American Heart Association | American Stroke Association
life is why

The Institute
for Precision Cardiovascular Medicine™

American Heart Association Discovery Grants

Supported by **Bayer Group**

Key Dates

RFA Posted:	February 15, 2017
Application Deadline:	April 13, 2017
AHA Peer Review:	April-May, 2017
Notification of Awards:	June, 2017
Award Start Date:	July 1, 2017

Award Objectives and Characteristics

Announcement

The American Heart Association Institute for Precision Cardiovascular Medicine announces a Request for Applications for the Discovery Grants supported by Bayer Group. The Request for Applications is a continuation of the Discovery Grant program within the AHA Institute for Precision Cardiovascular Medicine.

Purpose

The purpose of the Discovery Grants funded by the Bayer Group (Bayer) is to give insight to **Cerebral Small Vessel Diseases, Chronic Kidney Disease with comorbidities / comortalities,** and **Heart Failure with preserved Ejection Fractions (HFpEF).** Insight into these specific areas from **previously acquired clinical datasets and/or an animal model** to test potential diagnostic and therapeutic target(s) **is highly encouraged.**

Specific Questions to be Answered by this Grant Opportunity
Applicants are requested to focus on one specific impact question below that could have an extraordinary impact on cardiovascular disease and stroke.

Projects will most likely be secondary data analyses, as the goal is to provide outcomes to address specific questions. Applicants must succinctly describe their approach to addressing the question within the grant period.

(**CHOOSE ONE** question for each application.)

A. Small vessel disease - Ischemic stroke – Therapeutic options beyond the brain
Diseases of the cerebral vasculature contribute to diverse forms of brain dysfunction, injury, and cell death. Cerebral Small vessel diseases account for ~25–30% of strokes and are a leading cause of age- and hypertension-related cognitive decline and disability. The specific treatments for cerebral small vessel disease are lacking, and therapeutic options for secondary prevention are limited compared to other common causes of stroke.

Specific impact questions (CHOOSE ONE):

- *Are individuals or populations with specific exposures at heightened risk of cerebral small vessel disease? Do these exposures predispose towards particular cerebral small vessel disease phenotypes?*
- *How can microvascular function be studied non-invasively in hypertensive humans, and do these measures of function respond to hypertension-targeted interventions?*
- *Are there measurable genetic, imaging, or serologic biomarkers that identify individuals most likely to benefit from certain interventions aimed at preventing cerebral small vessel disease progression?*

B. Cardiovascular Disease co-Morbidity/Mortality in Chronic Kidney Disease

Chronic kidney disease and end-stage renal disease are major health burdens worldwide, affecting an estimated 200 million people. Cardiovascular disease is the leading cause of morbidity and mortality in patients with chronic kidney disease. Notably, chronic kidney disease is as an interesting clinical model of accelerated cardiovascular disease and ageing, which offers new perspectives for pharmaceutical drug development.

Specific impact questions (CHOOSE ONE):

- *What is the relationship between obesity, hypertension and chronic kidney disease?*
- *How does microvascular disease develop in chronic kidney disease?*
- *Regarding revascularization outcomes and amputation rate – what are the predictors of amputation in revascularization patients that have diabetes and/or kidney disease?*
- *What are the mechanisms, prevention and treatment of excess cardiovascular disease risk in chronic kidney disease?*

C. Heart Failure with Preserved Ejection Fraction

Nearly half of all patients with heart failure have a normal ejection fraction. The prevalence of this syndrome, termed heart failure with preserved ejection fraction continues to increase in the developed world due to the increasing prevalence of common risk factors, including older age, female sex, hypertension, metabolic syndrome, renal dysfunction and obesity.

Although Heart Failure with preserved ejection fraction affects 50% of all heart failure patients, there is a lack of consensus on the basic pathophysiology and definition, classification, therapeutic targets, and goals for therapy for this syndrome. Identify knowledge gaps which your proposal aims to elucidate.

Specific impact questions (CHOOSE ONE):

- *Are there genotype / phenotype associations driving disease onset and progression and prognostic of outcomes?*
- What are the mechanisms by which heart failure with preserved ejection fraction triggers atrial fibrillation?
- *Are there predictive multi-complex animal disease models of heart failure with preserved ejection fraction which can be validated in humans?*

Duration**:** 18 months. Work must be completed in this time period, there is no opportunity for a typical one-year, no-cost extension.

Award Amount**:** The maximum budget amount an applicant may request is $150,000. The Institute Executive Committee reserves the right to determine the final award amount for competitive projects based on need and potential impact.

