

# Uncovering New Patterns Fellowship in Cardiovascular Disease and Stroke

## Key Dates

RFA Posted:	February 23, 2017
Application Deadline:	November 1, 2017
AHA Peer Review:	Feb - March, 2018
Notification of Awards:	March, 2018
Award Start Date:	April 1, 2018

## Purpose

The purpose of this fellowship is to train a generation of postdoctoral fellows in the scientific area of cardiovascular diseases and stroke and cloud computing. Specifically, this funding opportunity seeks to:

- test methods for data harmonization across different datasets to allow critical questions to be asked in larger populations regarding biomarkers, genetic variants, or other variables in cloud computing;
- test new methods for uncovering patterns within and across datasets in cloud computing;
- test new hypotheses for old yet unsolved problems within and across existing datasets in cloud computing;
- identify new biomarkers, genetic variants, behavioral influences, and environmental changes within and across existing datasets in cloud computing.

Applicants are highly encouraged to work within the AHA Precision Medicine Platform and Marketplace of tools, (<http://precision.heart.org>) and provide a detailed paragraph in the research plan as to how the work proposed will serve the greater community.

## Award Characteristics

Duration: Award duration is two years. All work must be completed within this timeframe. No-cost extensions will not be permitted.

Award Amount:

- The Uncovering New Patterns Fellowship is funded at \$75,000/ year for a total award amount of \$150,000 over two years.
- 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: Ten fellowships will be awarded.

Appropriate Budget Items:

- Salary and fringe benefits of the trainee, cloud computing support, travel and health insurance.
- 10% institutional indirect costs may be claimed by the fellow's institution.

The sponsor will be responsible for overseeing the total budget for the fellowship. The sponsor and the institution assume an obligation to expend award 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

Data Source: Applications may include data from any existing source. All data access approval notices are necessary at the time of review.

AHA Precision Medicine Platform: Applicants are highly encouraged to utilize the Precision Medicine Platform (<http://precision.heart.org>) as well as the tools used in support of 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: AHA requires both the fellow and sponsor to submit a written semi-annual (twice a year) basis. Additional progress reporting may take the form of written reports, video conferencing, phone calls, and/or face to face visits. Reporting will include narrative description of accomplishments related to research and training, as well as an inventory of any abstracts and publications produced.

Final Assessment: Upon completion, fellow and sponsor will be evaluated on the extent to which the description of accomplishments related to research and training were achieved, as well as an inventory of any abstracts and publications produced. Assessment may include publications, citations by other researchers, advancement to faculty rank or other metrics.

## Application Submission

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

### Fellow Applicant Documents (1/3<sup>rd</sup> of peer review score)

1. Fellow BioSketch (5-page limit)  
Use of the [NIH biographical](#) sketch is required for AHA programs. Use the NIH **Fellowship** Biographical Sketch Format. The fellow is to include his/her training and career goals in Section 1: Personal Statement. The AHA may request a transcript of the fellow's academic record.
2. Three Reference Letters to be uploaded by submission deadline – (1-2 pages each)  
Those asked to provide letters will be linked to the [Referent Information Page](#). The referent will upload their reference letter through [Grants@Heart](#).

### Sponsor Applicant Documents (1/3<sup>rd</sup> of peer review score)

1. [Sponsor's BioSketch/Bibliography](#)  
The sponsor is required to use the [NIH biographical](#) sketch. Use the NIH **General** Biographical Sketch Format.
2. [Sponsor's Past/Current Trainees](#)  
The sponsor is required to list all past and current trainees.
3. [Sponsor's Training Plan](#)  
The sponsor is required to clarify the role that the applicant played in the development of the proposal, the relationship of the proposed project to ongoing research in the sponsor's laboratory, and how the project will contribute toward the training and career development of the applicant. The sponsor will detail the time he/she will spend with the fellow and how this time will be spent. While no minimum percent effort is specified, the sponsor must demonstrate that adequate time will be

devoted to ensure successful completion of the proposed project. Any additional research support for the fellow must come from the sponsor's laboratory.

4. [Sponsor's Research Project Environment](#)
5. [Sponsor's Grant Support/Funding - Word template](#)  
Sponsor(s) must provide a detailed description of available support, projects available for fellow to work on, and the nature of research activities of each project and how they relate to precision medicine.

## Collaborative Documents (1/3<sup>rd</sup> of peer review score)

These documents may be completed by both the fellow and the sponsor. The fellow applicant will upload these documents in Grants@Heart.

