

ADVISORY BOARD MEETING

Human Health Research Spanning Two Campuses

The Fischell Department of Bioengineering
University of Maryland
November 18, 2022



Members of BIOE Assistant Professor Katharina Maisel's Mucosal Associated Immune System Engineering and Lymphatics Lab work together in A. James Clark Hall. Maisel and her group focus on in vitro modeling, nanotechnology, and immunoengineering approaches to study and develop treatments for diseases at mucosal surfaces, including the lungs and gastrointestinal tract.

TABLE OF CONTENTS & CONTACT INFO

3	Faculty Listing		
4-9	Advisory Board Member Bios		
4	Dandin, Marc	7	Page, John
4	Dowling, Matthew	7	Pinchuk, Len
4	Fischell, Tim	8	Prendergast, Maggie
5	Gonzales Hurtado, Patricia	8	Rowley, Jon
5	Kessel, Woodie	8	Schreiber, Bret
5	Knight, Ivor	8	Seeto, Reg
5	Knizek, Claudio	9	Soltani, Peter
6	Lehrer, Steven	9	Yoon, Diana
6	Lindsay, David		
6	Menon, Naresh		
7	O'Connor, Michael		
9	Featured Speaker: Mark T. Gladwin, M.D.		
10	Department Chair Bio & Recent Department Highlights		
11	Advisory Board Purpose & Responsibilities		

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* Notes new advisory board member

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ADVISORY BOARD COMMITTEES

Advisory Board Chair: Naresh Menon

Development:

Claudio Knizek
 Steven Lehrer*
 Michael O'Connor
 Peter Soltani
 Diana Yoon

Strategic Planning:

Matthew Dowling
 David Lindsay
 Jon Rowley
 Bret Schreiber*
 Reg Seeto

Student Engagement:

Marc Dandin
 Patricia Gonzales Hurtado*
 Woodie Kessel
 John Page
 Maggie Prendergast

* Notes committee chair

DEPARTMENT FACULTY LISTING

Aranda-Espinoza, Helim

Associate Professor
 Associate Chair, Graduate Studies



Bentley, William

Distinguished University Professor
 Director, Robert E. Fischell Institute for
 Biomedical Devices & Mtech



Clyne, Alisa

Professor
 Associate Chair, Diversity, Equity, & Inclusion



Duncan, Gregg

Assistant Professor



Eisenstein, Edward

Associate Professor



Fisher, John

Department Chair
 Fischell Family Distinguished Professor
 MPower Professor



He, Xiaoming (Shawn)

Professor



Huang, Huang Chiao (Joe)

Assistant Professor



Jay, Steven

Associate Professor



Jewell, Christopher

Minta Martin Professor of Engineering
 MPower Professor



Kuo, Catherine

Associate Professor



Lowe, Tao
 Professor



Maisel, Katharina
 Assistant Professor



Matysiak, Silvina
 Associate Professor



Mueller, Jenna
 Assistant Professor



Scarcelli, Giuliano
 Associate Professor



Stroka, Kimberly
 Associate Professor



Tao, Yang
 Professor



White, Ian
 Associate Professor
 Associate Chair, Undergraduate Studies



Zhang, Li-Qun
 Professor



ADVISORY BOARD MEMBERS

Dandin, Marc

Marc P. Dandin received the B.S. and M.S. degrees in electrical engineering and a Ph.D. in bioengineering all from the University of Maryland. He is currently an assistant professor in the Department of Electrical and Computer Engineering at Carnegie Mellon University, where he also holds a courtesy appointment in the Biomedical Engineering Department. His current research focuses on integrated circuit design and microsystem development for biomedical applications. He was an adjunct professor of electrical engineering at George Washington University, where he developed and taught graduate courses in analog and radio-frequency integrated circuit design. Dr. Dandin was the Founder and CEO of Kiskeya Microsystems LLC, Rockville, Md., a company developing point-of-care diagnostics technologies for resource-limited settings. In addition to being a technology entrepreneur, he is an intellectual property professional with over ten years of experience in patent preparation and prosecution. He has worked at various high-profile intellectual property law firms in the Washington, D.C. area where he drafted and prosecuted patent applications in several jurisdictions, including the United States, on behalf of several Fortune 500 companies. Dr. Dandin is a Senior Member of the IEEE and the recipient of the Early Career Distinguished Alumni Award from Maryland Engineering. He also received the Fischell Fellowship in Biomedical Engineering and the Jimmy H.C. Lin Award for Entrepreneurship during his graduate career at UMD.



