

## Curriculum Vitae

Notarization. I have read the following and certify that this *curriculum vitae* is a current and accurate statement of my professional record.

Signature \_\_\_\_\_

Date \_\_\_\_\_

### **I. Personal Information**

Goldstein, Rachel E. Rosenberg  
Maryland Institute for Applied Environmental Health  
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### I.A. Academic Appointments at UMD

June 2023 – Present, Affiliate Assistant Professor (Inaugural Member), Office of Public Health Practice and Community Engagement, School of Public Health

October 2022 – Present, Affiliate Assistant Professor, Department of Civil & Environmental Engineering, Glenn L. Martin Institute of Technology, A. James Clark School of Engineering

August 2020 – Present, *Assistant Professor*, Maryland Institute for Applied Environmental Health, School of Public Health

January 2017 – July 2020, *Assistant Research Professor*, Department of Agricultural and Resource Economics, College of Agriculture & Natural Resources

January 2017 – July 2020, *Assistant Research Professor*, Maryland Institute for Applied Environmental Health, School of Public Health

January 2016-December 2016, *Lecturer*, Maryland Institute for Applied Environmental Health, School of Public Health

January 2014-December 2015, *Postdoctoral Fellow*, Maryland Institute for Applied Environmental Health, School of Public Health

August 2008-May 2013, *Graduate Research Assistant*, Maryland Institute for Applied Environmental Health, School of Public Health

### I.B. Administrative Appointments at UMD

#### I.C. Other Employment

Eastern Research Group, Inc., Environmental Communications Specialist, Fall 2005 – May 2008

I.D. Educational Background

Ph.D. Toxicology and Environmental Health, University of Maryland, College Park, May 2013

M.P.H. Environmental Health Sciences, University of Maryland, College Park, May 2010

B.A. Environmental Studies, University of North Carolina-Chapel Hill, May 2005

**II. Research, Scholarly, Creative and/or Professional Activities**

II.A. Refereed Journals

**II.A.1. Refereed Journal Articles – \*26 total (1 under review), 1,300+ citations, h-index:17\***

1. **Rosenberg Goldstein RE**, Gerdes ME, Fix S, Vivino A, Rainey K, Bernat E. Water Reuse on Our Minds: Evaluating the Impact of Water Reuse Educational Videos on Water Reuse Perceptions Using EEG/Event Related Potential. *Journal of Environmental Management*. [Under Review].
2. Kim S, Micallef SA, **Rosenberg Goldstein R**, Sapkota AR, Parveen S, Hashem F, Kniel KE, Sharma M, Pachepsky Y. 2023. Temporal stability of *Salmonella enterica* and *Listeria monocytogenes* in surface waters used for irrigation in the Mid-Atlantic United States. *Journal of Food Protection*. 86 (4), 100058, <https://doi.org/10.1016/j.jfp.2023.100058>.
3. Kim S, Paul M, Negahban-Azar M, Micallef SA, **Rosenberg Goldstein R**, Hashem F, Parveen S, Sapkota A, Kniel KE, Sapkota AR, Pachepsky Y, Sharma M. 2022. Persistent Spatial Patterns of *Listeria monocytogenes* and *Salmonella enterica* Concentrations in Surface Waters: Empirical Orthogonal Function Analysis of Data from Maryland and Delaware. *Appl. Sci.* 12(15), 7526; <https://doi.org/10.3390/app12157526>
4. Morgado ME, Hudson CL, Chattopadhyay S, Ta K, East C, Purser N, Allard S, Ferrier MD, Sapkota AR, Sharma M, **Rosenberg Goldstein RE**. 2022. The effect of a first-flush rainwater harvesting and subsurface irrigation system on *E. coli* and pathogen concentrations in irrigation water, soil, and produce. *Science of the Total Environment*. 843, 156976; <https://doi.org/10.1016/j.scitotenv.2022.156976>
5. Gerdes M, Aistis L, Sachs N, Williams M, Roberts J, **Rosenberg Goldstein RE**. 2022. Reducing Anxiety with Nature and Gardening (RANG): Evaluating the Impacts of Gardening and Outdoor Activities on Anxiety among U.S. Adults during the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*. 19(9), 5121; <https://doi.org/10.3390/ijerph19095121>
6. Gerdes M, Cruz-Cano R, Ammons SA, Allard S, Sapkota AR, Micallef SA, and **Rosenberg Goldstein RE**. 2022. Impact of irrigation water type and sampling frequency on Microbial Water Quality Profiles required for compliance with U.S. Food Safety Modernization Act Produce Safety Rule standards. *Environmental Research*. 205. <https://doi.org/10.1016/j.envres.2021.112480>.

7. Acheamfour CL , Parveen S, Hashem F, Sharma M, Gerdes ME, May EB, Rogers E, Haymaker J, Duncan R, Foust D, Taabodi M , Handy ET, East C, Bradshaw R, Kim S, Micallef SA, Callahan MT, Allard S, Anderson-Coughlin B, Craighead S, Gartley S, Vanore A, Kniel KE, Solaiman S, Bui A, Murray R, Craddock HA, Kulkarni P, **Rosenberg Goldstein RE**, Sapkota AR. 2021. Levels of Salmonella enterica and Listeria monocytogenes levels in alternative irrigation water vary based on water source on the Eastern Shore of Maryland. *Microbiology Spectrum*. 9(2):e0066921. doi: 10.1128/Spectrum.00669-21.
8. Malayil L, Negahban-Azar M, **Rosenberg Goldstein R**, Sharma M, Gleason J, Muise A, Murray R, Sapkota AR. 2021. Zoom'ing Our Way Through Virtual Undergraduate Research Training: A Successful Redesign of the CONSERVE Summer Internship Program". *Journal of Microbiology & Biology Education*. 22(1):22.1.90. doi: 10.1128/jmbe.v22i1.2625
9. Gerdes M, Suri MR, and **Rosenberg Goldstein RE**. 2020. Traditional approaches for educating farmers about nontraditional water: Evaluating preferred outreach, education, and methods for alleviating concerns. *Journal of Environmental Management*. 275:111265. doi: 10.1016/j.jenvman.2020.111265.
10. Dery JL, **Rosenberg Goldstein R**, Onumajuru C, Brassill N, Zozaya S, Suri MR, Rock, CM. 2019. Understanding Grower Perceptions and Attitudes on the Use of Nontraditional Water Sources, Including Reclaimed Water, in the Semi-Arid Southwest. *Environmental Research*. 170: 500-509.
11. Dong Y, Jiang C, Suri MR, Pee D, Meng L, **Rosenberg Goldstein RE**. 2019. Groundwater level changes in the Mid-Atlantic region of the United States, 2002-2016. *Environmental Research*. 171: 193-203
12. Suri MR, Dery JL, Pérodin J, Brassill NA, He X, Rock CM, **Rosenberg Goldstein RE**. 2019. U.S. farmers' opinions on the use of nontraditional water sources for agricultural activities. *Environmental Research*. 172: 345-357.
13. Murray RT, **Rosenberg Goldstein RE**, Maring EF, Pee DG, Aspinwall K, Wilson SM, Sapkota AR. 2018. Prevalence of Microbial and Chemical Contaminants in Private Drinking Water Wells in Maryland, USA. *International Journal of Environmental Research and Public Health*. 15(8): 1686.
14. Kulkarni P, Olson N, Paulson J, Pop M, Maddox C, Claye E, **Rosenberg Goldstein R**, Sharma M, Gibbs S, Mongodin E, Sapkota AR. 2018. Conventional wastewater treatment and reuse site practices modify bacterial community structure but do not eliminate some opportunistic pathogens in reclaimed water. *Sci Total Environ*. 639: 1126-1137.
15. Kulkarni P, Olson ND, Raspanti GA, **Rosenberg Goldstein RE**, Gibbs SG, Sapkota A, Sapkota AR. 2017. Antibiotic Concentrations Decrease During Wastewater Treatment But Persist At Low Levels in Reclaimed Water. *International Journal of Environmental Research and Public Health*. 14 (668).

