). MLL1 is essential for the senescence-associated secretory phenotype. Genes and Development, 30: 321-336
- 24. **Sammons, M.A.**, Zhu, J., Drake, A.M., and Berger, S.L. (2015). TP53 engagement with the genome occurs in distinct local chromatin environments via pioneer factor activity. Genome Research 25, 179-188.
- 25. Zhu J, **Sammons MA**, Donahue G, Dou Z, Vedadi M, Geglik M, Barsyte-Lovejoy D, Al-Awar R, Katona B, Shilatifard A, Huang J, Hua X, Arrowsmith C, and Berger SL (2015) Gain-of-function p53 mutants co-opt chromatin pathways to drive cancer growth. Nature, 525 (7568):206-11
- 26. Dikovskaya, D, Cole J.J., Mason S.M., Nixon, C, Karim, S.A., McGarry, L, Clarke, W, Hewitt, R.N., Sammons, M.A, Zhu, J, Wu, H, Berger, S.L., Blyth, K, and Adams, P.D. (2015) Mitotic stress is an integral part of the oncogene-induced senescence program that promotes multinucleation and cell cycle arrest. Cell Reports. 12(9):1483-96
- 27. Mushrush, D.J., Koteiche, H.A., **Sammons, M.A.**, Link, A.J., McHaourab, H.S., and Lacy, D.B. (2011). Studies of the mechanistic details of the pH-dependent association of botulinum neurotoxin with membranes. J Biol Chem 286, 27011-27018.
- 28. **Sammons, M.A.**, Samir, P., and Link, A.J. (2011). Saccharomyces cerevisiae Gis2 interacts with the translation machinery and is orthogonal to myotonic dystrophy type 2 protein ZNF9. Biochem Biophys Res Commun 406, 13-19.

- 29. **Sammons, M.A.**, Antons, A.K., Bendjennat, M., Udd, B., Krahe, R., and Link, A.J. (2010). ZNF9 activation of IRES-mediated translation of the human ODC mRNA is decreased in myotonic dystrophy type 2. PLoS One 5, e9301.
- 30. Elzie, C.A., Colby, J., **Sammons, MA.**, and Janetopoulos, C. (2009). Dynamic localization of G proteins in Dictyostelium discoideum. J Cell Sci 122, 2597-2603.
- 31. **Sammons, M.**, Wan, S.S., Vogel, N.L., Mientjes, E.J., Grosveld, G., and Ashburner, B.P. (2006). Negative regulation of the RelA/p65 transactivation function by the product of the DEK proto-oncogene. J Biol Chem 281, 26802-26812.

#### **GRANT FUNDING**

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Δ ct137Δ	Awards	3
ACHVE	Awaius	3

National Institutes of Health, NIGMS, R35 2020-2025

Defining cis-regulatory networks controlling a core stress response (PI: Morgan Sammons)

Total award: \$1,765,488

### **Completed Awards**

National Institutes of Health, NIDCD, R01 2018-2023

Molecular mechanisms controlling differentiation and circuit formation of the

vomeronasal sensory neurons (Co-PI with Paolo Forni)

Total award: \$1,539,977

National Institutes of Health, NIGMS, R15 2018-2022

Molecular mechanisms regulating the establishment of cis-regulatory elements by

the transcription factor p63 (PI: Morgan Sammons)

Total award: \$450,000

National Institutes of Health, NICHD, R15 2018-2021

Role of Inductive Signals Released by Nasal Mesenchyme and Brain in Controlling

Terminal Nerve Development and GNRH-1 Neuronal Migration (Co-PI with Paolo Forni)

Total award: \$450,000

New York State Spinal Cord Injury Research Board 2017

Institutional Support for Spinal Cord Injury (Co-PI with Ben Szaro)

Total award: \$142,500

American Cancer Society 2012-2014

Postdoctoral Fellowship, (PI: Morgan Sammons)

## **CONFERENCE PRESENTATIONS**

19th International p53 Workshop 2024
International Centre for Genetic Engineering and Biotechnology/ICGEB Trieste, Italy
Annual Meeting 2022

American Society for Biochemistry and Molecular Biology Philadelphia, PA, USA

Evolution and Core Processes in Gene Expression 2022

ASBMB Symposium, Stowers Institute Kansas City, MO, USA 18th International p53 Workshop 2020

Weizmann Institute of Science Rehovat, Israel

<sup>\*</sup> denotes undergraduate, graduate, or postdoctoral trainees from the University at Albany