Dowling, Matthew

Matthew Dowling, Ph.D., is Chief Scientific Officer and Director of Medcura. Matt completed his graduate work at the Fischell Department of Bioengineering, after completing his undergrad in chemical engineering from the University of Notre Dame. At UMD, he was awarded the Fischell Fellowship in Biomedical Engineering for his innovative ideas in drug delivery systems. Matt then co-created gel-e, a novel biomaterial platform, raising several initial grants to develop the technology and to launch Medcura as a corporate entity. Matt was the recipient of the Dean's Doctoral Research Award from the UMD Clark School of Engineering for his work on chitosan-based self-assembled soft materials for use in wound treatment. He has been the principal investigator on \$6 million in non-dilutive grant awards to Medcura; these have been used to achieve five FDA clearances, eight issued patents, 10+ peer-reviewed publications in high-impact journals and a commercial partnership with one of the world's largest pharmacy retailers. Matt's work has been featured on several U.S. and international media outlets including the BBC TV program, *Brave New World with Stephen Hawking*.



Fischell, Tim (*Emeritus*)

Dr. Fischell is Professor of Medicine at Michigan State University, Clinical Professor of Medicine at Western Michigan University, Medical Director of the Department of Cardiovascular Research, and Director of the Interventional Cardiology Fellowship Program at the Borgess Heart Institute in Kalamazoo. He has an active practice as an interventional cardiologist at the Heart Center for Excellence in Kalamazoo. After receiving his medical degree from Cornell University Medical Center in New York City, Dr. Fischell completed an internship and residency in internal medicine at Massachusetts General Hospital/Harvard University in Boston, and then completed his interventional cardiology fellowship at Stanford University Medical Center in Palo Alto. He was on the faculty at Stanford for five years, and then served as director of the cardiac cath labs and interventional cardiology at Vanderbilt University from 1992-1996. Dr. Fischell is board certified in internal medicine, cardiovascular medicine, and interventional cardiology. He is an active inventor and serial entrepreneur, with more than 100 medical device patents, founder or co-founder of seven medical device companies, and was elected in 2017 as a Fellow in the National Academy of Inventors.



ADVISORY BOARD MEMBERS

Gonzales Hurtado, Patricia

Dr. Patricia Gonzales Hurtado is a Health Scientist Administrator at the National Institute of Allergy and Infectious Diseases (NIAID). In 2003, she received a B.S. in chemical engineering from the University of Maryland, College Park (UMD). She received her Ph.D. in chemical engineering from UMD in 2009. Dr. Gonzales Hurtado conducted her doctoral research at the Laboratory of Kidney and Electrolyte Metabolism, part of the National Heart, Lung, and Blood Institute (NHLBI) at the NIH. In 2009, she received the Ph.D. of the Year Award from the Department of Chemical and Biomolecular Engineering for her doctoral research, "Proteomic Analysis of Human Urinary Exosomes." She conducted her postdoctoral fellowship at the Epithelial Systems Biology Laboratory at NHLBI.



Kessel, Woodie

Dr. Woodie Kessel, B.S.E.E., M.D., M.P.H., is a pediatrician and child advocate. He has had a long career as an educator, investigator, and practitioner in medicine, public health, bioengineering, community-based programming, and public policy. His research focuses on improving the health of children and families, currently with a special focus on preventing gun violence and food insecurity. Dr. Kessel is representing President Darryll Pines as part of the Regional University President's 120 Initiative to prevent gun violence. Dr. Kessel is currently the CEK Senior Child Health Scholar in Residence at the C. Everett Koop Institute, Dartmouth College and Medical School; Professor of Pediatrics, Geisel School of Medicine, Dartmouth College; and Professor of the Practice at the University of Maryland's School of Public Health. He was most recently inducted into the Omicron Delta Kappa National Leadership Honor Society. Previously, Dr. Kessel served in the U.S. Public Health Service as an Assistant Surgeon General and senior advisor on child and family health matters to the White House, Cabinet Secretaries, Surgeons General, and Health and Human Services officials spanning eight administrations. Dr. Kessel has delivered nearly 500 invited lectures and scientific/policy presentations and authored almost 60 articles, chapters and reports.