16. **Goldstein RR**, Lara M, Kleinfelter, Xin He, Shirley A, Micallef, Ashish George, Shawn G. Gibbs, Amy R. Sapkota. 2017. *Higher prevalence of coagulase-negative staphylococci carriage among reclaimed water spray irrigators*. *Sci Total Environ*, 595: 35-40.
17. **Rosenberg Goldstein RE**, Cruz-Cano R, Jiang C, Palmer A, Blythe D, Ryan P, Hogan B, White B, Dunn JR, Libby T, Tobin-D'Angelo M, Huang JY, McGuire S, Scherzinger K, Ting Lee M-L and Sapkota AR. 2016. Association between community socioeconomic factors, animal feeding operations, and campylobacteriosis incidence rates: Foodborne Diseases Active Surveillance Network (FoodNet), 2004–2010. *BMC Infectious Diseases* 16:354.
18. Carey SA, **Rosenberg Goldstein RE**, Gibbs SG, Claye E, He X, and Sapkota AR. 2016. Occurrence of vancomycin-resistant and -susceptible *Enterococcus* spp. in reclaimed water used for spray irrigation. *Environmental Research*. 147: 350–355.
19. **Rosenberg Goldstein RE**, Micallef SA, Gibbs SG, He X, George A, Sapkota A, Joseph SW and Sapkota AR. 2014. Occupational Exposure to *Staphylococcus aureus* and *Enterococcus* spp. among Spray Irrigation Workers Using Reclaimed Water. *International Journal of Environmental Research and Public Health*. **11**(4): 4340-4355.
20. Shaw KS, **Rosenberg Goldstein RE**, He X, Jacobs JM, Crump BC, Sapkota AR. 2014. Antimicrobial susceptibility of *Vibrio vulnificus* and *Vibrio parahaemolyticus* recovered from recreational and commercial areas of the Chesapeake Bay and Maryland Coastal Bays. *PLOS ONE* **9**(2): e89616.
21. **Rosenberg Goldstein RE**, Micallef SA, Gibbs SG, George A, Claye E, Sapkota A, Joseph SW, and Sapkota AR. 2014. Detection of Vancomycin-Resistant Enterococci (VRE) at Four U.S. Wastewater Treatment Plants that Provide Effluent for Reuse. *Science of the Total Environment*. **466-467**:404-11.
22. Micallef SA, **Rosenberg Goldstein RE**, George A, Ewing L, Tall BD, Boyer MS, Joseph SW, Sapkota AR. 2013. Diversity, Distribution and Antibiotic Resistance of *Enterococcus* spp. Recovered from Tomatoes, Leaves, Water and Soil on Mid-Atlantic Farms. *Food Microbiology*. **36**(2):465-74.
23. Pasturel BZ, Cruz-Cano R, **Rosenberg Goldstein RE**, Palmer A, Blythe D, Ryan P, Hogan B, Jung C, Joseph SW, Wang MQ, Ting Lee M-L, Puett R, and Sapkota AR. 2013. Rurality, Presence of Broiler Operations, and Community Socioeconomic Factors Influence the Risk of Campylobacteriosis in Maryland. *American Journal of Public Health*. **103**(12):2267-75.
24. **Rosenberg Goldstein RE**, Micallef SA, Gibbs SG, Davis JA, George A, Kleinfelter LM, Schreiber NA, Mukherjee S, Sapkota A, Joseph SW, and Sapkota AR. 2012. Methicillin-Resistant *Staphylococcus aureus* Detected At Four U.S. Wastewater Treatment Plants. *Environmental Health Perspectives*. **120**(11): 1551-1558.
25. Jean-Gilles Beaubrun J, Cheng C, Chen K, Ewing L, Wang H, Agpaoa MC, Huang MJ, Dickey E, Du JM, Williams-Hill DM, Hamilton B, Micallef SA, **Rosenberg Goldstein RE**, George A, Joseph SW, Sapkota AR, Jacobson AP, Tall BD, Kothary MH, Dudley K and Hanes DE. 2012. The evaluation of a PCR-based method for identification of *Salmonella enterica*

- serotypes from environmental samples and various food matrices. *Food Microbiology*. **31**(2):199-209.
26. Micallef SA, **Rosenberg Goldstein RE**, George A, Kleinfelter LM, Boyer MS, McLaughlin CR, Estrin A, Ewing L, Jean-Gilles Beaubrun J, Hanes DE, Kothary MH, Tall BD, Razeq JH, Joseph SW, and Sapkota AR. 2012. Occurrence and Antibiotic Resistance of Multiple *Salmonella* Serotypes Recovered from Water, Sediment and Soil on Mid-Atlantic Tomato Farms. *Environmental Research*. **114**:31-9.
27. Sapkota AR, Coker ME, **Rosenberg Goldstein RE**, Atkinson NL, Sweet SJ, Sopeju PO, Ojo MT, Otivhia E, Ayepola OO, Olajuyigbe OO, Shireman L, Pottinger PS, Ojo KK. 2010 Self-medication with antibiotics for the treatment of menstrual symptoms in southwest Nigeria: a cross-sectional study. *BMC Public Health*. **10**:610.

## II.B. Conferences, Workshops, and Talks

### **II.B.1. Invited Talks**

Griffin KA, Quinn SC, Roberts JD, Dodge G, Rosenberg Goldstein, RE. "Women in Academia: Overcoming Barriers and Inspiring Change". University of Maryland, College Park, MD. March 29, 2023.

Rosenberg Goldstein, RE. "WOW Lab Research on Urban Agriculture Irrigation Water Quality". 2023 Department of Nutrition and Food Science (NFSC) Seminar Series. University of Maryland, College Park, MD. March 3, 2023.

Rosenberg Goldstein, RE. "Putting the WOW (Water Quality, Outreach, and Wellness) into Water Quality Research". Dept. of Civil & Environmental Engineering. University of Maryland, College Park, MD. February 2, 2023.

Goldstein, R. and Alves, P. "Combining Environmental Health Assessments with Infrastructure Planning and Participatory Research to Evaluate Risks from Sanitary Sewer Overflows and Basement Backups". Societal Big Challenges: Equitable Communities. School of Architecture, Planning and Preservation. University of Maryland, College Park, MD. Jan 31, 2023.

Rosenberg Goldstein, RE. "'WOW (Water Quality, Outreach, and Wellness) Lab Research on Urban Agriculture Irrigation Water Quality". Urban Water Research Centre seminar, Toronto Metropolitan University. Virtual. January 18, 2023.

Rosenberg Goldstein, RE. "Developing Urban Agriculture While Prioritizing Food Safety". International Association for Food Protection 2022 Meeting. Pittsburgh, PA. August 2, 2022.

Rosenberg Goldstein, RE. "Reducing Anxiety with Nature and Gardening". NIH Earth Day Event. Virtual. April 28, 2022.

Rosenberg Goldstein, RE. "Rainwater Harvesting Food Safety Update." 5th Annual Urban Farmer Winter Meeting. Virtual. January 24, 2022.

Rosenberg Goldstein, RE. "Reducing Anxiety with Nature and Gardening". Power Hour session with UHR, Happy and Well at UMD. Virtual. October 21, 2021.

Rosenberg Goldstein, RE. "Reducing Anxiety with Nature and Gardening". University of Maryland Alumni Association Event. September 19, 2021.

Messer, K, Rosenberg Goldstein, RE, Sapkota, AR. Food Systems Friday Webinar. "Every Drop Counts: Agricultural Water Reuse Advances from the CONSERVE Center." Prescott College. Virtual. May 21, 2021.

Rosenberg Goldstein, RE. "Putting the WOW (Water Quality, Outreach, and Wellness) into Water Quality Research". Applied Economics and Statistics Seminar Series. University of Delaware. Virtual. April 6, 2021.

Rosenberg Goldstein, RE. "Improving Your Home and Health Through Gardening". University of Maryland Alumni Association Event. March 29, 2021.

Rosenberg Goldstein, RE. "Reducing Anxiety with Nature and Gardening". UMD Founders Legacy Society Virtual Event. March 24, 2021.

Rosenberg Goldstein, RE. "Alternative Irrigation Water Quality: Putting Reclaimed Water and Roof-harvested Rainwater Under the Microscope". AGNR Cornerstone Event: Improve Human, Animal, and Environmental Health. November 13, 2020.

Rosenberg Goldstein, RE. "Water testing basics and understanding water test results". Women in Agriculture Wednesday Webinar. June 24, 2020.

Rosenberg Goldstein, RE. "Water and Water Reuse in Agriculture." Women in Agriculture Wednesday Webinar. July 10, 2019. (210 registered attendees)  
<https://extension.umd.edu/womeninag/webinars#archivedwebinars>

Rosenberg Goldstein, RE. "Water Reuse in Agriculture: Source of AMR, Sustainable Adaptation, or Both?" UNC Water Microbiology Antimicrobial Resistance (AMR) Workshop. Chapel Hill, NC. May 13, 2019.

Rosenberg Goldstein, RE. "U.S. farmers' needs and concerns regarding water reuse for agricultural irrigation". Global Water Reuse, Food and Health Workshop. College Park, MD. October 9, 2018.

Rosenberg Goldstein, RE\*. "Conserving Water for Resilience in a Changing Climate: Exploring Recycled Water for Food Crop Irrigation." University of the District of Columbia, College of Agriculture, Urban Sustainability & Environmental Sciences. Washington, DC. February 2, 2018.

Rosenberg Goldstein, RE\*. "Contaminants in U.S. Surface Water." Water Resource Management and Human Rights (ENST225). University of North Carolina at Chapel Hill. Chapel Hill, NC. February 26, 2010.

## **II.B.2. Refereed Presentations**

Patterson RJ\*, Smith C, Leslie A, Beale B, Nichols K, Dill S, Hirsh S, Semler J, Kness A, Lazur A, Rosenberg Goldstein R. Chemical contaminant concentrations in Maryland farm well drinking water. APHA's 2023 Annual Meeting. [SUBMITTED].

Rosenberg Goldstein R\*, Hendricks M, Alves PB, Healey EM, Levell-Young T. Community-Driven Research on Sanitary Sewer Overflows and Basement Backups. National Capital Region Water Resource Symposium, Washington, DC. April 14, 2023.

