



Master of Science in Translational Biotechnology

USC Department of
Translational Genomics

Get on the right track

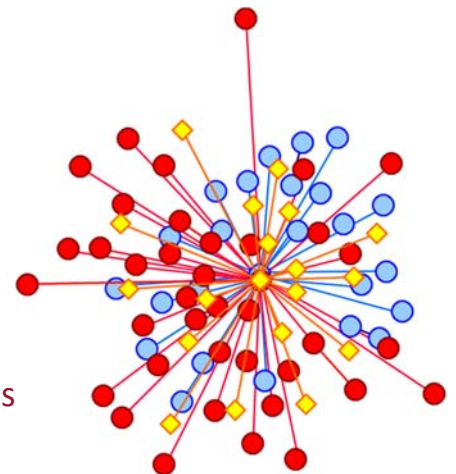
Our innovative master's program can help you move ahead in your career.

You don't need a Ph.D. to succeed in the biotechnology and pharmaceutical industry.

Keck's MS in Translational Biotechnology combines science, health, technology & entrepreneurship to coach graduates towards winning careers in medical biotechnology. Whether you are a biologist hoping to break out of the lab, or a professional interested in learning more about the science behind the booming field of therapy development, our hands-on learning program can help you go the distance.

Students in this program will gain an understanding of:

- The science and technology of underlying diseases and their interventions;
- The role of biotechnology in developing new therapies;
- The regulatory framework that will impact the use of new interventions;
- The private and public capital that will develop the growing biotechnology and biomedical markets;
- The ethical considerations for developing and providing access to new technologies.



Bridging the Gap

There is a significant skills gap in trained bioscientists. In laboratories across academia, researchers are finding themselves lacking the knowledge in critical processes that shepherd our understanding of basic science into practical used in the clinic, from drug discovery and proof of concept through drug development. This presents a great opportunity for biology and business-minded individuals to pursue a cutting-edge scientific career off the beaten Ph.D. path.

Bench, Bedside, Boardroom

The Master of Science in Translational Biotechnology program combines a unique curriculum of foundational learning and practical training, teaching students to translate genomic and molecular insights into the creation and application of biotechnology in the research and medical sciences industries.

Bioscience-based courses are integrated with entrepreneurial elements and practicum that explore the economic and regulatory frameworks that impact the development and use of new interventions.

Career Opportunities

- Research scientists in academic or industry settings
- Validation and field application scientists
- Outcomes research, clinical trial managers, project coordinators
- Agents or officers in government agencies such as FDA, USPTO, NIH, or international and local NGOs
- Institution contract and licensing managers
- Educators
- Consultants
- Medical science liaisons
- Marketing professionals
- Founders and executives of biotech firms
- Investor relations, analysts, investment bankers, fund managers, business developers
- Technical specialists and patent agents in law firms
- Graduate studies in Ph.D., M.D., and other professional programs

Ideal Candidates

- Biologists
- Biomedical engineers
- Medical students
- Investors
- Industry professionals
- All those who are passionate about biomedical sciences and would like a career in biotechnology beyond laboratory research



Sample Courses

The 28-credit program can be completed in one year, or in 1.5 – 3 years at a reduced pace. Classes include:

- Biotechnology Primer
- Pathway and Target Discovery
- Biotechnology Entrepreneurship and Commercialization
- Biotechnology-based Therapeutics
- Chemical and Biological Therapeutic Modalities
- Seminar in Translational Biotechnology
- Communicating Science
- Practicum and Capstone Project

Small class size enables individualized attention and direct interaction with the renowned faculty at the USC Keck Department of Translational Genomics, as well as other academic and industry mentors.

MS in Translational Biotechnology

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