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STORIES TODAY

1. Dr. Stefan Niewiesk & Dho hyung Kim Manuscript Illustration Makes the June Cover of Blood (Artwork by Tim Vojt)
2. VBS Graduate Students Award Winners: Lyn Wancket & Beth Chaffee
3. 2011 Larry Lewellen Award Winners: Dr. Famke Aeffner & Janelle Henderson
4. Outreach and Engagement: Dr. Judith Radin Team Wins Robotic Championship
5. Selected Publications, Presentations, and Graduations
6. Staff Feature: Zhihui Cheng
7. Announcements
8. Wellness News: June is Great Outdoors Month

Dr. Stefan Niewiesk & Dho hyung Kim Manuscript Illustration Makes the June Cover of Blood (Artwork by Tim Vojt)

In the accompanying research article, data reveal how maternal antibodies block an immune response to measles virus vaccination and how that inhibition can be overcome. Maternal antibodies are passed to fetuses during pregnancy and to newborns in their mothers’ milk. The antibodies protect infants against disease in the first months of life, but that protection comes at a cost: Their presence also interferes with the generation of a natural immune response to vaccination. As a result, most babies receive measles immunizations at the age of 12 to 15 months, when maternal antibodies are gone. Years of studies have advanced the theory that maternal antibodies shield the measles virus so that cells that generate an immune response can’t see the pathogen. If that were the case, little could be done to intervene.
But these investigators have demonstrated an entirely different mechanism in an animal model, showing that maternal antibodies bind to a specific receptor that sends a message to stop activation of an immune response to vaccination. The scientists also determined that signals to the immune response can be manipulated, and they are already devising ways that vaccines could be designed to circumvent this natural process. "In effect, we have found how maternal antibodies affect the off-switch in the immune response, and we have found a potential on-switch," said Stefan Niewiesk, associate professor of veterinary biosciences at Ohio State University and senior author of the study.

To read the full article, go to

http://bloodjournal.hematologylibrary.org/content/117/23/6143.full

VBS Graduate Students Award Winners: Lyn Wancket & Beth Chaffee

Lyn Wancket, PhD student and anatomic pathology resident recently received a K01 award from the NIH for her grant entitled: "Role of MKP-1 in Pneumonia." Lyn’s mentor is Yusen Liu, Ph.D. (Professor of Pediatrics at OSU and Principle Investigator in the Center for Perinatal Research at Nationwide Children’s Hospital). The overall research goal of her proposal is to understand the role of the endogenous immune suppressor MAPK phosphatase (Mkp)-1 in both primary and secondary bacterial pneumonia. Mkp-1 is a key suppressor of mitogen-activated protein kinase (MAPK) activity, preferentially dephosphorylating p38 and JNK MAPKs to suppress bacterial-triggered cytokine production. The central hypothesis is at Mkp-1 negatively regulates the innate immune response and limits clinical disease during primary and secondary bacterial pneumonia.

Beth Chaffee, PhD student and anatomic pathology resident recently received a TL1 award from OSU Center for Clinical and Translational Science (CCTS) for her grant entitled: “Comparative Biology of Human & Canine Osteosarcoma: Use of a Xenograft Model to Develop Improved Strategies for Preventing Tumor Metastasis.” Beth’s project will focus on the tumor kill in mouse models that will predict the OSA seen in humans, and on the gene expression between primary and secondary tumors, as well as between tumors with high versus low risks of metastasis. The overall goal of the CCTS TL1 program is to provide
trainees with the skills required to develop a career in trans-disciplinary clinical and translational research relevant to human health.

2011 Larry M. Lewellen Award for Distinguished Service: Dr. Famke Aeffner & Janelle Henderson

Dr. Famke Aeffner and Janelle Henderson were selected as recipients of the 2011 Larry M. Lewellen Award for Distinguished Service. Since 1974, the Council of Graduate Students has presented awards to those students, staff, faculty, administrators and community members who have rendered exceptional service to graduate students at The Ohio State University. Both nominations were unanimously supported by the committee members who felt Janelle’s and Famke’s devotion to graduate students at the College of Veterinary Medicine is truly exceptional and worthy of this university wide recognition. Famke was nominated by Dr. Kathleen Boris-Lawrie and the Council for Graduate Studies and Janelle was nominated by CVM graduate student association.

