DUKE NUS GRADUATE MEDICAL SCHOOL SINGAPORE

Signature Seminar Series

High salt (NaCl) affects TH17 Polarization

ABOUT THE LECTURE

Current teaching suggests that the "milieu intérieur" bathing all cells is controlled by isosmotic passive equilibration with plasma. Recent evidence has shown this idea needs to be revised. We have the first evidence that the immune system is influenced by the local electrolyte environment. We found that hypertonicity induced by NaCl affected cytokine-induced Th17 polarization by a p38MAP kinase, TonEBP, SGK1-dependent mechanism, that such a salt-driven polarization worsens autoimmune disease.

Speaker: **Dr. Dominik Muller**
Group Leader, Experimental and Clinical Research Center, Max-Delbruck-Center

Host: *Prof. Thomas Coffman*
Executive Vice Dean
Professor, Cardiovascular & Metabolic Disorders Program
Duke-NUS Graduate Medical School

Date: Tuesday , 30 September 2014

Time: 12.00 PM— 1.00 PM
(Light refreshments will be served at 11.30 AM)

Venue: Duke-NUS Graduate Medical School
Amphitheatre, Level 2

Contact Person: Ms Cynthia Lim, Duke-NUS Research Affairs Department
Tel: 6601 2275 or Email: cynthia.lim@duke-nus.edu.sg

ABOUT THE SPEAKER

Dominik N. Müller received his PhD from the Department of Pharmacy at the Free University of Berlin in 1996. He currently heads a group at the Experimental & Clinical Research Ctr. His major research interests are the renin-angiotensin system, the immune system and how both systems cause hypertension-induced target organ damage. Recent work has extended the concept analyzing how epigenetic factors like high salt influences immune cells, hypertension-induced target organ damage and autoimmunity.