1. [Research Proposal](#) (5-page limit including figures and tables, not including literature cited)  
Include the following sections and information:
  - **Specific Aims**
  - **Significance and Innovation**
  - **Hypothesis and Approach**
    - Include details regarding the existing datasets to be utilized and the tools proposed for analysis on the AHA Precision Medicine Platform.
  - **Expected Outcomes and Deliverables**
  - **Timeline and Milestones**

Note: For all applications that include vertebrate animals or human subjects, applicants must explain how relevant biological variables, such as sex, are factored into the research design, analysis and reporting. Furthermore, strong justification from the scientific literature, preliminary data, or other relevant considerations, must be provided for applications proposing to study only one sex.

### 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
  - 5-page limit
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. If you are the owner of the data, please state so in this section. All data access approval notices are necessary at the time of review.
  4. [Budget Justification](#) (form)  
This section justifies each section of the budget. A component of the budget justification must include a detailed description for the AWS Workspace on the AHA Precision Medicine Platform. For example, include in your proposal how to spend the AWS Service Credits and the amount of space needed over the course of the award in the cloud to store the data.

## Peer Review Criteria

Reviewers will comment on the following criteria. Please be sure to address these in your proposal.

### Overall Impact

To judge the merit of the application, reviewers will comment on the following three criteria, each of which will account for one-third of the overall score.

#### Criterion 1 - Evaluation of the Postdoctoral Fellow (1/3<sup>rd</sup> of the score)

1. Referencing the Postdoctoral Fellow's reference letters and BioSketch; does the trainee have potential to impact research in cardiovascular diseases and stroke?
2. Are the trainee's career plans specified in the BioSketch application?
3. Does the trainee have prior research experience and/or publications or other training that may significantly impact success?
4. What is the sponsor's assessment of the applicant?

#### Criterion 2 - Sponsor/Training Plan and Environment and Evaluation of the Program (1/3<sup>rd</sup> of the score)

Additional research support for the proposed project MUST come from the sponsor's laboratory. The sponsor should clarify the role that the applicant played in the development of the proposal, the relationship of the proposed project to ongoing research in the sponsor's laboratory, and how the project will contribute toward the training and career development of the applicant.

### Sponsor/Training Plan

1. Is the sponsor an independent investigator?
2. Does the sponsor have the experience to direct the proposed research training, as evidenced by a track record regarding productivity, funding and prior trainees?
3. Does the sponsor have adequate current funding to support the trainee's project? Is the funded project related to precision medicine?
4. Does the sponsor demonstrate familiarity with the applicant's career and developmental goals?
5. Does the sponsor allow adequate time to spend with applicant?
6. What does the sponsor expect of the fellow? Are clear metrics outlined for the fellow?
7. Does the sponsor provide a comprehensive training plan that supports the applicant's progress towards his/her research career goals?

## Evaluation of the Environment and Institutional Commitment to the Program

1. Does the scientific environment in which the work will be done contribute to the probability of success for the training experience?
2. What is the level of evidence of institutional commitment?

## Criterion 3 - Evaluation of the Research Proposal (1/3<sup>rd</sup> of the score)

1. Is the proposed project the right balance of challenge, impact, and feasibility in relation to the candidate's experience and training?
2. Does the proposed research project summary include
  - o the specific hypothesis?
  - o the candidate's role on the project?
  - o an overview of each part of the research plan?
  - o specific project aims?
  - o the methodology?
3. Impact: How does this project address the mission of the AHA?
4. Does the proposed project likely enhance career development for the fellow?

### Notes:

\*A new fellow may not have had adequate time to generate preliminary data. Applicants may present preliminary data generated by the sponsor. The assessment of preliminary data, whether generated by the sponsor or the applicant, should be put into perspective so that bold new ideas and risk taking by beginning investigators are encouraged rather than stymied.

\*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.

## Fellow Eligibility

At application, candidate fellows 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 fellowship.

- At the time of award activation, the candidate may have no more than five years of postdoctoral research training or experience (excluding clinical training).
- The fellow will be expected to devote at least 80 percent of full-time work either to research or to activities pursuant to independent research (instead of administrative, clinical, or teaching responsibilities).

- This award is not intended for individuals of faculty rank.

### Exceptions:

- M.D. or M.D./Ph.D. with clinical responsibilities who needs instructor or similar title to see patients, but who devote at least 80% full-time to research training.
- R.N./Ph.D. with faculty appointment. Fellow will be expected to devote his/her time to research or activities directly related to the development into an independent researcher. All other eligibility criteria apply.
- At the time of award activation, the fellow may not be pursuing a doctoral degree.

