

## **Brian Merkel, Ph.D.**

Professor of Human Biology  
University of Wisconsin–Green Bay

Dr. Brian Merkel is a Professor of Human Biology at the University of Wisconsin–Green Bay with nearly 30 years of experience in microbiology, immunology, and STEM education. His career integrates teaching, research, and community engagement, with a focus on immune function, antibiotic discovery, and expanding access to STEM for underrepresented students.

Dr. Merkel's research has explored antigen processing, neutrophil function, and the immunological effects of bioactive compounds such as *Echinacea purpurea*. He has authored multiple peer-reviewed publications and secured funding from the National Science Foundation, Microsoft Spark, and other sources to support laboratory-based research and student training. His work also examines environmental impacts on immune function and contributes to broader understanding of host defense mechanisms.

A defining feature of Dr. Merkel's career is the integration of research and education through high-impact, course-based undergraduate research experiences (CUREs). As a leader in the Tiny Earth initiative, he has engaged students in addressing the global antibiotic resistance crisis while building scalable partnerships between higher education and K–12 systems. His outreach efforts have created pathways for high school students—particularly young women and students of color—to access college-level STEM education and research opportunities.

Dr. Merkel has held significant leadership roles, including Chair of the Human Biology Program and Interim Dean of the College of Science, Engineering, and Technology. He has led program growth, faculty hiring, and interdisciplinary initiatives, while also developing innovative programs such as a paid pre-medical internship in partnership with regional healthcare systems and international collaborations with institutions in Thailand.

During the COVID-19 pandemic, Dr. Merkel served as a key scientific advisor to university leadership, contributing to institutional response planning while leading extensive public education efforts. His widely viewed educational outreach helped improve scientific literacy and provided clear, evidence-based guidance during a critical period.

Dr. Merkel's excellence in teaching and mentorship has been recognized through numerous honors, including the UW–Green Bay Founders Award for Excellence in Teaching, the Distinguished MCW–Green Bay Faculty Award, multiple Outstanding Medical Student Teaching Awards, and the Patricia Wood Baer Professorship. His impact extends beyond the classroom through mentorship of students, faculty, and national networks of educators.

Through sustained contributions to science, education, and community engagement, Dr. Merkel has demonstrated a deep commitment to preparing the next generation of scientists and healthcare professionals while advancing equity and innovation in STEM.