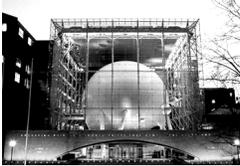


AMERICAN MUSEUM OF NATURAL HISTORY

Information Booklet for the

Science Research Mentoring Program



**For students interested in biodiversity, genetics,
conservation biology, and anthropology**

APPLICATION DEADLINE

June 1, 2010

The Science Research Mentoring Program is a **free two-year program** open to students who are in the tenth or eleventh grade in a New York City high school or home school as of the Fall of 2010. Students are linked to mentors who are Museum scientists and educators, and receive in-depth training and support that enables them to take part in scientific research conducted at the Museum. The Program seeks students who are interested in the biological sciences and/or anthropology, and who are considering a career in science.

The American Museum of Natural History is a world-class scientific and research institution. Behind the Museum's 45 plus exhibit halls, out of the public view, more than 225 scientists work in over 100 laboratories in departments that house approximately 32 million specimens and artifacts. Museum scientists are actively engaged in research using the collections, going on expeditions, and conducting experiments with the latest technology in state-of-the-art facilities. From sequencing DNA to excavating dinosaur fossils in Mongolia, and from studying coral reef systems in the Bahamas to collaborating with "descendant communities" to uncover the cultures of the past and the present, Museum scientists are involved in the most current topics and issues in science today.

Mentors participating in the NSF-Science Research Mentoring Program work in the fields of anthropology and the biological sciences, including biodiversity, evolution, conservation biology, and genetics (in the context of evolution and the studies of populations). The scientists have web pages on the Museum's website. To find out more about their research, check out <http://research.amnh.org>.

Please contact Hilleary Osheroff, Department of Education, at (212) 769-5141 or srmp@amnh.org if you have any questions.

What You Get

If you are selected as one of the 40 students in the program, you will receive:

- Courses in the biological sciences that will provide the knowledge you need to conduct research with a scientist.
- Training in how to conduct research. You'll get an overview of the methods used in different scientific disciplines, and learn the particular approaches used in the specialty you choose.
- Up-to-date information and knowledge in science. Whatever area you focus on, you'll get both basic and advanced content that can help you in your current schooling and in your preparation for higher education.
- A mentor and a network of support. You'll be linked with one or more scientists, educators, or Museum staff who will guide you in your learning and research. And you'll have peers and other adults to call on for help and fun.
- Familiarity with the latest technologies, from scanning electron microscopes to DNA sequencers to supercomputers.
- Invitations to special programs and lectures at the Museum.
- Privileges of an insider at the Museum. You'll be where the public isn't, behind the scenes and in the collections, in the labs and departments.
- College prep. Tours of area colleges; free help in preparing for the SATs with **Kaplan, Inc.** You will also receive help choosing, and applying to college.
- Career awareness and connections. You'll find out about the huge range of things you can do with a scientific background, and be connected to industry and scientific applications in your area of specialization.
- Field trips. You'll get to see science, nature, and research in action; go to environmental settings, labs, and scientific institutes, industries, and businesses that use scientific research; visit, other science museums, colleges, and universities; and go on group adventure experiences.
- A \$500 stipend at the end of the July 2011 Research Institute and another \$500 stipend at the end of the second year mentoring component.

Time Commitment

The program is an intensive experience. You are asked to commit to attending programming during September 2010-May 2011, July 2011 and October 2011 – May 2012. The tentative schedule is as follows:

- First academic year (Oct 2010-May 2011): You come to the Museum twice a week from **4:30-6:30** for after-school courses.
- Summer 2011: You will attend a four-week Research Institute that meets during the month of July, Monday through Friday, 10 a.m. – 3 p.m. You will participate in a lab skills workshop in the morning, have a one hour lunch break, followed by work with your mentor in the afternoon. You will also go on field trips on certain days.
- Second academic year (Fall 2011 – Spring 2012): You come to the Museum at least 2 times a week after school, from 4:30 to 6:30, for group advisories/courses and independent research; this time, the focus is on data collection and analysis, presentation and communication, connections to the field and to future careers, and next steps in your education.

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What We Expect

Regular attendance and positive group participation

- Reading suggested articles and references
- Writing, including keeping lab/ field journals about scientific learning and reflections on experiences in the program
- Letting us know, or your mentor know, in advance when you can't make it
- Asking for help and support when you need it. Everyone comes in with different skills and needs. It's okay to ask and say when you need something!
- Suggestions to improve the program, and telling us when something isn't going well for you or needs to be changed

Criteria for Selection

You must be:

- In the 10th or 11th grade in a New York City high school as of Fall of 2010.
- Performing at grade level or above (at least a B grade point average)
- Able to get to the Museum after school by 4:30 p.m.
- Available during the time periods spelled out in the *Time Commitment* section above

We're looking for:

- Commitment and follow-through
 - Can you make the time commitment as outlined above?
 - Can you balance the demands of school with this program?
 - Can you stick with the research, ask for help when you get stuck, repeat the experiment when it doesn't work?
- Interest
 - Do you have a passion for a question, a fascination with a topic, a yearning to find out?
 - Do your interests match up with what the Museum has to offer?
- Willingness
 - To try new things
 - To work hard

To put together a great group, we're also looking for a range of skills and interests. Our programs attract young people from many cultural and ethnic backgrounds, speakers of languages other than English, and young people with disabilities. We're especially interested in recruiting young people whose opportunities to pursue science have been limited by lack of access to facilities or to high quality science or mathematics courses, or because they are from groups traditionally underrepresented in science – people with disabilities, women, and those from ethnic and racial minority backgrounds.

We'll review applications as they come in, and call you in for an interview with several of our program staff. So if you're interested and can make the commitment, please take the time to fill out an application.

THANK YOU FOR YOUR INTEREST!

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Complimentary test preparation and college admissions support for program participants is generously provided by Kaplan.

The Science Research Mentoring Program is based on extensive experience garnered from previous research programs for high school students at the Museum—the High School Science Research Program, the Precollege Science Collaborative Program, the Hayden Community Astrophysics Program, the ASCEND Genetics Program, and the Creative Expressions in the Arts and Sciences Program.