

## **Why And How The Immune System Ages?**

**Janko Nikolich-Žugich, MD, PhD**

Chairman, Department of Immunobiology, Co-Director, Arizona Center on Aging  
Elizabeth Bowman Professor in Medical Research  
University of Arizona College of Medicine

**Date/Time:** Friday, April 16, 2010; 5:30 pm (dinner included)

**Location:** Doubletree Guest Suites, 320 North 44th St., Phoenix, AZ 85008

**Cost:** No cost to attend; Space is limited

**Abstract:** Immune system has evolved to defend us against microorganisms. That defense deteriorates in the last third of life, leading to increased sickness and death from infectious diseases, which is much greater than in the adult life. Age-related loss of immune function is variable but is always seen at the level of weakened cellular adaptive immune system. Mechanisms behind that weakening include poor ability to maintain balance between critical subsets of T-cells, as well as the inability of old T-cells to mount an efficacious response against new infection. These mechanisms will be examined and discussed in light of the ability to improve immunity in the old age.

### **Objectives**

- Understand the basic concepts of aging;
- Distinguish the ideas of innate and adaptive immunity
- Explore the function of naïve and memory lymphocyte responses
- Discuss molecular mechanisms behind failure of primary adaptive immune responses in aging
- Learn about the possibilities of immune rejuvenation, immunomodulation and new vaccine development for the elderly

### **Biography:**

Janko Nikolich-Zugich is currently the Chairman and Professor of the Department of Immunobiology, College of Medicine, University of Arizona, Co-Director, Arizona Center on Aging, University of Arizona, Elizabeth Bowman Professor in Medical Research, Professor, Department of Nutritional Sciences, College of Agriculture and Life Sciences, University of Arizona, Tucson, AZ

Dr. Nikolich-Zugich received his MD from Belgrade University Medical School in 1984. He later received a MSc and a PhD in Immunology from the same University. Dr. Nikolich-Zugich

worked from 1987 to 1990 as a Research Associate at the Scripps Clinic and Research Foundation. In 1990, he joined the Memorial Sloan-Kettering Cancer Center in New York as the Head of both the Flow Cytometry Core Facility and the Laboratory of T Cell Development. He served as an Assistant Professor (1990-1996) and an Associate Professor (1996-2001) at both the Cornell University Graduate School of Medical Sciences and the Division of Molecular Medicine in Cornell University School of Medicine. He was recipient of the Pew Biomedical Scholar Award and the Louise and Allston Boyer Young Scientist Award. Dr. Nikolich-Zugich was a Senior Scientist at the Vaccine and Gene Therapy Institute and held joint appointments as a Professor in the Department of Molecular Microbiology and Immunology and a Senior Scientist at the Oregon National Primate Research Center.

To RSVP or for additional information, please contact Patricia Crenshaw (602) 778-7481 or via email at [patricia.crenshaw@kronosinstitute.org](mailto:patricia.crenshaw@kronosinstitute.org).

***Special Note:*** *If your plans change after you RSVP please cancel at the above contact as well.*

"This program is accredited by the Accreditation Council for Continuing Medical Education and designates this educational activity for 1 hour in Category 1 credit toward the AMA Physician's Recognition award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity."

"The University of Arizona College of Medicine at the Arizona Health Sciences Center designates this educational activity for a maximum of 1.0 AMA/PRA Category 1 Credit(s)<sup>™</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity."

**CME Credit is available through University of Arizona, College of Medicine to attendees**  
Sponsored by the University of Arizona College of Medicine at the Arizona Health Sciences Center