Smart Materials: Methods and Applications – 2017 (SMMA-2017) SEL01

WHITHER TRANSLATIONAL SCIENCE IN ACADEMIA : RISKS AND OPPORTUNITIES



When : April 21, 2017 Where : Indian Institute of Science Education and Research, Kolkata When : 6.15 pm

Dr. S. Sivaram Honorary Professor and INSA Senior Scientist, Indian Institute of Science Education and Research, Pune, 411008 www.swaminathansivaram.in

The enterprise of science is a social contract between those who practice science as a profession, the economic and political environment which prioritizes and funds the scientists and the society which expects science to deliver solutions to ameliorate their problems. This social contract is undergoing tectonic shifts in recent years. In a shrinking global economy and greater competition for public and private funds, every stake holder in this contract is asking difficult questions that are becoming increasingly difficult to answer.

In this lecture, I will trace the evolution of science, technology and public policies in India post independence and illustrate how it has been shaped by a dominant post World War II tenet that "investment in research by a nation performed without thought of practical ends will lead to prosperity for its people" (Vannevar Bush, Science: The Endless Frontier, 1945). The public policy discourse on science and technology has gone through three distinct phases in India. From 1950 to 1975 India witnessed the grand vision of large organized science. In the period between1975 to 1995 the dominant thought was "self reliance" and "indigenous development". Since 1995, India became progressively more focused on pursuit of globally competitive science and technology with emphasis on "excellence". We are witnessing early signs of further shifts in public policies in terms of redirecting science to more utilitarian ends towards solving the problems of our society. Translational science is the new buzz word in the corridors of government science departments.

I will discuss the forces that shaped our past thinking and its relevance for the future. I will speculate on what we can expect in the decades ahead based on the emerging social, political, economic and industrial headwinds that we are experiencing today. It is worthwhile to pause and ponder whether government is the best intermediary to foster translation of science to applications; and if so what are the risks / opportunities; and , if not , how do we accomplish this goal.