Knight, Ivor (*Emeritus*)

Dr. Ivor Knight is Professor of Biology and Director of the Biomedical Translational Research Center in the Behrend College at Penn State University. During his academic career he has held teaching, research and administrative positions at both Penn State and James Madison University. Dr. Knight's 14-year career in industry was as senior VP and CTO at Canon U.S. Life Sciences and Canon BioMedical, Inc., where he oversaw the R&D functions of both companies. He has published widely in his field of research and is an inventor on over 30 granted patents. He holds a Ph.D. from the University of Maryland and is a Fellow of the American Association for the Advancement of Science.



Knizek, Claudio

Claudio Knizek joined EY-Parthenon in September 2021 and is a Principal/Partner in EY's McLean office. Over his 20-year career in management consulting, he has focused on a variety of operational and strategic issues within the Industrial and Consumer Goods sectors. The majority of Claudio's work with clients has been focused on operational topics, particularly manufacturing and supply chain. Claudio currently serves as EY-Parthenon's global lead for Advanced Manufacturing & Mobility. Prior to joining EY, Claudio worked at BCG for 15 years. Claudio has a B.S. and M.S. from Stanford University and an M.B.A. from Harvard Business School.



ADVISORY BOARD MEMBERS

Lehrer, Steven

Steven Lehrer brings over 30 years of experience starting, growing and running life science-based businesses focused on commercializing new technology and expanding businesses globally. SBLehrer LLC works with life science companies to develop and introduce drugs worldwide. Steve has extensive experience in pharmaceutical, biopharmaceutical and biosimilar R&D, regulatory, operations and commercialization. In addition, his companies and businesses have developed and commercialized new drug delivery approaches for pharmaceuticals, developed multiple molecular genetic diagnostic tests, and developed outcomes databases for bioinformatics and healthcare econometric modeling. Steve has built and run businesses in the U.S., EU, Brazil, China, India, Japan and SEA. Steve previously served as Head of Biologicals at Cipla Ltd., CEO at Cipla BioTec, President at Glycominds, EVP at Adamas Pharma, CEO at GeneOs Ltd, CEO at DNA Sciences and division President at Monsanto. Prior to Monsanto, Steve worked for McKinsey & Co. and P&G. Steve has a master's degree from The Graduate School of Business at Harvard University and a B.S.E. in chemical engineering as well as a B.A. in economics from the University of Maryland.



Lindsay, David

Dr. David A. Lindsay, Ph.D., is Senior Vice President at Leidos Biomedical Research (LBR); he is currently the Directorate Head of the Vaccine Clinical Materials Program, having served the Frederick National Lab in this role the past seven years. He represents the VCMP on the Executive Leadership Team at LBR. Dr. Lindsay is a scientific/technical leader, with oversight and accountability for all manufacturing, quality control, facility operations, subcontracting, and administrative activities of a GMP vaccine pilot plant under contract to the National Cancer Institute. The mission of the VCMP is to support vaccine product development and provide supplies of novel vaccines and therapeutic biologics for testing in human Phase I/II clinical studies. All early research, discovery, and process/method development is led by the Vaccine Research Center (VRC) at NIH's National Institute of Allergy and Infectious Diseases (NIAID). While significant focus has been placed on the manufacture and supply of broadly neutralizing monoclonal antibodies for HIV passive treatment clinical studies, the VCMP lately has engaged in advancing multi-valent, nanocage-based universal Flu vaccines, several recombinant glycoprotein subunit vaccines, and novel peptide conjugate vaccines for active HIV prevention. The infectious disease agents are of global significance, and have included Chikungunya, Coronavirus, Ebola, Influenza, Malaria, Respiratory Syncytial Virus, Tuberculosis, and Zika. David is a chemical engineer by education, having obtained a B.S. from Lafayette College and a doctorate from Johns Hopkins University.



