Seattle Institute for Biomedical and Clinical Research

October 2013 - December 2013 www.sibcr.org

FEATURE

Sakeneh Zraika, PhD

Sakeneh Zraika, PhD, is a Research Assistant Professor at the VA Puget Sound Health Care System (VAPSHCS) and in the Department of Medicine, Division of Metabolism, Endocrinology and Nutrition at the University of Washington. She received her PhD from the University of Melbourne, Australia, before moving to the United States in 2004 to pursue postdoctoral studies under the mentorship of Steven E. Kahn, MB, ChB, at the VAPSHCS. Her main area of research is investigating mechanisms of pancreatic beta-cell dysfunction and death in type 2 diabetes.

During her time in Dr. Kahn's lab, Dr. Zraika was awarded a Postdoctoral Fellowship Grant from the Juvenile Diabetes Research Foundation and pursued two major avenues of research. The first was focused on the role of oxidative stress in modulating islet amyloid formation, the latter being a process whereby toxic protein aggregates deposit in the pancreas. Interestingly, she showed that antioxidant treatment reduces both amyloid formation and pancreatic beta-cell death. The second set of studies involved understanding mechanisms of amyloid degradation and specifically, how the peptidase neprilysin acts to impede amyloid formation.

From her studies on neprilysin, Dr. Zraika developed an independent area of investigation centered on the peptidase's role in mediating impaired insulin secretion under conditions of chronically elevated glucose and fat. In 2009, she was awarded a five-year National Institutes of Health Pathway to Independence Award (K99/R00) to expand this work and has since demonstrated that fat upregulates islet neprilysin levels which contributes to dysregulated calcium flux and ultimately, decreased insulin secretion.

A major focus of her current and future research is elucidating how neprilysin may regulate whole body glucose homeostasis. This work is currently funded through a National Institutes of Health Research Project Grant (R01) awarded to Dr. Zraika and administered by SIBCR. A large component of these studies will explore the effect of anti-diabetic therapies on neprilysin's actions in mouse models of type 2 diabetes. These studies are expected to have clinical implications for treating diabetic patients. Other future work includes understanding how the local pancreatic renin-angiotensin system, of which neprilysin is a component, modulates insulin secretion.

MARK YOUR CALENDAR

SIBCR BENEFITS FAIR - *Open to all benefited SIBCR employees*
Seattle Campus: October 29th 10 a.m. - Building 1, Room 240/236b
American Lake: October 30th 10 a.m. - Building 85, Room 322

RETIREMENT PLAN INFORMATIONAL SESSIONS:
Kibble and Prentice will be the new service provider for SIBCR's 403(b) retirement plan. Informational sessions will be held soon for employees to learn more about the upcoming changes to the plan. For dates and times, please visit our website under Human Resources/Important Dates. These sessions are intended for all current plan participants and those eligible for the plan.

UPCOMING RESEARCH SEMINAR:
Thomas S. Hatsukami, MD, Professor of Vascular Surgery, University of Washington
December 9, 2013 from noon to 1 p.m. - Building 1, Room 240/236b

REMINDERS

ACCOUNTING:
Computer, equipment, travel and specialty purchases have specific policies and procedures. Please visit our website at www.sibcr.org/accounting.html before making purchases for these items. If there are any questions, please contact us at accounting@sibcr.org.

GRANT SUBMISSIONS:
Rates: The SIBCR fringe rate is 32.7% and the indirect cost rate is 35%.
Deadlines: SIBCR internal grant deadlines are posted at http://www.sibcr.org/submission-deadlines.html. We recommend contacting us at least four (4) weeks before the sponsor due date.