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of NORTH CAROLINA
at CHAPEL HILL

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Administrative Boards of the College of Arts and Sciences
Office of General Education
UNC-CH

Dear Colleagues:

UNC-Chapel Hill Biology in Shanghai Summer Program

This letter is to seek approval for the establishment of a UNC-Chapel Hill Biology in Shanghai Summer Program to be led by Associate Professor Gregory P. Copenhaver in Summer 2016. The 6 week program will run, tentatively, from mid-May to mid-June and will be based at the School of Life Sciences at Fudan University in Shanghai, China. It is anticipated that the program, with the same academic content, will be offered annually thereafter, led by Dr. Copenhaver or another Biology faculty member. The establishment of this program is supported by the Department of Biology.

Partner Institution

Fudan University is generally considered to be one of the top five universities in China. It consists of 28 schools and departments with 70 undergraduate disciplines. The University confers bachelor's degrees in 70 academic disciplines, master's degrees in 229 disciplines, and doctoral degrees in 78 disciplines, and the institution hosts 29 research stations that offer postdoctoral fellowships. Fudan University's enrollment is approximately 26,000 degree-seeking students. For more information about Fudan University, see:

<http://www.fudan.edu.cn/en/>

Fudan University's School of Life Sciences consists of five departments: the Department of Biochemistry, Department of Ecology and Evolutionary Biology, Department of Genetics and Genetic Engineering, Department of Microbiology and Microbial Engineering, and Department of Physiology and Biophysics. In addition, there are six research institutes and centers: the Institute of Biodiversities, Institute of Developmental Biology and Molecular Medicine, Institute of Genetics, Institute of Plant Biology, Center for Biotechnology, and Center for Evolutionary Biology. The School has a nationally-funded State Key Laboratory of Genetic Engineering and two key laboratories supported by the Ministry of Education: the Key Laboratory of Biodiversity and Ecological Engineering and the Key Laboratory of Contemporary Human Biology.

Fudan University has a professional International Students Office dedicated to fostering exchanges and supporting international student groups from around the world. The School of Life Sciences successfully hosts a summer life science program with Penn State University.

Fudan University is an existing student exchange partner of the University of North Carolina at Chapel Hill. There are also a number of research collaborations between UNC-Chapel Hill and Fudan University, including that between Dr. Copenhaver and Dr. Hong Ma, Professor and Dean of Life Sciences at Fudan University. These research collaborations, when considered in the context of the existing student mobility between the two universities, and now this proposed new summer study abroad program, justify Fudan University being considered to be an emerging strategic partner for UNC-Chapel Hill.

Dr. Bob Miles, Associate Dean for Study Abroad and International Exchanges, visited Fudan University in March and in June 2013 and again with Lindsay Heiser, Asia Programs Director, in June 2014, the latter visit with the specific objective of meeting with faculty and staff involved with, and to review the facilities for, this proposed new program.

Program Rationale

This program increases the offerings of science courses abroad and supports our mission of increasing participation by students in majors not traditionally associated with study abroad, due to strict sequential course requirements and other factors such as clinical hours obligations.

Additionally, the proposed program will expose UNC students pursuing careers in the life sciences and/or research to the culture and customs of another country, while enriching students' understanding and sophistication in molecular cell biology and reproductive systems. Learning from both UNC and Fudan University faculty and alongside Fudan students will give students an important sense of global collaboration in the life sciences.

The program will consist of classroom discussions, lectures, laboratory visits, and group excursions to cultural sites in Shanghai, allowing students to learn the course content while experiencing Chinese culture through organized activities and interaction with Chinese students in and out of the classroom. Fudan University students will be able to take the courses along with our students, creating an excellent opportunity for cultural integration within the academic program structure (The courses will each have a UNC course number for UNC students and a Fudan course number for Fudan students. There will be no cross-registration; UNC students will earn UNC credit and Fudan students will earn Fudan credit).

Academic Credit and Prerequisites

All students will take a total of 6 UNC-CH graded-credit hours for the program as follows:

BIOL 425 Human Genetics (3 credits). Pedigree analysis, inheritance of complex traits, DNA damage and repair, human genome organization, DNA fingerprinting, the genes of hereditary diseases, chromosomal aberrations, cancer and oncogenes, immunogenetic and tissue transplants.