Number of Awards: Three grants will be awarded. Awards will be selected based on merit with no minimum number for any specified disease topic. * The Selection Committee reserves the right to determine the final number of awardees.

Appropriate Budget Items**:**

- Salary and fringe benefits of the Principal Investigator, collaborating investigator(s), and other participants with faculty appointments.
- Project-related expenses, such as salaries of technical personnel essential to the conduct of the project, supplies, equipment, travel, and publication costs in accordance with institutional and AHA policies.
- 10% institutional indirect costs may be claimed by one institution.

The Awardee will be responsible for overseeing the total budget for his/her grant. If awarded, the principal investigator and the institution assume an obligation to expend grant funds for the research purposes set forth in the application and in accordance with all regulations and policies governing the grant programs of the American Heart Association.

Data Source: Applications can include data from any source but must be cardiovascular disease or stroke related. Applicants are highly encouraged to utilize the Precision Medicine Platform (http://precision.heart.org) as well as the tools used in support around the Platform to expedite or assist their research.

Awardees will be expected to deposit data resulting from the project in the AHA's Precision Medicine platform recognizing that data owner policies may apply.

Interim Assessment**:** Awardees must report progress on a written semi-annual (twice a year) basis. Progress may take the form of written reports, video conferencing, phone calls, and/or face to face visits. Reporting will be focused on achievement of stated milestones as indicated in the project timeline.

Final Assessment**:** Upon completion, awardee will be evaluated on the extent to which the project has addressed the selected question. Assessment will occur in a format of the AHA's choosing.

Application Submission

Applications must be submitted using the AHA's online submission portal available at Grants@Heart.
The application requires the following documents.

1. Research Proposal (5-page limit including figures and tables, not including literature cited)
   Include the following sections and information:
   - **Specific Aims**
     - Explain which topic you are addressing in scientific and lay terms;
   - **Hypothesis and Approach**
   - **Expected Outcomes and Deliverables**
   - **Timeline and Milestones**
   - **Significance and Innovation**
     - Explain how the proposed research and tools will enhance or utilize the AHA Precision Medicine Platform.

Format

- Only Portable Document Format (PDF) files will be accepted.
- Document must be single-spaced.
- No more than 15 characters per inch (cpi) or an average of no more than 15 characters per inch (includes symbols, punctuation and spaces).
- No less than ¾" margins allowed.
- 60 lines per page are the maximum allowed (The average number of lines per page using the font and point size below will be approximately 50-55 lines)
- Arial Font style, 12-point font size for Windows users; Helvetica Font style, 12-point font size for Macintosh users
- Figures, charts, tables, graphics and legends may be smaller in size but must be clear and legible

2. Literature Cited (no page limit)
   List all literature citations for your Research Plan. There is no page limit for literature references cited.

   Citation references should be limited to relevant and current literature; be concise and select only those references cited in the Research Plan. Standard abbreviations are acceptable with two exceptions: full titles and full paging must be provided. Use of EndNote, Mendeley, RefWorks or similar programs is encouraged.

   Each reference must list:
   - Authors in the same order as they appear on the paper (list all or up to 15)
   - Title
   - Name of the book or journal
   - Volume number
   - Page numbers
   - Year of publication

3. Data Access Approval Letters (no page limit)
   Include letters of approval of access from the Data Access Committees for all datasets proposed in your work. Letters of approval contingent on award will be accepted. If you are the owner of the data, please state clearly in this section.

4. Budget Justification (form)
   How you propose to utilize the funds if awarded.

5. BioSketch (5-page limit)
   Use of the NIH biographical sketch is required for AHA programs. Use the NIH **General** Biographical Sketch Format.

Peer Review Criteria

To judge the merit of the application, reviewers will comment on the following criteria. Please be sure that you fully address these in your proposal.

Approach: Are the conceptual framework, design, methods and analyses adequately developed, well integrated, well-reasoned and feasible and appropriate to address the defined question? Does the applicant acknowledge potential problem areas and consider alternative tactics? ***Is it reasonable to expect meaningful results to address the question in the award time frame?***

Investigator(s): Is the investigator appropriately trained and well suited to carry out this work? Is the work proposed appropriate to the experience level of the principal investigator and other researchers? Does the investigative team bring complementary and integrated expertise to the project (if applicable)?

Access Restriction: Does the investigator have the necessary access to the data in the proposed work? If not, how will the application impact the project timeline and milestones?

