



2007 CHORI Summer Student Research Program NHLBI Training of High School Students

APPLICATION DEADLINE: February 1, 2007 at 5:00 p.m.

AWARD ANNOUNCEMENT: March 22, 2007

DURATION OF PROJECT: June 11 – August 10, 2007

Program Description:

The National Heart, Lung, and Blood Institute (NHLBI) have announced an opportunity for High School students to participate in an outstanding Science Training Opportunity. This nine-week program is designed to support High School students, for the summer to learn, discover and have hands-on experience in a research laboratory environment. The program is sponsored by the NHLBI, NIH. Participating applicants will be awarded a summer stipend of approximately \$3000.00. The goal of this program will be to expose young students to a laboratory research environment in a medical center and to cultivate continued interest in scientific research such as sickle cell disease and thalassemia.

Criteria:

Each student will be assigned a faculty mentor and will work in his or her laboratory. However, before being allowed to enter laboratories, some of which utilize biologically or chemically hazardous or radioactive materials, all students must attend safety classes dealing with these hazards. Once in the laboratory, students will be assigned mini- research projects or work with laboratory staff on ongoing research. Students will be encouraged to work on research projects started in their first summer during the following school year and/or during the next summer. Students who complete sufficient research in one or more summers will be encouraged to present at local or national scientific meetings and may successfully contribute to papers published in peer review journals.

Student selections will be based on the applications submitted, grade point averages, student's statements of goals, and recommendations from teachers.

Eligibility:

1. Applicants must be students in good standing with an interest in science.
2. Students should be in their junior or senior year of High School and have completed at least one science course (Biology, Chemistry or Physics).
3. Applicants must submit their most recent transcript, with a 3.0 or better GPA, as part of the application.

Applications are complete upon receipt of the following information:

1. Completed application
2. On a separate sheet of paper, please write an essay of 500 words or less that addresses the following topics:
 - Community and/or outreach activities you have participated in and/or organized independently or with any other organization.
 - The reasons why you want to participate in the CHORI Summer Research Program
 - The goals you hope to achieve through this program.
3. Letters of recommendation: Two letters of recommendation are required. Letters can be written by at least one teacher, and a counselor or school official. They should address the applicant's educational achievements and potential to succeed. The letters of recommendation may be sent with the application in a sealed envelope or separately, however no application will be considered until all items are received.
4. Official Transcript

Send Completed Application And All Supporting Materials To:

Children's Hospital Oakland Research Institute
Attention: Summer Research Program
5700 Martin Luther King, Jr. Way
Oakland, CA 94609

Due Date: 5:00 p.m. on February 1, 2007

2007 CHORI SUMMER RESEARCH PROGRAM CURRICULUM

Orientation, June 11, 2007

There will be an all-day orientation for summer interns on Monday, June 11, 2007, from 10:00 am until 4:00 pm. Lunch will be served.

Agenda to include:

- Introduction and overview by Director and Co-Directors
- Keynote lecture
- Explanation of curriculum
- Mentor announcements

Safety Training, June 12, 2007

The mandatory Safety Training with CHORI Safety Officer, Miriam Fang will be held on Tuesday, June 12 from 9:30 – 12:00. The student will be required to complete this training BEFORE beginning their project.

Research Project: June 12 to Aug 10, 2007

The student will conduct research with assigned mentor. The details of project and research plan are left entirely to the individual mentor and each summer intern will follow the procedures, and schedule laid out by their respective labs.

Submit Written Research Plan: June 29, 2007

Students must submit to the Scholars Program Coordinator a written Research Plan outlining their project. The Research Plan should be 3-4 pages long and include:

- (a) Statement of hypothesis
- (b) Specific aims
- (c) Background
- (d) Methods
- (e) Anticipated outcome of project

Students will work closely with their mentor in the preparation of these reports, and mentors should review and approve the reports before submission. Figures, flow charts and schematics may be used to illustrate the research plan. The written report will be sent to: summerstudentprogram@chori.org, and must include student's name, mentor's name and the title of the project.

Presentations at biweekly meetings

Meetings will be held every two weeks, at which students are required to present their research plan in an informal setting to the Program Director, Co-Directors and peers. This is designed to aid them in discussing their projects with their peer group, and to help them to obtain an overall perspective of their progress. Each presentation should last approximately 10 minutes.

Weekly Lectures: Current Topics in Health and Disease

Students are required to attend weekly lectures delivered by CHORI and CHRCO faculty members. The lectures will cover various scientific topics, including women's and minorities issues, career decisions, teen health issues and Responsible Conduct of Research.

