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Beckman Scholars Program

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Spotlight On

Beckman Scholars Program

The Beckman Scholars Program, established in 1997, is an invited program for accredited universities and four-year colleges in the US. It provides scholarships that contribute significantly to advancing the education, research training, and personal development of select students in chemistry, biochemistry, and the biological and medical sciences. The sustained, in-depth undergraduate research experiences and comprehensive faculty mentoring are unique in terms of program scope, content, and level of scholarship awards. The University of Kentucky has been invited to apply for the program three times, and was selected to participate for three years beginning in 2002, in 2005, and again in 2008. We will reapply in the fall for another term through 2011-2014.

The Beckman Scholars Program provides support for no more than three outstanding undergraduate researchers per year. Scholars receive support for two summers and the intervening academic year, including a generous scholarship award plus stipends for supplies and travel. Scholars must conduct their research in chemistry, biochemistry, the biological and medical sciences, or some interdisciplinary combination of these disciplines, in the laboratory of and under the mentorship of a University of Kentucky faculty member approved by the Beckman Foundation. The currently approved Beckman mentors are listed below.

Being named a Beckman Scholar is an extraordinarily high honor. The process by which a scholar is selected is quite rigorous. The selection is conducted by a committee of research faculty members each with a strong record of mentoring undergraduate researchers. The selection process evaluates 1) the ability of the candidate in both written and oral communication by considering a required research essay and conducting an interview of each finalist; 2) the past achievements of the candidate by reviewing the

entire undergraduate transcript, academic honors received, and all previous research experience; 3) the candidate's intellect, character, and potential to excel as a researcher by appraising a required written research plan and at least three letters of support from current and prospective faculty mentors and 4) the candidate's potential for a career in research by evaluating a required written statement of educational and career plans.

To apply to become a Beckman Scholar, a student must be a sophomore or junior at the University of Kentucky, majoring in Chemistry, Biology, or a closely related discipline (such as chemical engineering or agricultural biotechnology), and have already completed at least one semester of research experience.

The Beckman Scholars for the year 2009-2010 are Laura Crawford (mentored by Dr. Diane Snow), Jessica Houtz (mentored by Dr. Karyn Esser and Dr. Bruce O'Hara) and Marti Robinson (mentored by Dr. Robin Cooper). In the following articles, the 2009-2010 Scholars explain and discuss their research.

For more information on the Beckman Scholars Program at the University of Kentucky, visit www.uky.edu/beckman.



Philip Houtz Named 2010 Beckman Scholar

Philip Houtz, a UK junior from Winchester, KY was recently named the 2010 Beckman Scholar, for which he was awarded \$19,300 over 14 months.

Houtz is an agricultural biochemistry major and will be performing his project under the mentorship of Dr. Bruce Webb, an entomology professor in UK's College of Agriculture.

Houtz's research involves the study of polydnaviruses (PDVs), which are found in parasitoid wasps that characteristically lay their eggs in or on another organism. Houtz has recently co-discovered a second virus, identified as a "cypovirus," in this parasitoid-host relationship that mirrors the PDV and actually causes considerable mortality in the wasp larvae that become exposed to it. His research of this cycle provides a chance to study the complex relationship that exists between these two viruses and their development as biological weapons.

Houtz is also a Chellgren Fellow, UK AMSTEMM student, UK Beyond Coal member, Honors Program student, and a member of the Society for the Promotion of Undergraduate Research (SPUR)

Approved Beckman Mentors

Faculty/Mentor Name	Department
John E. Anthony	Chemistry
Leonidas G. Bachas	Chemistry
Dibakar Bhattacharyya	Chemical & Materials Engineering
D. Allan Butterfield	Chemistry
Robin L. Cooper	Biology
Sylvia Daunert	Chemistry
Rebecca Dutch	Biochemistry
Robert B. Grossman	Chemistry
Robert L. Houtz	Agricultural Biotechnology
Bruce O'Hara	Biology
Brian C. Rymond	Biology
Christopher L. Schardl	Agricultural Biotechnology
Diane M. Snow	Anatomy & Neurobiology
S. Randal Voss	Biology
Bruce A. Webb	Agricultural Biotechnology