

PROGRAM OVERVIEW

A. Mission

ENTELLIGENCE is a program designed for basic science, translational and clinical research in the field of cardiopulmonary medicine. The ENTELLIGENCE program provides opportunities for individual young investigators to promote quality medical care and enhance patients' lives by supporting research (basic science, translational and clinical research) in the area of pulmonary hypertension (PH) related to expanding our knowledge of the pathways involved in pulmonary vascular pathobiology and ultimately, to improve treatment for patients with pulmonary hypertension.

B. Description

ENTELLIGENCE was established by Actelion Pharmaceuticals US, Inc. in 2005. Actelion provides individual grants of up to \$100,000 to qualified investigators to conduct research via a 12-month mentored grant. These grants are awarded by the ENTELLIGENCE Steering Committee to qualified investigators who show promise in their investigations and are based on scientific merit, originality, feasibility, and applicability to the diagnosis and treatment of PH. A condition of the grant application and funding is supervision by an appropriate mentor.

Applications will be considered for basic science, translation or clinical research specifically targeting pulmonary vascular disease including, but not limited to, the following areas:

- Pathophysiology
- Pharmacology
- Treatment
- Genetics
- Diagnosis
- Epidemiology

Receipt of a grant in no way requires the recipient, nor implies that the recipient is obligated to, recommend or prescribe any Actelion products. The main focus of the project should be to develop a better understanding of an approach to disorders of pulmonary vascular biology, particularly PH. Bridge funding, therapeutic drug trials (eg. efficacy and safety evaluation), and registries are not eligible. The projects must be achievable within the time frame (1 year) and budget allocation of up to \$100,000. Additional funding sources are acceptable and must be clearly identified.

Recent ENTELLIGENCE-funded projects include:

- The Role of Hyaluronan in Pulmonary Hypertension Associated with Idiopathic Pulmonary Fibrosis (IPF)
- Adverse Outcomes Associated with Cardiac Catheterization in Children with Pulmonary Arterial Hypertension
- The Role of Sonic Hedgehog (Shh) Signaling in Pulmonary Arterial Hypertension
- S-Nitrosylation Therapy to Treat Hypoxia-Induced Pulmonary Arterial Hypertension
- Complement Activation as a Novel Mechanism of Endothelial Activation in PH
- The Role of Sirtuins and Lysine Acetylation in Pulmonary Arterial Hypertension
- Role of Extracellular Circulating MicroRNAs in Idiopathic Pulmonary Arterial Hypertension

- The Role of Perivascular Adipose Tissue in Pulmonary Arterial Hypertension
- BMP9-Mediated Regulation of Endothelin-1 Expression in Vascular Endothelial Cells
- Osteopontin in Idiopathic Pulmonary Arterial Hypertension, a Biomarker and Therapeutic Target
- Vascular Reactivity in Response to Acute Hypoxia: Defining Features and Mechanisms
- The Role of Antibodies in the Pathogenesis of Pulmonary Arterial Hypertension

C. Steering Committee

The initial Steering Committee for the Young Investigators Award Program was selected by Actelion. Since the inception of ENTELLIGENCE, Steering Committee members have selected and approved all new and replacement members. The Steering Committee membership selection process ensures a wide variety of expertise, experience, and opinion as well as a geographic representation throughout the United States and Canada. There are currently 9 members on the ENTELLIGENCE Steering Committee.

The duties and obligations of the Steering Committee Chairperson include corresponding with Actelion regarding document finalization, supervising the grant process, and supporting public awareness of the ENTELLIGENCE Program. The ENTELLIGENCE Steering Committee members of the ENTELLIGENCE Young Investigators Award Program have the following duties and obligations:

1. Review and rank Letters of Intent (LOI) and grant applications and decide on the final distribution and size of grants to the applicants
2. Ensure a fair and timely grant application review, approval, and award procedure
3. Guide strategic decisions and contributions to the improvement of the ENTELLIGENCE Young Investigator Program
4. Participate in meetings and conference calls, as required, in support of the ENTELLIGENCE Young Investigator Program

D. Submission Process

Initially, a Letter of Intent (LOI) is required for consideration of a proposal. If the LOI is accepted, an invitation to submit a full proposal is then requested. If your proposal is approved for funding, you and your mentor will be responsible for all aspects of your research. You will be provided with a grant application agreement, which you must sign and return within 90 days of notification of the award, along with the requested documents.