Thilmann, E\*, Newton S, Goeringer P, Rosenberg Goldstein R. Weaving a U.S. Water Reuse Policy Picture: Evaluating Patchwork State Water Reuse Policy Changes from 2012-2022 with Systemic Categorization and GIS Maps. 38th Annual WaterReuse Symposium, Atlanta, Georgia. March 5-8, 2023

Puett, R.\*, Harmon, B.E., West, N., Short, S., Rawlett, K., Spanier, A., Rosenberg Goldstein R., Adapting Mindfulness-Based Interventions for Diverse Populations Managing Chronic Disease: Perspectives of Mindfulness Practitioners and Non-Practitioners. In Symposium, Targets for adaptation of mindfulness-based interventions: Culture, modality, and environment. Society of Behavioral Medicine Annual Meeting, Baltimore, MD. April 6-9, 2022.

Rosenberg Goldstein R\*, Gerdes M, Aistis L, Sachs N, Williams M, Roberts J. Reducing Anxiety with Nature and Gardening (RANG): Evaluating the Impacts of Gardening and Outdoor Activities on Anxiety During the COVID-19 Pandemic. SHIFT Summit 2021. Virtual. October 19, 2021.

Kim S\*, Pachepsky Y, White C, Gerdes M, Rosenberg Goldstein R, Sapkota AR, Micallef S, Kniel K, Parveen S, Hashem F, Sharma M. Temporal stability of *Salmonella enterica* and *Listeria monocytogenes* levels across irrigation water types. European Geophysical Union General Assembly 2021. Virtual. April 19-30, 2021.

Rosenberg Goldstein RE\*. Addressing Growers' Knowledge and Concerns about Water Reuse for Agricultural Irrigation. WaterReuse 2020 Symposium. Virtual. September 16, 2020.

Suri M\*, Rosenberg Goldstein RE, Gerdes M, Goeringer LP, Ferelli AM, Sapkota AR. You Want Me to Do What? Water Reuse for Ag Irrigation as an Example of Introducing New Topics to Communities. 2020 Extension Risk Management Education National Conference. Denver, CO.

Malayil L\*, Chattopadhyay S, Hittle LE, Mongodin EF, Allard SM, Rosenberg Goldstein RE, Sapkota AR. Source tracking metabolically-active bacterial communities from rooftop harvested rainwater to irrigated soil and produce. IAFP 2020.

S Allard\*, M Suri, S Solaiman, MT Callahan, C White, P Goeringer, D Pee, J Haymaker, F Hashem, E May, S Parveen, K Kniel, M Sharma, SA Micallef, R Rosenberg Goldstein, A Sapkota. 2019. Comparison of Mid-Atlantic Grower Perceptions and Nontraditional Irrigation Water Realities: A Conserve Study. IAFP 2019 Meeting. Louisville, KY.

Rosenberg, Goldstein RE. "Farmers' opinions on nontraditional water use for agricultural irrigation." Presented at National Association of Environmental Professionals. Baltimore, MD. May 20, 2019.

Rosenberg Goldstein RE\*, Hudson, C. IS ROOFTOP RUNOFF SAFE FOR GROWING VEGETABLES? Evaluating Water Quality and Food Safety of Rooftop Runoff Using a Subsurface Irrigation System. Presented at Maryland Water Monitoring Council Conference. Linthicum, MD. December 7, 2018.

Shirmohammadi, A, Sapkota A, Negahban-Azar, M, Rosenberg Goldstein, RE\*. Water Reuse in Agriculture: Challenges and Opportunities. Presented at American Water Resources Association 2018 Annual Water Resources Conference. Baltimore, MD. November 6, 2018.

Rosenberg Goldstein, RE\*, Micallef, S, Negahban-Azar, M. Conserving Groundwater Through Water Recycling for Food Crop Irrigation: A Focus on CONSERVE – A Center of Excellence at the Nexus of Sustainable Water Reuse, Food, and Health. Presented at 27th Annual Maryland Groundwater Symposium. Baltimore, MD. September 27, 2018.

Rosenberg Goldstein, RE\*, Suri, MR, Pee, D, Goeringer, LP, Rock, C, Brassil, N, Dery, J, Sapkota, AR\*. Nontraditional Irrigation Water for Produce: Assessing Farmers' Needs & Water Quality Results. Presented at Cultivate the Chesapeake Foodshed, Future Harvest Chesapeake Alliance for Sustainable Agriculture. College Park, MD. January 11, 2018.

Rosenberg Goldstein, RE\*, Suri, MR, Pee, D, Goeringer, LP, Rock, C, Brassil, N, Dery, J. Nontraditional Irrigation Water: Understanding Farmers' Needs and Risk Perceptions. Presented at Society for Risk Analysis Conference. Arlington, VA. December 11, 2017.

Rosenberg Goldstein, RE\*, Suri, MR, Pee, D, Goeringer, LP. Focus on Nontraditional Irrigation Water in a Changing Climate: Assessing Farmers' Needs, Water Quality, and Accessibility. Presented at Maryland Water Monitoring Council Conference. Linthicum, MD. December 8, 2017.

Rosenberg Goldstein, RE\*, Sapkota, AR\*. Conserving Groundwater through Nontraditional Irrigation Water: Assessing Farmers Needs and Water Quality. Presented at Maryland Groundwater Symposium. Baltimore, MD. September 28, 2017.

Rosenberg Goldstein, RE\*. "Analysis of Private Well Water Quality and Well Owner Education Program in Maryland: A Pilot Project." Maryland Groundwater Symposium. Baltimore, MD. September 2012.

Rosenberg Goldstein, RE\*, Aspinwall, K\*, Maring, EF, Pee, D, Sapkota, AR. "Well Water Education Program: A Collaborative Project Between Extension Educators and University of Maryland Public Health Researchers." Priester National Extension Health Conference. Washington, DC. April 2012.

Rosenberg Goldstein, RE\*. "Assessing an alternative water source: Evaluation of methicillin-resistant Staphylococcus aureus in secondary treated wastewater used for



spray irrigation in Nebraska". Water and Health: Where Science Meets Policy 2011 Conference. Chapel Hill, NC. October 2011.

Rosenberg Goldstein, RE\*. "Evaluating occupational exposures to antibiotic-resistant bacteria from wastewater reuse." Water and Health: Where Science Meets Policy 2010 Conference. Chapel Hill, NC. October 2010

### **II.B.3. Refereed Posters**

Amokeodo IM\*, Healey E, Smith C, Speierman E, Costa S, Keane J, Saxena E, Williams M, Lazur A, Brooks K, Rosenberg Goldstein R. The Microbiological Quality Of Harvested Rainwater For Irrigation In Baltimore, Maryland. American Society for Microbiology Microbe 2023. Houston, TX. June 15-19, 2023.

Healey E\*, Alves PBR, Hendricks M, Goldstein R. Basement Backups and Bacteria: Evaluating the Risk of Residential Exposure to Antibiotic-Resistant Bacteria from Sanitary Sewer Overflows and Basement Backups. National Capital Region Water Resource Symposium, Washington, DC. April 14, 2023.

Keane J\*, Healey E, Kim A, Menon D, Si Q, Alves PBR, Hendricks M, Goldstein R. Determining Risk Exposure to Methicillin-Resistant *Staphylococcus aureus* in Paint Branch Tributary. National Capital Region Water Resource Symposium, Washington, DC. April 14, 2023.

Saxena E\*, Healey E, Smith C, Levell-Young T, Speierman E, Amokeodo I, Keane J, Kraemer J, Smith M, Brooks K, Williams M, Lazur A, Rosenberg Goldstein R. Testing for *E. coli* and Heavy Metals in Harvested Rainwater from Urban Farms and Gardens in Baltimore City, MD. National Capital Region Water Resource Symposium, Washington, DC. April 14, 2023.

Smith C\*, Lazur A, Leslie A, Beale B, Nichols K, Dill S, Hirsh S, Semler J, Kness A, Healey E, Keane J, Amokeodo I, Costa S, Rosenberg Goldstein R. Determining the Impact of Well Maintenance, Condition, Type, and Location Factors on *E. coli* and Total Coliforms in Maryland Farm Private Drinking Water Wells. National Capital Region Water Resource Symposium, Washington, DC. April 14, 2023.

Levell-Young T\*, Brooks K, Williams M, Lazur A, Rosenberg Goldstein R. Rainwater Harvesting System Maintenance. Maryland Water Monitoring Council Conference. Baltimore, MD. December 15, 2022.

Smith C\*, Lazur A, Leslie A, Beale B, Nichols K, Dill S, Hirsh S, Semler J, Kness A, Healey E, Keane J, Amokeodo I, Costa S, Rosenberg Goldstein R. (2022). Determining the Impact of Well Maintenance, Condition, Type, and Location Factors on *E. coli* and Total Coliforms in Maryland Farm Private Drinking Water Wells. Maryland Water Monitoring Council Conference. Baltimore, MD. December 15, 2022.

Morgado ME\*, Hudson CL, Chattopadhyay S, Ta K, East C, Purser N, Allard S, Ferrier MD, Speierman E, Sapkota AR, Sharma M, Rosenberg Goldstein RE. (2022). The effect of a first-flush rainwater harvesting and subsurface irrigation system on *E. coli* and pathogen on concentrations in irrigation water, soil, and produce. American Ecological Engineering Society Meeting. Baltimore, MD. June 21-23, 2022.

