

Chair, Department of Biomedical Engineering Boston University College of Engineering Boston, Massachusetts

THE SEARCH

The Boston University College of Engineering seeks a dynamic, collaborative, and innovative leader to be the next Chair of the Department of Biomedical Engineering (BME). Reporting to the Dean of Engineering, the Chair is responsible for overall departmental leadership and administration, upholding the College's mission of expanding the power of engineering to transform lives at scale. The Chair should be an active researcher with a strong record of external funding, scholarship, teaching, and mentorship in addition to being recognized for distinguished contributions to the biomedical field.

Established in 1966, BME is one of the oldest, top-ranked, and largest departments of biomedical engineering in the nation, with 42 tenured or tenure-track faculty and 633 undergraduate students and 290 graduate students. Surrounded by top medical research centers in the No. 1 biotech hub in the world at an AAU institution with a school of medicine and one of the only BSL-4 labs in an urban center in the U.S., the department is well-positioned for continued success and attracts exceptional graduate students and faculty at all levels. The department was one of only three in the country to receive both the Whitaker Foundation Leadership Award and the Coulter Foundation Award. External research funding for primary BME faculty exceeds \$30M per year, and faculty benefit from a strong infrastructure and strong community ties.

Successful chair candidates will excel at identifying, recruiting, and supporting talented faculty and staff. An effective, experienced manager capable of overseeing, motivating, and organizing support staff, the Chair will be committed to promoting opportunities for professional development and advancement by faculty and staff alike. The incoming Chair will foster and promote the department's longstanding culture of honesty, integrity, and transparency and demonstrate a commitment to building and supporting a community of faculty and staff from a diverse set of backgrounds. They will encourage community engagement and shared responsibility within the department. Finally, successful candidates will demonstrate an ability to represent the department strategically to external audiences. Boston University has retained Isaacson, Miller, a national executive search firm, to assist in conducting this important search. All inquiries, nominations, and applications should be directed to Isaacson, Miller as indicated at the end of this document and will be held in the strictest confidence.

BOSTON UNIVERSITY

Founded in 1839, <u>Boston University</u> is internationally recognized as a top institution of higher learning and <u>research</u> (ranked #41 in the nation by <u>U.S. News & World Report</u>). Comprising 17 schools and colleges and the Faculty of Computing & Data Sciences, BU offers more than 300 undergraduate, graduate, doctoral, and special degree programs, along with the resources of multiple <u>libraries</u> and over 130 <u>academic centers and institutes</u>. With more than 37,000 students from all 50 states and <u>145+</u> <u>countries</u>, Boston University is among the largest independent universities in the United States. As one of 71 invited members of the Association of American Universities (AAU), BU is among North America's most prestigious research universities.

Boston University's <u>award-winning faculty</u> includes a former US <u>poet laureate</u>, <u>Fulbright Scholars</u>, <u>National Academies members</u>, and a wealth of <u>leading scientists</u>, <u>authors</u>, <u>and researchers</u>. With their strong commitment to teaching, BU's faculty lay the groundwork that <u>inspires students</u> to continue the University's distinguished tradition of accomplishment.

Nearly 400,000 living <u>alumni</u> serve as ambassadors for BU's rich tradition of social justice, academic excellence, and innovation. The pioneering contributions of BU's alumni reach back to the earliest years of the University, deeply influencing events in every aspect of life, including civil rights, science and medicine, journalism, literature, business, government and politics, entertainment, broadcasting, popular culture, and sports. Today, Boston University continues to be a paragon of excellence, attracting the brightest and the best from across the world.

On July 1, 2024, BU welcomed its 11th president, Dr. Melissa Gilliam. Dr. Gilliam is a physician, educator, scholar, research scientist, and leader in higher education who previously served as the provost and executive vice president of The Ohio State University, following an illustrious career in research and leadership the University of Chicago.

THE COLLEGE OF ENGINEERING

Founded as a small undergraduate-focused college in 1964, the College of Engineering expanded in 1992 to add graduate PhD programs in every discipline. Ranked 15th among engineering schools at private institutions and 31st among all engineering schools by the *U.S. News and World Report*, the College is home to 143 primary faculty and 1,794 undergraduate, 506 master's, and 560 doctoral students. The College's talented and <u>award-winning faculty</u> attract \$128M in engineering-related research expenditures annually and include six National Academy of Engineering and eleven National Academy of Inventors Fellows.

The College of Engineering educates students through 40 programs across Biomedical Engineering, Electrical & Computer Engineering, Materials Science & Engineering, Mechanical Engineering, Product Design & Manufacturing, Robotics & Autonomous Systems, and Systems Engineering. The College's strategic plan embraces a convergent approach to research and education and aims to generate the most impactful solutions for societal needs. In its quest to create a new kind of engineer, one who values the diversity of expertise, perspective, thought, and disciplines needed to accelerate progress towards solving complex challenges, the College actively recruits and eagerly welcomes students, faculty, and staff who will embody and contribute to this vision. The College has been recognized by the American Society for Engineering Education (ASEE) for its commitment to diversity, inclusion, and degree outcomes and that BU is a place where all members of the community can thrive.

