Dr. Prosper Boyaka Receives Grant to Explore Nasal Vaccination Against Anthrax

Dr. Prosper Boyaka has been awarded a R01 grant from NIH entitled "Molecular adjuvants for NALT-based immunity to anthrax". In this new grant, Dr. Boyaka will explore nasal vaccination as a means to obtain better protection against nasal infection with Bacillus anthracis, the agent of anthrax. The current injected anthrax vaccine requires a complicated immunization schedule of several doses and frequent boosting. Nasal vaccines could be easily administered without the aid of medical personnel. In contrast with injected vaccines, nasal vaccines are more likely capable of inducing antibodies that are secreted at the mucosal surfaces where the host first encounters most pathogens.

Dr. Boyaka has developed several unique molecular adjuvants from bacterial toxins, which are effective for nasal immunization in the mouse model. This grant will utilize these molecular adjuvants to investigate the hypothesis that nasal vaccines directed against the protective antigen (PA) of Bacillus anthracis will induce two layers of protection in the host, with some antibodies protecting against anthrax toxins in the blood, and others protecting the respiratory tract against anthrax spores. The project will also take advantage of a panel of anti-PA monoclonal antibodies, including IgG and IgA, which Dr. Boyaka and his team developed to 1) establish the toxin neutralizing and anti-spore activity of each class of mouse immunoglobulins, and 2) determine their potential to provide immediate passive immunity when transferred into mice. Good luck in your important research, Dr Boyaka!

Immunology Journal Club

Dr. Boyaka and Dr. Ian Davis have organized the Immunology Journal Club, which is a platform for students, faculty, and staff of the College of Veterinary Medicine and other OSU colleges. The club reviews recent research publications in various areas of immunology and discusses new concepts and methods of interest for researchers interested in host responses to infections and other immune pathologies.

Club members are encouraged to present timely original publications. In general, the papers discussed at the Immunology Journal Club will be selected based on the following criteria: 1) original research reports in peer-reviewed journals, 2) important new findings of general interest to the participants, 3) substantial pieces of work with plenty of data to discuss, 4) published within the past 2 years, and 5) not the work of OSU investigators.

To encourage and facilitate the participation of a broad audience, the Immunology Journal Club includes overview sessions to familiarize all the participants with key immunology concepts. Meetings are held Thursday 4-5 pm in the Funderberg Conference Room (A180 Sisson Hall) with video conference to the Wooster campus. Contact Dr. Boyaka at boyaka.1@osu.edu for more information.
Wellness Tip - Secrets of Beating Stress: What are the secrets of dealing with stress - and reducing it? Dr. Roger Henderson, author of "Stress Beaters - 100 Proven Ways to Manage Stress" has five stress busting techniques. 1) **Keep a diary.** Keep a list of places and people that seem to make you feel more stressed. Look for patterns that may emerge; they may be linked to time pressure, personality changes, or simply doing too many things at once. 2) **Talk.** Talk through your diary with a friend or your partner. Ask for advice as to how to relieve the problems you have discovered. 3) **Learn how to relax.** Practice deep breathing during times you feel stressed. Take time out for five minutes every hour to 'shut down' while thinking positive thoughts. 4) **Exercise regularly.** Try at least 20 minutes of brisk walking three times a week to reduce stress and promote restful sleep. 5) **Plan breaks in your day.** Get up 15 minutes earlier and prepare for the day without rushing, and try to have 20 minutes during the day just for you.

**VBS Faculty, Staff and Students**

- **Save the Date!** Department administration meeting Wednesday February 7, 11 a.m. to noon in the Epperson Conference Room.
- OHR Benefits Services is offering a free financial planning series: "Learn How to Succeed Financially". Classes include information on understanding your credit report, financial planning, and developing an investment strategy. Register by calling (614) 247-7961 or e-mailing admin@hr.osu.edu.
- Women in Science Day is Thursday, March 29. This workshop is created for young girls in grades 7-9 who have a strong interest in math and science. Contact Raquel Diaz-Sprague, Director of Women in Science Day Program at diaz-sprague.1@osu.edu for more information.

**Selected Recent Grants/Publications/Presentations/Awards/Appointments**

- "Quantification of Plasma DNA as a Prognostic Indicator in Canine Lymphoid Neoplasia" by Deanna M.W. Schaefer, Marnin A. Forman, William C. Kisseberth, Amy M. Lehman, Nicole T. Kelbick, Paul Harper, Laura J. Rush. Accepted for publication in Veterinary and Comparative Oncology.
- "Immunoglobulin Crystals in Reactive Plasma Cells in a Dog" by Bevin Zimmerman, Mamoru I. Yamaguchi, Laura J. Rush. Accepted for publication in Veterinary Pathology.
- Prasad Nadella, a graduate student in Dr. Rosol’s lab got a second place award for the Christopher Starost Memorial Oncology Fellowship award at the 57th annual meeting of the American College of Veterinary Pathologists held at Tucson, AZ from December 2-6.
- Donna F. Kusewitt, D.V.M., Ph.D., A.C.V.P. has been awarded $24,768 for her Canine Grant No. #2006-16, “Slug function in canine melanoma cell lines”.
- Ramiro E. Toribio, DVM, MS, PhD, DACVIM has been awarded funding of $26,700 for his grant entitled “Endocrine dysregulation in foal septis: the role of arginine vasopressin in foal septicemia and survival”.

Send comments to Jennie Winck, winck.1@osu.edu. Visit the OSU Department of Veterinary Biosciences website: http://www.vet.ohio-state.edu/biosciences.htm