Puett, R.\*, Emamian, N., Kamil, D., Ugboh, A., Smith, C., Rawlett, K., Rosenberg Goldstein, R., Kimble, K., Harmon, B. (2022). Contemplative Practice for Families Managing Chronic Health Conditions. Mind & Life Summer Research Institute (SRI). Online. June 6-10, 2022.

Healey, E.\*, Smith, C., Speierman, E., Lazur, A., Brooks, K., Williams, M., Rosenberg Goldstein, R. (2022). Evaluating Indicator Bacteria and Heavy Metal Presence and Concentration in Irrigation Water on Urban Farms in Baltimore City, MD. National Capital Region Water Resources Symposium, Washington DC. April 8, 2022.

Smith, C.\*, Healey, E., Speierman, E., Lazur, A., Brooks, K., Williams, M., Rosenberg Goldstein, R. (2022). Baltimore City Irrigation Water Quality: The Current Water Use and Needs from Baltimore City Farmers and Gardeners. National Capital Region Water Resources Symposium, Washington DC. April 8, 2022.

Healey, E.\*, Smith, C., Speierman, E., Lazur, A., Brooks, K., Williams, M., Rosenberg Goldstein, R. (2022). Evaluating Indicator Bacteria and Heavy Metal Presence and Concentration in Irrigation Water on Urban Farms in Baltimore City, MD. Public Health Research Day, College Park, MD. April 5, 2022.

Smith, C.\*, Healey, E., Speierman, E., Lazur, A., Brooks, K., Williams, M., Rosenberg Goldstein, R. (2022). Baltimore City Irrigation Water Quality: The Current Water Use and Needs from Baltimore City Farmers and Gardeners. Public Health Research Day, College Park, MD. April 5, 2022.

Thilmay E\*, Newton S., Suri M., Rosenberg Goldstein R., and Goeringer P. Putting Reclaimed Wastewater Regulation on the Map. 2021 Southern Extension Economics Committee meeting. June 15, 2021. New Orleans, LA.

Gerdes M.E.\*, Fix S., Vivino A., Bernat E., Rosenberg Goldstein R.E. Integrating Psychology into Environmental Health Education: A Pilot Study Using Brain Imaging to Determine the Effectiveness of Water Reuse Educational Videos. Unite For Sight 18th Annual Global Health & Innovation Conference. April 8-11, 2021. Virtual.

Rosenberg Goldstein RE\*, Fix S, Gerdes M, Vivino A, Bernat E. What They Really Think About Water Reuse: Using Neural Activity to Measure Water Reuse Perceptions and the Effectiveness of Water Reuse Educational Videos. American Water Resources Association. November 10, 2020. Virtual.

Rosenberg Goldstein RE\*, Hudson C, Malayil L, Chattopadhyay S, Ta K, Jeffries N, Reed J, Allard S, Sharma M, Williams M, Brooks K, Lazur A, Traunfeld J, Little N, Ferrier D, Sapkota A. Rooftop Runoff Irrigation Produce Eaten Raw (RRIPER): A Series of Community-Driven Projects to Evaluate the Safety of Harvested Rainwater as an Irrigation Source. American Water Resources Association. November 10, 2020. Virtual.

Gerdes M\*, Vivano A, Fix S, Bernat E, Rosenberg Goldstein RE. Moving Beyond the "Yuck Factor": Using Psychophysiological Measures to Increase Public Acceptance of Water Reuse. The 8th Annual Public Health Research @ Maryland. April 7, 2020. College Park, MD.

Gleason J, Rosenberg Goldstein RE, Chamberlin B, Martinez P, Sohn E, Muise AS. Teaching the science supporting the use of nontraditional water on food crops, with animations and interactive media. North American Colleges and Teachers of Agriculture conference. June 12, 2018. Ames, IA.

Rosenberg Goldstein RE\*, Suri MR, Pee D, Goeringer LP, Rock C, Brassil N, Dery J. Agricultural Adaptations to Climate Change: Farmers Perceptions of Nontraditional Water Sources for Irrigation. Nexus 2018: Water, Food, Energy and Climate. April 17, 2018. Chapel Hill, NC.

Rosenberg Goldstein RE, Suri MR, Pee D, Goeringer LP, Rock C, Brassil N, Dery J\*. Farmer Perceptions and Understanding of Irrigation Water from Nontraditional Sources. Presented at Ag Water Summit, Colorado Ag Water Alliance. December 5, 2017. Loveland, CO.

Rosenberg Goldstein RE, Suri MR\*, Pee D, Goeringer LP, Rock C, Brassil N, Dery J. Farmer Perceptions and Understanding of Irrigation Water from Nontraditional Sources. Presented at 32nd Annual WaterReuse Symposium. Sept 10, 2017. Phoenix, AZ.

Rosenberg Goldstein RE\*, Aspinwall K\*, Pee D, Kleinfelter L, Long V, Sapkota AR, Maring EF. "Analysis of Private Well Water Quality and Well Owner Education Program in Maryland: A Pilot Project." Maryland Water Monitoring Council 18th Annual Conference. Linthicum Heights, MD. December 2012.

Rosenberg Goldstein RE\*, Micallef SA, George A, Gibbs SG, Sapkota A, Joseph SW, Sapkota AR. "Survival of Methicillin-resistant Staphylococcus aureus in Secondary Treated Wastewater." American Society for Microbiology 111th General Meeting. New Orleans, LA. May 2011.

Rosenberg Goldstein RE\*, Micallef SA, George A, Sapkota A, Gibbs SG, Joseph SW, Sapkota AR. "Reductions of Methicillin-resistant Staphylococcus aureus and Vancomycin-resistant Enterococcus spp. at a U.S. Tertiary Wastewater Treatment Plant." American Society for Microbiology 110th General Meeting. San Diego, CA. May 2010.

Rosenberg RE\* Micallef SA, Sapkota A, Gibbs SG, Joseph SW, Sapkota AR.. "Irrigation workers' exposures to antimicrobial-resistant bacteria and antimicrobials present in reclaimed wastewater." American Public Health Association 137th Annual Meeting & Expo. Philadelphia, PA. November 2009.

#### **II.B.4. Non-Refereed Presentations**

Rosenberg Goldstein RE, Bernat E. Moving beyond the "Yuck Factor": measuring brain responses to water reuse terms and determining if natural environmental images change responses. BBI Symposium. College Park, MD. September 28, 2021.

Rosenberg Goldstein RE\*. U.S. farmers' needs and concerns regarding water reuse for agricultural irrigation. Presented at Global Water Reuse, Food and Health Workshop. College Park, MD. October 9, 2018.

Rosenberg Goldstein, RE\*. Farmer Perspectives on Water Availability and Water Reuse. Presented at Healthy Food Systems Conference. College Park, MD. October 4, 2018.

Rosenberg Goldstein RE\*. Water Reuse for Agricultural Irrigation: CONSERVE Update. Presented at 2018 Agriculture Program In-Service. June 20, 2018. Ocean City, MD.

Rosenberg Goldstein RE\*, Suri, MR, Pee, D, Goeringer, LP, Rock, C, Brassil, N, Dery, J. Using Nontraditional Water on the Farm. Presented at 2017 Agricultural Outlook and Policy Conference. December 12, 2017. Annapolis, MD

#### **II.B.5. Non-Refereed Posters**

Kraemer J\*, Healey EM, Smith C, Levell-Young T, Speierman E, Amokeodo IM, Saxena E, Keane J, Smith M, Williams M, Lazur A, Brooks K, Rosenberg Goldstein R. Evaluating associations between total dissolved solids and *E. coli* concentrations in harvested rainwater in Baltimore City, MD. Research Interaction Day 2023. University of Maryland School of Public Health. April 13, 2023. College Park, MD.

Healey E\*, Alves PBR, Hendricks M, Goldstein R. Basement Backups and Bacteria: Evaluating the Risk of Residential Exposure to Antibiotic-Resistant Bacteria from Sanitary Sewer Overflows and Basement Backups. Research Interaction Day 2023. University of Maryland School of Public Health. April 13, 2023. College Park, MD.

Keane J\*, Healey E, Kim A, Menon D, Si Q, Alves PBR, Hendricks M, Goldstein R. Determining Risk Exposure to Methicillin-Resistant *Staphylococcus aureus* in Paint Branch Tributary. Research Interaction Day 2023. University of Maryland School of Public Health. April 13, 2023. College Park, MD.

Saxena E\*, Healey E, Smith C, Levell-Young T, Speierman E, Amokeodo I, Keane J, Kraemer J, Smith M, Brooks K, Williams M, Lazur A, Rosenberg Goldstein R. Testing for *E. coli* and Heavy Metals in Harvested Rainwater from Urban Farms and Gardens in Baltimore City, MD. Research Interaction Day 2023. University of Maryland School of Public Health. April 13, 2023. College Park, MD.

Smith C\*, Lazur A, Leslie A, Beale B, Nichols K, Dill S, Hirsh S, Semler J, Kness A, Healey E, Keane J, Amokeodo I, Costa S, Rosenberg Goldstein R. Determining the Impact of Well Maintenance, Condition, Type, and Location Factors on *E. coli* and Total Coliforms in Maryland Farm Private Drinking Water Wells. Research Interaction Day 2023. University of Maryland School of Public Health. April 13, 2023. College Park, MD.

