Matthew J. Winans

wcwinans@ProtonMail.com
www.linkedin.com/in/mattwinans
www.MattsYeastLab.com
(304) 483-1786

ACADEMIC BACKGROUND

West Virginia University, *Morgantown, WV, USA* *2020*
PhD*: Systems Biology*
- *Advisor: Dr. Jennifer E.G. Gallagher*
  - *Exploration of Nanotoxicological Copper and Interspecific Saccharomyces Hybrids*

Saga University – Fermentation Institute, *Saga-shi, Kyushu, Japan* *2017*
Advisor: Dr. Hiroshi Kitagaki

Fairmont State University, *Fairmont, WV, USA* *2012*
Bachelor of Science: Biology

Boston University, *Cockburn Harbor, South Caicos, TCI* *2010*
Emphasis: Biology

INDUSTRY EXPERIENCE

Imperial Yeast, *Portland, OR*
Research & Development Lead Scientist *2020 – 2023*
- *Envision industrial laboratory facility from ground up - design, construction, instrumentation, & SOP*
- *Aligned Sales Team with New Product Introductions via Phase-Gate framework*
- *Overhauled product QC pipeline via modern molecular techniques*
- *Presented technical presentations both externally to clients and internally to stake holders*
- *Coordinated with academic partners with industry insights, experimental direction, and microbio support*

Appalachian Brewer Research, *Morgantown, WV*
Founder & Consulting Scientist *2019 - 2021*
- *Identified, developed, and retained niche fermentation clients driven by quality and innovative improvement*

National Research Institute of Brewing, *Hiroshima, Japan*
Visiting JSPS Scientist *2017*
- *Utilized formal training and skill set to complete critical experimental needs in a demanding environment*

Winans Services and Extras Support Staffing, *Parkersburg, WV*
Operations & Marketing Executive *2013 - 2015*
- *Led 400+ member team in (7+) branch development, contract negotiation, and client/employee acquisition*

SELECT PUBLICATIONS

Ni Putu Dewi Nurmalasari, Matthew J Winans, Katelyn Perroz, Victoria R Bovard, Robert Anderson, Steve Smith, Jennifer EG Gallagher. **Toxicity and Assimilation of Cellulosic Copper Nanoparticles Require α-arrestins in S. *cerevisiae***, Metallomics*, 2023.*

Matthew J. Winans. **Yeast Hybrids in Brewing.** *Fermentation, 2022.*

Matthew J. Winans. **Toxicological and Metabolic Studies in *Saccharomyces*: The Exploration of Nanotoxicological Copper and Interspecific *Saccharomyces* Hybrids**, *Research Repository, 2020.*

Matthew J. Winans, Yuki Yamamoto, Yuki Fujimaru, Yuki Kusaba, Jennifer E. Gallagher, and Hiroshi Kitagaki. ***Saccharomyces arboricola* and its Hybrids' Propensity for Sake Production: Interspecific Hybrids Reveal Increased Fermentation Abilities and a Mosaic Metabolic Profile.** *Fermentation, 2020.*

Matthew J. Winans and Jennifer E. G. Gallagher. **Metallomic and Lipidomic Analysis of *S. cerevisiae* Response to Cellulosic Copper Nanoparticles Uncovers Drivers of Toxicity**. *Metallomics, 2020.*

Jordan B. Barney, Matthew J. Winans, Catherine B. Blackwood, Amaury Pupo, and Jennifer E. G. Gallagher.
The Yeast Atlas of Appalachia: Genetic Diversity and Phenotypic Diversity of Herbicide Resistance of Wild Yeast. *Diversity, 2020.*

Xiaoqing Rong-Mullins, Matthew J. Winans, Justin B. Lee, Zachery R. Lonergan, Vincent A. Pilolli, Lyndsey M Weatherly, Thomas W. Carmenzind, Lihua Jiang, Jonathan R. Cumming, Gloria S. Oporto, and Jennifer E. G. Gallagher. **Proteomic and Genetic Analysis of the Response of *S. cerevisiae* to Soluble Copper Leads to Improvement of the Antimicrobial**

Function of Cellulosic Copper Nanoparticles, *Metallomics, 2017.*

AWARDS & FUNDING

Integrative Graduate Education and Research Traineeship – NSF *2016, ’17, ’18, ‘19*
East Asia and Pacific Summer Institutes – NSF & JSPS *2017*
Productivity Award – WVU Eberly College of Arts and Sciences *2017, ’18, ‘19, ‘20*
Entrepreneur Pitch Contest, Patenting – WVU Launch Lab *2017*
WVDEP: Save Our Streams, – NASA Space Grant Scholars Program *2011*

SELECT PRESENTATIONS

Yeast Biotransformation: Comprehensive Profiling via High-Throughput Evaluations
Craft Brewers Conference, *Oral & Poster Presentation* ***– Nashville, TN*** *2023*

Diastatic Yeast: Investigating a Novel and Practical Definition Through Protocol Development
Brewing Summit, *Poster Presentation* ***– Providence, RI*** *2022*

Adventure Guide to Sake Brewing
Brewers Association - Home-brewer’s Convention, *Oral Presentation* ***– Pittsburgh, PA*** *2022*

Interspecific Yeast Influence in Fermentation
American Society of Brewing Chemists, *Poster Presentation* ***– (Web Hosted)*** *2021*

Distilling Microbiology: Love it or Hate it, We Need it
American Distilling Institute, *Oral Presentation* ***– (Web Hosted) New Orleans, LA*** *2020*

Yeast of America: A Biogeological Study of Todays Yeast
American Society of Brewing Chemists, *Poster Presentation* ***– New Orleans, LA*** *2019*

Exploring the Unique Mode of Copper Nanoparticle Toxicity
Genetics Society of America, *Poster Presentation* ***– Stanford, CA*** *2018*

Metabolomics & Toxicity of Copper Nanoparticles
Metabolomics Society, *Poster Presentation* ***– Seattle, WA*** *2018*

Exploring Novel Yeast, *Saccharomyces arboricola,* in Japanese Biotechnology
Japanese Society for the Promotion of Science, *Poster Presentation* ***– Hayama (Sokendai), Japan*** *2017*

Harnessing Flavor Diversity of Yeast Strains from the Allegheny Mountains
World Brewing Congress, *Poster Presentation* ***– Denver, CO*** *2016*

SERVICE & ORGANIZATIONAL EXPERIENCE

MBAA - TQ Publications Committee *2022 - Current*
ASBC - Program Committee, Microbiology sub-committee *2020 - Current*
Foundation of WVU, Parkersburg member *2014 - Current*
Biology Graduate Student Association of WVU, *President & Treasurer* *2018 - 2020*
Science on Tap, *Morgantown, WV* *2015 - 2019*
Gallagher Lab Community Outreach Program, *Morgantown, WV* *2016 - 2019*
- NASA High School Experiment Design, Liquid Nitrogen Elementary Day, Yeast Community Sourcing

Rotary Club - Parkerburg business member 2013 - 2015
βββ Volunteer and Fundraising Activities, *Fairmont, WV* *2008 - 2012*
- Humane Society, Adopt a Highway, Children’s Hospital, Special Olympics

TECHNICAL DETAILS AND REFERENCES AVAILABLE UPON REQUEST