

David G. Meckes Jr., Ph.D.

EV Biomedical, LLC

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Research Interests:

Extracellular vesicles (exosomes and microvesicles)
Virus-host interactions
Cancer, signal transduction, vesicular trafficking
Proteomics and protein-protein interactions
Mechanisms of protein transport and targeting

Education:

2003-2008 **The Pennsylvania State University**
 College of Medicine
 Hershey, PA
 Doctor of Philosophy
 Microbiology and Immunology

1999-2003 **University of the Sciences in Philadelphia**
 Philadelphia, PA
 Bachelor of Science (cum laude)
 Major: Microbiology

Positions:

2022-Present CEO & Biomedical Scientist
 EV Biomedical, LLC

2020-Present President and Co-Founder
 Reach for the Sky Foundation to End Childhood Brain Cancers

2019-2022 Associate Professor (with tenure)
 Florida State University College of Medicine
 Department of Biomedical Sciences

2013-2019 Assistant Professor
 Florida State University College of Medicine
 Department of Biomedical Sciences

2009-2013 Postdoctoral Fellow
 University of North Carolina at Chapel Hill
 Lineberger Comprehensive Cancer Center

Academic Awards and Honors:

2015 Outstanding Junior Faculty Investigator, FSU College of Medicine

2012 Priscilla Schaffer Award for top oral presentation by a postdoctoral fellow at the
 International Herpesvirus Workshop

2011 Joseph S. Pagano Award for top paper by a postdoctoral fellow

2011-2013 American Cancer Society Postdoctoral Fellowship (PF-11-158-01-MPC)

2011 NCI F32 Postdoctoral Fellowship– Awarded (declined)

2009-2011 UNC Cancer Center NCI T32 Postdoctoral Training Fellowship Appointment

2009 Enders' Award for Scholarly Research Achievement

2008 The 33rd International Herpesvirus Workshop Travel Award (for top oral
 presentation)

2006-2008 NCI T32 Predoctoral Fellowship Appointment: *Viruses and Cancer*

2003 Dr. Louis Gershenfeld Memorial Prize for Excellence in Microbiology

2001-2003 NETS Science Scholarship

1999-2003 Dean's List (7 semesters)

1999-2003 L. N. P. Rudolph Academic Scholarship

1999 Alpha Lambda Delta National Academic Honor Society

Research Experience:

- May 2013- July 2022 **Florida State University College of Medicine**
Department of Biomedical Sciences
Principle Investigator
Viruses, extracellular vesicles, cancer, and Alzheimer's research
- May 2009-April 2013 **University of North Carolina at Chapel Hill**
Lineberger Comprehensive Cancer Center
Chapel Hill, NC
Postdoctoral Scholar
Laboratory of Nancy Raab-Traub, Ph.D.
Study of the content and function of exosomes released from Epstein-Barr virus infected cancer cells
- 2008- May 2009 **The Pennsylvania State University College of Medicine**
Hershey, PA
Postdoctoral Fellow
Laboratory of John W. Wills, Ph.D.
Mechanisms of ULI6 Packaging into Herpes Simplex Virus
- 2004-2008 **The Pennsylvania State University College of Medicine**
Hershey, PA
Doctoral Thesis Research
Laboratory of John W. Wills, Ph.D.
The Dynamic Herpesvirus Tegument: Receptor Binding Induced Release of ULI6 from the Capsid of Herpes Simplex Virus
- 2001-2003 **The University of the Sciences in Philadelphia**
Philadelphia, PA
Undergraduate Research
Laboratory of James R. Johnson, Ph.D.
Methionine Biosynthesis pathways of Staphylococcus Aureus

Teaching:

- 2017-2022 **BMS 6040, Gastrointestinal System**
2 contact hours
- 2016-2022 **BMS 6030, Foundations of Medicine 2**
3 contact hours
- 2016-2022 **BMS 6041, Host-Defense**
18 contact hours
- 2016-2022 **BMS 6044, Hematology**
2 contact hours
- 2016-2022 **BMS 6045, ANS, Endocrine, and Reproductive**
4 contact hours
- 2016-2022 **BMS 6047, Musculoskeletal-Integumentary**
5 contact hours
- 2016-2022 **BMS 6042, Cardiovascular and Pulmonary**
5 contact hours
- 2016-2022 **BMS 6046, Neuroscience: CNS & Behavior**
4 contact hours
- 2015-2022 **GMS 6001, Special Topics BMS**
- 2015-2022 **GMS 5146, Cancer Immunology (taught every 3 years)**
Co-Course Director (developed this course with Dr. Yi Ren)
20 contact hours
- 2015-2022 **BMS 5931 Tutorial in BMS**
- 2017 **BMS 6800, Integrated Cases**
2 contact hours
- 2016 **CHM 4906, Honors Work**
- 2016 **IHS 6980, Dissertation Research**
- 2016 **IHS 8960, Preliminary PHD Exam**
- 2016 **BMS 4901, Biomed Sciences Laboratory**
- 2016 **BMS 5905, DIS in Biomedical Sciences**

2015	BMS 6301, Medical Microbiology 201 Assistant Course Director 20 contact hours
2015	BMS 6030, Foundations of Medicine 2 4 contact hours
2015	BMS 6041, Host-Defense 4 contact hours
2015	IHS 5503
2015	BMS 4901 Biomed Sciences Laboratory
2015	BMS 8964 Prelim Doctoral Exam
2015	HIS 5503, Proposal Development
2015	BMS 5905 DIS in Biomedical Sciences
2014	BMS 6301, Medical Microbiology Assistant Course Director 15 contact hours
2014	BMS 5905, DIS in Biomedical Sciences
2014	BMS 5931 Tutorial in BMS
2014	BMS 4901 DIS in BMS
2014	BMS 6037, Medicine 1 2 contact hours
2014	MS 5222, Chromatin Structure, Epigenetics & Human Health 2 contact hours
2013	BMS 6301, Medical Microbiology 201 8 contact hours
2013	BMS 4901, Directed Independent Studies – Cancer Biology
2009-2013	Graduate and Undergraduate Research Advisor , University of North Carolina Trained undergraduate students in laboratory science and managed their projects and experiments Supervised and trained graduate students
2005-2007	Medical Microbiology Laboratory for Medical Students , PSU College of Medicine Graduate Teaching Assistant
2001-2003	Microbiology Laboratory , University of the Sciences in Philadelphia Teaching Assistant

New Course Development:

2015 and 2017	BMS 6041, Host-Defense
2017	BMS 6030, Foundations of Medicine 2
2016	BMS 6044, Hematology
2015	GMS 5146, Cancer Immunology Co-Course Director (developed course with Dr. Yi Ren)

Publications:

<http://scholar.google.com/citations?user=n9llb6AAAAAJ&hl=en&oi=ao>

https://www.researchgate.net/profile/David_Meckes

Nimma R, Kalvala AK, Patel N, Surapaneni SK, Sun L, Singh R, Nottingham E, Bagde A, Kommineni N, Arthur P, Nathani A, **Meckes DG Jr**, Singh M. Combined Transcriptomic and Proteomic Profiling to Unravel Osimertinib, CARP-1 Functional Mimetic (CFM 4.17) Formulation and Telmisartan Combo Treatment in NSCLC Tumor Xenografts. *Pharmaceutics*. 2022 May 28;14(6):1156. doi: 10.3390/pharmaceutics14061156. PMID: 35745729

Yuan X, Sun L, Jeske R, Nkosi D, York SB, Liu Y, Grant SC, ***Meckes DG Jr**, ***Li Y**. Engineering extracellular vesicles by three-dimensional dynamic culture of human mesenchymal stem cells. *J Extracell Vesicles*. 2022 Jun;11(6):e12235. doi: 10.1002/jev2.12235. PMID: 35716062

***Co-corresponding authors**

Buchwalter RA, Ogden SC, York SB, Sun L, Zheng C, Hammack C, Cheng Y, Chen JV, Cone AS, **Meckes DG Jr**, Tang H, Megraw TL. Coordination of Zika Virus Infection and Viroplasm Organization by Microtubules and Microtubule-Organizing Centers. *Cells*. 2021 Nov 27;10(12):3335. doi: 10.3390/cells10123335. PMID: 34943843

Yuan X, Chen X, Zeng C, **Meckes DG Jr**, Li Y. Extracellular Vesicle Collection from Human Stem Cells Grown in Suspension Bioreactors *Methods Mol Biol*. 2022;2436:193-204. doi: 10.1007/7651_2021_416. PMID: 34490594

Gebeyehu A, Kommineni N, **Meckes DG Jr**, Sachdeva MS. Role of Exosomes for Delivery of Chemotherapeutic Drugs. *Crit Rev Ther Drug Carrier Syst.* 2021;38(5):53-97. doi: 10.1615/CritRevTherDrugCarrierSyst.2021036301. PMID: 34375513

Cone AS, Yuan X, Sun L, Duke LC, Vreones MP, Carrier AN, Kenyon SM, Carver SR, Bentham SD, Stimmell AC, Moseley SC, Hike D, Grant SC, Wilber AA, Olcese JM, **Meckes DG Jr**. Mesenchymal stem cell-derived extracellular vesicles ameliorate Alzheimer's disease-like phenotypes in a preclinical mouse model. *Theranostics.* 2021 Jul 13;11(17):8129-8142. doi: 10.7150/thno.62069. eCollection 2021. PMID: 34373732

Patel N, Kommineni N, Surapaneni SK, Kalvala A, Yaun X, Gebeyehu A, Arthur P, Duke LC, York SB, Bagde A, **Meckes DG Jr**, Singh M. Cannabidiol loaded extracellular vesicles sensitize triple-negative breast cancer to doxorubicin in both in-vitro and in vivo models. *Int J Pharm.* 2021 Sep 25;607:120943. doi: 10.1016/j.ijpharm.2021.120943. Epub 2021 Jul 27. PMID: 34324983

York SB, Sun L, Cone AS, Duke LC, Cheerathodi MR, **Meckes DG Jr**. Zika Virus Hijacks Extracellular Vesicle Tetraspanin Pathways for Cell-to-Cell Transmission. *mSphere.* 2021 Jun 30;6(3):e0019221. doi: 10.1128/mSphere.00192-21. Online ahead of print. PMID: 34190582

Sun L, **Meckes DG Jr**. Multiplex protein profiling method for extracellular vesicle protein detection. *Sci Rep.* 2021 Jun 14;11(1):12477. doi: 10.1038/s41598-021-92012-6. PMID: 34127763

Cheerathodi MR, Nkosi D, **Meckes DG Jr**. Epstein-Barr virus LMP1 modulates the CD63 interactome. *Viruses.* 2021 Apr 15;13(4):675. doi: 10.3390/v13040675. PMID: 33920772

Marzano M, Bou-Dargham MJ, Cone AS, York S, Helsper S, Grant SC, **Meckes DG Jr**, Sang QA, Li Y. Biogenesis of Extracellular Vesicles Produced from Human-Stem-Cell-Derived Cortical Spheroids Exposed to Iron Oxides. *ACS Biomater Sci Eng.* 2021 Mar 8;7(3):1111-1122. doi: 10.1021/acsbomaterials.0c01286. Epub 2021 Feb 1. PMID: 33525864

Nkosi D, Sun L, Duke LC, **Meckes DG Jr**. Epstein-Barr virus LMP1 manipulates the content and functions of extracellular vesicles to enhance metastatic potential of recipient cells. *PLOS Pathogens.* PLoS Pathog. 2020 Dec 31;16(12):e1009023. doi: 10.1371/journal.ppat.1009023. eCollection 2020 Dec. PMID: 33382850

Cone AS, Hurwitz SN, Lee GS, Yuan X, Zhou Y, Li Yan, **Meckes DG Jr**. Alix and Syntenin-1 direct amyloid precursor protein trafficking into extracellular vesicles. *BMC Mol. and Cell Biol.* 2020 Jul 30;21(1):58. doi: 10.1186/s12860-020-00302-0. PMID: 32731849

Nkosi D, Sun L, Duke LC, Patel N, Surapaneni SK, Singh M, **Meckes DG Jr**. Epstein-Barr virus LMP1 promotes Syntenin-1- and Hrs-induced extracellular vesicle formation for its own secretion to increase cell proliferation and migration. *MBio.* 2020 Jun 16;11(3):e00589-20. doi: 10.1128/mBio.00589-20. PMID: 32546618

Cone AS, York SB, **Meckes DG Jr**. Extracellular Vesicles in Epstein-Barr Virus Pathogenesis. *Curr Clin Microbiol Rep.* 2019 Sep;6(3):121-131. doi: 10.1007/s40588-019-00123-6. Epub 2019 Jul 3. PMID: 32051811

Cheerathodi MR, **Meckes DG Jr**. BioID Combined with Mass Spectrometry to Study Herpesvirus Protein-Protein Interaction Networks. *Methods Mol Biol.* 2020;2060:327-341. doi: 10.1007/978-1-4939-9814-2_19. PMID: 3161788

Marzano M, Bejoy J, Cheerathodi MR, Sun L, York SB, Zhao J, Kanekiyo T, Bu G, ***Meckes DG Jr., *Li Y.** Differential Effects of Extracellular Vesicles of Lineage-Specific Human Pluripotent Stem Cells on the Cellular Behaviors of Isogenic Cortical Spheroids. *Cells.* 2019 Aug 28;8(9). pii: E993. doi:10.3390/cells8090993. PubMed PMID: 31466320.