Levell-Young T\*, Brooks K, Williams M, Lazur A, Rosenberg Goldstein R. Rainwater Harvesting System Maintenance. Research Interaction Day 2023. University of Maryland School of Public Health. April 13, 2023. College Park, MD.

Rosenberg Goldstein, RE\*, C. Hudson, L. Malayil, S. Chattopadhyay, K. Ta, N. Jeffries, J. Reed, S. Allard, M. Sharma, M. Williams, K. Brooks, A. Lazur, J. Traunfeld, N. Little, D. Ferrier, A. Sapkota. Rooftop Runoff Irrigating Produce Eaten Raw (RRIPER): Evaluating the Safety of Roof-Harvested Rainwater as an Irrigation Source and Determining Urban Farmer Interest and Concerns. Presented at the AGNR Cornerstone Event: Improve Human, Animal, and Environmental Health. November 13, 2020. Virtual.

Rosenberg Goldstein, RE\*, Suri, MR, Pee, D, Goeringer, LP. Importance of Nontraditional Water in Maryland: A Needs Assessment. Presented at the University of Maryland Extension Program Summit. May 24, 2017. College Park, MD.

#### **II.B.6. Workshops**

Farm Well and Drinking Water Quality Webinar (56 registered attendees). Increasing Awareness of Well Drinking Water Quality of the Farming Community in Maryland. Virtual. March 16, 2023.

Expert Panel on Rainwater Harvesting at Baltimore Farms (43 registered attendees). Baltimore City Agricultural Irrigation Water Quality Project. Virtual. December 8, 2022.

Water treatments (23 registered attendees). Baltimore City Agricultural Irrigation Water Quality Project. Virtual. November 29, 2022.

Water quality and food safety (26 registered attendees). Baltimore City Agricultural Irrigation Water Quality Project. Virtual. November 16, 2022.

Rosenberg Goldstein RE, Traunfeld T. Healthy Garden, Healthy You Webinar. Virtual. March 9, 2022. (106 registered attendees)

Rainwater harvesting system Maintenance. Baltimore City Agricultural Irrigation Water Quality Project. Virtual. February 16, 2022. (40 registered attendees)

Rainwater harvesting system Funding. Baltimore City Agricultural Irrigation Water Quality Project. Virtual. January 19, 2022. (23 registered attendees)

Rainwater Harvesting System Design. Baltimore City Agricultural Irrigation Water Quality Project. Virtual. December 15, 2021. (14 registered attendees)

Ask an Expert: Water Reuse in Agriculture. CONSERVE Workshop. Online. January 14, 2021.

Water Reuse for Agriculture: What Growers Need to Know. CONSERVE Water Reuse Workshops. Cambridge, MD. February 26, 2020.

Water Reuse for Agriculture: What Growers Need to Know. CONSERVE Water Reuse Workshops. Bel Alton, MD. December 4, 2019.

Masoud Negahban-Azar, Amy R. Sapkota, Shirley A. Micallef, Rachel, E. Rosenberg Goldstein, Channah M. Rock, Kent D. Messer, and Olesya Savchenko. Water Recycling for Food Crop Irrigation: Barriers and Opportunities. Specific Talk Title: "Growers' knowledge and concerns regarding nontraditional water use". 2018 Water Research Foundation Conference. Atlanta, GA. May 6, 2018.

#### **II.C.** **II.C.1. Professional and Extension Publications** **Refereed Extension Publications**

1. Keane J, Brooks K, Rosenberg Goldstein R. 2023. Rainwater Harvesting Design & Installation. University of Maryland Extension. [Under Review].
2. Saxena E, Brooks K, Rosenberg Goldstein R. 2023. Rainwater Harvesting Funding. University of Maryland Extension. [Under Review].
3. Levell-Young T, Brooks K, Rosenberg Goldstein R. 2023. Rainwater Harvesting Maintenance. University of Maryland Extension. [Under Review].
4. Healey E, Traunfeld J, Rosenberg Goldstein R. 2023. Gardening and Physical Health. University of Maryland Extension. [Under Review].
5. Healey E, Traunfeld J, Rosenberg Goldstein R. 2023. Tend to Your Mind! The Impact of Gardening on Mental Health. University of Maryland Extension. [Under Review].
6. Gerdes M, Suri M, Goeringer P, and Rosenberg Goldstein R. 2021. Mid-Atlantic Farmers' Opinions of Nontraditional Water. WB-4. University of Maryland Extension.
7. Gerdes M, Suri M, and Rosenberg Goldstein R. 2021. Farmers are Interested in Nontraditional Water but Want Additional Information about Quality and Access. FS-1147. University of Maryland Extension.
8. Lazur A. and Rosenberg Goldstein RE. 2020. With Buildings Preparing to Reopen, It's Time to Think About Stagnant Water and Health Risks. FS-0542. University of Maryland Extension.
9. Suri MR, Pee D, and Rosenberg Goldstein RE. 2020. Water Quality and Food Safety: Understanding Factors Impacting Surface Water Quality Relevant for the FSMA Produce Safety Rule. FS-1093. University of Maryland Extension.
10. Suri MR, Goeringer LP, and Rosenberg Goldstein RE. 2020. How Do I Use Reclaimed Municipal Water on My Farm? A Review of Maryland Class IV Reclaimed Water Guidelines. FS-1100. University of Maryland Extension.
11. Suri MR, Ammons S, and Rosenberg Goldstein RE. 2020. Will They Buy It? Consumer Willingness to Pay for Agricultural Products Irrigated with Recycled Water: A Review of Recent Studies. FS-1105. University of Maryland Extension.
12. Suri MR and Rosenberg Goldstein RE. 2020. Watering Seeds of Change with Rainwater: An Innovative Partnership for Environmental and Social Improvement in Maryland. FS-1123. University of Maryland Extension. <https://extension.umd.edu/learn/publications/watering-seeds-change-rainwater>
13. Suri MR and Rosenberg Goldstein RE. 2020. Putting Recycled Water to Work in Maryland Agriculture. FS-496. University of Maryland Extension. <https://extension.umd.edu/learn/publications/putting-recycled-water-work-maryland-agriculture>

**II.D. Completed Creative Works**

II.D.1. Performance or Interpretation – Film, Video, and Multimedia  
“Rachel E. Goldstein on the ‘Yuck Factor’”. 2020. Brain and Behavior Initiative.  
<https://www.youtube.com/watch?v=agHxmH62HYo&feature=youtu.be>

**II.D.2. Direction – Film, Video, and Multimedia**

Rosenberg Goldstein, R. Lead and Student Advisor. Costa, S. Director. Rainwater Harvesting at Baltimore’s Urban Farms. <https://youtu.be/r5rXSyu5J0c>

Rosenberg Goldstein, R, Pee, D, Suri, M. Directors. Innovative Partnership for Water Reuse in Maryland. June 2019. <https://youtu.be/1LE2Xt5YYEI>

Rosenberg Goldstein, R, Pee, D, Suri, M. Directors. Using Rainwater to Plant a Seed of Change. July 2019. <https://youtu.be/CSgX5jZjTdw>

Rosenberg Goldstein, R.: Lead Content Advisor. August 30, 2018. Humans and Food are Part of the Water Cycle. <https://youtu.be/-2-9U1UEnRU>.

**II.D.3. Other**

Healthy Garden, Healthy You Online Toolkits.  
<https://extension.umd.edu/resource/healthy-garden-healthy-you-toolkit>

Water Sampling Interactive Lab. 2020. New Mexico State University Learning Games Lab. Rachel E. Rosenberg Goldstein – Lead Technical Advisor.  
<https://conserve.nmsu.edu/>

**II.E. Sponsored Research and Programs – Administered by the Office of Research Administration (ORA)**

**II.E.1. Grants**

*Global FEWture Alliance: Transformative Food-Energy-Water Solutions to Ensure Community Resilience in a Changing Climate.* University of Maryland Institutional Grand Challenge Grant. Amy R. Sapkota (PI). Rachel Rosenberg Goldstein (Co-PI). \$3 million. March 1, 2023 to February 28, 2026.

*Water Emergency Team: Community-Driven Rapid Response to Sanitary Sewer Overflows, Household Backups, and Environmental Contamination.* University of Maryland Grand Challenge Team Project Grant. Rachel Rosenberg Goldstein (PI), Marccus Hendricks (PI). \$1.3 million. March 1, 2023 to February 28, 2026.

*Water Reuse in Food Production Among Historically Underserved Urban Farmers.* Northeast Extension Risk Management Education Center. Extension Risk Management Education Competitive Grant. Maik Kecinski (PI). Rachel Rosenberg Goldstein (Co-PI). \$88,298. March 1, 2023 to August 31, 2023.

*Increasing rainwater harvesting adoption among urban farmers: Validating water quality, food safety, and lifecycle benefits.* U.S. Department of Agriculture (USDA) Agriculture and Food Research Initiative (AFRI) Critical Agricultural Research and Extension (CARE) program. Rachel Rosenberg Goldstein (PI). \$300,000. March 1, 2023 to February 28, 2026.

*Septic to Sewer?: Justice-focused strategies for addressing coastal septic failures under sea-level rise and increased flooding.* U.S. Environmental Protection Agency (EPA) Cumulative Health Impacts at the Intersection of Climate Change, Environmental Justice, and Vulnerable Populations/Lifestages: Community-Based Research for Solutions. Allison Reilley (PI). Rachel Rosenberg Goldstein (Co-PI). \$1.35 million. August 1, 2022 to July 31, 2025.