LEADERSHIP

College of Engineering Dean *ad interim* Elise Morgan is the Maysarah K. Sukkar Professor of Engineering Design and Innovation at Boston University. She has faculty appointments in the Department of Mechanical Engineering (primary), the Department of Biomedical Engineering, the Division of Materials Science and Engineering, and the Department of Orthopaedic Surgery. Prior to her appointment as Dean *ad interim*, Dr. Morgan served the Associate Dean for Research and Faculty Development in the College of Engineering, where she focused on strategic expansion of the College's research activity in convergent areas, strengthening career development programs for early and mid-career faculty, and partnering with leaders in other schools and colleges at BU, research centers, and the Provost's Office on a variety of research development initiatives.

Dr. Morgan is strongly committed to expanding access, opportunity, equity and inclusion for all individuals in engineering. She previously served as the inaugural director of the Center for Multiscale and Translational Mechanobiology, where she helped create a university-wide community of faculty, students, and staff focused on advancing research and education on the impact of mechanical signals on biological systems ranging from molecules to organisms. She currently serves on the editorial board of *Bone* and is a member of the College of Fellows of the American Institute for Medical and Biological Engineering.

THE DEPARTMENT OF BIOMEDICAL ENGINEERING

As one of the largest and oldest departments of its kind in the country, the Department of Biomedical Engineering serves as a model of interdisciplinary research and education. BME is well known for crucial innovations and has pioneered engineering approaches to resolve problems in genetics and molecular bioengineering. BME programs are consistently ranked among the top BME departments in the nation by *U.S. News & World Report* and attract exceptional graduate and undergraduate students both nationally and internationally. The department's primary faculty members attract approximately \$36M each year in external research funding.

Long known for its strong faculty, well-rounded curriculum, and cutting-edge research, BME was the first department in the country to attain both of the field's highest honors: a Whitaker Leadership Award in 2001 and a Coulter Translational Partnership Award in 2005. More recently, the department was selected as the lead institution for an <u>NSF Engineering Research Center</u> focused on synthetizing personalized heart tissue for clinical use. BU BME also benefits from the Boston University Rajen Kilachand Fund's \$100M endowment for Integrated Life Sciences and Engineering.

BME has strength in numerous research areas, including biomaterials and nanotechnology; biomechanics and mechanobiology; biophotonics and biomedical imaging; computational modeling and data science; diagnostics and biosensing; neural engineering; systems, synthetic, and molecular biology; and tissue engineering and regenerative medicine. The department has strong ties with the School of Medicine, as well as the many other top medical research centers in the Boston area. In both teaching and research, the BME department is known for its highly quantitative approach to biomedical science, with a strong foundation of engineering principles and physical sciences.

BME faculty are leaders in their fields. All full professors with a primary appointment in the department are Fellows of the American Institute for Medical and Biological Engineering (AIMBE), and three of the faculty recently served as presidents of the Biomedical Engineering Society (BMES). Twelve received the Presidential Early Career Award for Scientists and Engineers (PECASE) or NSF CAREER Awards. The department is home to five active training grants in the department, including multiple NIH T32 grants and a <u>National Science Foundation Research Traineeship Award</u>. BME faculty lead and participate in many high-profile, interdisciplinary research centers, including the <u>Biological Design Center</u>, the <u>Bioengineering</u> <u>Technology and Entrepreneurship Center</u> (BTEC), NSF-funded <u>CELL-MET Engineering Research Center</u>, BU <u>Nanotechnology Innovation Center</u> (BU Nano), <u>Neurophotonics Center</u>, <u>Center for Systems Neuroscience</u>, <u>Photonics Center</u>, and the <u>Rafik B. Hariri Institute for Computing and Computational Science &</u> <u>Engineering</u>. In 2017, three of BU's BME-affiliated research centers moved into the new <u>Rajen Kilachand</u> <u>Building for Integrated Life Sciences and Engineering</u>. BME faculty also have numerous research labs located in the main BME building at 44 Cummington Mall as well as several labs at the Life Sciences and Engineering Building (LSEB), also located on Cummington Mall. These three buildings comprise the heart of the BME research infrastructure along the science and engineering corridor.

BME students are active in many clubs and professional societies and benefit from strong mentorship and research experiences at both the undergraduate and graduate levels. The department boasts strong participation from their BMES student chapter and supports a Graduate Student Committee that works to enrich the graduate student experience through communication with department leadership, and networking and community-building activities. BME at BU has partnered with peer departments at Columbia University, Johns Hopkins, and Cornell University to host an annual Rising Stars in Engineering Health conference, where graduate students and postdocs receive career mentoring from early career and senior faculty.

THE ROLE OF THE CHAIR: OPPORTUNITIES AND CHALLENGES

Reporting to the Dean, the Chair serves as the department's chief academic and administrative officer and a key strategic partner to senior leaders across the College. This leader will set the department's strategic objectives in consultation with the Dean and will oversee a yearly budget of \$10M. The Chair will lead a team of 42 tenure and tenure-track faculty, 7 non-tenure track faculty, and 20 staff. As a keen supporter of diversity, equity, and inclusion efforts, this leader will promote a collegial, transparent department where all can thrive. The Chair will be a champion for BME in the College, across the University, and in the broader community and will lead fundraising, partnership-building, interdisciplinary research, innovation, and entrepreneurship efforts in the department.

