

Hanaa H. Hariri, Ph.D. – Curriculum Vitae
Wayne State University– Biological Sciences Department
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Current Position

2021-Present Assistant Professor in Biological Sciences. Wayne State University. Detroit MI

Education

2015-2020 Postdoctoral Fellow, Cell Biology, University of Texas Southwestern Medical Center (UTSW)–
Laboratory of Dr. Mike Henne
2009-2014 Ph.D., Molecular Biophysics, Florida State University, Tallahassee FL
2007-2009 M.Sc., Cell and Molecular Biology, American University of Beirut, Beirut, Lebanon
2003-2007 B.S., Biological Sciences, Lebanese University, Hadath, Lebanon

Research Experience

2015-2020 Postdoctoral Research Fellow, Department of Cell Biology, UTSW
Advisor – Mike Henne, Ph.D.
• Defining the role of inter-organelle contacts in regulation of lipid metabolism

2009-2015 Ph.D. degree, Institute of Molecular Biophysics, Florida State University
Advisor – Scott Stagg, Ph.D.
• Elucidating the role of the GTPase Sar1 in membrane curvature

2007-2009 M.Sc. degree, Department of Cell Biology, American University of Beirut
Advisors – Rabih Talhouk, Ph.D. and Marwarn El-Sabban, Ph.D.
• Examining the role of gap junction proteins in breast cancer suppression

Publications

1. Vladimir Girik, Suihan Feng, **Hanaa Hariri**, W Mike Henne, Howard Riezman (2022). Vacuole-specific lipid release for tracking intracellular lipid metabolism and transport in *Saccharomyces cerevisiae*. ACS (In Revision).
2. **Hanaa Hariri**, Mike Henne (2022). Filling in the gaps: SNX-RGS proteins as multi-organelle tethers. *Journal of Cell Biology*. DOI: 10.1083/jcb.202203061
3. Blessy Paul, Saroja Weeratunga, Vikas A. Tillu, **Hanaa Hariri**, W. Mike Henne and Brett M. Collins (2022). Structural Predictions of the SNX-RGS Proteins Suggest They Belong to a New Class of Lipid Transfer Proteins. *Front. Cell Dev. Biol.*, <https://doi.org/10.3389/fcell.2022.826688>
4. Mike F. Renne, **Hanaa Hariri*** (2021). Fatty Acid Channeling, Trafficking, and Metabolism at Lipid Droplet Contact Sites. *Frontiers in Cell Dev. Biol.* doi: 10.3389/fcell.2021.726261. *Corresponding author.
5. Lluc Mosteiro, **Hanaa Hariri**, Jelle van den Ameele (2021). Metabolic decisions in development and disease. *Development. Meeting Review*. Vol. 148 Issue 11.
6. Sean Rogers, **Hanaa Hariri**, Long Gui, N. Ezgi Wood, Natalie Speer, Daniela Nicastro, W. Mike Henne (2021). Glucose restriction drives spatial reorganization of mevalonate metabolism. *Elife*. 10:e62591 DOI: 10.7554/eLife.62591.
7. **Hanaa Hariri** (2021). Topography and Functions of Membrane Contact Sites. *Encyclopedia of Biological Chemistry* 3rd Edition.
8. N Ezgi Wood, Piya Kositangool, **Hanaa Hariri**, Ashley Marchand, Mike Henne (2020). Nutrient signaling, stress response, and interorganelle communication are non-canonical determinants of cell fate. *Cell Reports*. Vol.33 Issue 9.
9. Sanchari Datta, Jade Bowerman, **Hanaa Hariri**, Rupali Ugrankar, KaitlynM. Eckert, Chase Corley, Gonçalo Vale, Jeffrey G. McDonald, Mike Henne (2020). Snx14 proximity labeling reveals a role in saturated fatty acid metabolism and ER homeostasis defective in SCAR20 disease. *Proceedings of the National Academy of Sciences*. 117 (52) 33282-33294
10. Mike Henne, Joel Goodman, **Hanaa Hariri*** (2020). Spatial compartmentalization of lipid droplet biogenesis. *Biochim. Biophys. Acta Mol. Cell Biol. Lipids* 1865, 158499. *Corresponding author.
11. Rupali Ugrankar, Jade Bowerman, **Hanaa Hariri**, Sanchari Datta, Sonia Gonzalez, Joseph Gonzalez, and W. Mike Henne (2019). *Drosophila* Snazarus regulates a lipid droplet sub-population at plasma membrane-droplet contacts in fat body adipocytes. *Developmental Cell*. 50: 557–572.
12. **Hanaa Hariri**, Natalie Speer, Jade Bowerman, Sanchari Datta, Sean Rogers, Ryan Feathers, Rupali Ugrankar, W. Mike Henne (2019). Mdm1 maintains endoplasmic reticulum homeostasis by spatially regulating fatty acid processing and lipid droplet biogenesis. *Journal of Cell Biology*. 218:1319-1334.