***Co-corresponding authors**

Hurwitz SN, **Meckes DG Jr**. Extracellular Vesicles Distinguish Unique Cancers. *Proteomes.* 2019. April 11. doi: 10.3390/proteomes7020014. PMID: 30979041

Hurwitz SN, Olcese JM, **Meckes DG Jr**. Extraction of Extracellular Vesicles from Whole Tissue. *J Vis Exp.* 2019.

Cheerathodi MR, **Meckes DG Jr**. The Epstein-Barr virus LMP1 interactome: biological implications and therapeutic targets. *Future Virology.* 2018 Dec 3. <https://doi.org/10.2217/fvl-2018-0120>

Sun L, **Meckes DG Jr**. Methodological Approaches to Study Extracellular Vesicle miRNAs in Epstein-Barr Virus-Associated Cancers. *Int. J. Mol. Sci.* 2018, 19, 2810. <https://doi.org/10.3390/ijms19092810>

They C, Witwer KW, ...**Meckes DG Jr.**, et al. Minimal information for studies of extracellular vesicles 2018 (MISEV2018): a position statement of the International Society for Extracellular Vesicles and update of the MISEV2014 guidelines. *J. Extracell. Vesicles.* 2018 Dec 1. 7:1535750. 10.1080/20013078.2018.1535750 **Cited 4523 times**

Nkosi D, Howell LA, Cheerathodi M, Hurwitz SN, Tremblay DC, Liu X, **Meckes DG Jr.** Transmembrane domains mediate intra- and extracellular trafficking of Epstein-Barr virus LMP1. *J Virol.* 2018 Jun 27. pii: JVI.00280-18. doi: 10.1128/JVI.00280-18. [Epub ahead of print]

Hurwitz SN, Sun L, Cole KY, Ford CR, III, Olcese JM, **Meckes DG Jr.** An optimized method for purification of whole brain-derived extracellular vesicles reveals insight into neurodegenerative processes in a mouse model of Alzheimer's disease. *J Neurosci Methods.* 2018 Jun 9. pii: S0165-0270(18)30160-2. doi: 10.1016/j.jneumeth.2018.05.022. [Epub ahead of print]

Hurwitz SN, Cheerathodi MR, Nkosi D, York SB, **Meckes DG Jr.** Tetraspanin CD63 bridges autophagic and endosomal processes to regulate exosomal secretion and intracellular signaling of Epstein-Barr virus LMP1. *J Virol.* 2018 Feb 12;92(5). pii: e01969-17. doi: 10.1128/JVI.01969-17. PubMed PMID: 29212935.

Rider MA, Cheerathodi MR, Hurwitz SN, Nkosi D, Howell LA, Tremblay DC, Liu X, Zhu F, **Meckes DG Jr.** The interactome of EBV LMP1 evaluated by proximity-based BioID approach. *Virology.* 2018 Mar 5 16:55-70. doi: 10.1016/j.virol.2017.12.033. PubMed PMID: 29329079.

Hurwitz SN, **Meckes DG Jr.** 2018. Extracellular Vesicle Biogenesis in Cancer. Elsevier Press. Diagnostic and Therapeutic Applications of Exosomes in Cancer, pp.11-26

Hurwitz SN, **Meckes DG Jr.** An Adaptable Polyethylene Glycol-Based Workflow for Proteomic Analysis of Extracellular Vesicles. *Methods Mol Biol.* 2017;1660:303-317. doi: 10.1007/978-1-4939-7253-1_25. PubMed PMID: 28828667.

Hurwitz, S.N., Nkosi D, Conlon MM, York SB, Liu X, Tremblay DC, **Meckes DG Jr.** 2017. CD63 regulates Epstein-Barr virus LMP1 exosomal packaging, enhancement of vesicle production, and non-canonical NF-kB signaling. *Journal of Virology* 91:e02251-16 [Cited 85 times](#)

Hurwitz, SN, Rider MA, Bundy JL, Liu X, Singh RK, **Meckes DG Jr.** 2016. Proteomic profiling of NCI-60 extracellular vesicles uncovers common protein cargo and cancer type-specific biomarkers. *Oncotarget.* 52:86999 [Cited 177 times](#)

Hurwitz, S.N., M.M. Conlon, M.A. Rider, **Meckes DG Jr.** 2016. Nanoparticle analysis sheds budding insights into genetic drives of extracellular vesicle biogenesis. *J. Extracell. Vesicles.* 5:31295 [Cited 109 times](#)

Rider MA, Hurwitz SN, **Meckes DG Jr.** 2016. ExtraPEG: A Polyethylene Glycol-Based Method for Enrichment of Extracellular Vesicles. *Scientific Reports* 6:23978. [Cited 410 times](#)

Meckes DG Jr. 2015. Exosomal Communication Goes Viral. *Journal of Virology* doi:10.1128/jvi.02470-14.
(Listed on JV most read articles for March and April) [Cited 137 times](#)

Meckes DG Jr. 2014. Affinity Purification Combined with Mass Spectrometry to Identify Herpes Simplex Virus Protein-Protein Interactions, p 209-222. In Diefenbach RJ, Fraefel C (ed), *Herpes Simplex Virus*, vol 1144. *Methods Mol. Bio.* Springer New York.

Meckes DG Jr., Gunawardena HP, Dekroon RM, Heaton PR, Edwards RH, Ozgur S, Griffith JD, Damania B, Raab-Traub N. 2013. Modulation of B-cell exosome proteins by gamma herpesvirus infection. *Proceedings of the National Academy of Sciences* doi:10.1073/pnas.1303906110. [Cited 217 times](#)

[Special Commentary: Pegtel, D.M., Oncogenic Herpesviruses sending mixed signals. *Proc Natl Acad Sci U S A.* 31:12503-4](#)

Meckes DG Jr., Menaker NF, Raab-Traub N. 2013. Epstein-Barr Virus LMP1 Modulates Lipid Raft Microdomains and the Vimentin Cytoskeleton for Signal Transduction and Transformation. *Journal of Virology* 87:1301-1311.