The successful Chair will bring a clear, data-driven, and collaboratively informed vision for the Department of Biomedical Engineering and will address the following opportunities and challenges:

Recruit, retain, and develop BME's talented faculty, students, and staff

BME has made numerous excellent hires over the past decade and is home to a variety of junior, midcareer, and senior faculty members across a wide range of research areas. Several of these hires were made through <u>convergent faculty searches</u>, a college-wide hiring process that recruits exceptional candidates in interdisciplinary areas of strength, regardless of their department affiliation. The incoming Chair must be committed to enabling development of all the department faculty, as researchers and educators at every stage, enhancing opportunities for mentorship and ensuring the continuation of a collegial and collaborative culture that celebrates success and encourages faculty to take chances and pursue exciting new areas.

BME attracts the engineers of the future, and the Chair will advance opportunities for learning, research, and innovation that are responsive to the needs of the sector and promote positive career outcomes for students. The Chair will continue to value and recognize the contributions of graduate students and provide support as they balance the demands of learning, research, and teaching. The Chair will lead BME's experienced, passionate, and hardworking staff, remaining accessible and transparent and providing them with professional development opportunities and helping them succeed on a clear path of career advancement.

Increase opportunities for cross-campus interdisciplinary collaboration and research

A highly collegial and collaborative department by design, the incoming Chair must nurture and maintain this culture, continuing to enhance collaborations across the College, the medical school, and the University writ large. This leader will continue to work closely with the Chairs of Mechanical Engineering and Electrical and Computer Engineering to recruit excellent faculty in fields that cut across departments, make efficient use of space and equipment, and seek opportunities for research and educational collaborations. The Chair will also work to encourage connections with scholars, researchers, and center leaders across the University, enabling faculty to overcome barriers to cooperation and incentivizing them to pursue educational, research, and clinical collaborations.

Strengthen and expand external partnerships to increase visibility and impact.

Greater Boston is home to over 1,000 biotechnology companies. Taking advantage of being nestled in the heart of the "Silicon Valley of biotech", the department is primed to serve as a hub for innovation and entrepreneurship. The Chair will be tasked with strengthening existing and identifying new partnerships with hospitals, medical centers, and other institutions in the Boston area and beyond, supporting faculty engagement and tirelessly championing the department to its peers, collaborators, and national societies. The Chair will also continue cultivating and deepening relationships with alumni and other key community stakeholders and explore ways to expand the department's impact through research, clinical partnerships, and education. As one of the oldest and preeminent departments of its kind in a rapidly expanding and competitive field, the department's strong reputation is crucial to its ability to continue to attract and retain top talent.

QUALIFICATIONS AND CHARACTERISTICS

A doctorate degree in biomedical engineering or closely related fields of science and engineering as well as a record of scholarly and research achievement appropriate for appointment as a tenured full professor is required. While no single candidate may have all of the following qualifications and characteristics, the ideal candidate should possess many of them:

- Superb interpersonal skills combined with a commitment to broad consultation, openness to multiple views and perspectives, and the ability to recognize the ideas of others and to listen to the voices and opinions of all;
- Demonstrated strategic vision through leadership of a well-established, national and internationally recognized research program;
- A strong record of externally funded research and a distinguished record of service;
- A track record of innovation, imaginative problem-solving, and impeccable judgment with the ability to execute ambitious, fiscally responsible, entrepreneurial initiatives;
- Exceptional experience in teaching, with a commitment to high-quality instruction in biomedical engineering, and interest in advancing undergraduate and graduate education programs;
- An appreciation of the importance of interdisciplinary collaboration and a commitment to enhancing and supporting a cultural climate that supports diversity, equity, and inclusion in all facets;
- Eagerness to create novel external partnerships while deepening existing relationships with companies, foundations, healthcare systems, and other organizations to promote teaching, research, and internship opportunities.

TO APPLY

Boston University has engaged Isaacson, Miller to assist the Department of Biomedical Engineering Chair Search Committee with identifying and reviewing candidates for this position. Inquiries, applications, and nominations may be sent in confidence to the following:

Greg Esposito, Partner Afi Tettey-Fio, Senior Associate Victoria Castillo, Search Coordinator

https://www.imsearch.com/open-searches/boston-university-college-engineering/chairdepartment-biomedical-engineering

Boston University is an equal opportunity employer, and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law. The University community welcomes differences, encourages open-minded exploration, and upholds freedom of expression. BU is a VEVRAA Federal Contractor.

BU conducts a background check on all final candidates for certain faculty and staff positions. The background check includes contacting the final candidate's current and previous employer(s) to ask whether, in the last seven years, there has been a substantiated finding of misconduct violating that employer's applicable sexual misconduct policies. To implement this process, the University requires a final candidate to complete and sign the form entitled "Authorization to Release Information" after execution of an offer letter.