Cancer Nanotechnology – Opportunities and Challenges
A perspective from Program Office

Policy Issues in Nanotechnology and Oncology
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Nanomedicine 101

• Let biology and oncology needs drive technology development
  • Do not over-engineer – simple is beautiful!

• Choose your targets and disease applications wisely
  • Incremental improvement vs solving an unsolved problem

• Nanotechnology is a team sport – work with others

• Decide if you really want to be translational researcher – it is hard

• Do not get disappointed with funding and regulatory agencies – we are trying our best
Medical applications of nanotechnology require multi-disciplinary approach involving both technology developers and technology users in the process of innovation and product development.

Large research teams are proving to be more productive and innovative than single investigator efforts in the medical areas where technology involvement is necessary.
Developing Field of Cancer Nanotechnology

Cancer AND Nanotechnology

Cancer AND Nanotechnology AND Diagnosis

Cancer AND Nanotechnology AND Therapy

Cancer AND Nanotechnology AND Prevention: 40

Nanotechnology AND Metastasis: 45
Current Status and Future Strategy

- Devices to diagnose the disease
- Devices to treat the disease
- Devices to monitor the disease in post-treatment stage

 Translate and develop....

- Tools and devices to understand the processes behind the development and spread of the disease
- Devices to reverse/alter the progress of the disease
Today’s Panel

• Barriers to nanotechnology clinical translation

• Multi-disciplinary field - effective models of research and translational funding and collaboration