Meckes DG Jr., Raab-Traub N. 2011. Mining Epstein-Barr Virus LMP1 Signaling Networks. *J Carcinogene Mutagene.* S11:001. doi:10.4172/2157-2518.S11-001

Meckes DG Jr., Raab-Traub N. 2011. Microvesicles and Viral Infection. *Journal of Virology* 85:12844-12854. [Cited 424 times](#)
(Listed on JV most read articles for October through April)

Yeh P-C, Han J, Chadha P, **Meckes DG Jr.**, Ward MD, Semmes OJ, Wills JW. 2011. Direct and Specific Binding of the UL16 Tegument Protein of Herpes Simplex Virus to the Cytoplasmic Tail of Glycoprotein E. *Journal of Virology* 85:9425-9436.

Han J, Chadha P, **Meckes DG Jr.**, Baird NL, Wills JW. 2011. Interaction and Interdependent Packaging of Tegument Protein UL11 and Glycoprotein E of Herpes Simplex Virus. *Journal of Virology* 85:9437-9446.

*Kung CP, *Meckes DG Jr., Raab-Traub N. 2011. Epstein-Barr virus LMP1 activates EGFR, STAT3, and ERK through effects on PKCdelta. J Virol 85:4399-4408. ***These authors contributed equally to the work.**
 Cited 142 times (Journal of Virology Spotlight Article)

Meckes DG Jr., Shair KH, Marquitz AR, Kung CP, Edwards RH, Raab-Traub N. 2010. Human tumor virus utilizes exosomes for intercellular communication. Proc Natl Acad Sci USA 107:20370-20375. Cited 516 times

Cited in: *Nature Research Highlights*. "Communicators key for cancer virus." Vol. 468, Page:349. 2010 Nov 18.

Science Daily, "Cellular Communicators for Cancer Virus Identified." (Nov 9, 2010); also featured in 10 other science/medical news outlets.

Priority Paper Evaluation: Middeldorp J.M., D.M. Pegtel. 2011. A human tumor virus extends its reach. *Future Virol.* 4:413-415.

Meckes DG Jr., Marsh JA, Wills JW. 2010. Complex mechanisms for the packaging of the UL16 tegument protein into herpes simplex virus. Virology 398:208-213.

*Harper AL, *Meckes DG Jr., *Marsh JA, Ward MD, Yeh PC, Baird NL, Wilson CB, Semmes OJ, Wills JW. 2010. Interaction domains of the UL16 and UL21 tegument proteins of herpes simplex virus. J Virol 84:2963-2971.

***These authors contributed equally to the work.**

Yeh PC, **Meckes DG Jr., Wills JW. 2008. Analysis of the interaction between the UL11 and UL16 tegument proteins of herpes simplex virus. J Virol 82:10693-10700.**

Meckes DG Jr., Wills JW. 2008. Structural rearrangement within an enveloped virus upon binding to the host cell. J Virol 82:10429-10435.
 (Journal of Virology Spotlight Article) (Selected for Faculty of 1000 Biology, must read)

Meckes DG Jr., Wills JW. 2007. Dynamic interactions of the UL16 tegument protein with the capsid of herpes simplex virus. J Virol 81:13028-13036. Cited 86 times

Service:

Ad hoc Manuscript Review:

- *Virus Research, 2019-present*
- *Cells, 2020-present*
- *Trends in Parasitology, 2020*
- *Small, 2020*
- *Trends in Cancer, 2020*
- *Cancer Drug Resistance, 2020*
- *Aging, 2019*
- *Cancer Medicine, 2019*
- *Frontiers in Genetics, 2020*
- *Cancer Management and Research, 2019*
- *Cancer Science, 2019*
- *Journal of Innovative Optical Sciences, 2019*
- *Journal of Biomolecular Structure & Dynamics, 2020-present*
- *Cancers, 2018-present*
- *Journal of Proteome Research, 2018*
- *Neurobiology of Aging, 2018*
- *Frontiers in Microbiology, 2018*
- *Neuroscience Letters, 2020-present*
- *Cancer Letters, 2018-present*
- *mSphere, 2017-present*
- *Scientific Reports, 2017-present*
- *PLOS Pathogens, 2017-present*
- *Journal of Virology, 2015-present*
- *Virology, 2017-present*
- *Viruses, 2018-present*
- *Journal of Medical Virology, 2018*
- *Virus Research, 2019*
- *Proteomics, 2019*

- *Theranostics*, 2018
- *Journal of Extracellular Vesicles*, 2017-present
- *Oncotarget*, 2017-present
- *Autophagy*, 2017-present
- *Protein & Cell*, 2017
- *International Journal of Biological Sciences*, 2017
- *Cellular and Molecular Life Sciences*, 2017
- *BMC Infectious Diseases*, 2017
- *3Biotech*, 2017
- *Proceedings of the National Academy of Sciences (PNAS)*, 2016
- *BioMed Research International*, 2016
- *BMC Cancer*, 2016
- *Journal of General Virology*, 2016
- *Methods*, 2015
- *PLOS One*, 2014-present

Editorial Board Membership

- Editorial Board, *Journal of Extracellular Vesicles and Circulating Nucleic Acids*, 2020-present
- Editorial Board, *Journal of Circulating Biomarkers*, 2017-present

National and International Grant Review:

- **NIH Study Section**, 2021 ZRG1 IDM S83
- American Heart Association (**Appointed member of Immunology BSc 1 Study Section**), 2017-2020
- Alzheimer's Research UK
- Netherlands Organization for Scientific Research (NOW), 2018
- **NIH Study Section ZDA1 SXM-M (10) R** – “Extracellular Vesicle Tools, Technologies, and Products for Neuroscience Research” (R41/R42, R43/R44), February 24, 2017
- Israel Science Foundation, 2017
- National Science Foundation, 2017, 2018 Ad hoc
- Biotechnology and Biological Sciences Research Council (BBRC), United Kingdom, 2017
- Danish Council for Independent Research, 2017
- Alzheimer's Association, 2016, 2018
- **NIH Study Section ZDA1 JXR-G (13)** – Special Emphasis Panel, “Extracellular Vesicles in HIV/AIDS and Substance Abuse” (R01, R21), February 26, 2015
- Ghent University, 2014
- Medical Research Council, United Kingdom, 2013, 2016

