

Application deadline: Monday, April 15, 2024, 11:59 PM Eastern Time

Program Information and Scoring Criteria

STATEMENT OF PURPOSE

The Genesis Innovative Research Awards™ provide support to US- or Canada- based investigators who are engaged in innovative research that will advance scientific knowledge and enhance patient care in pulmonary hypertension (PH), idiopathic pulmonary fibrosis (IPF), or lung transplantation. The program encourages submissions exploring topics in health equity, determinants of health, and marginalized populations. Applicants must be part of an appropriate research group and under the supervision of a qualified mentor. Three awards of up to \$100,000 each will be issued annually.

PROGRAM OVERVIEW

The program provides financial support to 3 junior faculty for a 1-year period. Each award is funded up to \$100,000. Recipients of these competitive awards will be selected by an independent Scientific Review Committee (SRC), comprised of leaders in the fields of PH, IPF, or lung transplantation. The Committee will review complete applications and select research proposals based on their scientific merit, feasibility, and innovation. Announcement of award recipients will be made at an awards dinner hosted by the SRC and senior representatives from United Therapeutics. Please refer to the Applicant Eligibility section below to review the criteria applicants must meet to be considered for the award.

AWARD AMOUNT

\$100,000

AWARD DURATION

1 year

PROGRAM TIMELINE

Application Deadline: Monday, April 15, 2024, 11:59 PM Eastern Time

Applicant Notification: Monday, August 12, 2024 (estimated)

Award Disbursement: October 1, 2024, contingent upon an agreement being finalized between an awardee's institution and United Therapeutics

Genesis Awards Dinner: CHEST 2024 (October 6-9, 2024)
Exact Date TBD

SCIENTIFIC FOCUS

The program is designed to support basic, translational, clinical and population research in the fields of PH, IPF, or lung transplantation, as well as to encourage research in health equity, determinants of health and marginalized communities. The program addresses three types of awards:

- **Genesis Clinical Investigations and Outcomes Award™**—exploring populations with unmet needs or novel treatment approaches, as well as exploring the science of clinical or patient-reported outcomes research
- **Genesis Pre-Clinical Award™**—exploring the mechanisms behind PH, IPF, or lung transplantation disease processes and effects of therapies
- **Genesis Determinants of Health Award™**—exploring health equity and outcomes gaps among marginalized communities

The intention is to select an appropriate proposal in each of the above categories. However, this will depend on the number and quality of submissions. Final award decisions will be made based on scientific merit, regardless of category.

The 2024 award program will accept research proposals related to PH, IPF, or lung transplantation. The program will support new original research. Proposals with significant budgetary or scientific overlap with funded research projects from a peer review agency or industry source will not be considered. If you plan to request treprostinil product for use in your Genesis Award research proposal, you must clearly indicate the product and quantities requested in your proposal at the time of submission. Requests for product made after the initial proposal is submitted will not be considered.

*United Therapeutics cannot guarantee the availability of certain products in Canada.

Note: Applications must be completed online and submitted electronically.

Eligible Sponsoring Institution

These awards provide grants directly to the institutions of the selected researchers. The institutions are limited to US- or Canadian-based, nonprofit organizations, including medical and osteopathy schools, pharmacy schools, universities and colleges, and hospitals that demonstrate the ability to support the proposed research.

Applicant Eligibility

These awards are intended for junior faculty who are in the early stages of their career. An applicant may be the recipient of a career development (K) award or equivalent, but not an R category grant. At the time of proposal submission, applicants must meet the following requirements:

- Hold a PhD degree or equivalent, or a doctoral-level clinical degree, such as MD, DO, or PharmD
- Be a US or Canadian citizen, permanent resident, or hold a valid nonimmigrant visa. This visa must be valid for the one-year award period (October 1, 2024 – October 1, 2025)
- Be within five years from completion of final training in association with an academic research institution in the US or Canada at the time of the application
- Demonstrate a strong career interest in PH, IPF, or lung transplantation
- Have a research mentor with extensive experience in the fields of PH, IPF, or lung transplantation
- Have at least 40% protected time to devote to research in general (instead of administrative or clinical duties that are not part of the research)
- Be able to complete the research within the 1-year award period
- Certify applicant will have an academic appointment at the institution where the research will be conducted at the time of award

SCIENTIFIC REVIEW COMMITTEE (SRC)

Applications will be assessed by an independent Committee comprised of leaders in the fields of PH, IPF, or lung transplantation. Scientific merit, originality, feasibility, and potential impact in the fields of PH, IPF, or lung transplantation will be considered.

