

## Choose Ohio First Scholarship Program in Bioinformatics

### Guideline for Students from Miami University

Bioinformatics, the use of computers to analyze and manage biological and medical data, is one of the fastest growing areas in science today. The need for bioinformatics has been driven by the vast amount of data that can now be generated and is growing exponentially due to improvements in current technologies such as DNA sequencing and microarrays. As personalized medicine and other high-technology domains emerge in pharmaceutical and agricultural industries, the rate of growth in the amount of biological data will continue to increase dramatically. Thus, bioinformatics will become an increasingly important technology that enables biological discoveries. The Ohio Bioinformatics Consortium (<http://ohiobioinformaticsconsortium.org/>) has initiated a scholarship program, funded by a grant from the Choose Ohio First (COF) Scholarship Initiative Program of the State of Ohio. Miami University is a partner of the statewide consortium of a dozen universities and industries. The goal of the COF- Bioinformatics Scholarship Program is to set Ohio on the track to be a leader in the bioinformatics industry by ensuring a well-prepared pool of diverse, highly-trained students to enter the bioinformatic workforce in Ohio.

**Scholarship Selection Criteria.** The COF-Bioinformatics Scholarship Program is designed to blend both merit and need-based aid for academically talented Ohio residents with an emphasis on academic excellence, leadership, and preparation for a future career in science and technology. Eligibility will be based on academic achievement, as assessed by grade point average, class rank, standardized test scores, and financial need. To ensure access for all Ohioans, special consideration will be given to underrepresented minorities and those who are first generation or low-income students.

To capture potential students that may “find” bioinformatics “late” in their academic careers, undergraduates may apply as freshmen, transfer students or at any time during their academic career. Students who wish to apply may major in a range of academic disciplines that utilize computer science to manage biological data. These include botany, microbiology, zoology, chemistry/biochemistry, math, statistics, physics, geology, and School of Engineering.

**Eligibility.** All students must be a resident of Ohio, freshman should rank in the top 20 percent of his or her high school graduating class, or have a minimum 25 ACT or 1150 SAT. All other undergraduates will be evaluated on their previous college record (an overall GPA of 3.0) and statement of their future career goals and how participating in this program will impact their career goals. Renewal of the scholarship will be based on the performance of students in the previous semesters, evaluation of the scholarship committee, and the availability of funding.

**Retention.** All COF- Bioinformatics Scholarship students will be personally mentored/advised by faculty members involved with the Ohio Bioinformatics Consortium at their respective institutions. These students are required to participate in tri-weekly discussion forums in addition to taking a bioinformatics related course. All students are strongly encouraged to perform independent research projects or participate in a research project with a faculty member who are doing bioinformatics research. A recommendation letter from the faculty member will be required for renewal of the scholarship. Students will build community across the State by participating annually at Ohio Collaborative Conference on Bioinformatics (OCCBIO; <http://www.occbio.org/2009/>).

# APPLICATION for BIOINFORMATICS SCHOLARSHIP

Bioinformatics Scholarship Committee, Miami University

## Eligibility:

- Ohio residents who are enrolled at Miami University in the following disciplines: botany, chemistry/biochemistry, computer science, geology, math/statistics, microbiology, physics, zoology, and School of Engineering.
- Undergraduate students willing to develop a strong background in both biology related fields *and* in the use of computers and computer programming. (Please see the attached Guideline for more details.)

## Materials Required:

1. Completed Bioinformatics Scholarship Application form (this page).
2. A maximum of one (1) page statement about your career goals and how this scholarship will help you reach the goals.
3. Submit ALL application materials as **ONE pdf file** (use your last name as the file name) as an attachment in an e-mail to Dr. Quinn Li at [Bioinfo@muohio.edu](mailto:Bioinfo@muohio.edu).
4. Applicant who is seeking renewal of the scholarship should also request a reference letter from the professor with whom she/he has been doing bioinformatics project. The letter should be sent directly to the same e-mail address.

**Application deadline: Friday, April 17<sup>th</sup>, 2009.** Awards will be announced by early May 2009 through e-mail.

## Please Type or Print

Name \_\_\_\_\_ Banner Student ID # \_\_\_\_\_

E-mail address \_\_\_\_\_ Phone number \_\_\_\_\_

Department and Major/Minor \_\_\_\_\_

GPA \_\_\_\_\_ ACT/SAT (freshman) \_\_\_\_\_ High School Class Percentile (freshman) \_\_\_\_\_

Academic Standing (mark one or delete others):      Freshman      Sophomore      Junior      Senior

## List of courses (course # and title) taken that are related to Biology and Computer Science/Statistics:

1. Biology: \_\_\_\_\_

\_\_\_\_\_

2. Computer science/Statistics: \_\_\_\_\_

\_\_\_\_\_

3. Other related courses that may prepare you in dealing with biological data using computers: \_\_\_\_\_

\_\_\_\_\_

Membership of underrepresented groups (specify): \_\_\_\_\_.

Special financial need or criteria for considerations: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Attachment: up to one page statement of your career goals and the potential role of bioinformatics to your success.**