Consultation:

- NIH Common Fund Extracellular RNA Communication Program Working Group, 2017
- ChromoLogic LLC, Phase I NIH/NCI Small Business Innovation Research (SBIR) Grant, 2016-2018
- Synergy Biologics LLC, 2019-present

Leadership Positions:

- **Chair** of the organizing committee for the 7th Annual Florida State University Life Sciences Symposium, “Fighting the Invisible Enemies: Host-Pathogen Interactions in Infectious Diseases”, 2017
- **Chair** of the Betaherpesvirus Satellite Session, Annual International Herpesvirus Workshop, 2017-present
- **Founder and member** of FSU Virology Data Meeting, 2013-present, Bi-weekly meeting with virology labs on campus to discuss data and current literature.

University Committee:

2015-present Fulbright Faculty Committee

Departmental and College Committees:

2018-present Ad hoc, Foyer Design Committee
 2016-2018 Faculty Council Outstanding Junior Investigator Award Committee
 2016 Faculty Council Outstanding Junior Educator Award Committee
 2016 Curriculum Committee Review of Pre-clerkship Course
 2015-2017 Curriculum Committee Year 1 and 2

2015-2016	By-Laws and Policy Committee
2015-2017	Faculty Recruitment Committee
2015-2017	Graduate Program Committee
2015	Promotion and Tenure Committee
2013-2016	Curriculum Redesign Committees - Medicine 2, Host Defense, and Hematology teams
2014-2015	Speaker and organizer for BMS Public Information Session "Current Health Issues"
2014	Faculty Development and Mentoring Committee
2015-2022	Year 1 and 2 medical student Faculty Advisor

Community Service:

2021-present	Serve at Experience Church
2015-present	"Science Night" Gilchrist Elementary School – organized science experiments and educational activities for students
2014-present	First Friday's at Railroad Square "Ask a Scientist" – A monthly event organized by FSU Professors to promote science in the community
2013	Fundraising for the Muscular Dystrophy Association
2013	Panel Speaker for FSU Postdoc Symposium session "Challenges Facing Junior Scientists in the 21 st century."

Society Memberships:

- International Society for Extracellular Vesicles
- American Society for Exosomes and Microvesicles
- American Society for Microbiology
- International Association for Research on Epstein-Barr virus and Associated Diseases

Extramural Funding:

~\$4 million in funding awarded over the past 10 years

Completed:

21A05 - Florida Department of Health 03/01/21-06/30/22
 Ed and Ethel Moore Alzheimer's Disease Research Program Total award: \$100,000
 Title: Mesenchymal Stem Cell-Derived Extracellular Vesicles for the Treatment of Alzheimer's Disease.
 Role: PI

In this study, we propose to utilize EVs from mesenchymal stem cells (MSC) which have been shown to possess anti-inflammatory and neuroprotective properties. Using a novel 3D aggregate culture system, we have found elevated production of EVs with enhanced anti-inflammatory and neuroprotective properties under these growth conditions. Therefore, we will administer EVs produced with this system to AD mice and monitor plaque deposition, learning and memory. We will further enhance the neuroprotective properties of the EVs by loading EVs with specific protein or RNA cargo. If our predictions are met, the implications for treatment of AD would be truly groundbreaking.

1R01CA204621- National Institutes of Health 4/1/2016 – 3/31/2021
 National Cancer Institute Total award: \$1,704,214
 Title: Modulation of Host Cell Exosome Content and Function by EBV LMP1
 Role: PI

The overall goal of these studies is to determine the mechanisms that LMP1 drives exosome content reorganization and alters the functions of exosomes. We hypothesize that LMP1 exosomal trafficking modulates the components and biological properties of exosomes by altering endocytic routes and membrane microdomains. To test this, we aim to: 1.) investigate the mechanism through which LMP1 alters exosome components; 2.) determine the functions of LMP1-modified exosomes in intracellular communication and cellular transformation.

1R01CA204621 08S1 – Supplement award, National Institutes of Health 4/1/2018 – 3/31/2019
 National Institute on Aging Total award: \$376,629
 Role: PI

Here, we seek to clarify the mechanisms of exosome biogenesis and protein trafficking that contribute to amyloid precursor protein (APP) and amyloid beta (A β) exosomal incorporation and plaque deposition in the brain. From the preliminary data, our overall hypothesis is that amyloidogenic APP modulates the components and biological properties of exosomes secreted from neuronal cells, and that these changes contribute to AD pathology and disease progression through neurotoxic and inflammatory responses. To test this we will; 1) determine the mechanism of APP and A β exosomal packaging and secretion; 2) identify the changes in exosome cargo due to mutant APP processing and exosomal trafficking. Overall, the completion of this study will provide novel insight into the mechanisms controlling exosome biogenesis, content, functions, and protein trafficking during mutant APP processing and A β exosomal accumulation.

3R01CA204621-04S1 – National Institutes of Health 4/1/2019-3/31/2021
National Cancer Institute Total award: \$133,050

This is a Diversity Supplement to support the research of a minority graduate student in the laboratory.

Synergy Biologics LLC 8/12/19-2/11/21
Total award: \$24,879

Funding provided to complete the following aims:

- Aim 1. Determine the protein composition of amniotic fluid and micronized amnion samples and compare relative protein abundance across 10 different biological preparations using high-resolution mass spectrometry.
Aim 2. Establish umbilical cord tissue-derived MSC 3D bioreactor cultures for the production and purification of extracellular vesicles (EVs).
Aim 3. Characterize EV protein and RNA content from MSCs lines established from 10 distinct umbilical cords.

7ZK16- Zika Research Initiative 3/1/2017 – 6/30/2018
Florida Department of Health Total award: \$199,280
Title: Fetal Brain Exosomes in the Maternal Circulation for the Detection of Zika Virus Infected Fetuses
Role: PI

The goal was to test the hypothesis that pathological factors of Zika infection and microcephaly are present in fetal exosomes released into the maternal circulation that can be used for early detection of disease in the fetus. To test this we aimed to: isolate and characterize fetal-derived exosomes in the maternal circulation for early diagnosis of Zika infection and microcephaly; and compare distinguishing molecular features of fetal exosomes with imaging data of fetal development.