Menon, Naresh (*Advisory Board Chair*)

As the founder of ChromoLogic, Dr. Menon is passionate about developing novel biomedical solutions that result in new biological insights and lead to superior patient outcomes while being cost-effective and affordable. Dr. Menon received his Ph.D. in physics from Purdue University, with an emphasis in sensor fabrication, instrumentation, and novel data analytic methods that were applied at multiple national and international laboratories towards fundamental physics discoveries. His early career was spent at Corning Incorporated and Northrop Grumman Mission Systems, where he was groomed for leadership positions in multiple businesses. Founded in 2007, ChromoLogic is a boutique Innovation Center that partners with the federal government, academia and industry to develop breakthrough solutions that save lives and make the world secure. ChromoLogic's Biomedical Solutions product portfolio covers point-of-care solutions in wound care and infectious diseases, diagnostics/screening, drug delivery and telehealth.



ADVISORY BOARD MEMBERS

O'Connor, Michael

Dr. Michael O'Connor is the Senior Program Director, Program Management with Medtronic, Plc. Medtronic is a global healthcare solutions company committed to improving the lives of people through their medical technologies, services, and solutions. O'Connor has over 31 years of professional experience in the medical device industry developing products from idea to commercialization. He holds patents in the areas of medical catheters and stents. He holds graduate degrees in Project Management, Technology Management and Business Administration. O'Connor earned his Ph.D. in Civil Engineering, majoring in Project Management, from the University of Maryland A. James Clark School of Engineering. He was selected as an American Society for Quality Fellow, Medtronic Technical Fellow, Biomedical Engineering Society Fellow and Association for Project Management Fellow. He has volunteered his time with many professional societies and universities/colleges over many years. He is also an Adjunct and Community Faculty Member teaching graduate-level Project Management, Project Capstone, Project Procurement, and Culture/Organizational course(s). In addition to Medtronic, his corporate experience also includes 3M and Pfizer, as well as three startup medical device companies.



Page, John

John Page, Vice President of Engineering, BD Integrated Diagnostic Solutions, has over 35 years of product development experience for the Defense and Medical Diagnostics industries. John's early career included embedded software development, (Lockheed Martin, 10 years), and medical device/data management systems, (Becton Dickinson 25+ years). John has many years of cross functional program management experience leading development teams from initial concepts to commercial launches of medical diagnostic products that consist of hardware, software, and reagents. John's background includes running the BD Diagnostic Systems Program office in Sparks, MD, which serves the Point of Care, Women's Health and Cancer, Molecular, and Microbiology businesses of BD Diagnostic Systems. John has been involved with early acquisitions, including the BD Kiestra line of laboratory automation equipment, for which John has led the R&D function for several years. Since the fall of 2019, John has been leading the engineering organization for BD's Integrated Diagnostic Solutions business unit. John holds a B.S. in electrical engineering from the University of Maryland, and an M.S. in technical management from Johns Hopkins University.



Pinchuk, Leonard (*Emeritus*)

Dr. Pinchuk has 136 issued U.S. patents and over 100 publications, and has founded 10 companies. His major accomplishments include the invention of the Nylon 12 angioplasty balloon (used by all interventional cardiology companies), the helical wire stent (Cords, FL and Medtronic, MN), the modular stent-graft, a drug-eluting stent (TAXUS®, Boston Scientific, MA), several biomaterials (Bionate® and SIBS), a novel glaucoma treatment device (the PRESERFLO® MicroShunt, InnFocus/Santen, Osaka, JP) and the next generation intraocular lens (EyedeaL, Xi'an China). His inventions are used in hundreds of millions of patients worldwide with a financial impact well over \$100 billion. He was inducted into the National Academy of Engineering (NAE) in 2012, was awarded the 2017 Society for Biomaterials Innovation and Technology Award, and San Antonio's BIOMED SA Award (2017), and he received the Ohio University/NAE 2019 Fritz J. and Dolores H. Russ Prize, which is considered the Nobel Prize in Engineering, for innovations in medical devices that enable minimally invasive angioplasty treatment of advanced coronary artery disease. He was inducted into the National Academy of Inventors in 2021. Dr. Pinchuk continues to serve as Innovia's and Innolene's CEO and President and he enjoys an appointment as Distinguished Research Professor of Biomedical Engineering at the University of Miami (Miami, FL).



