William T. Scott Jr.

PhD, Chemical Engineering (Biotechnology Emphasis), University of California, Davis, 2021

MS, Chemical Engineering, North Carolina State University, 2013

BS, Chemical Engineering, University of Arkansas, 2011

BS, Biological Engineering, University of Arkansas, 2011

Academic Experience:

Research Assistant Professor, Agricultural & Biological Engineering, Purdue University, Aug. 2025 – present, full time.

Postdoctoral Researcher, Systems & Synthetic Biology and UNLOCK, Wageningen University & Research, Sep. 2021 – Aug. 2025, full time.

Visiting Researcher, Laboratory of Food Microbiology, Wageningen University & Research, Nov. 2019 – Aug. 2021.

Graduate Research Assistant, Chemical Engineering, UC Davis, Sep. 2016 – Mar. 2021.

Professional Organizations:

American Institute of Chemical Engineers (AIChE)

American Society of Agricultural and Biological Engineers (ASABE)

International Metabolic Engineering Society

Society of Biological Engineers

Elixir Europe – Systems Biology & Microbial Biotechnology

Honors and Awards:

GEM Fellowship, National GEM Consortium, 2018.

Andre Tchelistcheff and Dr. Richard Peterson Scholarship, American Vineyard Foundation, 2018.

American Society for Enology and Viticulture Scholarship, 2017.

TOPS Fellowship, UC Davis, 2016.

2nd place, G. B. Gunlogson Student Environmental Design Competition, ASABE, 2011.

Service Activities (past five years):

Internal:

Guest Seminar Organizer, Systems & Synthetic Biology Group, WUR (2022–2023).

Guest Seminar Organizer, UNLOCK platform (2022–2023).

External:

Reviewer: Nature Communications, ISME Communications, Biotechnology for Biofuels, npj Science of Food, and others.

Workshop Organizer, UNLOCK Symposium (2023–2024).

Poster Competition Judge, BioSB 2023 Conference.

Publications (past five years):

Tan Y, Zhu T, Wijffels RH, Xu Y, Scott WT, dos Santos VM. Controlling metabolic stability of food microbiome. npj Biofilms and Microbiomes. 2025.

Lesiczka P, Azagi T, Krawczyk AI, Scott WT, et al. Deep sequencing of Ixodes ricinus specimens. mSystems. 2025.

Scott WT*, Rockx S, Mariën Q, Regueira A, et al. Implementation of a Clostridium luticellarii model. CSBJ. 2025.

Dell'Olio A, Scott WT, Taroncher-Ferrer S, et al. Tailored impact of dietary fibers on gut microbiota. Microbiome. 2024.

Ioannou A, Berkhout M, Scott WT, et al. Resource sharing of an infant gut microbiota synthetic community. ISME Journal. 2024.

Zhang C, Sánchez BJ, Li F, Cheng E, Scott WT, et al. Yeast9: a consensus genome-scale model for S. cerevisiae. Mol. Systems Biology. 2024.

Atasoy M, Scott WT+, Regueira A, Schaap PJ, Smidt H. Biobased short chain fatty acid production. Biotechnology Advances. 2024.

Scott WT*, Benito-Vaquerizo S, Zimmerman J, Bajic D, et al. A structured evaluation of modeling tools for microbial consortia. PLOS Comp Bio. 2023.

Scott WT*, Henriques D, Smid EJ, Notebaart RA, Balsa-Canto E. Dynamic genome-scale modeling of yeast ester formation. Biotech & Bioeng. 2023.

Atasoy M, Scott WT, van Gijn K, Koehorst JJ, Smidt H, et al. Microbial dynamics and bioreactor performance. Bioresource Technology. 2023.

Scott WT, Smid EJ, Block DE, Notebaart RA. Metabolic flux sampling predicts strain-dependent differences in wine yeast aroma. Microbial Cell Factories. 2021.

Scott WT, van Mastrigt O, Block DE, Notebaart RA, Smid EJ. Nitrogenous compound utilization in wine yeasts. Microbiology Spectrum. 2021.

Scott WT, Smid EJ, Notebaart RA, Block DE. Curation and analysis of a S. cerevisiae model under enological conditions. Processes. 2020.

Scott WT, Smid EJ, Block DE, Notebaart RA. Dynamic flux balance analysis framework applied to wine fermentation. AIChE Meeting Proceedings. 2020.

Presentations (past five years):

Engineering the Perfect Pour: Metabolic Modeling in Beverage Fermentation and Biotech. Invited Seminar, KU Leuven, 2025.

Advancing Metabolic Modeling: Applications in Biotechnology and Food Fermentation. Invited Seminar, Purdue University, 2025.

Genome-scale metabolic modeling tools for microbiomes. Invited Lecturer, University of Minho, 2024.

In silico Microbiome Modeling Tools. Guest Lecturer, VLAG-MBDP course, Wageningen, 2023.

Assessment of Genome-Scale Constraint-Based Modeling Tools. Bioinformatics @ Wageningen, 2023.

Predicting ruminal volatile fatty acid and hydrogen production using a genome-scale model. ModNut 2025, Engelberg, Switzerland.

Genome-Scale Model-Based Design of Synthetic Communities. ECOSTP 2025, Stockholm, Sweden.

FAIR Microbial Omics Workflow Using Mock Communities. BioSB 2025, Baarlo, Netherlands.

Tick Tack Ticks – How deep can you go? 16th Symposium on Tick-borne Diseases, Jena, Germany, 2025.

Use of Genome-Scale Yeast Models to Understand Ethanol Tolerance. Invited Seminar, VIB-KU Leuven, 2018.