

## University of Massachusetts Chan School of Medicine Intellectual Property Committee

### Annual Report

The University of Massachusetts Chan School of Medicine Intellectual Property Committee is comprised of voting, non-voting and alternative members who participate in formal meetings and periodic electronic communications.

The current University of Massachusetts Chan School of Medicine Intellectual Property Committee include:

Voting Members: Craig M. Lilly MD (chair) , Christian Klauke MD, Elaine Lim, PhD, Xiang Yang, PhD, and Wen Xue PhD, Rodger Davis PhD and Andrew Fischer MD

Alternate members: Thoru Pederson PhD., Shan Lu MD, Patrick Emery PhD, Glen Raffel MD, PhD, and Michael Spink DDS, MD (Baystate).

Non-Voting Members: Patricia Wynne PhD, MBA, John Lindstedt CPA, Kate Fitzgerald PhD.

The committee has focused on 3 main topics. First to increase faculty awareness of the available intellectual property development resources provided by the University. Second to review the programs of the Office of Innovation and Business Development and provide our business development leadership with actionable feedback to maximize the use and utility of these valuable resources. Thirdly the committee solicits and reviews any faculty concerns related to intellectual property and works through our senior leadership team liaison Dr. Fitzgerald to communicate validated and significant issues to our senior leaders.

One key asset is our Office of Innovation and Business Development. Patricia Wynne Director, Intellectual Property Management at UMass Chan Medical School provided the committee a synopsis of the operations, key personnel, and performance metrics of the University of Massachusetts Chan Medical School Office of Innovation and Business Development.

UMass Chan's business development platform, known as the BRIDGE, serves as the primary conduit and connection point to the life sciences, innovation ecosystem. It serves as a catalyst for innovation, external partnership, commercialization, and economic development. The 18-person office serves as an impact multiplier, intensifying the effects of the work we undertake as the Commonwealth's first and only public medical school.

The core functions of this important resource include, identifying and protect proprietary innovations, providing guidance and support to faculty and staff regarding the commercialization of their inventions, encouraging collaborations with academic and commercial partners to further emerging technologies through the use of material transfer, confidential disclosure, inter-institutional, sponsored research, option and license agreements, to ensure the mandatory reporting of federally funded inventions to maintain government compliance and to introduce faculty and staff to potential investment partners.

During FY 2023 the office processed 80 invention disclosures, 131 United States Patent Applications, supported 78 issued patents, and 195 Confidential Disclosure Agreements, 226 Material Transfer Agreements, approved 26 License/Option agreements and 22 Sponsored Research Agreements (SRA) This activity represents 29 M USD of license/options and 12 M of SRA related value.

The process of intellectual property was detailed. When research conducted by the faculty and staff at UMass Chan Medical school leads to new technologies and inventions they should be protected, usually with a patent. Patent protection may be sought for novel and non-obvious compositions of matter, processes, articles of manufacture, machines, or improvements to the foregoing. Research may also result in other forms of protectable intellectual property such as software or copyrights.

The intellectual property protection process begins with the submission of an Invention Disclosure form which launches the commercialization process. The invention disclosure form includes a detailed description of the invention, identifies past and future publications, and identifies potential licensing opportunities. The form generates an official disclosure date of the invention, identifies publication deadlines, and fulfills obligations to the University, industry sponsors, and government regulators. Inventors are encouraged to disclose often and early.

***A key change in the process is that the United States Patent and Trademark Office now determines inventorship using a first-to-file system rather than a first-to-invent system.***

Public disclosure basics include the following concepts: **Your own public disclosures are considered prior art against your OWN patent application.** If the inventor publicly discloses the invention, i.e. allows other people to know about the invention, before a patent application is filed, the inventor **loses** his/her patent rights. Do not disclose the invention without an executed confidentiality or non-disclosure agreement. The General rule is that no public disclosure should occur until a patent application is filed.

Inventors must allow a minimum of 30 days prior to publication submission for necessary review and comment by our University of Massachusetts Chan Medical School Office of Innovation and Business Development. A New Ventures Manager and the IP team will review the disclosure and its scientific details with the inventor to achieve a deep understanding of the innovation. Our BRIDGE team will then perform an assessment of market potential, patentability, capabilities for future development, and other issues affecting commercialization efforts. After their analysis, a technology may be deemed in need of further development, prototyping, or proof of concept before invention disclosure. In such cases, the commercialization process will be put on hold until further data is generated.

Inventors are provided a dashboard so that they can track the BRIDGE activities related to their intellectual property. A New Ventures Manager and the IP team will review the disclosure and its scientific details with the inventor to achieve a deep understanding of the innovation. The BRIDGE team will then perform an assessment of market potential, patentability, capabilities for future development, and other issues affecting commercialization efforts.

Typical timelines for United States and foreign patent application process steps and costs were presented. The New Ventures (NV) Manager and inventor will work together to further identify and understand potential markets. The NV team is then responsible for researching and contacting possible licensees. After identifying interested potential licensees, NV will begin to negotiate license terms that provide fair return for the inventor and the University, while protecting the rights and ownership for all involved. Licenses can vary greatly in nature, value, and enhancement potential.

An exclusive license generally costs more than non-exclusive. A license can be limited in scope or very broad in terms of the field of use. A license term can be just a few years or can be in effect for the life of

the patents. In all cases, the University retains the right to continue to conduct research in the field of the technology which is the subject of the license.

The BRIDGE team also helps inventors interested in turning their innovations into start-up companies by evaluating the current capital and development stage, regulatory hurdles and reimbursements, and market opportunity of the technology. For innovations with a strong value proposition and patent protection, the team works to connect inventors with capital, management professionals, and advisors to create a business plan and launch the company.

The committee has benefitted from the encouragement of Kathrine (Kate) A. Fitzgerald, PhD Associate Vice Provost for Basic Science Research in her role as the primary senior leadership team contact for the Intellectual Property Committee and John Lindstedt who endorsed the importance of our discoveries and of the support available to protect our intellectual property.

Thoru Pederson strongly encouraged the committee members to encourage their department chairs to invite the University of Massachusetts Chan Medical School Office of Innovation and Business Development to provide their presentation at meetings of faculty. Committee members who had attended these sessions attested to their value. All committee members agreed to speak to the chairs of departments that had not had a faculty BRIDGE presentation.

None of the committee members have identified any concerns of the faculty with regard to the management of intellectual property or the services of the Office of Innovation and Business Development.

Respectfully submitted,

*Craig M. Lilly, MD. Chair*