Chair

Mardi Gomberg-Maitland, MD, MSc

Walter G. Ross Professor of Clinical Research
Professor of Medicine, Division of Cardiology
Chief Clinical Research Officer, OCR
GWU School of Medicine and Health Sciences
Director of the Pulmonary Hypertension Program
George Washington University
Washington, DC

Review Committee

Pedro Catarino, MD

Professor
Department of Cardiac Surgery
Cedars Sinai
Los Angeles, CA

Murali Chakinala, MD

Professor of Medicine
Division of Pulmonary and Critical Care Medicine
Director, Pulmonary Hypertension Care Center
Director, Hereditary Hemorrhagic Telangiectasia Center
Washington University in St. Louis
St. Louis, MO

Stephen Chan, MD, PhD, FAHA

Vitalant Chair in Vascular Medicine
Professor of Medicine
Director, Vascular Medicine Institute
Director, Center for Pulmonary Vascular Biology
and Medicine
University of Pittsburgh School of Medicine and UPMC
Pittsburgh, PA

Vinicio A. de Jesus Perez, MD, FCCP, FAHA, ATSF

Associate Professor of Medicine with Tenure
Co-Director, Stanford Translational Investigator Program (TIP)
Division of Pulmonary, Allergy and Critical Care Medicine
Stanford University Medical Center
Stanford, CA

Harrison W. Farber, MD

Professor of Medicine
Tufts University School of Medicine
Boston, MA

Anna R. Hemnes, MD

Professor of Medicine
Division of Allergy, Pulmonary and Critical Care Medicine
Vanderbilt University School of Medicine
Nashville, TN

Kenneth McCurry, MD

The Jack B. Lally Endowed Chair in Thoracic Surgery
Director, Lung and Heart-Lung Transplant Program
Director, Ex Vivo Lung Perfusion Program
Surgical Director, Respiratory ECMO Program
Cleveland Clinic
Cleveland, OH

Lana Melendres-Groves, MD

Assistant Dean, Faculty Affairs and Professional Development
Vice Chair of Diversity, Equity, and Inclusion
Department of Internal Medicine
Professor
PAH Medical Director
Clinical Trial Unit Medical Director
University of New Mexico School of Medicine
Albuquerque, NM

Imre Noth, MD

Dudley F. Rochester Professor of Medicine
Chief, Division of Pulmonary and Critical Care Medicine
University of Virginia
Charlottesville, VA

REVIEW CRITERIA

Applications are evaluated based on the following criteria:

Criterion 1: Evaluation of the Applicant

- Mentor's assessment of the applicant
- What is the applicant's previous research experience and/or publications
- Potential for a career in PH, IPF, or lung transplantation-related research
- Is the proposal well-structured and clearly written
- Applicant's contribution to the proposal, as well as other research experiences listed on the applicant's biographical sketch

Criterion 2: Mentor/Training Plan and Environment

- The mentor should be an independent investigator in PH, IPF, or lung transplantation and have the experience to direct the proposed research training, as demonstrated by a track record of funding, productivity, and success with prior trainees
- Detailed description of the training plan should be provided by the mentor that demonstrates familiarity with the applicant's career and developmental goals
- The mentor should ensure that the expertise, laboratory facilities, and protected time at the sponsoring institution will support the applicant's progress toward his/her research goals
- Is the institution willing and able to commit the resources necessary for the applicant to complete the proposed research, including sufficient protected time