*Healthy Garden, Healthy You: Providing information and tools on links between gardening and human health.* Network of the National Library of Medicine (NNLM) Region 1 Health Information Outreach Award. Rachel Rosenberg Goldstein (PI). \$20,000. September 1, 2021 to April 30, 2022.

*Increasing Awareness of Well Drinking Water Quality of the Farming Community in Maryland,* SARE 2021 Northeast Partnership Grant. Andrew Lazur (PI). Rachel Rosenberg Goldstein (Co-PI). \$29,830. September 1, 2021 to June 30, 2022.

*Building Knowledge Around Harvested Rainwater as an Urban Agriculture Water Source by Offering Water Quality Testing and Multimedia Education in Baltimore City - Track 1a: Outreach/Knowledge Building Project,* Chesapeake Bay Trust. Rachel Rosenberg Goldstein (PI). \$29,985. November 18, 2020 to January 1, 2023.

*Optimizing Urban Garden Water Sources: Evaluating the Safety of Harvested Rainwater and Rooftop Runoff for Produce Irrigation.* College of Agriculture & Natural Resources 2020 Seed Grant. Interdisciplinary Projects for Community Resilience in Urban Environments. Rachel Rosenberg Goldstein (PI), Andrew Lazur (Co-PI), Amy Sapkota (Co-PI), Jon Traunfeld (Co-PI). \$5,000. April 6, 2020 to April 5, 2021.

*Moving Beyond the "Yuck Factor": Measuring brain responses to water reuse terms and determining if natural environmental images change responses.* Brain and Behavior Initiative 2019 Seed Grant. Rachel Goldstein (PI), Edward Bernat (PI), and Maik Kecinski (PI). \$74,923. June 1, 2019 to June 31, 2021.

*CONSERVE: A Center of Excellence at the Nexus of Sustainable Water Reuse, Food, and Health,* USDA-NIFA. Amy Sapkota (PD). Rachel Rosenberg Goldstein (Co-PD) for Extension and Outreach - \$775,999. March 1, 2016 to Feb. 28, 2021.

## II.F. Research Fellowships, Prizes and Awards

University of Maryland Libraries' Open Access Publishing Fund. Used for *Reducing Anxiety with Nature and Gardening (RANG): Evaluating the Impacts of Gardening and Outdoor Activities on Anxiety among U.S. Adults during the COVID-19 Pandemic.* May 2022.

Association for Communications Excellence in Agriculture, Natural Resources, and Life and Human Sciences Gold Award Innovative Use of Communication Technology,



Professional Skill Award, Silver Award for Diversity for CONSERVE Water Sampling & Water Testing digital tools. April 2021.

College of Agriculture & Natural Resources Cornerstone Award: Optimize Urban Environments Through Design, Green Technology, and Community Engagement. Rachel Rosenberg Goldstein and the Rooftop Runoff Irrigating Produce Eaten Raw (RRIPER) Program. May 13, 2020.

Video Communication Award, National Finalist, National Association County Agricultural Agents (NACAA), May 2020

Video Communication Award, State Winner, National Association County Agricultural Agents (NACAA), April 2020

University of Maryland Bioscience & Technology Review Day Family, Community and Public Health Poster Winner, November 2012

“Engaged Me” Award, Priester National Extension Health Conference, Washington, DC, April 2012

Student Scholarship, Priester National Extension Health Conference, Washington, DC, April 2012

Maryland Institute for Applied Environmental Health Fellowship, November 2011 – May 2013

University of Maryland Bioscience & Technology Review Day Water Quality and Management Poster Winner, College Park, MD, November 2011

APHA Environment Section Student Scholarship, October 2011

University of Maryland, College Park School of Public Health, Student Research Interaction Day Poster Award, September 2011

University of Maryland Graduate Student Summer Research Fellowship, Fall 2010 – May 2013

Dean’s Fellowship, School of Public Health, University of Maryland, College Park, Fall 2010 – May 2013

Delta Omega, Gamma Zeta Chapter, University of Maryland School of Public Health, the Honorary Society in Public Health, 2011

Maryland Water Resources Research Center 2010 Summer Fellowship, University of Maryland, College Park, May-August, 2010

Dean’s Graduate Scholar, University of Maryland, College Park, March 2010

University of Maryland Bioscience & Technology Review Day Family, Community and Public Health Poster Award, College Park, MD, November 2009

American Public Health Association Environment Section's Student Achievement Poster Award, APHA Annual Meeting, Philadelphia, PA, November 2009

Jacob K. Goldhaber Travel Grant, University of Maryland, College Park, August 2009

Phi Beta Kappa, University of North Carolina at Chapel Hill, 2005

NSF REU Interdisciplinary Watershed Program, College of William & Mary, Williamsburg, VA, Summer 2003

### **III. Teaching, Extension, Mentoring, and Advising**

#### **III.A. Courses Taught**

*MIEH773: Foodborne, Waterborne and Airborne Infectious Diseases.*  
Spring 2022 (11 students), Spring 2023 (7 students)

*MIEH600: Foundations of Environmental Health, core MPH course*  
Average students: 17  
Spring 2015, Fall 2016, Fall 2020, Fall 2021, Fall 2022

#### **III.B. Advising: Research or Clinical**

##### **III.B.1. Undergraduates**

Research, Riya Raikar, BS. Spring 2023. Research Volunteer.

Research, Chloe De La Vega, BA. Fall 2022. Research Volunteer.

Research, Jack Keane, BA. Fall 2022; Spring 2023. MIEH 309 – Environmental Health Research.

Research, Jenna Kraemer, BS. Fall 2022; Spring 2023. MIEH 309 – Environmental Health Research.

Capstone Committee, Anindita Mullick, BS. Spring 2022. IVSP Senior Capstone.

Research, Emily Speierman, BA. Spring 2022; Fall 2021. MIEH 309 – Environmental Health Research. CONSERVE Summer Intern (Summer 2021).

Research, Mya Smith, BA. Fall 2022; Spring 2022; Fall 2021. MIEH 309 – Environmental Health Research.

Research, Svadhi Prasad, BA. Spring 2021. MIEH 309 – Environmental Health Research. Conducted literature review for gardening and anxiety manuscript development.

Research, Esha Saxena, BA. Spring 2022; Fall 2021, Spring 2021. MIEH 309 - Environmental Health Research. Assisted with editing Qualtrics survey and literature review for BBI “Moving Beyond the Yuck Factor” project. Assisted with laboratory analysis for Chesapeake Bay Trust project.

Independent Study, Daisy Noel Ndofor, BA. Fall 2020. ENSP 386. Faculty sponsor. Wrote paper titled "Rooftop Runoff and Harvested Rainwater as a Solution to Water Scarcity, from a Policy Perspective".

### **III.B.2. Master's**

Claire Barlow, MPH. Summer-Fall 2023. Capstone co-advisor. EPIB (SPH). Maryland Water Resources Research Center (MWRRC) Graduate Fellowship Summer 2023.

Abri Segal, MPH. Spring 2023. Capstone adviser. MIAEH (SPH).

Maria Del Mar Chiesa, MPH. Spring 2023. Capstone committee. MIAEH (SPH).

Sylvia Costa, MPH. Spring 2023. Capstone committee. MIAEH (SPH).

Alex Broussard, MPH. Spring 2022-Fall 2022. Capstone adviser. MIAEH (SPH).

Asia Simms, MPH. Spring 2022-Fall 2022. Capstone adviser. MIAEH (SPH).

Georgia Parolski, MPH. Spring 2022. Capstone adviser. MIAEH (SPH).

Kathryn Blair Budd, MPH. Spring 2022. Capstone adviser. MIAEH (SPH).

Taeilorae Levell-Young, MPH. Spring 2022-. Internship adviser. Research adviser. Capstone adviser. Transferred from HPM (2021-2022) to MIAEH MPH program (Fall 2022- ) (SPH). School of Public Health Graduate Student Ambassador. University of Maryland School of Public Health Global Health Initiative Travel Scholarship (December 2022). Jacob K. Goldhaber Travel Grant recipient (February 2023).

Cameron Smith, MS. Fall 2021-. Committee chair. MIAEH (SPH). UMD School of Public Health's Public Health Research Day Masters Student Poster Award (April 2022). Delta Omega Gamma Zeta Chapter Student Poster Award (May 2022). University of Maryland School of Public Health 2023 Dean's Scholar Award recipient (May 2023). Successfully defended her dissertation "Determining the Impact of Well Maintenance, Condition, Type, and Location Factors on E. coli and Total Coliforms in Maryland Farm Private Drinking Water Wells" on April 11, 2023. Accepted to the MIAEH Ph.D. Program for Fall 2023.

Tavis Mansfield, MS. Fall 2021-Spring 2022. Thesis committee member. Lab rotation presentation panel member. MIAEH (SPH).

Lucy Aistis, MPH. Fall 2020. MIEH 789 - Independent Study adviser. Conducted data analysis and manuscript preparation for survey on gardening and anxiety. MIAEH (SPH)

Megan Gerdes, MPH. Capstone Committee member. 2020. EPIB department. "Indicator Bacteria and Environmental Variables Associated with Pathogen Concentrations in Various Agricultural Water Types in the Mid-Atlantic Region of the U.S." EPIB (SPH)

Samantha Ammons, MPH. Supervisor. Fall 2018-Summer 2019. AREC (AGNR). CONSERVE project.

