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F.U.T.U.R.E. in Biomedicine ProgramSM
Fostering Undergraduate Talent – Uniting Research & Education

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Developing the Talents of Iowans

Children in Iowa have many biomedical career options including

Research Assistant  Physician
Clinical Technician  Laboratory Scientist
Physician Assistant  Physical Therapist

To attract talented undergraduates in Iowa to join these fields

- they need modern scientific training using state-of-the-art instruments
- they need pre-professional internship experiences
- their professors need continuing education, and hands-on exposure to new methods
- their advisors need awareness of UI CCOM training programs and employment options
Developing a Network of Scientist-Educators

Since 2009, the UI CCOM FUTURE in Biomedicine Program has committed to

- fostering research collaborations between faculty in the CCOM and those of 2-year and 4-year “primarily undergraduate institutions” (PUI’s) throughout Iowa,
- improving scientific education statewide by developing opportunities to share biomedical discoveries and new experimental methods that will be used in Iowa’s college classrooms,
- sharing unique core research facilities with a statewide network of scientist-educators
- mentoring talented undergraduates to develop the next generation of physicians and biomedical scientists - graduate students, research assistants and faculty.

www.medicine.uiowa.edu/future

FUTURE in Biomedicine Summer Program

Faculty Fellows and Students

- Conduct 2-month experimental studies together in a CCOM Host Laboratory
- Work alongside
  - Graduate Students
  - M.D./Ph.D. Trainees
  - Research Assistants
  - Postdoctoral Fellows
  - Senior Scientists, and Faculty
- Meet with Admissions Directors & Offer Careers Panel to UI Trainees
- Learn about UI Academic Programs and Core Instruments, Use UI Library, Attend Introductory Seminars for Undergraduates
- Present Posters & Talks
  - SURC - UI Graduate College
  - Summer Undergraduate Research Conference
  - FUTURE in Biomedicine Symposium
- Go home with new skills, trained assistant, posters, scientific samples, excitement, new partners, foundation for collaborative work, and knowledge of future options.
FUTURE in Biomedicine – First 5 Years

• 17 colleges are home to 26 Faculty Fellows and the students who accompanied them.
• 9 colleges have participated multiple times (see map)
• More than half the Fellows have returned for UI sabbaticals or ongoing summer research projects
• UI Faculty and Postdoctoral Scholars presented talks on their campuses to share new research and learn about pedagogical approaches.
• Admissions directors and staff visited with preprofessional clubs and academic advisors to promote UI training programs
• Research articles, and preliminary results for grant applications
• More and better qualified applicants to
  • our graduate and clinical training programs
  • our pool of research assistants in laboratories

Better Futures for Iowans – Ripple Effect

• APPLICATIONS INVITED – due October 31, 2014
  https://je.qualtrics.com/forms/SV_deduXrRJUPvZdAa1
• Grants to PUI Faculty to support laboratory-intensive projects involving undergraduate students in “hands-on” inquiry.
• Students take responsibility for preparation of samples and analysis of data obtained.
• All awardees invited to present their work at the FUTURE in Biomedicine Research Symposium.
• Supported by the UI Office of the Provost – to extend University of Iowa resources to Iowans and address an important goal of the University Strategic Plan—to provide better futures for Iowans.
• Cores: Microscopy, Nuclear Magnetic Resonance (NMR), Proteomics, Crystallography, Mass Spectroscopy, DNA Sequencing - Iowa Institute for Human Genetics
FUTURE in Biomedicine – Fall & Spring

- Biomedical Pre-Graduate School Conference
  - 18 UI Ph.D. programs are represented
  - Colleges throughout upper midwest are invited
  - Seminars about Application Process, Mock Interview
  - Meet Graduate Students, Program Directors, Lab Tours
  - Collaborators: UI Biosciences Program & Office of the Provost

- Speakers Bureau for Scientific Seminars
- Use of Research Instruments & Services
- Campus Visits and Tours
- Promote campus events such as Research Week and the Iowa Microscopy Society Conference
- Assist in arranging internships for students from PUIs to work in UI CCOM laboratories

Investing in a Healthy Future for Iowa

- Iowans live long with high aspirations for active work lives, mobility and community engagement.
- Iowans need highly qualified healthcare providers who will offer the most effective treatments to our citizens.
- Ongoing scientific research is needed in clinics and laboratories to provide Iowans with better healthcare at reasonable cost, and to advance the frontiers of knowledge.
- The scientific enterprise needs talented individuals to assist, plan and execute complex experimental studies.
- FUTURE in Biomedicine catalyzes connections among scientist-educators throughout Iowa.
- Fellows and UI faculty exchange best practices in teaching and research to encourage and prepare undergraduates to pursue new dreams.
Applications for Summer of 2015

Admissions for the 2015 FUTURE in Biomedicine™ Program

- Invitations are extended to science departments in primarily undergraduate colleges in Iowa to nominate a faculty member to be a FUTURE in Biomedicine™ Fellow in the UI Carver College of Medicine. Program dates will be Wednesday, May 27 to Friday, July 31, 2015.

- Colleges may nominate more than one individual. For full consideration, all materials need to be submitted electronically to the Carver College of Medicine via the application website by Monday, December 15, 2014.

FUTURE Fellows will have an appointment as a full-time research investigator working in the laboratory of a faculty member in the Carver College of Medicine. Fellows will select an undergraduate (a student in the freshman, sophomore or junior year of school) to participate in the research project with them.

The FUTURE in Biomedicine™ program will provide a stipend for the Fellow, lodging for the Fellow, dormitory housing for the student, and a fixed allowance for the UI host laboratory to defray expenses of supplies needed for the project. The Fellow and student will participate in the activities of their host laboratory, as well as weekly meetings of the FUTURE Fellows. Fellows will present in two panel discussions. All Fellows and students will share their research findings in a symposium on July 31, 2015. Both Fellows and students will have full UI library privileges, and will be required to complete safety training appropriate to the host laboratory.

For reference, the full schedule of summer events from 2014 is available here and the program for the 2014 Research Symposium is available here.