

Welcome to

Conversations with Scientists

IMMUNOLOGY

The Best Offense is a Good Defense

Presented in partnership with the MCW Center for Immunology

Tuesday, October 23, 2018
6:30 - 8:30 p.m.

Medical College of Wisconsin
Milwaukee | Central Wisconsin | Green Bay

Speakers

Using Different Playbooks: When Immune Responses Go Wrong



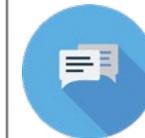
"When it all Goes Wrong and the Immune System Attacks its Own Body"

Bonnie Dittel, PhD
Senior Investigator
Blood Research Institute
BloodCenter of Wisconsin
Microbiology & Immunology
Medical College of Wisconsin



"Autoimmunity: It's More Common Than you Think!"

James Verbsky, MD, PhD
Associate Professor of Pediatrics
Division of Rheumatology
Medical College of Wisconsin



Online Webcast

For the best viewing experience, view on a desktop or laptop computer. Be sure to engage with our speakers throughout the program by emailing us your questions at ahw@mcw.edu.

ABOUT THE SPEAKERS



Bonnie Dittel, PhD

Senior Investigator
Blood Research Institute
BloodCenter of Wisconsin
Microbiology & Immunology
Medical College of Wisconsin

Bonnie Dittel, PhD, is a Senior Investigator with the Blood Research Institute at the BloodCenter of Wisconsin and a faculty member within the Department of Microbiology & Immunology at the Medical College of Wisconsin. Dr. Dittel received her PhD from the University of Minnesota in 1994.

Area of Interest: My research area of interest is investigating the cellular and molecular processes involved with regulating auto-immune responses. Broadly, we are studying how the immune system regulates inflammation associated with the central nervous system autoimmune disease multiple sclerosis (MS). We do basic science research with the hope that discoveries will lead to insights into the development of new treatments.

Highlight of My Career: When I was first exposed to science in the third grade I knew I wanted to be a scientist. Since I was a country girl I didn't know what that entailed, so when I was offered a position to start my own laboratory it was my dream come true.

Fun Fact: When I am not doing research, my hobbies are cooking and gardening. My favorite recipes incorporate ingredients from my herb garden, and I love to prepare foods from all over the world. I try to make the world better by encouraging my family and friends to grow herb gardens.

Take Away Message: Autoimmunity is a complex disease that can occur in any tissue or organ system. Once immune reactions are initiated they are very difficult to stop, thus autoimmunity is a lifelong disease that slowly erodes a patient's quality of life.



James Verbsky, MD, PhD

Associate Professor of Pediatrics
Division of Rheumatology
Medical College of Wisconsin

James Verbsky, MD, PhD, is an Associate Professor of Pediatrics, Division of Rheumatology at the Medical College of Wisconsin. Dr. Verbsky received his MD and PhD from the Washington University School of Medicine in St. Louis, MO, in 2000.

Area of Interest: My research area of interest is the human immune system, focusing on genetic diseases that cause immune problems in patients. By studying patients with severe immune diseases, we can learn a lot about how the immune system works. These patients may have an immune system that doesn't work resulting in recurrent infections, or one that doesn't work well and attacks the patient, resulting in autoimmune diseases. In addition to investigating these patients, I also care for them as a rheumatologist and immunologist.

Highlight of My Career: Detecting and defining a new immune disease in an infant that was caused by loss of a protein known to inhibit inflammation, known as IL-1 receptor antagonist.

Fun Fact: I was in the marching band at the University of Wisconsin-Madison, and I have an identical twin who is a cardiologist.

Take Away Message: The immune system has to see all infectious agents currently on earth *and* any that may evolve over time. So our immune system has evolved to be able to see billions of billions of different things. It's not surprising, then, that our immune systems have cells that can attack one's self. These cells don't usually cause problems, but sometimes they cause autoimmune diseases like rheumatoid arthritis or multiple sclerosis. Now that we know molecules that can help prevent activation of these cells, we can target these molecules to treat autoimmunity.

DO MORE ... THINK BIG

Explore the power of your immune system and its role in our health with these resources:

● Watch

- **A video explaining immune tolerance:**
<https://youtu.be/rHx30H3dUKQ>
- **A cartoon that shows immunity and autoimmunity:**
<https://youtu.be/yZ6wWuAQnME>

● Read

- **What's the deal with autoimmune disease?**
www.health.harvard.edu/diseases-and-conditions/whats-the-deal-with-autoimmune-disease
- **Learn about research that's supported by the National Institutes of Health (the US' largest funder of biomedical research):**
www.niaid.nih.gov/diseases-conditions/autoimmune-diseases

● Do

- **Change your diet to include inflammation-reducing foods:**
www.webmd.com/diet/anti-inflammatory-diet-road-to-good-health#1
- **Grow a small herb garden and harvest big health benefits:**
www.health.com/health/gallery/0,,20705274,00.html
- **Volunteer or participate in a fundraiser for these organizations that support autoimmune diseases:**
 - National Multiple Sclerosis Society:** www.nationalmssociety.org
 - American Diabetes Association:** www.diabetes.org
 - Arthritis Foundation:** www.arthritis.org
 - Lupus Foundation of America:** www.lupus.org



JOIN US NEXT WEEK!

Changing the Game: Cancer Immunology
Tuesday, October 30, 6:30 - 8:30 p.m.

Join us next week as Medical College of Wisconsin experts explore how scientists and physicians are using people's own immune systems to fight disease. This therapy, called immunotherapy, is most advanced in battling cancer.



ADVANCING A HEALTHIER
WISCONSIN ENDOWMENT

Driven by a vision of a healthier Wisconsin, the Advancing a Healthier Wisconsin Endowment was established at the MCW Medical School to propel the most promising work and ideas to build a healthier Wisconsin for generations to come.

Conversations with Scientists is a free, public learning series presented by AHW to bring the research of MCW experts to the public, translating new discoveries into community knowledge and taking discussions out of the classroom or health clinic and into public conversation.

www.AHWendowment.org