Northeast Regional Meeting (NESDB 2020) Society for Developmental Biology, Marine Biological Laboratory Systems Biology: Global Regulation of Gene Expression Cold Spring Harbor Laboratory Meetings International p53/p63/p73 Workshop Ruer Bokovi Institute Evolution and Core Processes in Gene Expression American Society for Biochemistry and Molecular Biology Sympos Transcriptional Regulation by Chromatin and RNA Polymerase II American Society for Biochemistry and Molecular Biology Sympos	2018
Epigenetics and Chromatin Cold Spring Harbor Laboratory Meetings Systems Biology: Global Regulation of Gene Expression Cold Spring Harbor Laboratory Meetings 3rd Annual p53 Isoforms Conference	2018 Cold Spring Harbor, NY, USA 2018 Cold Spring Harbor, NY, USA 2017
University of Bergen Core Processes in Gene Expression ASBMB Special Symposium, Stowers Institute Cancer Epigenetics Keystone Symposia	Bergen, Norway 2017 Kansas City, MO, USA 2017 Seattle, WA, USA
INVITED TALKS	
Fritz Lipmann Institute for Aging	2023
Leibniz Institute, Jena, Germany  Department of Biological, Geological, and Environmental Sciences  Cleveland State University	2022
Department of Bioinformatics and Genomics University of North Carolina - Charlotte	2021
Department of Chemistry and Biochemistry San Diego State University	2021
RNA Collaborative Seminar Series Hosted by the RNA Center Consortium	2020
Department of Nanobioscience SUNY Polytechnic University	2020
Department of Biochemistry	2019
Albert Einstein College of Medicine	
Albert Einstein College of Medicine Workshop for Interaction and Scientific Communication Life Sciences Initiative, State University of New York at Albany	2017

# PROFESSIONAL SERVICE

# Journal Referee

BMC Molecular and Cell Biology, Briefings in Functional Genomics, Cancer Cell, Cell Cycle, Cell Death & Disease, Cell Reports, eLife, Journal of Biological Chemistry, Journal of Molecular Biology, Molecular Oncology, Nature Communications, Nucleic Acids Research, Proceedings of the National Academies of Science, Science, Wiley WIRES Systems Biology and Medicine

<b>Proposal</b>	Referee
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Oak Ridge Associated Universities/Nazarbayev University, Grant Review	2023
Seed Grant Review Panel, Health Disparities, SUNY Downstate	2023
Genetics of Health and Disease, Study Section, NIH Center for Scientific Review	2023
Oak Ridge Associated Universities/Nazarbayev University, Grant Review	2022
Seed Grant Review Panel, SUNY Downstate	2022
Israel Science Foundation (ISF), Grant Review	2022
Radiation Oncology-Biology Integration Network U54, NIH Center for Scientific Review	2022
Molecular Genetics A Study Section, NIH Center for Scientific Review	2021
Israel Science Foundation (ISF), Grant Review	2021
Cancer Etiology Study Section, NIH Center for Scientific Review	2020
National Science Centre, Poland, Grant Review	2020
National Science Foundation (NSF), Grant Review	2020

# DEPARTMENTAL AND UNIVERSITY SERVICE

Department Service	
Strategic Planning Committee, Biological Sciences, Chair	2023-2024
Trainee Session Judge, RNA Institute Symposium	2023
Departmental Honors Program Director, Biological Sciences	2023-Present
Director of Undergraduate Programs, Biological Sciences, Chair	2023-Present
Tenure-Track Faculty Search Committee, Biological Sciences, Chair	2022-2023
Undergraduate Curriculum Committee, Biological Sciences, Chair	2022-Present
Trainee Session Judge, RNA Institute Symposium	2022
Graduate Admissions Committee, Biological Sciences	2021-2022
Graduate Recruitment Committee, Biological Sciences	2021-2022
Personnel and Appointments Committee, Biological Sciences	2020-2021
Bioinformatics Faculty Search Committee	2019-2020
Graduate Programs Assessment Committee, Biological Sciences	2019-2022
Personnel and Appointments Committee, Biological Sciences	2018-2019
MCDN PhD Program Curriculum Committee, Biological Sciences	2018-2019
Director of Biology Department Seminar Series	2017-2023
Graduate Admissions Committee, Biological Sciences	2017-18
Stem Cells and Regeneration Faculty Search Committee	2017-18
Graduate Admissions Committee, Biological Sciences	2016-17
Katherine Vario Scholarship Committee	2016
Shore Scholarship Committee	2017-2018
World of Biology - Living-Learning Community Faculty Advisor	2017-2020

College and University Service	
Nominating Committee, College of Arts and Sciences Faculty Council	2023-2024
CAS New Student Welcome Day Department Representative	2023
Speaker and BIO Department Representative, Accepted Student Open House	2023
College of Arts and Sciences Faculty Council, Chair	2022-2023
Honors College Curriculum Committee	2022- Present
College of Arts and Sciences Faculty Council, Vice Chair	2021-2022
Vice Chair, College of Arts and Sciences Faculty Council	2021-2022
NSF Project SAGES Internal Grant Reviewer	2021-2022

