Objective
The purpose of this undergraduate research training program is to encourage promising students, including women and members of minority groups underrepresented in the sciences, from all disciplines to consider research careers while supporting the highest quality scientific investigation broadly related to cardiovascular disease and stroke.

Science Focus
Funding is available for research broadly related to cardiovascular function and disease, stroke, or to related clinical, basic science, and public health problems. Candidates should be interested in basic, epidemiological and/or clinical disciplines that bear on cardiovascular and stroke problems. The extent to which the focus of the project is related to CVD and/or stroke is an important factor considered. However, the applicant is not required to be a part of cardiovascular/stroke-oriented laboratory, clinic or department.

Projects students work on range from basic molecular research to direct physiological studies to clinical studies. Examples include signal transduction, gene expression, vascular wall biology, ion transport, cellular physiology, treatment effectiveness, and biomarkers in CVD/stroke prediction.

The laboratory sponsor and institution are responsible for disclosing the nature of research and activities taking place in the laboratory where the student will be conducting research, and the safety or health-hazards/risks which are known or reasonably likely to be encountered. Students are responsible for learning and following appropriate safety procedures in the laboratory.

Students will not receive college credit for their summer research activities. Therefore, participation in the program will not appear on an official transcript from the institution where the student is assigned.

Target Audience
At the time of application, undergraduate student must:

- Be enrolled full-time in an undergraduate degree program in either a four-year college or university, or a two-year institution with plans to transfer to a four-year college or university by the fall semester immediately following the summer program.
- Have junior or senior academic status in the fall of given year. Students who will graduate in September or before are not eligible.
- Have completed at least four semesters or six quarters of any combination of the following courses by May: biological sciences (biology, biochemistry, molecular biology, cell biology, physiology or lab) and/or physics and/or chemistry (inorganic chemistry, organic chemistry or lab).
- Have completed at least one quarter of college level or AP credit calculus, statistics, computational methods or computer science by May.

Citizenship
At the time of application, 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).

- J-1 Visa -- exchange visitor
- E-3 Visa -- specialty occupation worker
- H1-B Visa -- temporary worker in a specialty occupation
- TN Visa - NAFTA professional
- F-1 Visa - student visa

Awardees must meet American Heart Association citizenship criteria throughout the duration of the award.

Applicants are not required to reside in the United States for any period of time before applying for American Heart Association funding.

Program Structure
The Summer Undergraduate Research Fellowship is structured by the funding research committee as an award in which the students and sponsors apply as a team and are responsible for submitting the application together.

Applicants may find, and apply with, any lab within California, Utah and Nevada that is eligible.

Location of Work
The award may be completed at any accredited institution in California, Nevada or Utah. Students must either be attending an institution within the affiliate, or be a resident of one of these states.

Typically, labs are located in medical schools or major non-profit research institutions that conduct cardiovascular and/or cerebrovascular-related research.

Budget/Annual Award Amount

Trainee Stipend/Salary: $6,000 for the summer research experience

Payment will be made to the institution for disbursement to the fellow. Faculty mentor and institution assume fiscal responsibility. The institution may supplement the award amount. The award is for educational purposes and does not constitute an employee-employer relationship between the student and the American Heart Association.

Direct use of award funds to pay tuition is prohibited. The AHA will not pay dependent allowances.

Because the student receives only a stipend from these awards, additional research support for the proposed project must come from the sponsor's laboratory. The availability of additional funds should be clearly described by the sponsor. Students accepted into the program are responsible for arranging housing and transportation.

Project Support: $500.00 per institution

Duration: 10 weeks minimum (Commences in June).

The student and the laboratory supervisor will determine the number of hours and days the student will spend in the laboratory. The student is expected to devote full-time effort (40 hours per week) for a minimum of 10 weeks to laboratory activities.
Program Requirement
Awardee is required to give an oral presentation at the conclusion of his/her research experience at a roundtable discussion meeting as scheduled by the institution. The oral presentation serves as the capstone session for the program and, therefore, is a mandatory requirement for program completion. Only in exceptional circumstances will this requirement be waived.

Peer Review Criteria
Selection is based on an assessment of the student's application, academic record, and faculty recommendation forms. Preference is given to students with superior academic standing.

To judge the merit of the applicant for the award, reviewers must comment on the following criteria.

Evaluation of the Student

1. Does the student have potential for a research career? If the student has prior research experience, how will they benefit from the summer research program (ex.: new techniques learned)?

2. Is this supported by the student's academic record and the assessment provided by the letters of reference?

3. How well-rounded are the student's interests?

4. Has the student augmented his/her school work with extra curricular activities related to his/her school work?

5. How well-formed are the student's career objectives? How does the summer research program contribute to these objectives?

6. Will this program provide the student with his/her first exposure to research? If the student has already had a research experience, discuss how this will be augmented with the requested program.

7. Are there special circumstances, ethnic, financial, physical or social, that require special consideration?

8. If applying as a student/sponsor team, what is the sponsor's assessment of the applicant?

9. Is the student willing to attend and participate in oral presentations/roundtables scheduled by the institution/sponsor's the student interested in promoting the Student Research Program? The student may be called upon by the American Heart Association where they work, live, or go to school to speak at meetings or to become involved in local activities.

Evaluation of the Sponsor and Environment

1. Is the mentor an independent investigator?

2. Does the mentor have the experience to direct the proposed research training, as evidenced by their track record regarding productivity, funding and prior trainees?

3. Does the mentor have adequate current funding to support the student's work?

4. What is the level of commitment of the mentor towards the development of the student? How involved will the mentor be in the daily supervision of the student?

5. Are appropriate plans in place to orient the student to the laboratory?

6. Is the sponsor willing to provide the opportunity for students to give oral presentations at the conclusion of his/her research experience at a roundtable discussion meeting? The oral presentations provide the
students with the opportunity to discuss their projects with other students and supervisors. Discussion serves as the capstone session for the program.

Evaluation of the Environment

1. Does the scientific environment in which the work will be done contribute to the probability of success for the training experience?

2. Is there evidence of institutional commitment?

Evaluation of the Project Description

1. **Significance**: Does this project address an important problem broadly related to cardiovascular disease or stroke? Is there a clear rationale for the project? What is the likelihood that the research will result in a presentation or publication including the student?

2. **Approach**: Is the proposed approach appropriate to accomplish the stated research goal(s)? Are the student’s role and responsibilities clearly defined? Are there additional educational aspects of the summer program that the student will benefit from (e.g., participation in journal clubs, observation at research meetings, clinical rounds, etc.)

Restrictions

- The student cannot hold a comparable award as a source of supplementation.

- An applicant may submit only one affiliate application per deadline.

- An applicant who is unsuccessful in a competition may resubmit the same or similar application three times (the original plus two resubmissions). The same or similar application submitted for the fourth time will be administratively withdrawn.

- No lab can have more than three AHA undergraduate awardees.

- The AHA undergraduate research training program is a full-time endeavor for the student. For this reason, students are not permitted to take MCAT classes while enrolled in the program.