

2022 Women in Mathematics, Science and Technology Conference  
April 5, 2022

Presenter Synopses

**SESSION 1 (10:15-10:45 a.m.)**

**What's that Smell? Solving the Mystery of Airborne Contaminants in Nail Salons**

**Lisa Bolin, Manager, IH & IEQ Services, High Environmental Health & Safety Consulting, LTD.**

**Areas of Expertise:** Environmental Health & Hygiene

*Using environmental health & hygiene techniques to solve mystery odors in a nail salon and determining if the odors present a health hazard. Learn how an industrial hygienist gathers information and develops a work plan for solving environmental concerns.*

**Eyes are the Windows to Your Body! How Eye Exams Go Beyond Just Glasses**

**Allison Brun Vacek, D.O., Optometrist, Yealy Eye Care of Lancaster**

**Areas of Expertise:** Comprehensive eye care, ocular disease, glasses and contact lens fittings

*During this presentation I will go over the benefits of seeing your eye doctor for routine eye exams and the importance of check-ups. Eye exams are so much more than only needing glasses!! We will go over what is done and why during an eye exam, many systemic diseases can be found in the eye, and review some patient cases.*

**Behind the Scenes at WGAL – My Adventures as a Broadcast Meteorologist**

**Christine Ferreira, Meteorologist, WGAL-TV**

**Area of Expertise:** Forecasting

*Come travel with me as I explain how I learned to forecast the weather in four states. I'll detail the preparation and planning that go into crafting a forecast for hundreds of thousands of viewers per day*

**Everyone Has a Journey: Saving the World Through Ecological Design!**

**Lydia Martin, Owner, Ecological Design Consulting**

**Areas of Expertise:** Ecological landscape design, land management, green infrastructure, conservation

*Life's opportunities and challenges can help you realize that passionate environmental work comes in many ways. Hear my journey through my conservation career and how my love for plants led me to where I am today!*

**Accept the Challenge**

**Ying Zheng, Senior Software Engineer, Google, Inc.**

**Areas of Expertise:** Java, Android, Google Automotive Services

*I'll walk through my experience working at Google, challenges I have face, and how I tackled them.*

## **SESSION 2 (10:55 to 11:25 a.m.)**

### **Geophysics 101: The Earth Science Equivalent of Medical Radiology**

**Felicia Kegel Bechtel, Director of Geophysics, RETTEW Field Services, Inc.**

**Area of Expertise:** *Division management, proposal writing, technical review of reports, business development, technical presentations/webinars*

*Know before you dig. Geophysics helps save time, and money, as well as maximize safety and minimize liability, by detecting what's beneath the surface – often before intrusive digging or drilling ever begins. Geophysicists use safe, cost-effective methods and emerging technologies to identify subsurface features (e.g., rock depths, sinkholes, contaminant plumes, buried tanks or drums, burials, and infrastructure (e.g., utilities, building foundations) to help clients use their resources most wisely.*

### **The 21<sup>st</sup> Century Zoo: Join the Mission to Save the World**

**Donna M. Ialeggio, DVM, Staff Veterinarian, Philadelphia Zoo**

**Area of Expertise:** *Veterinary care of non-domestic species under managed care*

*This presentation will review the many options for becoming a FORCE in real-time and real-impact conservation of non-domestic animals under managed care, in your community, and around the world.*

### **The Strange and Spooky Quantum Nature of Light**

**Amy Lytle, Ph.D., Associate Professor of Physics, Franklin and Marshall College**

**Area of Expertise:** *Experimental Physics*

*Quantum physics is famously strange and has baffled physicists for over 100 years. For many years, most people's understanding was limited to conceptual "thought experiments", since laboratory experiments with single atoms or photons were so difficult. But new technology now allows us to test the quantum behavior of light in a classroom lab. In this session, I'll describe some experiments we have at Franklin & Marshall that allow us to manipulate and observe single photons in action.*

### **That's Going to Need More than Just a Band-Aid: Nurse Practitioner Driven Wound Care**

**Cayleigh Minter, DNP, CRNP, CWCN-AP, Nurse Practitioner, Assistant Professor of Nursing, Millersville University**

**Areas of Expertise:** *Nursing Education, Wound and Hyperbaric Medicine*

*I will review my educational and career path as a traditional BSN Nursing student to my Doctorate degree. I will review the basic concepts of nursing and the difference between nurse practitioner's care. I will review the scope of my current practice and talk about what types of things I see in day-to-day work. Attendees will understand the educational pathway that it takes to become a nurse/nurse practitioner.*

### **College Professor: What to do When You're Interested in Everything**

**Erin Moss, Ph.D., Professor of Mathematics, Millersville University**

**Area of Expertise:** *Mathematics Education*

*Curiosity and an active mind can make choosing a college major difficult, but they are great assets for establishing an interesting and meaningful career. As a professor of mathematics education, I am more than just a teacher—I get to be a writer, a designer, a performer, and an advocate. The diverse experiences I gathered along the way prepared me to take full advantage of the opportunities this career provides to continue learning and exploring new passions.*