### Citizenship

A fellow working at a U.S. based institution must have one of the following designations:

- U.S. citizen.
- Permanent resident.
- Pending permanent resident (any resident who has an approved I-765 form and has submitted an I-485 application with the United States Citizenship and Immigration Services).
- E-3 Visa - specialty occupation worker.
- F1 Visa - student.
- 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 – North American Free Trade Agreement (NAFTA) professional.
- G-4 Visa - family member of employee of international organizations and NATO

For awards to non-U.S. based institutions, fellows must hold temporary department appointment or equally eligible position for a fellowship at a foreign University which meets foreign equivalency determinants for a non-profit in the United States.

Fellow must meet American Heart Association citizenship criteria and research status if at a non-U.S. based institution 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.

An awarded fellow must maintain one of the designations listed above throughout the duration of the award.

**Note:** A Postdoctoral Fellowship applicant who is outside the United States at the time of application must provide visa documentation prior to award activation and will be unable to transfer this award to another institution.

### Sponsor Eligibility

It is imperative that the fellow receive counsel and direction from a sponsor who is an established investigator invested in the progress of the project. A single sponsor may have no more than two AHA-supported fellows (predoctoral or postdoctoral) at any time.

At the time of application, the Sponsor 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 non-U.S. based institution which meets foreign equivalency determinants for a non-profit in the United States.

Sponsor 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.

A fellow must have primary responsibility for the writing and the preparation of the application, understanding the Sponsor will play a significant part in providing guidance to the applicant.

AHA does not require but strongly encourages institutions to develop and use Individual Development Plans (IDPs) for AHA training programs. IDPs provide a structure for the identification and achievement of career goals.

The trainee's career goals, as stated in Part A - Personal Statement of the fellow's BioSketch, and the sponsor's training plan must be complementary to one another and focused specifically on the individual. A standardized training plan will not be viewed favorably.

## 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). The programs that are currently exempt include Undergraduate Fellowships, Medical Student Research Fellowships, Pre-doctoral Fellowships, Postdoctoral Fellowships, Mentor/AHA Mentee Awards and Mentored Clinical and Population Research Awards. 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](http://professional.heart.org/professional/ResearchPrograms/AwardsPolicies/UCM_461225_Open-Science-Policy-Statements-for-AHA-Funded-Research.jsp)

Fellows 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 is creating 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/fellow 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](http://professional.heart.org/professional/ResearchPrograms/AwardsPolicies/UCM_320256_Policies-Governing-All-Research-Awards.jsp)

Federally Funded Data Policies (United States):

Applicants must gain approvals from the appropriate governing body of the dataset owner. There are no restrictions on datasets that can be used, other than being related to cardiovascular health. If the applicant intends to apply using **NHLBI funded data**, they may do so in accordance with NIH and NHLBI data access and data sharing policies.

1. Request controlled access to data through dbGaP/BioLINCC with approval from the study's Executive Committee or the study's described vetting process.
2. Store and access the approved specified dataset within a secure cloud framework - using AWS – following [NIH Guidance](#)
3. Develop the tools, algorithms and other work products outlined within the Data Grant type for which the applicant is applying.
4. Access to any BioLINCC or dbGaP - derived data must follow the respective BioLINCC or dbGaP data use agreements, including the outlined prohibition that states that the data cannot be deposited in another resource or transferred to unapproved third parties.
5. Controlled access and data use policies of the NHLBI are different from the open data policy below. Upon conclusion of the project, the data will not remain on the secure cloud framework. According to the NHLBI-funded studies' data access and data sharing policies as well as terms of the NHLBI-funded studies' data use agreement, the source data will either be destroyed or returned to its source.
6. AHA, AWS and grant awardees will not retain any rights to the source data.
7. Any new data, such as harmonized data, resulting during these awards from developing or applying the tools and algorithms may not be deposited in open access repositories; rather, NIH, NHLBI and NHLBI-funded studies policies must be followed.

Any further access to data used from these NHLBI-funded studies would need to be continuously regulated through BioLINCC and dbGaP. Controlled access and Data Use policies and practices must be adhered to and maintained throughout the duration of the project, including the standard provisions of data destruction and disposition terms consistent with those policies.

Awards are not intended to supplement or duplicate currently funded work. Rather, it is expected that submitted applications will describe projects that are clearly distinct from ongoing research activities in the applicant's laboratory. Minor variations from existing research projects are not sufficient to constitute independent and distinct projects.

## Award Selection and Other Policies

Final funding recommendations will be approved by the AHA Institute Executive Committee.

For all other relevant policies and Frequently Asked Questions, please see the [Application Information website](#).