### **III.B.3. Doctoral**

#### Committee Chair/Main Advisor

Kathryn Dixon. Committee Chair. Fall 2023- . MIAEH (SPH), PhD program in Toxicology and Environmental Health.

Cameron Smith. Committee Chair. Fall 2023- . MIAEH (SPH), PhD program in Toxicology and Environmental Health.

Emily Healey. Committee Chair. Fall 2021 - . MIAEH (SPH), PhD program in Toxicology and Environmental Health. Delta Omega Gamma Zeta Student Poster Award (May 2023). 3<sup>rd</sup> place poster award winner, SPH Research Interaction Day (April 2023). AWRA Annual National Capital Region Water Resources Symposium Student Poster Award (April 2022).

#### Committee Member

Suraj Panthi. Committee member. Summer 2023-. MIAEH (SPH), PhD program in Toxicology and Environmental Health.

Edward Carter. Qualifying Exam Committee member. Fall 2022. MIAEH (SPH), PhD program in Toxicology and Environmental Health.

Ibiyinka Amokeodo. Committee member. Summer 2023-. MIAEH (SPH), PhD program in Toxicology and Environmental Health.

Michele Morgado. Committee member. Summer 2023- . MIAEH (SPH), PhD program in Toxicology and Environmental Health.

Suhana Chattopadhyay. Committee member. Spring 2021-Spring 2022. MIAEH (SPH), PhD program in Toxicology and Environmental Health. Successfully defended dissertation "CHARACTERIZING BACTERIAL COMMUNITIES ACROSS DIVERSE TOBACCO PRODUCTS AND DYSBIOSIS IN THE ORAL MICROBIOME RESULTING FROM TOBACCO USE."

Sultana Solaiman. Committee member. 2019-2021. PLSA department (AGNR). Successfully defended dissertation "TEMPORAL DYNAMICS, ANTIMICROBIAL RESISTANCE AND PHYLOGENETIC RELATIONSHIPS OF BACTERIAL TAXA IN IRRIGATION WATER SOURCES AND RELEVANCE TO FOOD SAFETY". 1/15/21.

#### Lab Rotation Advisor

Rebecca Patterson. Spring 2023. SARE On-Farm Private Well Water Quality Project. Analyzed heavy metal data and drafted a manuscript.

Ibiyinka Amokeodo. Fall 2022. MIAEH (SPH), PhD program in Toxicology and Environmental Health. MIEH 609 - Lab Rotation. Coordinated sample collection and lab analysis for Baltimore City Agricultural Irrigation Water Quality Project and led data analysis and led manuscript preparation.

Michele Morgado. Spring 2021. MIEH 609 - Lab Rotation. Conducted data analysis and led manuscript preparation titled "Evaluating the safety of roof-harvested rainwater

used to irrigate produce grown in raised vegetable garden beds.” MIAEH (SPH), PhD program in Toxicology and Environmental Health.

Other

Yan Dong. Advisor. Visiting PhD Student. Fall 2017. AREC (AGNR).

**III.B.4. Other than Directed Research**

**III.B.5. Other Advising Activities**

ENCE466 Design of Civil Engineering Systems Project Contact, Spring 2023, 3 teams of 5 students each

CONSERVE Summer Intern, 2022

CONSERVE Summer Interns (2), 2021

CONSERVE Summer Interns (3), 2020

CONSERVE Summer Intern, 2019

CONSERVE Summer Intern, 2018

CONSERVE Summer Intern, 2017

**III.C. Professional and Extension Education**

From 2016-2021 I was the co-project director of Extension and Outreach for CONSERVE: A Center of Excellence at the Nexus of Sustainable Water Reuse, Food, and Health. My Extension program focused on the CONSERVE program whose mission is to develop sustainable on-farm treatment solutions to be able to safely use nontraditional waters to irrigate food crops eaten raw.

**III.C.1. Major Extension Programs (Include situation, objectives, outputs, outcomes / impact)**

2016-2021, CONSERVE

Served as co-project director on *CONSERVE: A Center of Excellence at the Nexus of Sustainable Water Reuse, Food, and Health*, a USDA-NIFA grant program awarded to the UMD School of Public Health. In this capacity, I worked to develop Extension outreach and programming to help producers in the Mid-Atlantic understand the issues associated with using nontraditional water sources, including reclaimed/recycled water, to irrigate food crops.

2011-2013, Maryland Private Well Water/Safe Water Education Clinics

Served as graduate student and led project coordination by compiling survey results, coordinating water sample analysis, evaluating data for publications, and presenting at meetings. The program provided a link between members of the Maryland Institute for Applied Environmental Health and University of Maryland Extension to provide community members with a unique opportunity to learn the proper procedure to obtain a water sample from homes and resources to have water sample tested and analyzed. This project team consisted of Dr. Elisabeth Fost Maring, Dr. Amy R. Sapkota, Daphne Pee, and Karen Aspinwall.

**III.C.2. Guest Lectures (Presented in traditional classes or for someone else's program)**

Rosenberg Goldstein RE. "Harvesting rainwater and food safety in urban agriculture". Green Roof Systems and Urban Sustainability (PLSC 425), University of Maryland, College Park. April 18, 2023.

Rosenberg Goldstein RE. "Introduction to Bacterial infections: spotlight on E. coli and MRSA". Introduction to Infectious Disease Epidemiology (EPIB330), University of Maryland, College Park. April 6, 2023.

Rosenberg Goldstein RE. Talking Water Reuse with Farmers: The CONSERVE Extension & Outreach Team. UMD Global STEWARDS: Experiential Exploration of Innovations at the Nexus of Food, Energy, and Water (MIEH 690), University of Maryland, College Park. February 22, 2023.

Rosenberg Goldstein RE. "Creating Effective Factsheets". UMD Global STEWARDS: Project-Based Data Practicum at the Nexus of Food, Energy, and Water Systems (MIEH 691), University of Maryland, College Park. September 28, 2022.

Rosenberg Goldstein RE. "Rainwater Harvesting in Urban Agriculture" Green Roof Systems and Urban Sustainability (PLSC 425), University of Maryland, College Park. April 19, 2022.

Rosenberg Goldstein RE, "Talking Water Reuse with Farmers: The CONSERVE Extension & Outreach Team". UMD Global STEWARDS: Experiential Exploration of Innovations at the Nexus of Food, Energy, and Water (MIEH 690), University of Maryland, College Park. February 23, 2022.

Rosenberg Goldstein RE. "Watering Our Future: Evaluating the Safety and Feasibility of Alternative Irrigation Water Sources for Urban Agriculture" Green Roof Systems and Urban Sustainability (PLSC 425), University of Maryland, College Park. April 20, 2021.

Rosenberg Goldstein RE, "EXTENSION, OUTREACH, AND COMMUNICATION ON WATER REUSE IN AGRICULTURE". UMD Global STEWARDS: Experiential Exploration of Innovations at the Nexus of Food, Energy, and Water (MIEH 690), University of Maryland, College Park. February 24, 2021.

Rosenberg Goldstein RE, "EXTENSION, OUTREACH, AND COMMUNICATION ON WATER REUSE IN AGRICULTURE". UMD Global STEWARDS: Experiential Exploration of Innovations at the Nexus of Food, Energy, and Water (MIEH 690). February 19, 2020.

Rosenberg Goldstein RE\*, "Water Reuse in Agriculture." The Microbiological Safety of Fresh Produce (PLSC115), University of Maryland, College Park. December 3, 2019.

Rosenberg Goldstein RE\*, "Resources on Water Quality and Water Reuse". Presented at Advanced GAPs and Wegman's Training. Annapolis, MD. February 27, 2019.

Rosenberg Goldstein RE\*, "CONSERVE Water Quality Information: Use of Alternative Irrigation Sources Compared to FSMA Standards". Presented at 2019 Eastern Shore Vegetable Growers Meeting. Cambridge, MD. February 12, 2019.

Rosenberg Goldstein RE\*, "Use of Alternative Irrigation Sources compared to FSMA Standards". Presented at 2019 Central Maryland Vegetable Growers Meeting. Upperco, MD. January 24, 2019.

Rosenberg Goldstein RE\*, "Water and It's Connection to Food Safety", The Microbiological Safety of Fresh Produce (PLSC115), University of Maryland, College Park, November 2018.

Rosenberg Goldstein RE\*, Suri MR, Pee D, Goeringer LP, Rock C, Brassil N, Dery J. "Farmer Perceptions and Understanding of Irrigation Water from Nontraditional Sources". Presented at Western Maryland Fruit Meeting. Keedysville, MD. February 16, 2018.

Rosenberg Goldstein RE\*, Suri MR, Pee D, Goeringer LP, Rock C, Brassil N, Dery J. "Farmer Perceptions and Understanding of Irrigation Water from Nontraditional Sources". Presented at Southern Maryland Vegetable and Fruit Meeting. Gambrills, MD. Feb 8, 2018.

Rosenberg Goldstein RE\*, "Water Safety and Quality", Foundations of Environmental Health (MIEH 600), University of Maryland, College Park, February 2017.