### **SESSION 3 (12:40 to 1:10 p.m.)**

#### **The Green Revolution of Polymer Chemistry: From Solar Cells to Biodegradable Plastics to Biomimetic Adhesives**

**Kathryn Allen, Ph.D., Assistant Professor of Chemistry, Millersville University**

**Area of Expertise:** Polymer Chemistry

*Dr. Allen received her doctorate from Columbia University and did her Post-doc at USC. She is currently teaching polymer chemistry and organic chemistry at Millersville University and has a robust research program in polymer chemistry at MU. This talk will feature the importance of polymers, the value they play in our world, and why students should be interested in them!*

#### **From Applied Mathematics to App Development – The Many Hats of a Professor**

**Stephanie Blanda, Ph.D., Assistant Professor of Mathematical Sciences, Lebanon Valley College**

**Areas of Expertise:** Computer and Data Science

*In my short time as a professor, I've learned that flexibility and a willingness to keep learning is a key to success. Though I graduated with a Ph.D. in Mathematics, I find myself working primarily in the areas of computer and data science. In this presentation, I will share the many twists my academic journey has taken and how being flexible has allowed me to keep trying new things.*

#### **Construction Safety – More Than Just Wearing a Hard Hat**

**Stacey Darrohn, Sr. Project Environmental Health & Safety Manager, Turner Construction Company**

**Area of Expertise:** Construction Safety

*We will go over the path that most safety professionals take and then what a day looks like in the construction field. We will also discuss the high hazards we see daily and have to plan for.*

#### **Engineers are Women, Too!**

**Joan Greenslade, Manager, Testing & Analysis Laboratory, Armstrong World Industries**

**Areas of Expertise:** People management, problem solving, data analysis, applied acoustics, acoustical ceiling tile manufacturing

*Why choose engineering as a profession? Perception vs. reality. Tackling the social myths about Engineers.*

#### **A Successful Adulthood Starts with a Healthy Childhood – You Can be a Part of That!**

**Vinitha Moopen, M.D., Pediatrician, WellSpan Rothsville Family and Pediatric Medicine**

**Area of Expertise:** Pediatrics

*I would like to give the attendees a look into the world of pediatrics, the best job in the world. We will be talking about the educational process needed to get here and what a typical pediatric practice looks like.*

## **SESSION 4 (1:20 to 1:50 p.m.)**

### **Industrial Hygienists – Teeth Are Not Our Specialty!**

**Nancy Adams, Consultant, Nancy Adams Consulting**

**Area of Expertise:** Occupational Safety and Health

*I will chart my journey to a rewarding, fabulous, and fascinating career in a growing field that few people know about. Millersville University offers a nationally recognized undergraduate program to get you on your way.*

### **Nursing in Modern Society**

**Michele M. Chronister, DNP FNP-BE IBCLC, Nurse Practitioner and Assistant Professor, Millersville University**

**Areas of Expertise:** Women's health and pediatrics

*The nursing profession has changed since the days of Florence Nightingale. Lean all the different directions and avenues that nursing career can take you.*

### **A Day in the Life of a Dietitian: Nutrition Nazi or Model of Moderation?**

**Janelle Glick, Corporate Wellness Dietitian, Penn Medicine Lancaster General Health**

**Areas of Expertise:** Weight management, health coaching, general wellness

*Over the course of my twenty years as a registered dietitian, I have had jobs in a variety of workplaces, including hospitals, long-term-care retirement facilities, drug & alcohol rehab, fitness centers, and wellness centers. I will describe the education required to become a registered dietitian and many job opportunities. I will cover the required skills it takes to become a good dietitian.*

### **Girl Power: Energy Engineering Careers**

**Jeannie Leggett Sikora, Senior Energy Engineer, CLEAResult**

**Areas of Expertise:** Commercial/Industrial/Agricultural energy efficiency

*This presentation will give an overview of the energy engineering profession, including career preparation and typical roles and responsibilities of an energy engineer. The program will introduce what energy engineers do and why energy engineering can be an interesting, challenging, and rewarding career choice.*

### **Lessons Learned While Splashing in the Mud: Tales from a Wetland Ecologist**

**Carolyn Weaver, Ph.D., Assistant Professor of Biology, Millersville University**

**Areas of Expertise:** Wetland ecology, ecosystem science, marine biology, plant ecology

*The goal of this session will be to introduce conference attendees to the world of wetland ecology through sharing my personal experiences, successes, and failures in this career. Information will include, but is not limited to, what is a wetland scientist, career paths one can pursue as a wetland scientist, and resources and "tips" on how conference attendees can begin to plan for their own field biology careers.*