1R15CA188941- National Institutes of Health 5/1/2015 – 4/30/2018
National Cancer Institute Total award: \$414,462
Title: Exosome-Dependent Trafficking of Epstein-Barr Virus LMP1
Role: PI

The overall goal of this project was to uncover the molecular basis controlling LMP1 exosome trafficking and release from the cell. We hypothesized that LMP1 traffics from the Golgi to the site of exosome formation (multivesicular bodies, MVBs) in Rab31/VAMP4 containing vesicles in complex with CD63. To test this hypothesis, we proposed two focused specific aims that are appropriately tailored for the funding period and total award amount for the R15 funding mechanism. Using dominant negative constructs and siRNAs directed against Rab31 and VAMP4 we monitored the localization of LMP1 to MVBs and exosomes using western blot and fluorescence-based assays. In this study, we also further investigated the CD63-LMP1 interactions important for exosomal trafficking.

6AZ11 – Alzheimer’s Research Program 1/1/2016 – 1/31/2018
Florida Department of Health Total award: \$81,499
Title: Blood Exosomes and Neurodegenerative Disease
Role: PI

Our overall hypothesis was that pathological factors that contribute to the course of AD and can be used for early detection of the disease are resident in brain derived exosomes of the circulation. Therefore, our objects for this research proposal were twofold - 1) to develop techniques for identifying the tissue origins of circulating exosomes; and 2) to characterize specifically the neuronal exosomes present in human blood samples the blood from mouse models of AD.

4BB05 - Bankhead-Coley Program 12/1/2013 – 11/30/2015
Florida Department of Health Total award: \$396,328
Title: Proteomic Analysis of Cancer Exosomes for Diagnostic and Therapeutic Targets
Role: PI

The major goal of this project was to utilize exosome purification strategies that we have developed together with advanced quantitative proteomics techniques to define the protein composition of exosomes secreted from a diverse set of human cancer cell lines (the National Cancer Institute, NCI-60). The completion of this project revealed a common set of proteins found in cancer exosomes that are likely important for their formation and function. Exosomal proteins expressed only in specific cancer types (e.g., breast, prostate and colon) may represent potential diagnostic biomarkers that will be further explored with patient samples. Overall, this project aimed to understand the composition and function of exosomes secreted from cancer cells with the goal of discovering novel therapeutic and diagnostic targets.

2011-2013: American Cancer Society Fellowship
Title: “Molecular Properties of Exosomes Secreted from Cancer Cells Expressing LMP1”
Total Award: \$150,000

Intramural Funding:

8/1/2020-5/30/2021: GAP Commercialization Grant

Title: “Developing Exosomal Wound-Healing Therapy”

Total: \$39,850 (Co-PI)

6/1/2020-8/18/2020: Collaborative Collision: COVID-19 Seed Fund

Title: “Mesenchymal Stem Cell Derived Extracellular Vesicles as an Anti-Coronavirus Therapy”

Total: \$20,000 (PI)

1/15/20-1/14/21: FSU Equipment and Infrastructure Enhancement Grant

Title: “Enhancing biomedical research at FSU through a small animal imaging system”

Total: \$40,000 (Co-PI)

2/1/2017-1/31/2018: FSU Multidisciplinary Support Award

Title: “Use of next-generation sequencing methods to assess human parasites”

Total: \$16,100 (Co-PI)

1/9/15-1/8/16: FSU Equipment and Infrastructure Enhancement Grant

Title: “Enhancing Biomedical Research by Confocal Microscopy with Quantitative Capability”

Total: \$85,000 (Co-PI)

6/01/14-5/30/15: FSU Equipment and Infrastructure Enhancement Grant

Title: “Enhancing Cell Biology Research Through Automated Cell Counting and Fluorescent-Based Assays”

Total: \$29,618 (PI)

Research Talks:

- 2022 American Society of Exosomes and Microvesicles, Pacific Grove, California (Invited talk)
- 2020 Florida Medical Schools COVID-19 Research Virtual Symposium (Invited talk)
- 2020 Exosomes in Human Infectious Diseases Conference, Nassau, Bahamas (Invited talk)
- 2020 Exosome Biology Conference, Warsaw, Poland (invited talk)
- 2019 University of Cincinnati College of Medicine, Depart. of Molecular Genetics, Biochemistry, and Microbiology (Invited seminar)
- 2019 FAMU-FSU College of Engineering, Department of Chemical and Biomedical Engineering (Invited seminar)
- 2018 American Society of Exosomes and Microvesicles, Baltimore, MD (Plenary talk)
- 2018 Gordon Research Seminar (GRS), Extracellular Vesicles, Newery, ME (Plenary talk)
- 2018 NanoBio Collaborative International Conference, Tampa FL (Plenary lecture)
- 2017 American Society of Exosome and Microvesicles, Pacific Grove, California (Plenary talk)
- 2017 Penn State College of Medicine, Department of Microbiology and Immunology (Invited seminar)
- 2017 University of Pittsburgh Cancer Institute (Invited seminar)
- 2017 International Society of Extracellular Vesicles, Toronto, Canada
- 2017 University of Kansas Medical Center, Department of Microbiology, Molecular Genetics, Immunology (Invited seminar)
- 2015 International Herpesvirus Workshop, Boise Idaho
- 2014 Florida State University 4th Annual Life Sciences Symposium
- 2013 International Herpesvirus Workshop, Grand Rapids MI
- 2013 Florida State University Institute of Molecular Biophysics (Invited seminar)
- 2012 The Pennsylvania State University, Department of Biochemistry and Molecular Biology (Invited seminar)
- 2012 The University of Iowa College of Medicine, Department of Microbiology (Invited seminar)
- 2010 International Association for Research on Epstein-Barr virus and Associated Diseases. Birmingham, England.
- 2008 The International Herpesvirus Workshop, Estoril, Portugal
- 2008 8th Annual Herpesvirus Symposium. Philadelphia, PA
- 2007 7th Annual Herpesvirus Symposium. Philadelphia, PA

Meeting Abstracts (Selected):

Hurwitz SN, Nkosi D, Rider MA, Bundy JL, Liu X, Singh RK, **Meckes DG Jr.** 2018. The NCI-60 cancer cell line panel provides new insights into extracellular vesicle biogenesis and cargo selection. Keystone Symposium. Exosomes/Microvesicles: Heterogeneity, Biogenesis, Function and Therapeutic Developments. Breckenridge, CO. Poster Presentation