College of Arts and Sciences FRAP-B Program Reviewer College of Arts and Sciences Faculty Council, Department Representative Workshop for Interaction and Scientific Collaboration (WISC) Organizer Bioinformatics/Center for Functional Genomics User Workshop	2021 2020-2022 2017 2017
TEACHING	
At the University at Albany, SUNY  ABIO 524, Advanced Molecular Biology, 21 students  ABIO 524, Advanced Molecular Biology, 18 students  ABIO 329, Genetics of Human Disease, 137 students  ABIO 329, Genetics of Human Disease, 116 students  ABIO 329, Genetics of Human Disease, 116 students  ABIO 524, Advanced Molecular Biology, 35 students  ABIO 329, Genetics of Human Disease, 142 students  ABIO 524, Advanced Molecular Biology, 22 students  ABIO 329, Genetics of Human Disease, 136 students  UFSP 110, Living Learning Community, 28 students  ABIO 524, Advanced Molecular Biology, 13 students  ABIO 524, Advanced Molecular Biology, 13 students  ABIO 329, Genetics of Human Disease, 96 students  UFSP 110, Living Learning Community, 26 students  ABIO 329, Genetics of Human Disease, 74 students  UFSP 110, Living Learning Community, 25 students	Spring 2024 Spring 2023 Fall 2022 Spring 2022 Fall 2021 Spring 2021 Fall 2020 Spring 2020 Fall 2019 Fall 2019 Spring 2019 Spring 2019 Spring 2019 Fall 2018 Fall 2018 Fall 2017 Fall 2017
At the University of Pennsylvania  BIOL 493, Epigenetics of Human Disease, 14 students  BIOL 493, Epigenetics of Human Disease, 11 students	Spring 2015 Spring 2014
MENTORING	
Doctoral Allison Catizone, PhD Serene Durham, PhD Dana Woodstock Abby McCann	2017 - 2020 2018 - 2022 2019 - Present 2021 - Present
Masters in Biological Sciences Devere Knight Jhosped Dufflart, MS	2022 - Present 2021 - 2022
Masters in Forensic Sciences Andrew Ropheal, MS	2022 - 2023
Postdoctoral Trainees Gizem Karsli Uzunbas, PhD Gabriele Baniulyte, PhD	2017 - 2019 2021 - Present

Professional Employees	
Faraz Ahmed, Bioinformatics Specialist	2017-2019
Aparna Prasad, Research Scientist	2020-2021
1	
Doctoral Dissertation Committee Service	
Alicia McCarthy, PhD	2016 - 2020
Jamie Belrose, PhD	2017 - 2020
Nicholas Moskwa, PhD	2018 - 2022
Amber Altrieth, PhD	2019 - 2023
Anwesha Sarkar, PhD	2019 - 2022
Ali Ropri, PhD	2020 - 2022
Pheonah Badu	2020 - Present
Raghu Katreddi, PhD	2020 - 2023
Jesus Frias	2020 - Present
Nick Mathias	2022 - Present
Joey Tavarez	2023 - Present
Dylan Ehrbar	2023 - Present
Mactora Thosis Committee Souries	
Masters Thesis Committee Service	2017 2010
Connor Duffy, MS	2017 - 2019
Hannah Shippas, MS	2021 - 2022
Kavya Chegireddy, MS	2021 - 2022
BMS MS Program, University at Albany	2021 2022
Pearl De Veer, MS	2021-2022
Quetsia Jean-Baptiste	2024-Present
PhD Rotation Students	
Nick Lane	2023-2024
Kate Hayes	2023-2024
Noah LaFever	2022-2023
Kathryn Piper	2022-2023
Esperanza Rosas	2022-2023
Nicole Traver	2020-2021
Afrooz Golestanian	2020-2021
Michelle Urman	2020-2021
Sawyer Hicks	2019-2020
Angelina Giorgio	2018-2019
Jesus Frias	2018-2019
Deneice Brown	2017-2018
Frank Jenkins	2016-2017
Philip Bender	2016-2017
Shane Breznak	2016-2017
Undergraduates	0001 0001
Mya Moriconi, UAlbany Biology	2021 - 2024
Michael Bratslavsky, UAlbany Biology, Honors College	2021 - 2023
Owen Zon, UAlbany Biology, Honors College Thesis Committee Member	2021 - 2022
Daniel Koskas, UAlbany Biology, Honors College	2020 - 2022

Lauren Merchant, UAlbany Biology, Honors College	2019 <i>-</i> 2021
Kate Sazon, UAlbany Biology, Honors College	2018 - 2022
Chelsi Riley, UAlbany Biology	2018 - 2019
Sylvia Kuang, UAlbany Biology, Honors College	2017 - 2019
2019 Glenn L. Bumpus Award for Excellence in Undergraduate Research	
Matthew Cacciola, UAlbany Biology	2016 - 2018
Sarah Soliman, UAlbany Biology	2016 - 2018
Taylor Mellow UAlbany Biology	2016 - 2018
Kegan Shreffler, UAlbany Biology	2016 - 2018
Sajana Chandrawansa UAlbany Biology	2016 - 2017
Aleyna Nur Sarap, UAlbany Biology	2016 - 2017
Merlyn Ramirez, UAlbany Biology	2016 - 2017
HONORS	
Division for Research and Economic Development Faculty Award for Scholarly Work	2023
Division for Research and Economic Development Faculty Award for Grant Activity	2022
Torch Faculty/Student Engagement Award Outstanding Nominee	2021
American Cancer Society Postdoctoral Fellow	2012
Vanderbilt Graduate Fellow	2005