ADVISORY BOARD MEMBERS

Prendergast, Maggie

Dr. Margaret (Maggie) Prendergast is a scientist at Janssen: Pharmaceuticals Company of Johnson & Johnson. Her work focuses on the development of nanoparticle drug products and process development within the large molecule drug product development group. She received her Ph.D. in bioengineering from the University of Pennsylvania in July 2022, where she was an NSF-GRFP fellow in Dr. Jason Burdick's Polymeric Biomaterials Lab. Prior to her Ph.D. studies, Maggie worked as the Director of Bioengineering at a 3D bioprinting startup Allevi, which was acquired by 3D Systems. During her time at Allevi, she was named a "Millennial to Watch in the Life Sciences" by *Philadelphia Business Journal*. She received a B.S. in bioengineering from the University of Maryland in 2015. During her time at UMD, she was awarded the Benjamin T. Rome Scholarship.



Rowley, Jon

Dr. Jon A. Rowley is the Founder & Chief Product Officer of RoosterBio Inc. Jon started RoosterBio in 2013 as part of his personal quest to have the biggest impact possible on the commercial translation of technologies that incorporate living cells, including cellular therapies, engineered tissues, and tomorrow's medical devices. Jon holds a Ph.D. from the University of Michigan in Biomedical Engineering and has authored over 35 peer-reviewed manuscripts and 20 issued or pending patents related to biomaterials development, tissue engineering, and cellular therapy. Jon started his industry career at BD as a scientist and R&D manager in a Cell & Tissue Technologies group focused on applying high throughput screening technologies to cell therapy media development and tissue engineering. Jon then contributed to the clinical development of Aastrom Biosciences' Tissue Repair Cell product, where he was Sr. Manager of Process Development responsible for manufacturing process improvements and cell delivery to the patient. Jon most recently spent five years as Director of Innovation and Process Development in Lonza's Cell Therapy CMO business, and currently resides in Walkersville, Md., with his wonderful wife and their three children.



Schreiber, Bret

Bret Schreiber has worked for 20 years in the field of government and community relations, driving policy and economic development initiatives and developing strong ties to local, state and national legislators and policy leaders. Currently, Mr. Schreiber is Vice President for Life Sciences and Technology for Fulton Bank. Fulton Bank is a \$26 billion financial institution based in Lancaster, Pa. Mr. Schreiber oversees the development of a new division for Fulton Bank, creating disruptive, innovative initiatives to support and grow the life science and technology industries in Fulton's five-state footprint. Most recently, Mr. Schreiber led the Office of BioHealth and Life Sciences for the Maryland Department of Commerce, seeking to develop and build the State's thriving Life Science ecosystem. Among other efforts, the office developed innovation assets for the industry, created International pipelines to bring companies into the state, and sought to provide fiscal and other support to companies already located in the state. Prior to leading the Office of BioHealth and Life Sciences, Schreiber was recruited to Commerce to start a new Division - Education and Innovation.



Seeto, Reginald

Dr. Seeto is the President and CEO of CareDx, a transplant-focused company. He is an experienced leader and has held executive positions in both biotech and large pharma. Before joining CareDx, Dr. Seeto was Chief Operating Officer at Ardelyx, leading pre-launch efforts for tenapanor and corporate development in which he completed a series of partnerships. Prior to this, Dr. Seeto worked at AstraZeneca/MedImmune and was a member of the MedImmune Executive Team, where his roles included executive vice-president of corporate development and strategy, vice-president of global strategic marketing and portfolio management for all therapeutic areas, as well as a country leadership role as the general manager for AstraZeneca in Thailand. He started his career as a physician before joining McKinsey and Company.



ADVISORY BOARD MEMBERS

Soltani, Peter

Dr. Soltani is a native of greater Washington, D.C., and has been involved in the medical device and diagnostics space for nearly 20 years. Peter's early career involved technology innovation involving semiconductor and optical materials for energy conversion and imaging. He joined Hologic, Inc., a women's health-focused medical device company in 2000, where he led the company's Women's Health business segment. Notable accomplishments include helping develop Hologic's digital mammography platform, and the development and commercialization of the first 3D digital mammography system for early cancer detection. Peter joined Siemens Medical Solutions between 2014-2016 to lead its North American Healthcare Services business, helping develop solutions to meet the changing and complex needs of the healthcare delivery market. Peter has been with Beckman Coulter Diagnostics, Inc. (a Danaher company) since early 2016, leading its Hematology, Urinalysis, and Digital Solutions businesses.



