



Abigail Snyder

CV

Abigail B. Snyder, Ph.D.

Associate Professor of Microbial Food Safety |
Cornell University

Department of Food Science • Ithaca, New York, USA •

WORK HISTORY

2020–Present Cornell University

Associate Professor, Microbial Food Safety (2023–Present);
Assistant Professor (2020–2023)

2019–2020 U.S. Food and Drug Administration

Visiting Research Scholar — Molecular Methods and
Subtyping Branch

2017–2019 The Ohio State University

Assistant Professor & Food Safety Extension Specialist

EDUCATION

Ph.D., Food Microbiology, Cornell University, 2017

B.S., Food Science; B.A., Chemistry & English, The Ohio State
University, 2012

RESEARCH PROFILE

50+ peer-reviewed journal articles

\$6M in research funding awarded as PI

LEADERSHIP & STANDARDS

- WHO/FAO JEMRA expert participation
- National Advisory Committee on Microbiological Criteria for Foods (2023–2025); Co-chair, Cronobacter charge
- ISO TC 34/SC Working Group 12 (2023–Present)
- FDA working group on metadata standards for open-source DNA sequence databases (2021)
- Advisory Board, North Central Regional Center for FSMA Training, Extension, and Technical Assistance (2019–2022)
- Cornell Institute for Food Systems Industry Partnership Program committee (2025–Present)

SELECTED RECOGNITION

2026 IFT Outstanding Young Scientist Award

2023 IAFP Larry Beuchat Young Researcher Award

PROFESSIONAL PROFILE

Food microbiologist specializing in sanitation validation, environmental monitoring, cross-contamination control, and microbial safety in food manufacturing, with particular emphasis on low-moisture and dry processing environments. Research integrates microbial risk with operational decision-making to improve product safety and quality.

RELEVANT EXPERIENCE

Hygienic design • Product safety & quality • Productivity

- Leads research on niche-specific microbial communities to inform targeted sanitation and hygienic design, including a \$625,100 USDA NIFA project focused explicitly on sanitation and hygienic design.
- PI of a \$923,173 USDA NIFA program on transforming sanitation strategies in dry food manufacturing environments; related work addresses dry cleaning, wet sanitation risks, sanitation verification, and clean-break cross-contamination.
- Research on sanitation optimization explicitly balances safety outcomes with efficiency, and evaluates sanitation approaches relative to capital investment.
- Industry consultation includes contamination-prevention evaluations (17 companies), GMP/SSOP and food safety plan reviews (15 companies), SQF gap/auditing work (10 companies), and environmental monitoring system audits (4 companies/regulatory bodies).

SELECTED RESEARCH & PUBLICATIONS

- Slaughter et al. (2026). “Moisture matters: unintended consequences of performing wet sanitation in dry environments.” *Applied and Environmental Microbiology*.
- Karuppuchamy, Heldman & Snyder (2024). “A review of food safety in low-moisture foods with current and potential dry-cleaning methods.” *Journal of Food Science*.
- Daeschel et al. (2023). “Visual inspection of surface sanitation: Determining the human threshold for detection of food residues and defining the conditions that enhance detection.” *Food Control*.
- Snyder (2022). “Surface Sanitation in Food Manufacturing: Clean-In-Place, Clean-Out-of-Place, and Environment.” *In Food Technologies*.
- Cai et al. (2020). “All parameters affect environmental surface sanitation efficacy, but their relative importance differs based on microbial target.” *Applied and Environmental Microbiology*.

Motivation letter

Dear Members of the EHEDG Election Committee and General Assembly:

I am writing to express my interest in serving on the EHEDG Advisory Board. I am an Associate Professor of Microbial Food Safety at Cornell University, where my research and extension program focuses on sanitation, hygienic design, and microbial risk management in food manufacturing, with particular emphasis on low-moisture and dry processing environments. EHEDG's commitment to science-based hygienic design that improves food safety and quality strongly aligns with the questions I work on every day.

My work sits at the interface between hygienic design and sanitation performance. I lead research on how equipment and facility niches, moisture, residue, access, and cleaning method influence microbial persistence, cross-contamination, and sanitation validation. Current projects include defining niche-specific microbial communities to inform targeted sanitation and hygienic design, evaluating the unintended consequences of wet sanitation in dry environments, validating dry cleaning and clean-break strategies, and assessing alternative technologies such as superheated steam. Much of this work is conducted with food manufacturers and sanitation leaders, which keeps the research grounded in operational constraints, cleaning efficiency, product safety, and the practical consequences of design decisions.

My broader service has reinforced the need for guidance that is technically rigorous, practical, and globally relevant. I have served on the U.S. National Advisory Committee on Microbiological Criteria for Foods, including co-chairing its Cronobacter charge; contributed to FAO/WHO JEMRA work on powdered infant formula; and participate in an ISO working group. Through Cornell's industry programs, I also work directly with manufacturers to translate research on sanitation and microbial control into risk-based practices.

I would bring to the Advisory Board an academic perspective that is closely connected to manufacturing practice. I am particularly interested in helping EHEDG continue to advance risk-based guidance for complex manufacturing environments, including dry facilities where conventional wet-cleaning assumptions do not always apply.

EHEDG's Advisory Board role in shaping mission, vision, and strategy is especially appealing to me. I would value the opportunity to contribute scientific perspective, industry-facing experience, and a strong commitment to translating evidence into practical guidance, while learning from the manufacturers, engineers, and food producers who make up EHEDG's community. Thank you for considering my application.

Sincerely,

Abigail B. Snyder, Ph.D.

Associate Professor of Microbial Food Safety