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THE LAM FOUNDATION

Announces its 2005 awards
for the study of
lymphangioliomyomatosis (LAM)

Several scientific studies are now underway into the molecular mechanisms of disease pathogenesis in LAM, a progressive lung disease that affects young women. The LAM Foundation is proud of its outstanding investigators.



Nicholas Vlahakis, MD, Assistant Professor, Rochester Mayo Clinic College of Medicine, was awarded a three-year \$150,000 Fellowship Award to determine the molecular mechanisms of vascular endothelial cell growth factor (VEGF)-induced LAM cell proliferation and the modulatory role of LAM-endothelial cell crosstalk in this proliferative response. These studies will help to determine the cause of LAM and provide novel pharmacotherapeutic targets for its treatment.



Dan Noonan, PhD, is a Professor of Biochemistry at the University of Kentucky Chandler Medical Center. He has been awarded a \$150,000 three-year Established Investigator Award to study the biochemical mechanism(s) that relegate LAM disease primarily to lung smooth muscle cells of women. These studies will define how loss of a functional tuberous sclerosis gene facilitates the anomalous expression of the intracellular receptor for the female sex hormone estrogen. These studies will significantly advance our understanding of why LAM is a female and lung smooth muscle-specific disease, and may provide a novel mechanism for the development of LAM-specific therapeutic approaches.



Arnold Kristof, MD, is a clinician-scientist and Assistant Professor of Medicine at McGill University. Through a partnership with the American Thoracic Society, he has been awarded a \$100,000 two-year research grant to study molecular mechanisms that might be exploited to promote the death of cells that cause LAM. Using cells derived from patients with LAM, Dr. Kristof will examine new ways of switching them from "cell growth mode" to "cell death mode."



Hui Zhang, PhD, is a research assistant in the laboratory of Dr. Brendan Manning at the Harvard University, School of Public Health. She has been awarded a \$50,000 Pilot Award to determine the molecular and cellular mechanisms by which adipose tissue mass aberrantly develops and its potential role in the progression and pathogenesis of AMLs. The study will be carried out using a combination of cell-culture models, novel animal models, and available human AML tissue.



Mark Nellist, BSc, PhD, is a postdoctoral researcher in the laboratory of Dr. Dicky Halley at the Erasmus Medical Center in Rotterdam, The Netherlands. He has been awarded a \$25,000 Pilot Award to determine whether DOCK7 is a guanine nucleotide exchange factor (GEF) for rheb. Identification of a GEF for rheb would provide a new target for the treatment of diseases, including LAM, that show an increase in rheb activity.



Elizabeth Barnes, PhD, is a postdoctoral researcher in the laboratory of Dr. Raymond Yeung at the University of Washington. She has been awarded an \$80,000 two-year Fellowship Award to study the contribution of β -catenin signaling in the development of LAM. This study will elucidate the role of β -catenin in the processes of cell migration and cell invasion. The results from this research may provide a foundation for the mechanism of LAM-associated aberrant cell migration and metastasis.

RESEARCH FUNDING AVAILABLE

Candidates for LAM Foundation awards must have at least two years of research experience, an MD, PhD, or equivalent degree, and perform their work in a laboratory with established expertise in smooth muscle biology, genetics of tuberous sclerosis or other LAM related areas. Applications are welcomed from investigators of all nationalities, but candidates must possess visas that allow for completion of the proposed project in the original laboratory. Mechanistic, hypothesis driven approaches of all types are welcomed. Formalin-fixed LAM tissues, dispersed LAM lung cells, genetic probes and other reagents are available. The spring application deadline is March 15th. Applicants will be notified by May 30th. Funding begins July 15. The fall deadline is September 15th. Applicants will be notified by December 30th. Funding begins January 15th of the following year. The application and guidelines are available for downloading on our website. For additional information, please contact Francis X. McCormack, MD, at frank.mccormack@uc.edu or 513-558-4831.

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