Yoon, Diana

Dr. Diana Yoon is a Senior Manager at Abbott Laboratories assisting with the management of regulatory activities and device strategy for Abbott's medical device business units. She previously worked as a regulatory scientist in the U.S. Food and Drug Administration (FDA) for 10+ years. She started as a Commissioner's Fellow working on a project evaluating standards for premarket review of bone regenerative medicine products. During her tenure at the FDA, she conducted premarket regulatory review in the Center for Biologics Evaluation and Research and the Center for Devices and Radiological Health. She also was a Senior Scientific Reviewer for product classification and jurisdiction in the Office of Combination Products. She received a B.S. in chemical engineering and biomedical engineering (double major) from Carnegie Mellon University. She attended the University of Maryland, College Park (UMD) for her Ph.D. in chemical and biomolecular engineering and graduated in 2008. During her time at UMD, she was awarded the Fischell Fellowship in 2006 for translational research in cartilage tissue engineering. She attended Rice University as a postdoctoral fellow to conduct bone tissue engineering research and was awarded the Gulf Coast Consortia Nanobiology Fellowship.



FEATURED SPEAKER

Mark T. Gladwin, M.D.

Vice President for Medical Affairs, University of Maryland, Baltimore
John Z. and Akiko K. Bowers Distinguished Professor
Dean, University of Maryland School of Medicine

Mark T. Gladwin, M.D., was appointed as the Dean of the University of Maryland School of Medicine (UMSOM) and Vice President for Medical Affairs at the University of Maryland, Baltimore in August 2022. He is a leading heart, vascular, and lung physician-scientist. He maintains an active research group and is currently PI of two R01 awards, a P01 award, and a clinical trials U award. He has published > 450 manuscripts (Google Scholar h-index of > 120). His scientific discoveries include the finding that the nitrite salt is a biological signaling molecule that regulates physiological and pathological hypoxic responses, blood pressure and flow, and dynamic mitochondrial electron transport. He also characterized the role of hemoglobin and myoglobin as signaling nitrite reductases that regulate NO production under hypoxia, and his 2003 publication on this work has been cited > 1,800 times and is in *Nature Medicine's* Classic Collection. His work on the nitrite anion has led to the development and licensing of intravenous, oral and inhaled nitrite as a human therapeutic, with completion of animal toxicology, GMP formulations and phase Ia and Ib clinical trials, with licensing of the drug. Phase II trials of inhaled nitrite are now underway for the treatment of pulmonary arterial hypertension, metabolic syndrome, and heart failure with preserved ejection fraction.



DEPARTMENT CHAIR

Fisher, John

Dr. John P. Fisher is MPower Professor and the Fischell Family Distinguished Professor and Department Chair in the Fischell Department of Bioengineering at the University of Maryland. Dr. Fisher is also the Director of the NIBIB / NIH Center for Engineering Complex Tissue (CECT) that aims to create a broad community focusing on 3D printing and bioprinting for regenerative medicine applications. As the Director of the Tissue Engineering and Biomaterials Laboratory, Dr. Fisher leads his group in investigating biomaterials, stem cells, bioprinting, and bioreactors for the regeneration of lost tissues, particularly bone, cartilage, and cardiovascular tissues. Dr. Fisher's laboratory has published over 200 articles, book chapters, editorials, and proceedings (13,500+ citations / 66 h-index) as well as delivered over 340 invited and contributed presentations, while utilizing over \$15 million in financial support from NIH, NSF, FDA, NIST, DoD, and other institutions. Dr. Fisher has been elected Fellow of the American Institute for Medical and Biological Engineering (2012), the Biomedical Engineering Society (2016), and the International Academy of Medical and Biological Engineering (2020). He is currently the Editor-in-Chief of the journal *Tissue Engineering*, while also editing 6 texts in the field of tissue engineering.



RECENT DEPARTMENT HIGHLIGHTS

BIOE Breaks the Top 10 List among Public Undergraduate Programs

Earlier this year, the *U.S. News & World Report* ranked the Fischell Department of Bioengineering undergraduate program 9th among U.S. public bioengineering/biomedical engineering programs in 2022-2023.

In 2022, 87% of our graduating seniors were either employed or enrolled in a post-graduate program as of Spring Commencement. Of those who secured employment, 27% were working in biotech, 18% in the biomedical field, 18% with federal positions, and 12% in consulting.