2007 CHORI Summer Student Symposium, August 10, 2007

A one-day symposium will be held on Aug 10, 2007, where all students are required to participate. The students will submit an abstract concisely summarizing their work, which will be considered for an oral or a poster session for the Symposium. Abstracts are due on July 27, 2007. A committee comprised of the Director, Co-Directors and other leading members of the CHORI scientific community will review the abstracts for the Symposium. Students will work closely with their mentors in the preparation of abstracts and presentations. Family members, teachers, lab members and friends are welcome to attend. Details of the Symposium and the scientific sessions will be available by Aug 3, 2007.

The Symposium will comprise of about 15 oral presentations (10 min each, with 5 min discussion), and a poster session during which the presenters will be on-hand to explain their research project. An abstract book, which will include the Symposium program, personal statements, and the research project abstracts, will be presented to each student. A catered breakfast and lunch will be provided for all attendees on the Symposium day.

A certificate of participation in the CHORI Summer Student Research Program will be awarded to those who successfully complete the program.

Summary of important dates:

June 11, 2007	Orientation: 10:00 A.M. – 4:00 P.M.
June 12, 2007	Safety Training: 9:30 A.M. – 12:00 P.M.
June 29, 2007	Written Research Plan due
July 6, 2007	Personal Statement for Program Guide due by 5:00 P.M.
July 27, 2007	Abstract for Program Guide due by 5:00 P.M.
August 10, 2007	Summer Student Research Symposium

Please address any additional questions and concerns to:
summerstudentprogram@chori.org

Application

2007 CHORI Summer Student Research Program

Sponsored by:
The National, Heart, Lung, and Blood Institute
The National Institutes of Health

Supplement to: Comprehensive Sickle Cell Centers

Application Deadline: February 1, 2007

Name: _____
Last First MI

Address: _____
City State Zip

Telephone number: () _____

School address: _____

Date of Birth _____ Grade-Point-Average _____

E-mail address _____

Year in School as of January, 2007 (check one) Junior _____ Senior _____
Other (please specify): _____

Courses: Biology _____ Chemistry _____

Physics _____ Other Science Course _____
(Please specify)

Year of Graduation: (Expected) _____

This is to certify that I agree to a full-time commitment during the dates of June 11 – August 10, 2007, if I am selected to participate in this program

Signature Date

Parental Signature (if applicant is a minor – under 18):

Date: _____

Teacher Reference Form

* Teachers may use this form or write a letter of recommendation

2007 CHORI Summer Student Research Program

Sponsored by:
The National, Heart, Lung, and Blood Institute
The National Institutes of Health
Supplement to: Comprehensive Sickle Cell Centers

Application Deadline: February 1, 2007

Name Of Applicant: _____
(Last) (First) (Middle)

Home Address: _____

School Now Attending: _____

Teacher's Name: _____ School: _____

How Long Have You Known The Applicant? _____

In What Academic Subjects Have You Taught The Applicant?

Subject: _____

Year Taught: _____

Grade: _____

Signature: _____ Date: _____

The following checklist is provided for those who feel comfortable using a rating system and know the student well enough to give us an accurate assessment of him/her in comparison to other students. We hope that it will provide a convenient method for you to describe the candidate in summary fashion. If you prefer, you may write a letter rather than complete this form.

	No Basis For Judgment	Below Average	Good	Excellent Average (Top 10%)	Outstanding (Above Average) (Top 5%)
Initiative/Motivation					
Intellectual Curiosity					
Oral Communication					
Written Communication					
Creativity					
Energy					
Self-Confidence					
Leadership/Influence					
Responsibility					
Integrity					
Concern for Others					
Warmth of Personality					
Sense of Humor					
Emotional Maturity					

Academic/Intellectual:

1. Other parts of the students file provide details on academic accomplishments. In what ways might you distinguish this student’s academic performance from other able students?

2. As distinct from academic performance above, please comment on the student’s intellectual attitude, curiosity, and enthusiasm for learning.

Personal/Interpersonal:

1. What do you like best about this student? In what ways has the student made an impact in your class, the school or the community?

2. Are there any factors that might interfere with the candidate's academic performance and/or personal relationship in this program?

Additional Information:

1. Please describe any other unusual accomplishments or personal circumstances that we should know about this student

Summary:

Your estimation of this applicant's promise as compared to other students:

	Below Average	Average	Good (Above Average)	Excellent (Top 10%)	Outstanding (Top 5%)	One of Top Few of My Career
Academic						
Personal						
Overall						