Rosenberg Goldstein RE\*, "Water and It's Connection to Food Safety", The Microbiological Safety of Fresh Produce (PLSC115), University of Maryland, College Park, October 2016

Rosenberg Goldstein RE\*, "Wastewater – Treatment, Reuse, Possible Reservoir of Antibiotic-resistant Bacteria", Biological Contaminants (MIEH 773), University of Maryland, College Park, November 2014

Rosenberg Goldstein RE\*, Honors Seminar: Public Health Perspectives: How Does the Environment affect Human Health (HONR268), University of Maryland, College Park, March 2012

Rosenberg Goldstein RE\*, "Wastewater – Treatment, Reuse, Possible Reservoir of Antibiotic-resistant Bacteria", Biological Contaminants (MIEH 773), University of Maryland, College Park, November 2012

Rosenberg Goldstein RE\*, "Water Safety and Quality", Foundations of Environmental Health (MIEH600), University of Maryland, College Park, February 2011

Rosenberg Goldstein RE\*, "Exposure to Antibiotic-Resistant Bacteria from Reclaimed Wastewater" Honors Seminar: Public Health Perspectives: How Does the Environment affect Human Health (HONR268), University of Maryland, College Park, February 2010

#### **IV. Service and Outreach**

##### **IV.A. Editorships, Editorial Boards, and Reviewing Activities**

###### **IV.A.1. Editorial Boards**

Environmental Health Perspectives Editorial Review Board (2017 – present)

International Journal of Environmental Research and Public Health Topic Board (2020 – 2023)

#### **IV.A.2. Reviewing Activities for Journals and Presses**

Clinical Microbiology Case Reports Review  
Energies  
Environment, Development and Sustainability  
Environmental Health Perspectives  
Environmental Pollution  
Environmental Research  
Environmental Science and Pollution Research  
Environmental Science and Technology  
Health Environments Research & Design Journal  
Healthcare  
International Journal of Environmental Health Research  
International Journal of Environmental Research and Public Health  
Journal of the American Water Resources Association (JAWRA)  
Journal of Cleaner Production  
Journal of Environmental Management  
Journal of Epidemiology and Global Health  
Journal of Food Protection  
Microbiology Open  
The Lancet Planetary Health  
Science of the Total Environmental  
Sustainability  
University of Maryland Extension  
Water  
Water Research

#### **IV.B. Reviewing Activities for Agencies and Foundations**

2022 Organic Center-FFAR joint Organic Research Program proposal review panel, February-April, 2022.

USDA NIFA Small Business Innovation Research Phase II (SBIR II)- Conservation Natural Resources proposal review panel, August 5, 2020.

USDA NIFA Small Business Innovation Research (SBIR)- Conservation Natural Resources proposal review panel, February 11-12, 2020.

Research Development Office's International Collaboration Grant Program, the American Association for the Advancement of Science (AAAS). Peer Review Panel, March 5, 2019.

USDA NIFA Small Business Innovation Research (SBIR)- Conservation Natural Resources proposal review panel, December 2018-February 2019.



**IV.C. Committees, Professional & Campus Service**

**IV.C.1. Campus Service – Department**

Member, Search Committee, Maryland Institute for Applied Environmental Health, Director. March 2023 - .

Committee member, School of Public Health Maryland Day Committee. January 2023-.

Chair, Search Committee, Faculty Specialist. Agricultural and Resource Economics (AREC) Department. 2018-2019.

**IV.C.2. Campus Service – College**

Poster Judge. Public Health Research Day. April 13, 2023.

Poster Judge. Public Health Research Day. April 5, 2022.

Facilitator Environmental Health and Cancer Poster Session. Public Health Research@Maryland. April 14, 2021.

Poster Judge. Public Health Research@Maryland. April 15, 2021.

Delta Omega, Gamma Zeta Chapter, Inaugural President, College Park, MD, November 2011 – September 2012

“Climbing Up and Reaching Back (CURB)”: Ladder of Support for Research Careers in Biomedical and Behavioral Research, Graduate Student Presenter, College Park, MD, December 2011 – April 2012

Dean’s Student Advisory Committee, Student Representative for Maryland Institute for Applied Environmental Health, University of Maryland School of Public Health, October 2009-May 2012

Accreditation Committee, Student Representative for Maryland Institute for Applied Environmental Health, University of Maryland School of Public Health, August – October 2009

**IV.C.3. Campus Service – University**

Adviser, American Water Works Association Chesapeake Section University of Maryland Student Chapter (AWWA Chesapeake Section University of Maryland Student Chapter). April 2023-.

Reviewer, Healthy Places Seed Grant. April 2023.

Member, Search Committee, Water Resources Assistant Professor, Dept. of Civil & Environmental Engineering, A. J. Clark School of Engineering. September 2022 – April 2023.

Member, Search Committee, Agent Associate (Watershed Specialist). Position Number: 118154. AGNR-UME-Sea Grant Extension. March 2022 -May 2022.

Culturally Aware Mentor Training, September-October 2020

ADVANCE Keeping our Faculties, 2020-2021 cohort

University of Maryland Hillel Reopening Task Force, July 2020

ADVANCE Program for Inclusive Excellence: Advancing Professional Track Faculty program, 2017-2018 cohort

Public Health Garden, Co-founder and Secretary Treasurer, College Park, MD, January 2011 – June 2012

IV.C.4. Other Non-University Committees, Memberships, Panels

Member: Scientist Opinion Panel Survey (SciOPS) (2022-)

Member: American Water Resources Association (AWRA) (2021-)

Committee Member: AWRA Flowing Waters Committee (2021- )

Member: Maryland Association County Agricultural Agents (MACAA)

Member: National Association County Agricultural Agents (NACAA)

IV.C. 5 Other

2022 AAAS Communicating Science Workshop. March 11, 2022. (Virtual)

IV.D. External Service and Consulting

IV.D.1. Community Engagements, Local, State, National, International

United Nations Commission on Sustainable Development (CSD-16), Youth Delegate, New York, NY, May 2008

IV.E. Media Contributions

IV.E.1. Print Media

Sloat, S. "Even Just a Little of This 1 Overlooked Activity Can Dramatically Reduce Depression". May 28, 2023. Inverse. <https://www.inverse.com/health/sunday-scaries-gardening>

Wormuth, L. "New UMD Well Water Data Suggests Contamination Frequent on Farms". March 13, 2023. Maryland Today. <https://today.umd.edu/new-umd-well-water-data-suggests-contamination-frequent-on-farms>

Quoted in: Herschbach, R. "\$1.35M Grant to Fund UMD-Led Team's Study of Climate Change and Septic Tank Failure". February 28, 2023. Maryland Today.

<https://today.umd.edu/1-35m-grant-to-fund-umd-led-teams-study-of-climate-change-and-septic-tank-failure>

Quoted in: Bacon, A. "UMD professor awarded \$20k grant for research on gardening, mental health." November 2, 2021. University of Maryland Diamondback.

<https://dbknews.com/2021/11/02/umd-research-gardening-mental-health/>

Quoted in: Coffin, N. "Pandemic growth spurt: Interest in gardening still trends upwards in Baltimore County" April 26, 2021. Baltimore Sun.

<https://www.baltimoresun.com/maryland/baltimore-county/towson/cng-ca-at-tt-pandemic-gardening-20210426-nunjtrmrirhz3gruznmjiju3ka-story.html>

Quoted In: McCauley, D. "Urban Agriculture Combats Food Insecurity, Builds Community" January 25, 2021. EOS Science News by AGU.

<https://eos.org/articles/urban-agriculture-combats-food-insecurity-builds-community>

Quoted In: McCauley, D. "Urban Agriculture Combats Food Insecurity, Builds Community" September 23, 2020. CSA News. <https://doi.org/10.1002/csan.20289>

Quoted In: Cribbs, J. "Farms urged to utilize water reuse" February 28, 2020. The Delmarva Farmer. <https://americanfarmpublications.com/farms-urged-to-utilize-water-reuse/>

#### IV.E.2. Podcasts

Featured In: NNLM Discovery Podcast. "Healthy Garden, Healthy You: A Story from Region 1". February 8, 2023. <https://www.nnlm.gov/podcast/healthy-garden-healthy-you-a-story-from-region-1>

Featured In: Agrifood Safety Produce Bites. "Safety of Rainwater for Irrigation". November 1, 2022.

[https://www.buzzsprout.com/936625/11517628?fbclid=IwAR1qz3r0b0Rp1M6DC0tdmMWfdflhSSrEz8gf4-L2pvjO\\_9\\_KmLLroY-YQM](https://www.buzzsprout.com/936625/11517628?fbclid=IwAR1qz3r0b0Rp1M6DC0tdmMWfdflhSSrEz8gf4-L2pvjO_9_KmLLroY-YQM)

#### IV.E.3. Blogs

Quoted In: Replate Blog. "You Can't Rain Enough On This Parade" April 19, 2021. <https://blog.replate.org/blog/you-cant-rain-enough-on-this-parade>

Blog post: Rosenberg Goldstein, RE. "What's so great about water reuse?". Maryland Risk Management Education blog. Published online on April 26, 2017.

<https://agrisk.umd.edu/blog/whats-so-great-about-water-reuse>