An opportunity to train in an interdisciplinary environment at the interface of chemistry, biochemistry, and biology.

The University of Notre Dame and South Bend
The 1,250-acre campus of the University of Notre Dame is located in South Bend, Indiana—26 miles from Lake Michigan and 90 miles from Chicago. Extensive recreational facilities are available on campus, including an ice rink, an Olympic-size pool, two golf courses, tennis courts, fitness rooms, and indoor tracks. South Bend and Notre Dame offer an active arts culture that includes guest and resident artists, theater companies, and symphonies. Numerous Notre Dame athletic events are available.

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Francis Insaidoo, a biochemistry student in Dr. Baker’s lab, is studying the influence of peptide dynamics on T-cell mediated immune responses. Francis uses biophysics, molecular dynamics, NMR, and biosynthetic methods.

Lindsay Sweet, a biology student in Dr. Schorey’s lab, is studying the role of Mycobacterium glycopeptidolipids in modulating the host-macrophage response. Lindsay uses cell biology, NMR and MS/MS.

The $70 million Jordan Hall of Science, opened in 2006, is one of the most advanced science teaching facilities at any university in the nation, allowing students from multiple science disciplines to study side-by-side using state-of-the-art technology.

Tim Wencewicz, a chemistry student in Dr. Miller’s lab, is working on the synthesis and study of siderophore-drug conjugates as potential targets for delivery in bacteria. Tim uses synthetic organic chemistry, microbiology, and biochemistry.

A Unique Education Opportunity

The Chemistry-Biochemistry-Biology Interface (CBBI) Program at Notre Dame is an NIH-funded program that offers students the opportunity to train in an interdisciplinary environment that provides significant cross-training at the interface of chemistry, biochemistry, and biology. CBBI students are offered special research training opportunities by participating in extended internships in industry, government laboratories, other laboratories at Notre Dame, or in other academic institutions. Training is supplemented with external seminar speakers, biweekly meetings in which students present and discuss their research, and an annual retreat.

Research Areas

- Bioorganic and Medicinal Chemistry
- Biophysics and Structural Biology
- Cancer Biology
- Computational Chemistry
- Fluorescence Imaging
- Genetics and Genomics of Drug Resistance
- Immunology
- Molecular and Cell Biology
- Molecular Genetics
- Natural Products Chemistry
- Protein Folding
- Rational Drug Design
- Transgene Research
- Vision Research

Research Facilities

- Center for Environmental Science and Technology
- Center for Global Health and Infectious Diseases
- Center for Nano Science and Technology
- Center for Research Computing
- Center for the Study of Biocomplexity
- Freimann Life Science Center
- Lizzadro Magnetic Resonance Research Center
- Mass Spectrometry Facilities
- Molecular Structure Facility
- Optics Facilities
- W.M. Keck Center for Transgene Research
- Walther Cancer Research Center

Professional Development and Career Placement

The CBBI Program prepares students for scientific careers with writing and presentation skills courses, workshops on CV preparation, interview techniques, and best teaching practices, as well as career development seminars and on-site recruitment visits from companies. Our graduates hold leadership positions in academia and industry.

Financial Support

Students accepted into the CBBI Program are provided full financial support that includes tuition, stipends, health insurance, and travel funds for professional training.