Outreach and Engagement: Dr. Judith Radin Team Wins Robotic Championship

Dr. Judith Radin helped coach the Cougars Robotics Team, a FIRST Tech Challenge (FTC) robotics team composed of students ranging from 7th through 11th grade. FIRST (For Inspiration and Recognition of Science and Technology) is an organization devoted to encouraging middle and high school students to discover and develop a passion for science, engineering, technology, and math. This is done through teams competing in fun, sports-like competitions to create robots and explore
creative solutions to scientific problems. This year about 1600 teams worldwide competed in the FTC.

The Cougars robotics team had a great competition year. In February, they won the Ohio Championship which qualified them as one of the 128 teams to compete at the World Festival in St Louis MO in April. They also won the Rockwell Collins Innovate award for robotics design. At World Festival, the team made it to the semifinals before losing to the alliance that went on to win the World Festival. In addition, they were nominated for the Motivate Award, which recognizes outreach to the community. During the fall, the team taught 3 programming and scientific project design workshops to over 400 middle school students and their coaches. For pictures and links, check out the team website at http://www.cougarrobot.com/

Selected Publication, Presentations, and Graduations:

Publications:


Presentations:

Drs. Ian Davis and Famke Aeffner presented at the 2011 International Conference of the American Thoracic Society in Denver, CO (May 13-18). With 13,000 attendants and over 5,000 abstracts it is one of the largest gatherings of pulmonary, critical care and sleep clinicians and researchers in the world.

I.C. Davis – Aerosolized Nucleotide Synthesis Inhibitor Therapy for Influenza A (H1N1) infection in mice

F. Aeffner – The role of CD73 in pathogenesis of influenza A (H1N1) infection in mice

Lisa Berman-Booty has been selected as a 2011 Aspen Cancer Conference Fellow to present a poster on July 10-12th, 2011.

Graduations:

Tracy Carlson, B.S., D.V.M.  
Advisor: Larry Schlesinger

Kathryn Gibson, B.A., M.S., D.V.M.  
Advisor: Yasuko Rikihisa
Jillian Werbeck, B.S.
Advisor: Thomas Rosol

Congratulations Tracy, Kathryn and Jillian!

Staff Feature: Zhihui Cheng

Zhihui Cheng is a Post Doctoral Researcher in Dr. Yasuko Rikihisa’s lab. He received his Ph.D. from College of Veterinary Medicine, the Ohio State University in 2008. He grew up in China where he received his B.S. and M.S. in Microbiology from Nankai University in 2002. Zhihui is working on two component regulatory systems of human monocytic ehrlichiosis (HME) agent, Ehrlichia chaffeensis. In his free time, he enjoys hiking and spending time with his family. We are all happy to have Zhihui in the VBS family!

Announcements:

VBS Department Summer Picnic
Our VBS Picnic will be held on Friday, June 17th at Whetstone Park of Roses from 12-5pm. The picnic is a potluck get together for an afternoon of fun and relaxation. There will be burgers, hot dogs, and drinks provided. Everyone who attends should sign up ahead of time and bring a side dish to share. Please contact Berdawn Hutchinson at Hutchinson.167@osu.edu for more information.

Learn How to Succeed Financially: Lessons Learned: Actions You Can Take After the Great Recession
Tuesday, June 21 from 12-1 Office of Human Resources
1590 N. High Street Suite 430, Room 425

Presenter: Stephen Daley, Financial Advisor, Ameriprise Financial Services
This presentation shows ways to find financial opportunities in today’s economy. It includes a brief overview on how we got here and where we are headed; how to find investment opportunities in today’s markets; and how to keep emotions from affecting your financial decisions and get you back on track toward reaching your financial goals.
Wellness News: June is Great Outdoors Month – Join In!

What’s not to love about June? It marks the end of the school year, the beginning of summer, the time when convertibles become the coveted cars and the ice cream man’s ding-a-ling beckoning draws children like a sugary pied piper. Take advantage of the nice weather, the quality time with friends and family, and embrace the healthy benefits of an active and outdoorsy lifestyle.

Through recreational activities such as fishing, skiing, biking, and nature watching, we can enjoy the outdoors while maintaining a healthier lifestyle. In addition, volunteerism for environmental education programs, local parks and nature conservancies helps to sustain park trails, restore wildlife habitats and protect our environment for future generations.

For more information on getting outdoors, go to: http://www.doi.gov/americasgreatoutdoors/Get-Outdoors.cfm

For comments or suggestions for our newsletter, please contact Ms. Elizabeth Hope, Program Assistant at hope.18@osu.edu Department of Veterinary Biosciences.