**Biographical Sketch template for Scholar and Research Honors**

*All candidates should use the following template where possible.*

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| BIOGRAPHICAL SKETCH | | | |
| NAME  Aspiring C. Graduate | | | |
| EDUCATION/TRAINING | | | |
| INSTITUTION AND LOCATION | DEGREE | MM/YY-MM/YY | TOPIC/MAJOR |
| Random High School, Midwest ST | HS | MM/YY-MM/YY | NA |
| Local University, Midwest ST | -- | MM/YY-MM/YY | STEM coursework |
| Distant University, Foreign Shores | -- | MM/YY-MM/YY | Workshop on molecular evolution |
| The University of Chicago, Chicago IL | BA | MM/YY-MM/YY | Biochemistry and Biology, Specialization in Genetics |

*Note, please indicate the expected graduation month and degree above.*

A. Personal Statement

*Briefly describe why your experience and qualifications make you particularly well-suited for Honors in Biology, whether Scholar or Research Honors.*

My interest in biology was stimulated by my research experience as a research intern at Local University where I took classes after completing the science curriculum at Random High School. In the Quirky lab, I had the opportunity to work with a team of graduate students to apply microfluidics to count erythrocytes and leukocytes in blood. The resulting project formed the basis of my Intel Science project, which received Honorable Mention, and our results were presented at local meetings and published in PLOS Microfluidics. At the University of Chicago, I have had several stimulating courses, and have pursued the Biology major with specialization in Genetics, but have not had the opportunity to perform independent research. After winning a travel grant, I was able to attend a summer workshop in 2012 at Distant University. The course provided me with a strong computational foundation for the analysis of evolutionary relationships, but I realized that I would be happier as an experimental geneticist. For my Research Honors thesis, I hope to pursue a genetic and microscopic analysis of yeast cell polarization in the Sublime lab, taking advantage of my experience in microfluidic design and control to stimulate yeast with gradients of pheromone.

B. Honors and Activities

**Honors**

*List any academic honors, including high school, using format:*

2011 Valedictorian, Random High School, Midwest ST

2011 Honorable Mention, Intel Science Talent Search 2011

2011-pres. State Governor's Scholarship

2012-pres. Merit Scholarship, The University of Chicago

2012-present Dean's List, The University of Chicago

**Activities**

*List in chronological order any significant previous and ongoing activities relevant to biology or other STEM sciences, including prior and current research internships, leadership or active roles in science-related organizations, tutoring or other teaching, participation, using format:*

2008-2011 Research intern, Dept. Chemical Engineering, Local University, Midwest ST

Developed microfluidic device to separate blood cells. Mentor: S. Quirky PhD

2011 Tutor and Technology Coordinator, Neighborhood Schools Program, Lincoln High, Chicago IL

Developed website for biology class and tutored twenty high school freshmen and sophomores

2011-present Vice President, University of Chicago Genetics and Systems Biology Club

C. Publications, Abstracts, Presentations

*In a numbered list in chronological order, include up to fifteen publications, abstracts, oral presentations or other public reports of your research or other activities, beyond work done for a course. Please be inclusive, including manuscripts in press, submitted, in preparation or planned.*

1) **Graduate, A.C.,** "Blood analysis with microfluidics," Midwest University Summer Undergraduate Research Symposium, 2011 (abstract, platform presentation)

2) Quirky, S., Hopeful, G., and **Graduate, A.**, "Rapid blood analysis," U.S. Patent Application, 2011

3) Hopeful, G.S., **Graduate, A.C.**, and Quirky, S., "A novel microfluidic strategy for rapid point-of-care blood analysis," PLOS Microfluidics, 2012

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