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Establishing an Interdepartmental Fluorescent Microscopy Facility

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David Zuzga Dyson – Biology Department

Cornerstone #3
May 31, 2011

I. ***Project Goals:***

The specific goals for establishing the microscope facility are as follows: A) Integration of the fluorescent microscope in faculty research programs; B) Enhancement of the quality and productivity of faculty research and stimulation of interdisciplinary research collaborations; C) Integration of the microscope into curricular student research experiences (BIO292, BIO480, CHE480); D) Integration of the microscope into lab-based courses.

II. ***Current Progress:***

Over the past semester we acquired approximately $35,000 additional funding towards the purchase of a microscope through Dyson College. Demo microscopes from Nikon and Olympus were previewed on campus. Following consideration of both instruments, a Nikon TE2000S microscope was purchased and will be installed on 6/1/2011.

III. ***Student Impact:***

Notably, ten students enrolled in either BIO292 or BIO480 utilized the microscope during the demo periods, approximately 1 week for each microscope demoed. Several students included data generated from the demo microscopes on posters presented at the Eastern College Science Conference (ECSC) and the Department of Biology and Health Sciences Poster Session this past semester (Kristen Gulino, Zelda Mendelowitz, Claudia Slobolewski – ECSC; Jen Josephs, Catina Platel – Biology Poster Session). Finally, students in BIO375 (Advanced Cell Biology) had the opportunity to examine cytoskeletal structure with the microscope during a portion of a class lecture period.

IV. ***Faculty Impact:***

Two faculty members, Dr. Lampard & Zuzga, used and trained students to operate the demo microscopes.

V. ***Next Steps:***

Following the installation of the microscope a user log will be established to track microscope use. Importantly, this log will track faculty and student use and indicate which course user activities were associated. All students will have to complete a microscope training session conducted by either Dr. Lampard or Zuzga prior to independent use of the microscope. As indicated in the original proposal, a compendium of student and faculty research and an ePortfolio site dedicated to the microscopy facility will be established during the Fall semester.