

# Wallace H. Coulter Department of **Biomedical Engineering**



Coulter BME is a success story in risk-taking and innovation — a visionary partnership between a leading public engineering school and a highly respected private medical school.



graduate **BME** program in the nation

U.S. News & World Report, 2023 Best Colleges



undergraduate **BME** program in the nation

U.S. News & World Report. 2023 Best Colleges

### **OVERVIEW**

#### **Degrees Offered**

- **BS** in Biomedical Engineering at Georgia Tech
- MS in Biomedical Engineering at Georgia Tech
- Master's in Biomedical Innovation & Development at Georgia Tech
- **PhD** at Emory University and Georgia Tech
- **PhD** at Peking University, Emory University, and Georgia Tech
- MD/PhD at Georgia Tech and Emory University School of Medicine

#### **Research Focus Areas**

- · Biomaterials & Regenerative Technologies
- Biomedical Imaging & Instrumentation
- · Biomedical Informatics and Systems Modeling
- · Biomedical Robotics
- Cancer Technologies
- Cardiovascular Engineering
- · Engineering Education
- Immunoengineering Neuroengineering

# **NSF Engineering Research Center for Cell Manufacturing Technologies (CMaT)**

- \$20 million National Science Foundation investment
- Eight-university consortium
- Developing advanced cell therapies for heart disease and cancer
- cellmanufacturingusa.org

# **STUDENTS**

▶ 59% of undergrad students are women, and 25% are underrepresented minorities



Nearly 3/4 of BME undergraduates engage in research

graduate students

▶ 50% of graduate students are women, and 27% are underrepresented minorities

Coulter BME graduates the largest number of...

- · women BME students in the U.S.
- · BME students from historically underrepresented minority groups in the U.S.

#### **FACULTY**



Annual Research Awards (FY22)



patents issued to faculty since 2015



primary faculty members

- ▶ 25% of tenure-track faculty are women and 10% are URM
- ▶ Plus 17 professional-track faculty members



current and emeritus faculty are NAE Fellows



NAE Gordon Prize to 3 BME faculty for Pioneering Engineering Education







#### **POST-GRAD PATHS**

#### **Bachelor's Recipients** Industry, 55% Grad school, 16% Med school, 12% Other, 9% Undecided, 8% **INDUSTRY PLACEMENT** Medical Device, 50% ■ Entrepreneur, 3% Consulting, 10% Government, 3% Software/Hardware/ Pharma, 3% Health IT, 9% Design, 2% Consumer Products, 7% Energy, 2% Business, 5% Other, 2% Research, 4%

#### Ph.D. Recipients Industry, 39% Post doc, 37% MD, 9% Unknown, 7% Government 3% Tenure track 3% Non-tenure research, 2% INDUSTRY PLACEMENT Medical Device, 37% Research, 6% Other, 16% ■ Bioinfo/Technology, 6% Consulting, 13% Security/Defense, 6% Pharma, 8% Scientific Writing, 1% Software/Hardware, 7%

#### COMMERCIALIZATION



Accelerating commercialization of earlystage medical technologies with IP held at Emory or Georgia Tech **biolocity.org** 



**62** projects funded



16.6x

ROI leverage in follow-on funding



startups since 2015



licenses to industry



5 product launches



acquisition

## GEORGIA TECH COLLEGE OF ENGINEERING

Largest and most diverse College of Engineering of its kind in the nation

#1

...in the nation in engineering degrees awarded overall to women

...in the nation in engineering doctoral degrees awarded to Black students

#2

undergraduate engineering program in the nation, among public universities (USNWR)



\$268.4M research expenditures, FY22

## GEORGIA INSTITUTE OF TECHNOLOGY

- 33 CoE faculty are members of the National Academy of Engineering
- All undergraduate engineering programs are ranked in the Top 5 and graduate engineering programs are ranked in the Top 8 nationally by U.S. News & World Report
- Georgia Tech is ranked 4th in Most Innovative Schools by U.S. News & World Report
- Georgia Tech's CREATE-X initiative has helped students launch 350+ startup companies valued at more than \$1.9B

#### **EMORY UNIVERSITY**

- 25 members of the National Academy of Medicine
- \$382.7M in research funding for School of Medicine faculty in FY21 (No. 16 nationally in NIH dollars received)
- SOM has 582 medical students and trains 1,322 residents and fellows in 111 accredited programs.
- The new Health Sciences Research Building II opens in Summer 2022 with space for Coulter BME. It's Emory's largest research building to date.

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