



EARLY CAREER TRANSLATIONAL RESEARCH AWARDS IN BIOMEDICAL ENGINEERING PROGRAM ANNOUNCEMENT

NEW FOR 2008

The Early Career Award

Phase I: \$240,000

Phase II: \$260,000

PROGRAM SUMMARY:

Eligible faculty may apply from December 15, 2007 to March 14, 2008 for the Phase I award. This Award provides funding of \$240,000 over two years to support translational research projects that involve collaboration with practicing clinicians. Progress milestones will be reviewed on a semi-annual basis and those investigators who have demonstrated significant achievement will be invited to apply for a Phase II Award of \$260,000 over the next two years.

BACKGROUND

The Wallace H. Coulter Foundation is a private, nonprofit foundation founded in 1998. Its mission is to further Wallace's life long work, interests and passions.

Wallace H. Coulter was an engineer, inventor, and entrepreneur who applied engineering principles to solving biomedical problems. He invented the *Coulter Principle* in 1948. The *Coulter Principle* enables scientists a high throughput method to count and size particles or cells as they flow through the aperture's sensing zone. This simple elegant invention revolutionized laboratory medicine, pioneered the field of flow cytometry and defined particle characterization. The invention continues to be used today in the fields of medicine, biotechnology, and pharmaceuticals, as well as food, beverage, ceramics, cosmetics, toners and paint. He received the first of his 82 patents in 1953 (USPTO #2,656,508) and started his

company, Coulter Corporation. The company grew to become the world leader in cellular analysis equipment, reagents and service. It remained private until purchased by Beckman Instruments in 1997.

Wallace's vision was "Science Serving Humanity". To accomplish this, he invested heavily in research but always with the goal of transforming the research laboratory advances into practical solutions that benefited patients. He had a clear mission to convert these scientific discoveries into medical products routinely used for the treatment of diseases and laboratory diagnostics.

Believing that the contributions of engineers in solving biomedical problems were generally under-recognized, Wallace mentored and encouraged young engineers to dream, take risks, and be innovative. This Early Career Program is dedicated to improving human healthcare by supporting translational research in biomedical engineering – research directed at the transfer of promising technologies within the university research laboratory that are progressing towards commercial development and clinical practice.

EARLY CAREER TRANSLATIONAL RESEARCH AWARDS IN BIOMEDICAL ENGINEERING

The Early Career Translational Research Awards in Biomedical Engineering are designed to support biomedical engineering research that is translational in nature, and to encourage and assist eligible biomedical engineering investigators as they establish themselves in academic research careers that involve translational research.

The Foundation invites applications from principal investigators (PIs) who meet the following eligibility criteria:

- The PI must be a full-time tenure-track faculty member, or equivalent, with a primary appointment in a Biomedical Engineering Department (or other similarly constituted, permanently established biomedical/bio-engineering academic program) at a North American university.
- The PI must have received his or her doctoral degree no more than six years prior to submitting the application for this award.
- The PI must not hold an academic rank higher than Assistant Professor, or equivalent, at the time of application submission.

Because of the nature of the research supported by this award, collaboration between the Biomedical Engineering PI and a clinical investigator affiliated with a practicing clinical environment is required. Practicing clinicians often bring a sense of urgency, relevancy, and practicality to a biomedical engineering research project that enhances the translational process. The collaboration may take a number of different forms, including the clinical investigator being a co-investigator in the research or a consultant to the project, but in any

event, he/she must be involved in a substantive capacity.

Translational research awards within this program will have the following structural characteristics:

Phase I

- Each award will be for two years for an amount of \$100,000 direct costs per year. The second year of funding will be contingent upon adequate progress during the first year.
- The Foundation will pay indirect costs (overhead) at 20% of allowable direct costs. Indirect costs are not allowed on equipment.
- The research must clearly be translational in nature, should involve a clinical collaboration as previously discussed, and must have clearly stated specific milestones.
- Brief (2-3 pages) semi-annual reports during the award period, outlining the progress toward achievement of the specific milestones, will be required from all award recipients.
- The biomedical engineering PI will be expected to attend an annual meeting and to participate in courses and training sessions that will be sponsored by the Foundation. These courses and training sessions will cover topics such as entrepreneurship, technology transfer, project management, intellectual property, regulatory affairs, and project/start-up financing.
- Occasional brief post-award updates on project outcomes such as follow-on funding, commercialization activity, and patent activity will be expected from all award recipients.

Phase II

- A subset of Early Career Phase I Award recipients will be invited to apply for a Phase II Award. Phase II Awards will require a new application, and invitations to apply will be based upon performance and progress on the Phase I Award as determined by the external review committee. Phase II Awards are \$260,000 total (direct + 20% indirect costs) for two years.
- Following the award of Phase 2, PI's are expected to attend up to two project review meetings per year to be held in Miami or other designated location. One review will be held in conjunction with the Foundation's Annual Early Career Meeting usually held in August. The other meeting will be held during the first quarter of each year.

EVALUATION AND FUNDING CRITERIA

Coulter Foundation staff will review all applications to determine the eligibility of the institution, the PI, and the proposed research project. A review committee, composed of experts in biomedical engineering, clinical practice, technology transfer, venture capital and business management, will review the applications and make recommendations to the Foundation, which will make all funding decisions. Each eligible application will be judged based upon the following criteria:

- Merit, significance and translational nature of the proposed research.
- Appropriateness and nature of the clinical collaboration.
- Significance and nature of the unmet or underserved clinical need that would be addressed by the technology developed under the project.
- Novelty of the proposed research and potential for proprietary (e.g. patent) protection of any developed technology.
- Product and commercial development potential.
- Reasonableness and achievability of specific milestones.

APPLICATION PROCESS

Applications for the Early Career Translational Research Awards in Biomedical Engineering will be accepted once each year. The 2008 applications will be due on or before March 14, 2008. It is anticipated that award recipients will be announced by June 15, 2008 and that funding will begin August 1, 2008.

All applications must be submitted electronically. Online applications will be available after December 15, 2007 at the website <http://easygrants.whcf.org> or through a link at the foundations website www.whcf.org. No paper or facsimile copies of the application will be required or accepted.

DISCLAIMER

This program announcement is for informational purposes only. Nothing contained in this announcement shall create any right or expectation by any party to receive grant funds under this program. Prior to any actual grant award, the Wallace H. Coulter Foundation reserves the right to amend the terms and conditions of this program including the termination of this program.