BIOL 443 Developmental Biology (3 credits). This course will provide students with a modern understanding of developmental biology with a special emphasis on reproductive biology. The content provides an extensive learning experience for students who are interested in graduate schools and health professional schools. Course topics will include: development of human reproductive system, physiological and hormonal regulations of reproductive structures and functions in humans, abnormal development of reproductive organs such as cancers in humans, genes and proteins important for the normal reproductive development and function, and genetic studies in a number of experimental organisms, including mice, fruitflies, worms, and plants.

BIOL 425 will be taught by Dr. Copenhaver and BIOL 443 will be taught by Dr. Hong Ma, who has been granted adjunct instructor status in the Department of Biology as of December 2014. Both courses are already approved offerings in the Department of Biology. Each course will meet for 45 contact hours. Both courses will meet daily for the entirety of the program.

Prerequisites for this program are BIOL 202 and a grade of C or better in BIOL 101 and CHEM 101 or 102. The two program courses are highly complementary and students will be able to take the courses concurrently and not be at a disadvantage.

All participants will also earn one TREQ credit for a survival Chinese language course.

Program Director

Dr. Gregory P. Copenhaver is an Associate Professor at the University of North Carolina at Chapel Hill with joint appointments in the Department of Biology and the Carolina Center for Genome Sciences. In addition, he has an appointment with Fudan University's College of Life Sciences as a Distinguished Adjunct Professor, where he co-advises graduate students and visits multiple times a year. Dr. Copenhaver received a B.S. in Botany from the University of California at Riverside (1990) and a Ph.D. in Biology and Biomedical Sciences from Washington University in St. Louis (1996). Dr. Copenhaver came to UNC-Chapel Hill in 2001 and has affiliations with the Lineberger Comprehensive Cancer Center (Associate Member), Curriculum in Genetics (member), and Center for Bioethics (Faculty Associate) on campus. Dr. Copenhaver's lab is, in broadest terms, interested in understanding how chromosomes function and the dynamic processes that influence them. More specifically, his lab is interested in understanding how meiotic recombination is regulated at the genomic level in higher eukaryotes; a second research area is investigating the role of centromere DNA in chromosome biology.

Program Location and Safety

The program will be housed on the residential campus of Fudan University. Fudan University is within walking distance to shopping and restaurants and easily accessible to other parts of Shanghai by a highly efficient metro system, bus, and taxi. Our students will stay in shared double rooms on the Fudan University campus and will have access to the many amenities and services on the campus, including the campus library, cafeterias, sports and exercise facilities, and the International Students Office. Dr. Copenhaver will live in an apartment near our students, arranged by Fudan University. There are numerous international-standard medical facilities in the city that partner with our insurance provider, HTH, three of which offer 24/7 emergency medical assistance. Shanghai is a safe place for visitors, according to the Department of State travel site, with petty street crime and business disputes being the most common concerns for Americans in China.

Fudan University Support Services

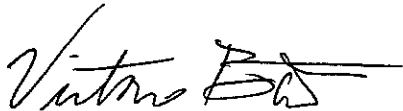
Fudan University will provide our students with an orientation program, introducing them to life in Shanghai, transportation, medical care, emergency contacts, survival Chinese (though all classwork will be done in English and Fudan will provide English speaking program assistants to aid our students), and cultural activities during the program. On-site support and administration will include, for the duration of the program, our Faculty Director, relevant Fudan University School of Life Sciences faculty members and program assistants, and Fudan International Students Office staff.

Program Requirements and Size

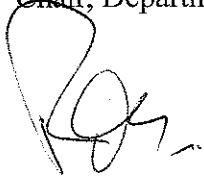
The minimum GPA requirement will be 3.0 and students must have at least Sophomore status. There is no Chinese language requirement. The expected number of student participants is between 8 and 15.

We are happy to provide any further information that you may need to evaluate this proposal.

Yours sincerely:

A handwritten signature in cursive script, appearing to read "Victoria Bautch".

Victoria L. Bautch
Chair, Department of Biology

A handwritten signature in cursive script, appearing to read "Bob Miles".

Bob Miles
Associate Dean: Study Abroad and International Exchanges