York SB, Sun L, Cone AS, Olcese J, **Meckes DG Jr.** 2018. Zika virus hijacks extracellular vesicle pathways for cell to cell transmission. Gordon Conference. Extracellular Vesicles. Newry ME. Poser presentation

- Nkosi D, Cheerathodi M, Rider MA, **Meckes DG Jr.** 2018. Epstein-Barr virus LMP1 hijacks the host ESCRT machinery for exosomal secretion. 42nd Annual International Herpesvirus Workshop. Vancouver, Canada. Poster presentation
- York SB, Sun L, Cone AS, Olcese J, **Meckes DG Jr.** 2018. Zika virus hijacks extracellular vesicle pathways for cell to cell transmission. Gordon Conference. Extracellular Vesicles. American Society of Exosomes and Microvesicles. Baltimore, MD.
- Hurwitz SN, Nkosi D, Rider MA, Bundy JL, Liu X, Singh RK, **Meckes DG Jr.** 2018. The NCI-60 cancer cell line panel provides new insights into extracellular vesicle biogenesis and cargo selection. Keystone Symposium. Exosomes/Microvesicles: Heterogeneity, Biogenesis, Function and Therapeutic Developments. Breckenridge, CO. Oral presentation
- Nkosi D, Cheerathodi M, Rider MA, **Meckes DG Jr.** 2018. Epstein-Barr virus LMP1 hijacks the host ESCRT machinery for exosomal secretion. International Conference on EBV and KSHV. Madison, WI. Oral presentation
- York SB, Hurwitz SN, Nkosi D, Liu X, **Meckes DG Jr.** 2017. Ceramide- and CD63-dependent trafficking of Epstein-Barr virus LMP1 to extracellular vesicles. American Society of Exosomes and Microvesicles. Pacific Grove, CA. Oral presentation
- York SB, Hurwitz SN, Nkosi D, Liu X, **Meckes DG Jr.** 2017. Ceramide- and CD63-dependent trafficking of Epstein-Barr virus LMP1 to extracellular vesicles. International Society of Extracellular Vesicles. Toronto, Canada. Poster presentation
- Rider MA, Cheerathodi M, Hurwitz SN, Howell LA, Liu Xia, **Meckes DG Jr.** 2017. The EBV LMP1 interactome contains ESCRT-dependent and -independent extracellular vesicle sorting proteins. International Society of Extracellular Vesicles. Toronto, Canada. Poster presentation
- Hurwitz SN, Rider MA, Bundy JL, Liu X, Singh RK, **Meckes DG Jr.** 2017. Novel tissue- and cancer-specific markers identified by proteomic profiling of extracellular vesicle cargo. International Society of Extracellular Vesicles. Toronto, Canada. Poster presentation
- Cheerathodi M, Liu X, **Meckes DG Jr.** 2017. Proteomic analysis of CD63 interaction network reveals important functions of CD63 in LMP1-dependent protein trafficking. International Society of Extracellular Vesicles. Toronto, Canada. Poster presentation
- Nkosi D, Howell LA, Cheerathodi M, Hurwitz SN, Tremblay DC, Liu X, **Meckes DG Jr.** 2017. Epstein-Barr virus LMP1 extracellular vesicle sorting is mediated by the N-terminus and transmembrane domains. International Society of Extracellular Vesicles. Toronto, Canada. Poster presentation
- Hurwitz SN, Nkosi D, Conlon MM, **Meckes DG Jr.** 2016. Tetraspanin protein CD63 mediates exosomal packaging of Epstein Barr virus LMP1. Keystone Symposia Exosomes/Microvesicles: Novel Mechanisms of Cell-Cell Communication. Keystone, CO. Poster Presentation
- Hurwitz SN, Conlon MM, Rider MA, Brownstein NC, **Meckes DG Jr.** 2016. Nanoparticle tracking analysis of cancer cell vesicles sheds budding insights into exosome and microvesicle biogenesis. Keystone Symposia Exosomes/Microvesicles: Novel Mechanisms of Cell-Cell Communication. Keystone, CO. Poster Presentation
- Hurwitz SN, Nkosi D, Conlon MM, **Meckes DG Jr.** 2016. Tetraspanin protein CD63 mediates exosomal packaging of Epstein Barr virus LMP1. 41st International Herpesvirus Workshop. Madison, WI. Poster Presentation
- Nkosi D., Howell LA, Conlon MM, Tremblay DC, **Meckes DG Jr.** 2015. Transmembrane Domains Mediate Intra- and Extra-cellular Trafficking of Epstein-Barr Virus LMP1. 40th Annual International Herpesvirus Workshop. Boise, ID. Oral Presentation
- Rider MA and **Meckes DG Jr.** The Interactome of the Epstein-Barr Virus Oncoprotein Evaluated by the Proximity-Based BioID Approach. 2015. 40th Annual International Herpesvirus Workshop. Boise, ID. Poster Presentation
- Meckes DG Jr.**, Gunawardena HP, Dekroon RM, Heaton PR, Edwards RH, Ozgur S, Griffith JD, Damania B, and Raab-Traub N. 2013. Modulation of B-Cell Exosome Proteins by Gammaherpesvirus Infection. 38rd Annual International Herpesvirus Workshop. Grand Rapids, MI. Oral Presentation
- Meckes DG Jr.**, N. Menaker, R.H. Edwards, and N. Raab-Traub. 2012. Reorganization of Lipid Raft Microdomains by EBV Latent Membrane Protein 1 (LMP1) Contributes to its Signaling and Transformation Capabilities. 37rd Annual International Herpesvirus Workshop. Calgary, Canada. Oral Presentation
- Meckes DG Jr.**, N. Menaker, R.H. Edwards, and N. Raab-Traub. 2012. Reorganization of Lipid Raft Microdomains by EBV Latent Membrane Protein 1 (LMP1) Contributes to its Signaling and Transformation Capabilities. International Congress on Oncogenic Herpesviruses and Associated Diseases. Philadelphia, PA. Poster Presentation

Meckes DG Jr., A.R. Marquitz, K.H. Shair, R.H. Edwards, C.P. Kung, and N. Raab-Traub. 2010. Epstein-Barr Virus Utilizes Exosomes for Intercellular Communication. International Association for Research on Epstein-Barr virus and Associated Diseases. Birmingham, England. Oral Presentation

