



Case Western Reserve University School of Medicine

Systems Biology and Bioinformatics

As the data science field expands, so does the need for expert scientists trained to efficiently interpret data into useful information for decision making. Case Western Reserve University School of Medicine's systems biology and bioinformatics (SYBB) master's and PhD programs are designed to provide you with skills in data engineering, math, statistics, advanced computing and the scientific method to ensure you excel in the burgeoning biological omics field.

Program Overview

In both the master's-level and PhD programs in SYBB, we offer a multidisciplinary approach customized to your strengths and interests in the field. Our curriculum is taught by training faculty from more than 12 departments and 6 schools across the Case Western Reserve campus, ensuring you'll acquire the core competencies needed to succeed in the bioinformatic analysis of biological big data.



Select your SYBB Track

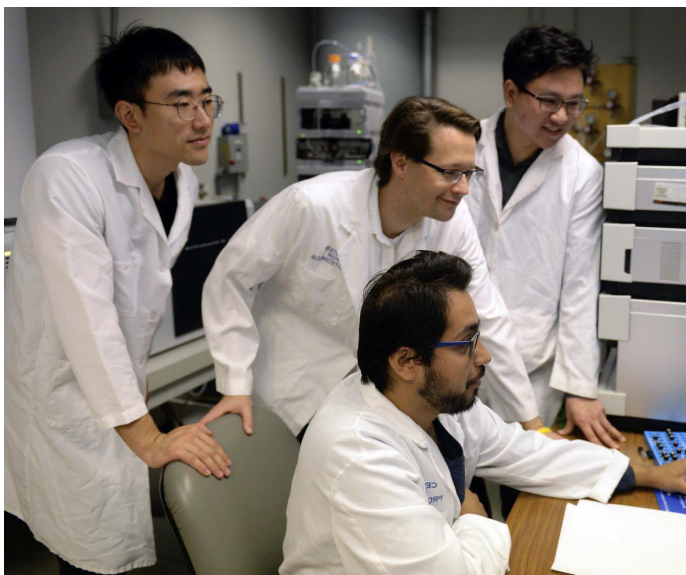
Upon completion of your core courses, advisors will assist you in selecting a curricular track that best suits your career goals.

Translational Bioinformatics

Position yourself to work at the interface of applied omics research and clinical medicine. From integrating genomic and functional genomic data into electronic medical records, to developing meta-analysis tools for communicating genomic risk to patients, graduates of this track will find ample opportunities within industry and clinical settings.

Molecular and Computational Biology

Embrace the pursuit of basic scientific research to address difficult questions from today's "big data" derived from omics approaches. Equipped in the acquisition of experimental data utilizing approaches including proteomics, metabolomics, genomics and structural biology, graduates of this track often pursue careers in the pharmaceutical industry, contract research organizations and more traditional academic career paths.



Apply to the SYBB Programs

When applying to either of the SYBB programs, you will be expected to have an undergraduate degree in one of the component disciplines of the program including biological, computer, or quantitative sciences.

With your complete online application, you must submit:

- A unofficial bachelor's degree transcript (an official transcript is required prior to enrollment)
- Resume or CV
- Three letters of recommendation
- Application fee
- Personal statement
- Supplement of prior research experience
- English proficiency exam required for international applicants



Study in Cleveland

Case Western Reserve University is a top research university located in Cleveland, Ohio. We're situated in the heart of University Circle, one of the city's most energetic and culturally robust communities—not to mention a hub of world-class healthcare institutions, including Cleveland Clinic, University Hospitals, MetroHealth System and Louis Stokes VA Medical Center. Ranked as one of the country's most livable cities, Cleveland has plenty to offer—come see for yourself!

#1

private medical school
in Ohio (*U.S. News &
World Report*)

18th

university for contributions
to innovation,
(*Nature Index Innovation*)

Tier-One

medical school for
research (*U.S. News &
World Report*)

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Ready to learn more?
Reach out to us
at sybb@case.edu



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School of Medicine