Significance and Innovation: If the project is completed will it have a large impact for cardiovascular disease and stroke? Will the project create tools to enhance the sharing of resources for the research community? How does the proposed work enhance the global mission of sharing tools, data and research to build healthier lives free of cardiovascular disease and stroke? Does the project develop or employ novel concepts, approaches, methodologies, tools or technologies to address the question?

An applicant is prohibited from contacting AHA peer reviewers. This is a form of scientific misconduct and will result in removal of the application from funding consideration and institutional notification of misconduct.

Eligibility

These grants are open to all scientists. Knowledge of biology and/or computer science may be helpful. Collaboration with other scientists (in any field) is optional. Applicants are to provide proposals that adhere to the above broad objectives while specifically addressing the outlined goals.

Faculty/ staff members conducting independent research at time of application. At application, principal investigator must hold an M.D., Ph.D., D.O. or equivalent terminal doctoral degree and must meet institutional requirements for grant submission. There are no field of study restrictions so long as the applicant demonstrates ability to complete the project proposal with the allotted time and money made available by the grant.

Other than the requirement that the Principal Investigator be independent, eligibility for the AHA Institute for Precision Cardiovascular Medicine Data Grants are in no way restricted upon experience level or seniority. While no minimum percent effort is specified, the principal investigator must demonstrate that adequate time will be devoted to ensure successful completion of the proposed project. If the principal investigator is going to name collaborating investigators, their respective percentage effort must be documented.

The Institute for Precision Cardiovascular Medicine research awards are limited to non-profit or public institutions, such as: medical, osteopathic and dental schools, veterinary schools, schools of public health, pharmacy schools, nursing schools, universities and colleges, public and voluntary hospitals and other non-profit institutions that can demonstrate the ability to conduct the proposed research. For Institute awards only, applications will be accepted from federal employees and Veterans Administration employees.

At the time of application, the principal investigator must have one of the following designations:

- U.S. citizen
- Permanent resident
- Pending permanent resident. Applicants must have applied for permanent residency and have filed form I-485 with the U.S. Citizenship and Immigration Services and have received authorization to legally remain in the United States (having filed an Application for Employment Form I-765).
- E-3 Visa - specialty occupation worker
- H1-B Visa - temporary worker in a specialty occupation
- J-1 Visa - exchange visitor
- O-1 Visa - temporary worker with extraordinary abilities in the sciences
- TN Visa - NAFTA Professional
- G-4 Visa - family member of employee of international organizations and NATO

- Hold a faculty position at a foreign University which meets foreign equivalency determinants for a non-profit in the United States.

Awardee must meet American Heart Association citizenship criteria and research status if at a foreign university throughout the duration of the award. Applicants are not required to reside in the U.S. for any period of time before applying for American Heart Association funding.

Relevant Policies

Open Science Policies:

Public Access: The AHA requires that all journal articles resulting from AHA funding be made freely available in PubMed Central within 12 months of publication. It will be the responsibility of the author to ensure this occurs.

Open Data: Any research data that is needed for independent verification of research results must be made freely and publicly available in an AHA approved repository within 12 months of the end of the funding period (and any no-cost extension). Please see AHA's Open Science Policy: http://professional.heart.org/professional/ResearchPrograms/AwardsPolicies/UCM_461225_Open-Science-Policy-Statements-for-AHA-Funded-Research.jsp

Awardees will be encouraged to deposit data resulting from the project in the AHA's Precision Medicine Platform. Restrictions may apply to data governance as set forth by the data owner. The AHA Precision Medicine Platform looks to create a community of tools and resources for all cardiovascular disease and stroke researchers. For more information on the Precision Medicine Platform and the Institute for Precision Cardiovascular Medicine, visit http://precision.heart.org and http://institute.heart.org.

The projects described can have no scientific or budgetary overlap with other funded work. Any inventions, intellectual property, and patents resulting from this funding are governed by the AHA Patent, Intellectual Property and Technology Transfer Policy. The applicant/awardee and institution are responsible for compliance with all American Heart Association research award policies and guidelines for the duration of any awards they may receive. Go to Policies Governing All Research Awards to review AHA policies at http://professional.heart.org/professional/ResearchPrograms/AwardsPolicies/UCM_320256_Policies-Governing-All-Research-Awards.jsp

Award Selection and Other Policies

Final funding recommendations will be approved by the AHA Institute Executive Committee.
Awardees will be required to attend the annual Institute for Precision Cardiovascular Medicine event at Scientific Sessions and will be encouraged to attend the American Heart Association Research Leader's Academy.

For all other relevant policies and Frequently Asked Questions, please see the Application Information website.