



UNIVERSITY OF
NOTRE DAME

Strategic Academic Planning Committee 2007-2008

Proposal Title: Notre Dame Integrated Imaging Facility

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Proposal Participants:

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Abstract

Microscopic and biological imaging is the most common experimental technique employed by science and engineering researchers at the University of Notre Dame. The purpose of this proposal is to establish the Notre Dame Integrated Imaging Facility (NDIIF), a state-of-the-art research core that will consolidate the imaging capacity that is currently dispersed around campus and augment it with powerful new imaging modalities. A related goal is to create an interactive network of research groups, who are connected by their interest in imaging technology, and allow them to cross-fertilize ideas and form interdisciplinary collaborations. The NDIIF will make available to the Notre Dame science and engineering community an integrated suite of sophisticated microscopes and imaging stations that enable the expert users to attack the most complex modern research problems and, equally important, the resident professional staff (technicians and research specialists) to guide the non-expert users and allow them to conduct experiments that were previously beyond their limits. The NDIIF will immediately enhance the performance and reputation of dozens of individual laboratories that are already conducting international quality imaging research, and as a consequence it will establish Notre Dame as a preeminent institution for advanced imaging studies. It will enable a closely connected community of scientists and engineers to join forces and solve a wide range of important problems in high priority research fields such as biomedical science, nanoelectronics, systems biology, advanced diagnostics, functional materials, and zero emission energy production.