13. Sanchari Datta, Yang Liu, **Hanaa Hariri**, W. Mike Henne (2019). Cerebellar ataxia disease-associated Snx14 promotes lipid droplet growth at ER-droplet contacts. *Journal of Cell Biology*. 218:1335-1351.
14. **Hanaa Hariri**, Sean Rogers, Rupali Ugrankar, Yang Lydia Liu, J. Ryan Feathers, W. Mike Henne (2018). Lipid droplet biogenesis is spatially coordinated at yeast ER-lysosome contact sites in response to nutritional stress. *EMBO Reports*. 19: 57–72.
15. Dale Bryant, Yang Liu, Sanchari Datta, **Hanaa Hariri**, Glenn Anderson, Emma Peskett, Charalambos Demetriou, Marian Seda, Dagan Jenkins, Sergio Sousa, Peter Clayton, Maria Bitner-Glindzicz, Gudrun Moore, Mike Henne, Philip Stanier (2018). SNX14 mutations affect cholesterol metabolism at the endoplasmic reticulum in SCAR20. *Human Molecular Genetics*. 27:1927–1940.
16. **Hanaa Hariri**, Rupali Ugrankar, Yang Liu, and W. Mike Henne (2018). Inter-organelle ER-endolysosomal contact sites in metabolism and disease across evolution. *Communicative and Integrative Biology*. Review. 9(3):e1156278
17. Troy W. Lowry, **Hanaa Hariri**, Plengchart Prommapan, Aubrey Kusi-Appiah, Nicholas Vafai, Ewa A. Bienkiewicz, David H. Van Winkle, Scott M. Stagg, Steven Lenhart (2015). Membrane Binding Kinetics of SAR1 Measured with Lipid Multilayer Gratings. *Small*. 12:506–515.
18. **Hanaa Hariri**, Nilakshree Bhattacharya, Kerri Johnson, Alex Noble, Scott M. Stagg. (2014) Insights into the Mechanisms of Membrane Curvature and Vesicle Scission by the Small GTPase Sar1 in the Early Secretory Pathway. *Journal of Molecular Biology*. 11;426(22):3811-3826
19. Alex J Noble, Qian Zhang, Jason O'Donnell, **Hanaa Hariri**, Nilakshree Bhattacharya, Alan G Marshall, Scott M Stagg (2013). A pseudoatomic model of the COPII cage obtained from cryo-electron microscopy and mass spectrometry. *Nature Structural & Molecular Biology*. 20:167–173.
20. Zaki Estephan, **Hanaa Hariri**, Joseph Schlenoff (2013). One-pot, exchange-free, room-temperature synthesis of sub-10 nm aqueous, noninteracting, and stable zwitterated iron oxide nanoparticles. *Langmuir ACS*. 29:2572–2579.
21. Rabih S. Talhouk, Mohamed-Bilal Fares, Gilbert J. Rahme, **Hanaa Hariri**, Tina Rayess, Hashem A. Dbouk, Dana Bazzoun, Dania Al-Labban, Marwan E. El-Sabban (2013). Context dependent reversion of tumor phenotype by connexin-43 expression in MDA-MB231 cells and MCF-7 cells: Role of β -catenin/connexin43 association. *Experimental Cell Research*. 319:3065–3080.