Meckes DG Jr. and Wills JW. 2008. Rearrangement of the Tegument upon Herpesviruses Binding to their Host Cells. 33rd Annual International Herpesvirus Workshop. Estoril, Portugal. Oral Presentation

Meckes DG Jr. and Wills JW. 2008. Rearrangement of the Tegument upon Herpesviruses Binding to their Host Cells. 8th Annual Herpesvirus Symposium. Philadelphia, PA. Oral Presentation

Meckes DG Jr. and Wills JW. 2007. Dynamic Interactions of the UL16 Tegument Protein with the Capsid of Herpes Simplex Virus. 32nd Annual International Herpesvirus Workshop. Asheville, NC. Poster Presentation

Meckes DG Jr. and Wills JW. 2007. Dynamic Interactions of the UL16 Tegument Protein with the Capsid of Herpes Simplex Virus. 7th Annual Herpesvirus Symposium. Philadelphia, PA. Oral Presentation

Meckes DG Jr., Yeh PC, Courtney RJ, Wills JW. 2005. Localization and Virion Incorporation of the Herpes Simplex Type 1 Tegument Protein, UL16. International Union of Microbiological Societies. XIII International Congress of Virology. San Francisco, CA. Poster Presentation

Trainees (name, years, current position):

Undergraduate:

Spencer Carver, 2019-2021 (medical school)

Stephanie Kenyon, 2019-2021 (graduate school)

Allison Carrier, 2019-2020 (graduate school)

Michael Vreones, 2018-2020 (medical school)

Emma Isaac, 2018

Jasmine Reed, 2018-present (FAMU student)

Leanne Duke, 2017-2020 (Ph.D. student at FSU)

Steven Carter, 2016-2018 (Medical School)

Antonia Veltcheva, 2015-2018 (UAB Dental School)

Charles Ford III, 2016-2018 (Co-mentored with Dr. Olcese)

Kalonji Cole, 2016-2017 (Co-mentored with Dr. James Olcese)

Marius Kostelic, 2015-2017 (Ph.D. student at University of Arizona)

Alexandra Dolan, 2015-2017 (Ph.D. student at University of Virginia)

Timothy Bobroskie, 2014-2015 (elementary science teacher for Leon County Schools)

Natalie Marengi, 2013-2014 (medical student, FSU College of Medicine)

Medical:

Caitlin E Tweedie, 2019 (awarded an FSU COM Summer Research Fellowship)

Jonathan D Grisaffi, 2019 (awarded an FSU COM Summer Research Fellowship)

Rachel Serio, 2018 (awarded an FSU COM Summer Research Fellowship; co-mentored with Dr. James Olcese for our FDoH grant)

Junseo Lee, 2018

Hunter Hamilton, 2018 (awarded an FSU COM Research Fellowship)

Adhish Singh, 2016 (awarded an FSU COM Summer Research Fellowship; co-mentored with Dr. James Olcese for our FDoH grant)

Maria Raye Anne Ng, 2016 (awarded an FSU COM Summer Research Fellowship)

Stephanie Hurwitz, 2014

Graduate:

Leanne Duke, 2020-2022

Monica Abou Harb, 2019-2022

Allaura Cone, 2017-2021

Dingani Nkosi, 2017-2021 (awarded FSU COM Rill Research Award, CREATE Fellowship, Gordon Research Conference travel award, ISEV travel award)

Stephanie Hurwitz (MD/PhD), 2015-2017 (awarded FSU COM Rill Research Award and national PEO Scholar Award)

Sara York, 2015-2021

Meghan Conlon, 2014-2016

Lauren Howell, 2013- 2016

Rotation Students:

Frederick Feely, 2020
 Leanne Duke, 2019
 Austin Folger, 2019
 Sandra Zivkovic, 2018
 Hyo Jeong, Yong, 2018
 Nella Delva, 2018
 Grace Hammel, 2018
 Elise Wright, 2017
 Sara Jones, 2017
 Ernest Phillips, 2017
 Caitlyn Blake-Hedges, 2017
 Allaura Sherman, 2016
 Dingani Nkosi, 2016
 Sara York, 2015
 Meghan Conlon, 2014
 Lauren Howell, 2013

Postdoctoral:

Li Sun, 2017-2022
 Mujeeburahiman Cheerathodi, 2016-2020
 Mark Rider, 2013-2016

Research Scientist:

Xia Lui, 2014-2017 (Research Scientist, China)
 Dingani Nkosi, 2014-2017 (Graduate student, FSU College of Medicine)
 Deanna Tremblay, 2013-2014 (Postdoctoral recruiter, St. Jude Children's Research Hospital)

Graduate Student Committees (name, years, program):

Monica Abou Harb, 2019-2022 (Chair, Biomedical Sciences)
 Leanne Duke, 2020-2022 (Chair, Biomedical Sciences)
 Maryam Ayazi, 2018-2022 (Biomedical Sciences)
 Sandra Zivkovic, 2018-2022 (Biomedical Sciences)
 Ernest Phillips, 2018-2022 (Biomedical Sciences)
 Coralin Noguez, 2018-2019 (FAMU, Pharmaceuticals)
 Allaura Sherman, 2017-2021 (Chair, Biomedical Sciences)
 Dingani Nkosi, 2017-present (Chair, Biomedical Sciences)
 Angelica Medina, 2017-present (Biology)
 Sankalpa Chakraborty, 2016-2017 (Biology)
 Alyssa Rolfe, 2016-2020 (Biomedical Sciences)
 Sara York, 2015-2021 (Chair, Biomedical Sciences)
 Brittany Brewers, 2015-2017 (Biology)
 Stephanie Hurwitz, 2015-2017 (Chair, Biomedical Sciences)
 Meghan Conlon, 2015-2016 (Chair, Biomedical Sciences)
 Emily Lee, 2014-present (Biology)
 Siming Ma, 2014-2022 (Biology)
 Lauren Howell, 2014-2016 (Chair, Biomedical Sciences)

Undergraduate Honor Thesis Committees:

Michael Verones, 2019 (Biology) – Thesis Advisor and Chair of Committee
 Leanne Duke, 2018 (Biochemistry) - Thesis Advisor and Chair of Committee
 Michael Taylor, 2018 (Biology)
 John Henriquez, 2018 (Biology)
 Steven Carter, 2017 (Biology) – Thesis Advisor and Chair of Committee
 Marius Kostelic, 2016 (Chemistry) – Thesis Advisor and Chair of Committee
 Allaura Sherman, 2015 (Biology)

References available upon request.