## Investigator(s):

Maureen D. Donovan, Associate Professor, College of Pharmacy; Dale E. Wurster, Professor, Department of Chemical and Biochemical Engineering

## **Project Title:**

Size and surface properties determining nanoparticulate uptake in the nasal mucosa

Year Funded: 2008

Amount Received: \$45,600

Investigator(s):

Alan R. Kay, Associate Professor, Department of Biological Sciences

**Project Title:** Cadmium transport in the brain

Year Funded: 2008

Amount Received: \$30,000

#### **Publications:**

Nydegger, I; Rumschik, SM & Kay AR - Zinc is externalized rather than released during synaptic transmission - ACS Chem. Neurosci., 2010, 1 (11), pp 728–736, PMID: 21221416, PMCID: PMC3017368.

Rumschik SM, Nydegger I, Zhao J, Kay AR.

The interplay between inorganic phosphate and amino acids determines zinc solubility in brain slices. J Neurochem. 2009 108(5), 1300-8. PMID: 19183267, PMCID: PMC2720156.

Zhao J, Bertoglio BA, Devinney MJ Jr, Dineley KE, Kay AR. The interaction of biological and noxious transition metals with the zinc probes FluoZin-3 and Newport Green. Anal Biochem. 2009 384(1), 34-41. PMID: 18848515, PMCID: PMC2630397.

# Investigator(s):

Naresh Kumar, Assistant professor, Department of Geography; Thomas Peters, Assistant Professor, Department of Occupational and Environmental Health

#### **Project Title:**

Quantification of indoor air pollution in Delhi, India

Year Funded: 2008

Amount Received:

\$27,800

## Publications:

Kumar, N., Peters, T., Nixon, V., Sinha, K., Jiang, X. and Ziegenhorn, S., An Optimal Spatial Configuration of Sample Sites for Air Pollution Monitoring. Journal Air & Waste Management Association, 59: 1308-16, 2009, PMID: 19947112. Journal In Progress.

Kumar, N. and A. Foster, Air quality interventions and spatial dynamics of air pollution in Delhi and its surroundings, International Journal of Environment and Waste Management, 4(1/2): 85-111.

## **Grant Awards:**

USEPA. (Peters, PI). EP11D000010. \$ 39,458. Passive sampling assessment of PM10-2.5 spatial variability for Cleveland Multi Air Pollutant Study. Personal Exposure and COPD Exacerbation. Socio-Physical Environment and the Prevalence of COPD in the US. 07/01/10-06/30/11

## Investigator(s):

Dwight C. Look, Professor, Department of Internal Medicine; Patrick T. O'Shaughnessy, Associate Professor, Department of Occupational and Environmental Health; Peter S. Thorne, Professor, Department of Occupational and Environmental Health; Steven M. Varga, Assistant Professor, Department of Microbiology

#### **Project Title:**

Modulation of pulmonary antiviral defense by cigarette smoke.

Year Funded: 2008

# Amount Received: \$50,000

#### **Publications:**

Ramaswamy M, Groskreutz DJ, Look DC. Recognizing the importance of respiratory syncytial virus in chronic obstructive pulmonary disease. COPD. 2009 Feb;6(1):64-75. Review. PMID: 19229710.

Groskreutz DJ, Monick MM, Babor E, Nyunoya T, Varga SM, Look DC, Hunninghake GW. Cigarette smoke alters respiratory syncytial virus-induced apoptosis and replication. Am J Respir Cell Mol Biol. 41(2), 189-98, 2009. PMID: 19131644, PMCID: PMC2715908.

Manzel, L. J., Shi, L., O'Shaughnessy, P. T., Thorne, P. S., Look, D. C. Cigarette smoke inhibition of the NFkB-dependent response to bacteria in the airway. (2010) Am. J. Respir. Cell Mol. Biol. Epub ahead of print. PMID: 20348206.

# Investigator(s):

Timothy D. Starner, Assistant Professor, Department of Pediatrics; Peter S. Thorne, Professor, Department of Occupational and Environmental Health; Gary Hunninghake, Professor, Department of Internal Medicine; Steven Varga, Assistant Professor, Department of Microbiology

# **Project Title:**

The role of nontypeable Haemophilius influenza infection in viral asthma exacerbations.

Year Funded: 2008

Amount Received: \$22,700