Criterion 3: Evaluation of the Proposal

- **Innovation and Significance:** The proposal should be new, original, and address important concepts, methods, and/or technologies pertaining to PH, IPF, or lung transplantation
- **Approach:** The proposal should be appropriate for the applicant, given his or her education and experience. The conceptual framework, aims, preliminary data, design, methods, and analyses should be appropriate to the aims of the project. The proposal should acknowledge potential problems and address alternative approaches
- **Feasibility:** The project should be feasible within the one-year time frame and proposed budget

GUIDELINES FOR THE APPLICATION

YOU WILL BE ABLE TO SAVE AND RETURN TO YOUR APPLICATION. Upon saving your application, you will receive an email with a direct link to return to your saved application. If you do not receive an email, please notify the program coordinator at utjenesisawards@contacthmc.com

The applicant must take primary responsibility for the writing and preparation of the various components of the proposal, which are to be submitted electronically using the forms provided. Other individuals (eg, the mentor) will provide supporting documents that should be included with the application.

Please be sure to complete all required fields or you will not be able to submit!

The application must include:

Applicant's biosketch (NIH biosketch)

Research Abstract

The proposed research should be outlined in an abstract of no more than 500 words

Proposal

The proposal should be a clear presentation of the project, single-spaced (11-point Arial font), and limited to 5 pages, not including the bibliography. Proposals of more than 5 pages will not be accepted.

The proposal must include:

- Title

- Background and significance
- Preliminary results, if applicable
- Research design and methods, including any requests for treprostinil and quantities
- Anticipated results and potential pitfalls
- Figures and tables, if applicable, should be included in the body of the text
- Description of potential challenges and possible approaches to address them
- Bibliography (not included in the 5 page proposal count)

Mentor's biographical sketch (NIH biosketch)

Letter of support from mentor which includes:

- Prior experience to direct the proposed research training, as evidenced by mentor's track record regarding productivity, funding, and prior trainees
- Detailed description of the mentoring plan, including available resources allocated to the proposed research project, provision of protected time, and available laboratory facilities
- A plan for instruction and supervision in the responsible conduct of research
- A plan for the applicant's career and developmental goals
- Applicant's contribution to the proposal, as well as other research experiences listed on the applicant's biographical sketch

Letter of support from department head or division chief which includes confirmation of academic appointment and protected time for research

Detailed budget

- In order to maximize the benefits of the grant, indirect costs may not exceed 10% of the award and should be included in the budget
- Salary and fringe benefits support may be allocated for the applicant or technician
- There is no limitation on cost of supplies
- Travel costs are limited to \$2,000 and may only be used to present data associated with this grant
- Salaries and fringe benefits support for mentors, post-doctoral fellows, or students may not be included

If the research project includes investigations on human subjects, a copy of the submission to the institutional review board (IRB) must be submitted prior to award disbursement.

If the research project involves laboratory animals, researcher must certify that he/she will comply with all laws and regulations pertaining to the case and use of animals in research prior to award disbursement.

United Therapeutics will require IRB approval for clinical work and Institutional Animal Care Committee (IACUC) approval for nonclinical work prior to award disbursement.

Templates (Please use the templates provided on this website.)

- **Acknowledgement of Indirect Costs Limitation** signed by an authorized institutional official
- **Applications for Funding**
- **Certification of Faculty Appointment**, signed by the applicant and mentor

SUBMISSION DEADLINE

Monday, April 15, 2024, 11:59 PM Eastern Time

No applications will be accepted after this date.

