

## 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 \_\_\_\_\_

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### **I. Personal Information**

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

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**

- 1. 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*. 270.**
- 2. Gerdes M, Cruz-Cano R, Ammons SA, Allard S, Sapkota AR, Micallef SA, and Rosenberg Goldstein RE. Sampling Frequency Impacts on E. coli Geometric Mean for Food Safety Modernization Act Produce Safety Water Testing Requirements. [In Preparation].**
- 3. 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.**
- 4. 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**
- 5. Suri MR, Dery JL, Pérodin J, Brassill NA, He X, Rock CM, Rosenberg Goldstein RE. 2019. Agricultural adaptation for climate change: U.S. farmers' perceptions and willingness to use nontraditional water sources for agricultural irrigation. *Environmental Research*. 172: 345-357.**
- 6. 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.**
- 7. 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.**
- 8. 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).**

9. **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.**
10. **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.**
11. **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.**
12. **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**
13. **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.**
14. **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.**
15. **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.**
16. **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.**
17. **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.

18. 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.
19. 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.
20. 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

**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

**Rosenberg Goldstein RE. Addressing Growers' Knowledge and Concerns about Water Reuse for Agricultural Irrigation. WateReuse 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

**Rosenberg Goldstein, RE, S. Fix, M. Gerdes, A. Vivino, E. Bernat. 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, 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 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 WateReuse 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\*. 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

**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

**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. Professional and Extension Publications**

**II.C.1. Refereed Extension Publications**



1. Lazur, A. and Rosenberg Goldstein RE. With Buildings Preparing to Reopen, It's Time to Think About Stagnant Water and Health Risks. FS-0542. University of Maryland Extension.
2. Suri MR, Pee D, and Rosenberg Goldstein RE. Water Quality and Food Safety: Understanding Factors Impacting Surface Water Quality Relevant for the FSMA Produce Safety Rule. FS-1093. University of Maryland Extension.
3. Suri MR, Goeringer LP, and Rosenberg Goldstein RE. 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.
4. Suri MR, Ammons S, and Rosenberg Goldstein RE. 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.
5. Suri MR and Rosenberg Goldstein RE. Watering Seeds of Change with Rainwater: An Innovative Partnership for Environmental and Social Improvement in Maryland. FS-0495. University of Maryland Extension.
6. Suri MR and Rosenberg Goldstein RE. Putting Recycled Water to Work in Maryland Agriculture. FS-0496. University of Maryland Extension.

**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, 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**

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**

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

Brain and Behavior Initiative. 2019 Seed Grant. Rachel Goldstein (PI), Edward Bernat (PI), and Maik Kecinski (PI). *Moving Beyond the "Yuck Factor": Measuring brain responses to water reuse terms and determining if natural environmental images change responses*. \$74,923. June 1, 2019 to May 29, 2020.

*CONSERVE: A Center of Excellence at the Nexus of Sustainable Water Reuse, Food, and Health*, USDA-NIFA. Amy Sapkota (PD). Rachel Rosenberg Goldstein and Paul Goeringer (Co-PDs) for Extension and Outreach - \$775,999. March 1, 2016 to Feb. 28, 2020.

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

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**

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

#### **III.B. Advising: Other than Directed Research**

##### **III.B.1. Master’s**

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.”

##### **III.B.2. PhD Committees**

Sultana Solaiman, PhD candidate. Committee member as of 2019. PLSA department.

##### **III.B.3. Other Advising Activities**

CONSERVE Summer Interns (3), 2020  
CONSERVE Summer Intern, 2019  
CONSERVE Summer Intern, 2018  
CONSERVE Summer Intern, 2017

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

I am currently am currently 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 is focused on 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 to Present, CONSERVE

Serve 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 work 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, "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 – present)

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

African Journal of Infectious Diseases

Clinical Microbiology Case Reports Review

Energies

Environment, Development and Sustainability

Environmental Health Perspectives

Environmental Pollution

Environmental Research

Environmental Science and Technology

Healthcare

International Journal of Environmental Health Research

International Journal of Environmental Research and Public Health

Journal of Cleaner Production

Journal of Environmental Management

Journal of Epidemiology and Global Health

Journal of Food Protection

Microbiology Open

Science of the Total Environmental

Sustainability

University of Maryland Extension

Water Research

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

**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**

Chair, Search Committee, Faculty Specialist. 2018-2019

**IV.C.2. Campus Service – College**

***College of Agriculture & Natural Resources***

Human Environmental Animal Health (HEAH) network

***School of Public Health***

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**

**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: American Water Resources Association (AWRA)**

**Member: Maryland Association County Agricultural Agents (MACAA)**

**Member: National Association County Agricultural Agents (NACAA)**

**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

**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. Blogs

**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>**