Foresighting 21st Century Medicine:
Anticipating on technology options and their embedment in healthcare practices

Douglas K. R. Robinson

Abstract

The rapid advances of medical related R&D are staggering and the applications foreseen look very promising indeed, but translating promising research results into actual products that are well embedded and used in medical practice poses a great number and a wide variety of challenges.

Policy makers, industrial actors, regulators, health insurers, scientific researchers and those in the medical sector have to anticipate on a great number of aspects and issues - regulation, industry evolutions, clinician practices and patients needs and user cultures as well as taking into account wider considerations of the evolving healthcare cycle its infrastructure and operation.

These are tough challenges and become even more demanding for those new technologies which are radically different from what has come before – radical innovations epitomised by the promises of nanotechnology.

With the (well founded) hype around the potential of nano - industry, governments and society are looking with anticipation at nanotechnology's potential applications. This means that for those attempting to manage, facilitate and regulate nano-based innovations, mechanisms and tools for foresighting the challenges, hurdles and opportunities must be found.

This presentation gives an insight into the types of work currently underway in both research and practice for looking at nanomedicine and evaluating the possible steps from lab into clinic into society.

Speaker Biography

Douglas Robinson

Douglas K. R. Robinson obtained his undergraduate and masters degree in Physics and Space S&T at the University of Leicester (UK) and Universität Siegen (Germany). A further masters degree focussed on an interdisciplinary study of the space sector combining science, technology, policy and innovation studies with a final thesis focussing on cosmonautics research in the former Soviet Union with field research undertaken at the Cosmonaut Training Centre (Star City) and the Institute of Biomedical Problems, Moscow. He then worked for a brief period for two small space companies in the Netherlands, the first dealing with thermal protection systems for inflatable space-earth re-entry vehicles the second appointment on satellite broadband innovations. Following this, Douglas made a career shift from new technology research to new technology management and strategy articulation.

His PhD research has focussed on how researchers, industry, policy makers, potential users (such as surgeons and clinicians) and the wider public anticipate on potential nano-based applications and how that shapes action (strategic or otherwise). He has been developing a system of technology evaluation instruments that can be used to facilitate knowledge exchange between a variety of stakeholders and explore (in a deep way) possible paths to follow. This will be presented in book form to be published in early 2009. His current interests lie in managing for innovation in the firm and future-oriented technology analysis (especially the role of anticipation in strategic decision making).