To provide a unique modern platform for world-class research, to train students and young scientists with an interdisciplinary approach to organisms and to improve human health. Our biology curriculum aims to train students with modern biological molecular, cellular, genomic, and bioinformatics techniques that are now being utilized to study fundamental processes.

Concerned with the workings of life in all its varied forms, biology has been revolutionized by the development of modern chemistry to better prepare them for future challenging careers.

Our program provides students broad training in the forefront of biology and materials science at a fundamental level. Our program is designed to train students to work and undertake their doctoral research under the supervision of NYU Shanghai faculty. Participating students are enrolled in the NYU GSAS Chemistry or Biology PhD program, complete a portion of their coursework at the NYU Departments in New York, and then transition to full-time residence at NYU Shanghai where they finish their coursework.

NYU Shanghai offers the following graduate programs in related disciplines, providing candidates with academically rigorous training and opportunities both in China and around the world.

Undergraduate Studies | NYU Shanghai

- Bachelor of Arts in Chemistry
- Bachelor of Science in Chemistry
- Bachelor of Science in Biology

Graduate Training | NYU Shanghai

- Master of Science in Chemistry
- Master of Science in Biology

Ph.D. Program | NYU Shanghai

- Doctor of Philosophy in Chemistry
- Doctor of Philosophy in Biology

Highlights of the Program:

- Funding through the NYU Shanghai Doctoral Fellowship
- Access to the vast intellectual resources of NYU GSAS, NYU Departments, and affiliated departments at NYU Shanghai
- Collaboration with renowned scholars from all over the world at the NYU-ECNU Center for Computational Chemistry at NYU Shanghai
- Mentorship by a devoted group of faculty advisers who are engaged in cutting-edge research and interdisciplinary collaboration.

The unique synergy of the center in international scientific exchange and collaboration, especially between American and Chinese scientists, provides a strong foundation for researchers to carry out truly challenging and innovative research at a premier international center for computational research in chemistry and related fields.

The mission of the NYU-ECNU Center for Computational Chemistry at NYU Shanghai is to provide a platform for advanced research on modern computational methodologies and high-performance computing. The center conducts research in a wide variety of fields, including chemistry, biology, physics, materials science, and engineering. Researchers work closely with colleagues at East China Normal University, New York University, and NYU Shanghai. The center fosters collaboration with renowned scholars from the United States, Europe, and China, providing opportunities for frontiers and interdisciplinary research.

The NYU-ECNU Center for Computational Chemistry at NYU Shanghai is led by Professor Zhiyi Zhang and Professor Yiming Sun. The center's research is supported by grants from the National Natural Science Foundation of China, the Ministry of Science and Technology of China, and the New York University Shanghai.

The center is housed in the NYU Shanghai Science & Engineering Campus, which is located on the waterfront of the Huangpu River. The campus is designed to foster a collaborative and innovative research environment, with state-of-the-art facilities and cutting-edge technologies.

The NYU-ECNU Center for Computational Chemistry at NYU Shanghai is committed to fostering a diverse and inclusive research community. The center offers a range of opportunities for graduate students, post-doctoral fellows, and research associates, and strong ties with other universities.

For more information, please visit the NYU-ECNU Center for Computational Chemistry at NYU Shanghai website at http://www.nyuscience.com.
Students apply for positions in a 2+ month summer program. In addition to a series of training sessions and social events, students engage in research projects under the mentorship of a professor who is active at the forefront of his or her field of chemistry and any relevant areas of biology.

One such program is the NYU Shanghai Summer Undergraduate Research Experience Program in Molecular Science, known as SRPMS. SRPMS provides students with the opportunity to work with leading scientists on cutting-edge research at the intersection of physical and biological sciences.

**Faculty Advisors**

Professor William Glover is an Assistant Professor of Chemistry at NYU Shanghai. He received his PhD from the University of California, Los Angeles, in 2009 and completed his postdoctoral fellowship at Yale University. He holds a PhD from Institute Pasteur, France, and BS and MS degrees from Peking University, China.

Professor Gang Fang is an Assistant Professor of Biology at NYU Shanghai. He is also Affiliate Assistant Professor at the Department of Biology and Center for Global Biology. He received his PhD from the University of Michigan, Ann Arbor and a visiting scholar at the University of California, San Diego. He holds a Ph.D. in Chemistry from Brown University and a B.S. in Chemical Physics from the University of Science and Technology of China (USTC).

**Student Internship Opportunities: SRPMS**

NYU Shanghai offers a range of internships for students interested in molecular science. These internships provide hands-on experience in research and development, allowing students to apply their knowledge and skills in real-world settings.

Professor Glover's group is interested in developing an atomistic description of light-initiated chemistry in complex environments, with a focus on charge transfer and polarization. They employ state-of-the-art graphical processing unit (GPU) methods to simulate processes affected by therapeutic intervention of cancers, with the aim of probing the mechanics by which this can be achieved.

Professor Gang's research interests are genomics, molecular evolution, and computational biology. He has developed the Vienna Centre for Computational Genomics to model the evolution of the first mammalian target of REG (receptor tyrosine kinase), which is crucial for understanding the evolution of cancer and other diseases.

Professor Li was one of the pioneers in the discovery of the first mammalian target of REG, and his research group is interested in understanding the mechanisms of cancer initiation and progression. They use computational methods to model the complex interactions between proteins and DNA, with a focus on DNA-damaging exogenous and endogenous reactive chemicals.

Professor Zhang's research interests are in DNA damage caused by chemical carcinogens that are byproducts of fossil fuel combustion. His group employs a combination of classical and quantum methods to study the mechanisms of DNA damage and repair, with a focus on understanding the role of DNA-DNA interactions in the development of cancer.

Professor Zhang's group is also interested in the role of protein structure, free energy in protein-drug and protein-protein bindings, conformational dynamics of membrane proteins, structure and function of macromolecules, and energy-conversion nanomaterials. A fundamental goal of his research is to obtain a molecular-level understanding of how these systems interact with biological processes.

Professor Sun's group is interested in the role of protein structure, free energy in protein-drug and protein-protein bindings, conformational dynamics of membrane proteins, structure and function of macromolecules, and energy-conversion nanomaterials. A fundamental goal of his research is to obtain a molecular-level understanding of how these systems interact with biological processes.