Expanding Biocomputational Engineering Program Invites Freshman Applicants

Beginning for Fall 2023 admission, prospective first-year (freshman) undergraduate students can apply directly to the biocomputational engineering pre-major to complete their first two years of undergraduate study at the University of Maryland, College Park campus before transitioning into the Biocomputational Engineering degree (BCE) program at the Universities at Shady Grove campus for their junior and senior years.

By entering the BCE program as a pre-major, students complete their first two years at College Park, where they will have access to room and board, a wide variety of student clubs and activities, Greek life, athletics, and more. This option enables high school students with an interest in the program to enjoy the best of both worlds - College Park and Shady Grove - on the pathway to their B.S. degree. Learn more at biocomp.umd.edu.

University of Maryland Ranks #1 in Cellular & Molecular Bioengineering (CMBE) Young Innovator Awards

Fischell Department of Bioengineering Assistant Professors Gregg Duncan and Katharina Maisel were named 2022 Young Innovators by Cellular and Molecular Bioengineering (CMBE), a journal of the Biomedical Engineering Society. The two early-career faculty were honored this October at the Biomedical Engineering Society annual meeting in San Antonio, Texas, alongside fellow award recipients.

With Duncan's and Maisel's awards, the University of Maryland is now the all-time leader in CMBE Young Innovators, topping a list that includes the University of Michigan, Cornell University, Carnegie Mellon University, Pennsylvania State University, and the University of Wisconsin. Learn more at go.umd.edu/bioe-cmbe.

ADVISORY BOARD PURPOSE & RESPONSIBILITIES

The Fischell Department of Bioengineering Advisory Board at the University of Maryland A. James Clark School of Engineering is composed of leaders from industry, government, and academia committed to the advancement of the Department. Members of the Advisory Board are the Department's strongest advocates and champions.

The Advisory Board will be composed of approximately 20 members who represent a diversity of experiences and perspectives. The Advisory Board will have a Board Chair, appointed by the Chair of the Fischell Department of Bioengineering; the Advisory Board Chair will serve a two- (2) year term. The Advisory Board may also have committees related to the interests and growth of the Department, in areas including but not limited to strategic planning, development, and student engagement. The Chair of the Fischell Department of Bioengineering will be the primary facilitator, with assistance from the Advisory Board Chair as well as the Clark School of Engineering's Office of External Relations.

The purpose of the Fischell Department of Bioengineering Advisory Board is to:

1. Foster excellence in the Department;
2. Provide guidance to the Department regarding mission, goals, and strategic planning;
3. Promote the interests of the Department locally, nationally, and internationally;
4. Advise on curriculum and research, student recruitment, student career placement, and industry trends;
5. Strengthen and enhance the financial resources of the Department; and
6. Act as a liaison between the Department and industry, government, and other academic institutions.

Full Membership responsibilities include:

1. Service on the Advisory Board is for a three- (3) year term, with the option to renew for an additional three- (3) year term. Those who have demonstrated exemplary service may be invited by the Department Chair to continue as an Emeritus Member.
2. Attendance at two biannual meetings, typically held in the fall and spring (absence from three consecutive meetings may result in a request to step down from service);
3. Philanthropic support for the Department annually, at a level that is personally meaningful;
4. Active participation and engagement in strategic planning by advising the Department Chair on matters pertaining to curriculum, research, program initiatives, and external relations;
5. Visible ambassadorship to external constituencies and University of Maryland leadership;
6. Efforts to foster connections and identify resources to support Departmental initiatives; and
7. Volunteer work in assisting with a student, faculty, or alumni initiative.

Emeritus Membership responsibilities include:

1. Service on the Advisory Board for a three- (3) year term with the same responsibilities as a Full Member, without an expectation for attendance at the biannual meetings.

The Fischell Department of Bioengineering is committed to the following:

1. Soliciting feedback and recommendations from committee members on enhancing academic, research, and external relations programs;
2. Inviting members to marquee events such as the Fischell Festival and the Senior Capstone Design Competition;
3. Providing access to the Clark School Dean and UMD leadership; and
4. Providing updates on the state of the Department, including finances, undergraduate program, graduate program, and research initiatives.

Note: The Department will provide financial support for travel and housing to the biannual meetings for those members from academia.



FISCHELL DEPARTMENT OF
BIOENGINEERING