Honors and Awards

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| 2021 | Barber Fellowship Fund for Undergraduate Research |
| 2021 | Nominated for Lina Obeid Award for junior female investigator in the lipid field. |
| 2019 | Best talk award, Gordon Research Seminar. Cell and Molecular Biology of Lipids. |
| 2018 | Best talk by trainee, FASEB Lipid Droplet meeting. |
| 2018 | Finalist, Young Scientist Seminar Series, iBiology |
| 2017 | Best oral presentation award. Cell Biology Retreat, UTSW Medical Center |
| 2015 | Postdoctoral Association Travel Award, UTSW Medical Center |
| 2015 | Nominated for Outstanding Teaching Assistant Award. Florida State University |
| 2015 | The Michael Kasha Award for outstanding publication. Florida State University |
| 2014 | Best Poster award: The Annual Life Science Symposium. Florida State University |
| 2014 | Nominated for Global Citizen Award. Florida State University |
| 2014 | Leadership Award, Organization of the Year; Graduate Women in Science. Florida State University |
| 2012 | The Ermine M. Owenby, Jr. Travel Award. Florida State University |

Professional Associations

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| 2022- | Editorial board member, Scientific Reports |
| 2018-2020 | Executive Board, Postdoctoral Association, UTSW Medical Center |
| 2015-Present | National Postdoctoral Association |
| 2012-2013 | Vice President, Students for Effective Communication of Science SECS, Florida State University |
| 2012-Present | American Society for Cell Biology |
| 2012-2014 | President, Graduate Women in Science, Florida State University |
| 2010-Present | Association for Women in Science |
| 2009-2015 | Biophysical Society |

Science Outreach / Community Advocacy

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| 2021 | Graduate recruitment committee member. Wayne Sate Biological Sciences. |
| 2019 | Invited panelist. “Optimizing your grad school and post-doc experience.” UTSW Medical Center |
| 2019 | Elected Chair of Gordon Research Seminar 2021. Cell and Molecular Biology of Lipids |
| 2019 | Invited speaker. All Hands Symposium. Sponsored Programs Administration, UTSW Medical Center |
| 2018 | Ad hoc reviewer. Journal of Structural Biology, iScience, Life Science Alliance |
| 2018 | Co-organizer and poster judge. Postdoc Research Symposium, UTSW Medical Center |
| 2015 | Invited panelist. Women in Science and Medicine Advisory Committee, UTSW Medical Center |

- 2015-2020 Contributing author. POSTDOCKET, National Postdoc Association NPA
 2015-2020 Contributing editor. Science Policy, Education, and Communication SPEC blog, UTSW Medical Center
 2015-2017 Editorial board. Postdoc Informer Newsletter, UTSW Medical Center
 2013 Invited panelist. The Southeast Conference of Comparative and International Education
 2013- Contributing author. American Society for Cell Biology Post.

Science Leadership / Management Training

- 2018 Leadership and Education Academy for Postdocs LEAP. UT Southwestern Medical Center
 2017 Planning Your Scientific Journey. iBiology course

Teaching Experience

- 2021 Graduate Seminar Course. Wayne State University. Detroit, MI
 2018 Teaching Assistant, Cells Core Course Experimental Design Session (EDS). Cell and Molecular Biology Program, UT Southwestern Medical Center
 2012 - 2014 Teaching Assistant, Introduction to Biochemistry laboratory. Department of Chemistry and Biochemistry, Florida State University.
 2007 - 2009 Teaching Assistant, General Biology I, lab (Bio201-PreMed). Department of Biological Sciences, American University of Beirut.

Mentoring Experience

- 2021-Current Dissertation committee member, 1 graduate student, Wayne State, Biology
 2021-Current Mentoring 2 graduate students, 1 undergraduate, 1 research assistant, Wayne State, Biology
 2015-2020 Mentoring 3 graduate students, 2 lab technicians, 2 rotation student, 1 high school student. UT Southwestern Medical Center.
 2009-2015 Mentoring 3 undergraduate students, 1 graduate student. Florida State University.
 2007-2009 Mentoring 1 medical student, 2 graduate students. American University of Beirut.

