

New Imaging Shared Instrumentation Grants Application Policy

Why is institutional involvement important?

Some instrumentation grants have restrictions imposed by granting agencies. These restrictions include limitations on the number of grants that an institution may submit (limited submission proposals) or rejection of duplicate requests for the same instrument. It is therefore critical that well-intentioned and well-considered efforts to obtain new instruments be integrated at the institutional level. To help expedite and coordinate such efforts, the Office of Research has instituted a policy regarding pre-proposal review of all imaging-related equipment grants starting January 1, 2010. The specific reasons for this policy are the following:

- (a) To ensure that duplicate requests are allowable and justified at the institutional level.
- (b) To ensure that the proposal with the highest likelihood of being funded is submitted.
- (c) To provide feedback and assistance (such as in devising a “business plan” mandated by the funding agencies) to PIs that will improve the likelihood of funding of the proposal.
- (d) To help place the targeted instrument under the best long-term maintenance plan and best technical support. For example, by integrating the requested instrument into existing core facilities.
- (e) To help coordinate efforts by multiple investigators who have similar instrumentation needs, with the ultimate goal of assembling the strongest possible team for grant application.
- (f) To identify appropriate candidates for potential institutional cost-sharing.

Pre-proposals for imaging equipment will be submitted for peer-review by the NU Imaging Advisory Committee. The committee will:

- (i) Assess each request for scientific/technological merits
- (ii) Broker team-building efforts for similar instrument requests
- (iii) Help provide institutional justification if duplicate applications are essential and justified
- (iv) Recommend institutional cost-sharing for selected candidates to the leadership of Office of Research and the respective schools
- (v) Make every possible effort to pair the requested instruments with a NU core facility that will provide technical and operational support

Definition of Imaging Equipment

Imaging equipment is defined as any research instrument that is (or part of) an image acquisition system used to produce a visual representation of atoms, molecules, cells, tissues, organs or body parts. Examples include systems that employ near-field probe, light, fluorescence, electron, x-ray, magnetic resonance imaging, and positron-emission tomography, and ultrasound.

Procedure & Timeline

1. Pre-proposals for **imaging-related NCR R S10 shared instrumentation grants** are due at 5pm January 31, (**FIRM**), and should be submitted via e-mail to Dr. Teng-Leong Chew, Director for University Imaging Resources (t-chew@northwestern.edu). The pre-proposal should contain the following information (and have space limit of two pages)

- (i) Brief description of the instrument (0.5 pg)
- (ii) List similar instruments at NU
(Use the searchable database at www.research.northwestern.edu/facilities/)
- (iii) Price of the instrument (1 line)
- (iv) List of major users (0.5pg)

- (v) Recommended NU core facility that should operate the instrument (1-2 lines)
If a core facility is identified, applicant must attach in the appendices a support letter from the core director, as well as show how operation of this instrument is incorporated into the general budget of the core. This will minimize situation in which core directors are unaware of an incoming instrument, for which the facility will be responsible, until the grant is funded.
- (vi) If no appropriate core is identified, then elaboration of how the instrument will be managed (fee structure, reservation time, financial source for maintenance contract etc.) – 0.5 pg)
- (vii) Explanation of how the equipment fits into the strategic plan of the core facility, department, school, center, institute and/or NU – (0.5 pg)

Evaluation Criteria

The Imaging Advisory Committee will review the requests based on the following criteria:

- (a) Importance and impact of the instrument for the major users and the institution
- (b) In the case of duplicate requests:
 - (i) Can the applications be consolidated?
 - (ii) In the event that only one of the duplicate instruments can be selected to compete, the candidate illustrating the strongest alignment with the operation of a core facility will be approved.
This will be measured by:
 - requests submitted directly by existing core directors/managers
 - pre-negotiated placement of the instrument in an established core with multi-departmental user base, strong technical expertise, solid financial health to shoulder the maintenance cost, and identified space to house the instrument
 - pre-approved plans to establish a new core facility with the instrument
- (c) Availability of technical expertise and/or support for the operation of the instrument
- (d) Soundness of management plan

NU Imaging Advisory Committees:

Vinayak Dravid, Ph.D.	(Director of NUANCE; Professor, Materials Science & Engineering)
Vladimir Gelfand, Ph.D	(Prof., Cell & Molecular Biology)
William Muller, M.D., Ph.D.	(Chair of Pathology; Chair of Cell Imaging Facility Advisory Cmte)
Thomas O'Halloran, Ph.D.	(Prof., Chemistry & BMBCB; Director, Chemistry of Life Processes Institute; Director, QBIC)
Vinzenz Unger, Ph.D.	(Assoc. Prof, Molecular Biophysics and Biochemistry; Director of Cryo-EM Core)
Catherine Woolley, Ph.D.	(Director of Biological Imaging Facility; Prof., Neurobiology & Physiology)
Phil Hockberger, Ph.D.	(NU Director for Core Facilities; Assoc. Prof., Physiology)
Khashayarsha Khazaie, Ph.D., D.Sc.	(Assoc. Prof. Medicine, Division of Gastroenterology)
Thomas Meade, Ph.D.	(Director, Center for Advanced Molecular Imaging; Prof. Chemistry)
Reed Omary, M.D.	(Vice Chair of Research, Radiology)