

COLLOQUIUM BY ZAK CALLAWAY

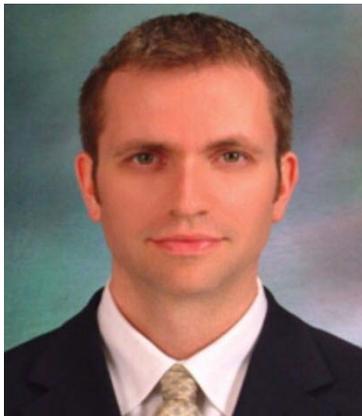
GLOBAL BURDEN OF ASTHMA:
DIAGNOSIS, TREATMENT, AND MONITORING IN THE 21ST CENTURY

TIME: 5:00PM-6:00PM, TUESDAY, 09 MAY 2017

VENUE: ACADEMIC BUILDING 1079

*GLOBAL BURDEN OF ASTHMA:
Diagnosis, Treatment, and Monitoring in the 21st Century*

Speaker: Dr. Zak Callaway, Assistant Professor at the University of Ulsan in Korea



* The event is also a **faculty recruitment seminar for Global Health Program.**

ABSTRACT:

Diagnosis and treatment of asthma have traditionally been based on pulmonary function tests and symptoms, but herein lies two problems: 1) children 5 and under are unable to adequately perform such tests; 2) airways can be inflamed for weeks before symptoms arise. One of the main treatment targets is the underlying airway inflammation experienced by most asthmatics but current management guidelines do not incorporate objective and direct measurements of it.

The disconnect between therapeutic targets and outcome measurements, coupled with the growing knowledge of inflammatory cells and mediators involved in asthma, has propelled treatment and monitoring innovations. The eosinophil, a major effector cell in allergic disease,

has been used as a direct measurement of airway inflammation but some feel measuring its mere presence fails to capture its activity, a product of eosinophil concentration and release of eosinophil granule proteins. Eosinophil-derived neurotoxin (EDN) is one of these granule proteins and has shown greater reliability and accuracy as an airway inflammatory biomarker than others.

BIO:

After receiving a Master of Public Health and Tropical Medicine from James Cook University in Townsville, Australia, Zak Callaway moved to Asia to take up a research position at Inje University Sanggye Paik Hospital in Seoul, Korea. He would spend the next several years investigating links between early childhood infections and asthma development later in life, while pursuing a PhD focusing on novel biomarkers in respiratory disease. Zak then began an Assistant Professor position at the University of Ulsan in Korea to continue his research and lecture to students on diverse subjects such as Public Health Biology, Research Methodology, Environmental Science, and Infectious Disease Ecology. He has published manuscripts in many field-leading journals, including *The Journal of Pediatrics*, *Biomarkers*, and *Vector-Borne Diseases*.

This event is open to all and entry is on a first come, first served basis. For any queries email yg73@duke.edu or call 3665 7149.