INQUIRIES/CONTACT INFORMATION

Jenesis Innovative Research Awards Coordinator

Telephone: 516-287-5015

E-mail: utjgenesisawards@j-jhealth.com

FUNDING CONSIDERATIONS

If you are selected as an award recipient, you and your institution must agree to the following items, including but not limited to:

- **Exclusive Use of Funding**
In order to maximize the benefits of the grant, indirect costs may not exceed 10% of the award and should be included in the budget.
- **Publications**
The support of the Jenesis Innovative Research Awards™ Program must be acknowledged in any publications or abstracts resulting from research funded by this award. Draft publications must be submitted to United Therapeutics 30 days prior to submission to any scientific congress or journal.
- **Intellectual Property**
The host institution shall retain ownership of any inventions made by the institution and investigator during the conduct of the research.
- **Change of Institution or Discontinuation**
United Therapeutics must be notified immediately if the award recipient leaves the host institution or discontinues the research funded by the program. In the event the award

recipient moves to another institution, the grant may be transferred at the sole discretion of the Scientific Review Committee. The new host institution must also agree to accept the terms and conditions of the existing award.

In the event the host institution or award recipient is unable or desires to discontinue the research before its completion, institution will be required to return all unexpended funds.

Award recipients and their institutions will be required to enter into a written grant agreement with United Therapeutics prior to receipt of funding.

PREVIOUS AWARD RECIPIENTS

2023

Joel James, PhD
Indiana University

"Targeting the Stratifin Mediated Endothelial-Pericyte Crosstalk in Pulmonary Hypertension"

Jasleen Minhas, MD, MS
University of Pennsylvania

"Physical Frailty in Pulmonary Arterial Hypertension"

Maryam Sharifi-Sanjani, PhD
University of Pittsburgh

"Telomeric Protein Trf2 Orchestrates Right Ventricular Cardiomyocyte Gene Expression in Pulmonary Hypertension"

2022

Vineet Agrawal, MD, PhD

Vanderbilt University Medical Center, Nashville, TN

"Harnessing Genetics for Novel Therapeutic Targets in Pulmonary Hypertension due to Heart Failure"

Rahul Kumar, PhD

University of California, San Francisco

"Role of Classical Monocytes in Hypoxic Pulmonary Hypertension"

Justin K. Lui, MD, MS

Boston University School of Medicine, Boston, MA

"Biomarkers of Left Ventricular Strain in Systemic Sclerosis-Related Pulmonary Hypertension"

Yogesh N. Reddy, MD, MSc

Mayo Clinic, Rochester, MN

"Comprehensive O₂ Transfer Analysis from the Lung to Mitochondria with Inhaled Treprostinil in ILD Pulmonary Hypertension"

2020/2021

Jonathan Florentin, PhD
University of Pittsburgh, PA

CX3CR1 Triggers Neutrophil Recruitment to the Lungs and Enhances Smooth Muscle Cell Proliferation in Pulmonary Hypertension

Daniel Lachant, DO

University of Rochester, Medical Center, Rochester, NY

Cardiac Expenditure Correlates With Right Ventricular Function Measured by Cardiac MRI

2019

Benjamin Korman, MD

University of Rochester Medical Center, Rochester, NY

Modulation of TNF-alpha as Cause and Treatment of Connective Tissue Disease-Associated Pulmonary Arterial Hypertension

Kurt Prins, MD, PhD

University of Minnesota, Minneapolis

Protein O-GlcNACylation in RV Failure

Samuel Rayner, MD

University of Washington, Seattle

Establishing Patient-Specific Microvessel Models of Pulmonary Arterial Hypertension

2018

Kara Goss, MD

University of Wisconsin, Madison*

*Cardiac Metabolic Remodeling After Pulmonary Vasodilator
Therapy in Pulmonary Arterial Hypertension:
A Pilot Study*

Yen-Chun (Charly) Lai, PhD

Indiana University School of Medicine, Indianapolis

*Mechanistic Role of Skeletal Muscle SIRT3 in Parenteral
Treprostinil-Mediated Improvement of Pulmonary Hypertension
Associated with Heart Failure with
Preserved Ejection Fraction*

Sara Vargas, PhD

**The Warren Alpert Medical School of Brown University,
Providence, RI**

*Health-Related Quality of Life: Patient-Focused Strategies for
Measuring and Improving Sexual Health and Functioning Among
Patients with Pulmonary Arterial Hypertension*

*At time of award