Professional Presentations

Selected Oral Presentations

- 2021 *New pathways for metabolic organization at organelle contact sites.* Virtual Keystone Symposium. eTALK. Metabolic Decisions in Development and Disease
 2021 *Inter-organelle contact sites in nutrient signaling and metabolic crosstalk.* Lipids at Wayne Conference. Wayne State University.
 2019 *Regulation and Compartmentalization of Fatty Acid Metabolism.* Gordon Research Conference. Cell & Molecular Biology of Lipids.
 2019 *Regulation and Compartmentalization of Fatty Acid Metabolism.* Gordon Research Seminar. Cell & Molecular Biology of Lipids.
 2019 *Mechanisms and Functions for Spatially Organized Lipid Droplets.* Molecular Genetics Departmental Conference. Invited talk. UTSW Medical Center.
 2019 *Organization of Fat Metabolism.* 'All Hands' Symposium. Sponsored Programs Administration Education. Invited talk. UTSW Medical Center.
 2018 *Spatial Regulation of Lipid Metabolism at Inter-Organelle Junctions* Autophagy Conference. Work-in-progress series. UTSW Medical Center.
 2018 *Mechanisms for Spatial Regulation of Lipid Droplet Metabolism.* 2nd Annual Biophysics Departmental Retreat. Selected abstract. UTSW Medical Center.
 2018 *Spatially Organized Lipid Droplets: Mechanisms and Functions.* Selected abstract. Federation of American Societies for Experimental Biology Lipid Droplets Meeting.
 2018 *The Social Network of Fat Metabolism.* Genetically Engineered Models Systems GEMS Conference. UTSW Medical Center.
 2017 *Spatial Regulation of Lipid Metabolism at Inter-Organelle Junctions.* Selected abstract. American Society for Cell Biology ASCB / EMBO Annual Meeting.
 2017 *Mechanisms and Functions for Lipid Droplets at ER-Vacuole Contact Sites.* Cell Biology Departmental Seminar. UTSW Medical Center.
 2017 *Spatial Regulation of Lipid Metabolism at Membrane Contact Sites.* Annual Cell Biology Departmental Retreat. Selected abstract. UTSW Medical Center.
 2017 *Spatial Regulation of Lipid Droplet Dynamics at Membrane Contact Sites.* 1st Annual Biophysics Departmental Retreat. Selected Abstract. UTSW Medical Center.

- 2016 *PXA-Domain Containing Proteins in Lipid Metabolism*. Cell Biology Departmental Seminar. Work-in-progress series. UTSW Medical Center.
- 2014 *Novel insights into the mechanisms involved in the biogenesis of COPII-coated vesicles*. Dissertation defense. Florida State University.
- 2013 *Using Cryogenic Electron Tomography to Study Mechanisms for Protein-Mediated Membrane Bending*. Department of Biochemistry Seminar. Florida State University
- 2012 *Novel Mechanisms for Membrane Deformation by Small GTPase Sar1*. Institute of Molecular Biophysics Seminar. Student seminar. Florida State University.
- 2009 *Context dependent reversion of tumor phenotype by gap junction protein connexin-43*. Thesis defense. American University of Beirut.
- 2008 *Connexin-43 Reduces Tumor Phenotype of Mammary Epithelial Tumor Cell Line*. International Conference for Advancement of Science. American University of Beirut.

Selected Poster Presentations

- 2019 *Regulation and Compartmentalization of fatty acid metabolism*. Gordon Research Conference
- 2018 *Spatially Organized Lipid Droplets: Mechanisms and Functions*. Selected abstract. Federation of American Societies for Experimental Biology Lipid Droplets Meeting.
- 2018 *Lipid droplet biogenesis is spatially coordinated at membrane contact sites*. Women in Science and Medicine symposium. UTSW Medical Center.
- 2015 *Yeast ER-endolysosomal contact sites serve as metabolic platforms for lipid droplets biogenesis and lipophagy*. American Society for Cell Biology Annual Meeting.
- 2014 *Novel Mechanism for Membrane Remodeling by Sar1 GTPase*. Life Science Symposium. Florida State University.
- 2013 *Investigating the Mechanism for Membrane Remodeling by Sar1 GTPase*. American Society for Cell Biology Annual Meeting.
- 2012 *Structural analysis of COPII assemblies by cryogenic electron microscopy*. National Resource for Automated Molecular Microscopy Workshop.