VALLEY OF DEATH

Penn State MRSEC

Angus Kingon leading a discussion on converting nanoscience into nanotechnology

Commercializing nanotechnology
crossing the valley of death

PSU-NCSU

Well-known management techniques exist to generate incremental advances in known product areas, but how does one foster the identification and development of entirely new product classes?

The Penn State MRSEC hosted the first workshop in "National Partnership for Managing Upstream Innovation: The Case of Nanoscience and Technology," a new NSF-sponsored project spearheaded by Angus Kingon, a professor in both Materials Science and Engineering and Business Management at North Carolina State University. The workshop brought together academic and industrial scientists for an immersive experiment in generating ideas for new classes of products based on MRSEC research in chemical nanolithography, molecular rulers, and self-assembly.

After an orientation and explication of methodology by Professor Kingon, MRSEC faculty member Paul Weiss described the scientific capabilities being developed in IRG1, Chemical Nanolithography. The group then broke up into university-industry brainstorming teams. As social scientist observers recorded and analyzed the discussions, these breakout teams focussed their energies on helping academic researchers become aware of the commercial implications of their research from the earliest stages, and helping industrial participants conceptualize viable new products in unfamiliar fields.