DukeNUS Medical School

Signature Seminar Series

Race-related Alternative RNA Splicing: Novel Biomarkers and Targets in Prostate Cancer

ABOUT THE LECTURE

Our lab uses population-level differences in cancer risk and survival to discover molecular mechanisms of tumor aggressiveness, identify mechanisms that drive cancer disparities, and develop therapeutic approaches to modulate tumor aggressiveness. We focus on race-related alternative RNA splicing (ARS) in varying cancer risk cohorts of African Americans, Asians and Whites, determining the relationship between ARS and tumor grade and defining the biological significance of *cis*- and *trans*-acting splicing elements. We are identifying novel biomarkers by determining the pattern and frequency of race-related ARS variants and associated SNPs and evaluating the association of SNPs with race and cancer risk and aggressiveness. We are pioneering therapeutic agents targeting race-related alternative RNA splicing using splice-switching oligonucleotides and small molecules and evaluating molecular correlates in clinical trials examing response to cancer therapies by race. We are also generating racially diverse preclinical models of cancer to more rigorously interogate the molecular mechanisms underlying cancer, towards development of new biomarkers and therapeutic agents for cancer.

Speaker: **Prof Steven R. Patierno**
Deputy Director, Duke Cancer Institute
Professor of Medicine, Pharmacology and Cancer Biology
Duke University School of Medicine

Host: **Prof Steve Rozen**
Associate Dean, Research Informatics
Professor, Cancer & Stem Cell Biology Programme
Duke-NUS Medical School

Date: **Thursday, 10 August 2017**

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

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

Contact Person: **Ms Kathleen Chan, Duke-NUS Research Affairs Department**
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ABOUT THE SPEAK-

Dr. Patierno received a PhD in molecular pharmacology from the University of Texas Health Science Center-MD Anderson Cancer Institute in Houston Texas, and did postdoctoral training at the University of Southern California (USC) Norris Comprehensive Cancer Center in molecular oncology. He joined George Washington University in 1990 and became Director of the GWU Cancer Center in 2003.



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