NCI Launches Next Phase of Alliance for Nanotechnology in Cancer Program

September 24, 2010

The National Cancer Institute (NCI) has awarded five-year, multi-institution grants in continued support of its Alliance for Nanotechnology in Cancer program. The Alliance is engaged in efforts to leverage the specific advantages of nanotechnology to improve the way we diagnose, treat, and prevent cancer. Researchers involved in the program have developed a host of novel technologies, with several of them undergoing commercialization and clinical trials. Given the progress to date, the NCI approved a second phase of the program with an investment of approximately $30 million per year for the next five years.

The second phase of the program will be composed of Centers of Cancer Nanotechnology Excellence (Centers), Cancer Nanotechnology Platform Partnerships (Platforms), training grants, and the Nanotechnology Characterization Laboratory (NCL). The Centers and Platforms are dedicated to the advancement of new nanotechnology discoveries and their transformation into cancer-relevant applications with clinical utility. Two new components that support critically needed training – the Pathway to Independence Awards in Cancer Nanotechnology Research and the Cancer Nanotechnology Training Centers – are designed to develop the next-generation of cancer researchers in the area of nanotechnology. The NCL will continue to serve as a hub for the pre-clinical characterization of nanomaterials and to assist in the process of bringing nanotechnologies to the stage of investigational new drug (IND) or device (IDE) submissions to the Food and Drug Administration.

Research organizations receiving NCI funds as part of the Alliance program are:

Centers of Cancer Nanotechnology Excellence

- California Institute of Technology, Pasadena, Calif. Principal Investigators: James Heath, Ph.D., Leroy Hood, M.D., Ph.D., and Michael Phelps, Ph.D.
- Dartmouth College, Hanover, N.H. Principal Investigator: Ian Baker, Ph.D.
- Johns Hopkins University, Baltimore, Md. Principal Investigators: Peter Searson, Ph.D., and Martin Pomper, M.D., Ph.D.
- MIT and Harvard University, Cambridge, Mass. Principal Investigators: Robert Langer, Sc.D., and Ralph Weissleder, M.D., Ph.D.
- Northeastern University, Boston, Mass. Principal Investigators: Vladimir Torchilin, Ph.D., D.Sc., and Nahum Goldberg, M.D.
- Northwestern University, Evanston, Ill. Principal Investigators: Chad Mirkin, Ph.D., and Steven Rosen, M.D.
- Stanford University, Palo Alto, Calif. Principal Investigators: Sanjiv Sam Gambhir, M.D., Ph.D., and Shan Wang, Ph.D.
- The University of Texas Health Science Center, Houston, Texas. Principal Investigators: Mauro Ferrari, Ph.D., Anil Sood, M.D., and G. Lopez-Berestein, M.D.
- University of North Carolina, Chapel Hill, N.C. Principal Investigators: Joseph DeSimone, Ph.D., and Joel Tepper, M.D.

Cancer Nanotechnology Platform Partnerships

- Cedars-Sinai Medical Center, Los Angeles, Calif. Principal Investigator: Julia Ljubimova, M.D., Ph.D.
- Children's Hospital Los Angeles, Los Angeles, Calif. Principal Investigator: Fatih Uckun, M.D., Ph.D.
- Emory University, Atlanta, Ga. (2 Platforms). Principal Investigators: Dong Shin, M.D., and Lily Yang, M.D., Ph.D.
- Northeastern University, Boston, Mass. Principal Investigator: Amiji Mansoor, R.Ph., Ph.D.
- Northwestern University, Evanston, Ill. Principal Investigator: Thomas O'Halloran, Ph.D.
- Rice University, Houston, Texas. Principal Investigator: Naomi Halas, Ph.D., D.Sc.
- University of Cincinnati, Cincinnati, Ohio. Principal Investigator: Peixuan Guo, D.V.M., Ph.D.
- University of Nebraska Medical Center, Omaha, Neb. Principal Investigator: Alexander Kabanov, Ph.D., D.Sc.
- University of New Mexico Health Sciences Center, Albuquerque, N.M. Principal Investigator: Cheryl Willman, M.D.
- University of North Carolina, Chapel Hill, N.C. Principal Investigator: Wenbin Lin, Ph.D.
- University of Utah, Salt Lake City, Utah. Principal Investigator: Marc Porter, Ph.D.

Cancer Nanotechnology Training Centers

- Boston University, Boston, Mass. Principal Investigator: Bennett Goldberg, Ph.D.
- Johns Hopkins University, Baltimore, Md. Principal Investigator: Denis Wirtz, Ph.D.
- University of California San Diego, San Diego, Calif. Principal Investigator: Robert Mattrey, M.D.
- University of Illinois Urbana-Champaign, Champaign, Ill. Principal Investigator: Rashid Bashir, Ph.D.
- University of Kentucky, Lexington, Ky. Principal Investigator: Bradley Anderson, Ph.D.
- University of New Mexico Health Sciences Center, Albuquerque, N.M. Principal Investigator: Janet Oliver, Ph.D.

Pathway to Independence Awards in Cancer Nanotechnology Research

- Duke University, Durham, N.C. Principal Investigator: Mingnan Chen, Ph.D.
- Emory University, Atlanta, Ga. Principal Investigator: Aaron Mohs, Ph.D.
- Massachusetts General Hospital, Boston, Mass. Principal Investigator: Prakash Rai, Ph.D.
- National Institute of Biomedical Imaging and Bioengineering, Bethesda, Md. Principal Investigator: Jin Xie, Ph.D.
- Stanford University, Palo Alto, Calif. Principal Investigator: Andrew M. Smith, Ph.D.
- University of California San Diego, San Diego, Calif. Principal Investigator: Andrew Goodwin, Ph.D.
- Wake Forest University Health Sciences, Winston-Salem, N.C. Principal Investigator: Ravi Singh, Ph.D.

Learn more about the NCI Alliance for Nanotechnology in Cancer Program.