

Renovating INBT's Translation Programs



By Luke Thorstenson

When I joined INBT in June as the new director of corporate partnerships, I was excited to learn firsthand from the faculty about their research. As I spoke with them, one phrase always came up; translational research. This was exciting to hear because in my previous role as market strategy analyst at Hitachi Chemical, I evaluated new technologies (and their associated markets) from academia, industry, and government sources. I was aptly prepared to further expand INBT's research into the marketplace.

If you ask 10 people what translational research means, you will get 10 different, albeit similar, answers. In its most general sense, translation puts theory into practice. At INBT, that historically meant corporate sponsored research agreements, industrial educational partnership programs, corporate research fellowships, and a corporate affiliate program. These activities earned INBT its well-deserved reputation as the center of translational activities at the Whiting School of Engineering.

In 2016, when Sharon Gerecht and Hai-Quan Mao became INBT's new leaders, they wanted to renovate the institute's translational programs. While this can be done in many ways, we decided that some of our goals would include increasing the number of industry sponsored research projects, use INBT intellectual property to increase spin-out companies, and develop more industry specific programming and resources for faculty and students.

Why is industry sponsorship so important in higher education and research? While Hopkins continues to lead the nation in research spending for the 39th year in a row, there is a concern about the stability of federal funding in higher education. In fiscal year 2017, 85 percent of JHU's research spending came from federal money. According to the American Societies for Experimental Biology Federation, between fiscal years 2003 to 2015, the National Institutes of Health's (NIH) research funding was reduced by 22 percent. In 2019, drafted federal budgets for NIH were initially reduced by 27 percent, but settled on a 5.4 percent increase. If federal research funding is reduced, it will affect research spending at Hopkins and therefore INBT.

One advantage for academics in partnering with industry is that funding for research does not depend on balancing the federal budget, or legislative efficiency. INBT has worked with industry partners for over 10 years, learning and building from each experience to deliver innovative and consistent results that industry partners demand.

Licensing intellectual property to organizations outside of JHU is another way for faculty and students to get involved with industry. At JHU, this process is managed by Johns Hopkins Technology Ventures (JHTV). Among the services they offer, JHTV can help researchers decide whether forming a start-up company with their research is viable. If a new company is viable, express licensing terms for faculty can make the process much more stress free. At INBT, we support these initiatives for our faculty and students and look to provide additional support and guidance to supplement the existing JHTV programs.

Educational programming and a greater emphasis on supporting faculty entrepreneurship often go hand in hand. For example, the Fast-Forward innovation hub within JHTV hosts regular education workshops to help faculty develop entrepreneurial skills (start-up management, strategy, etc.). INBT wants to build off these internal and external programs (for example, NSF's Innovation Corps) with our

own programming for faculty and students. Some of our new programs in development include translational research workshops and seminars with speakers from other universities, government organizations (FDA, CMS, DARPA), capital providers (TEDCO, VCs, foundations), and our industry partners. For students, we've developed similar opportunities to not only explore options regarding their research, but also provide information about careers outside of academia.

Soon, I'll be participating in President Daniel's Commercial Advisory Group to develop a unified strategy for industry engagement between all university and health system schools. In this role, I'll share some of INBT's translational success stories from the past 10 years, and solicit feedback on how to improve our industry engagement plan and our educational programs. Overall, we hope the changes at INBT will enhance our visibility, and strengthen our role within the Whiting School of Engineering as we continue to grow as an institute. 🍓



INBT's former director of corporate partnerships, Tom Fekete, retired after 10 years of building robust bridges between the academic and commercial worlds at the Institute.

"I always believed the connections and friendships we make are perhaps the most important measures of personal success. I hope I was able to bring value to INBT's unique multidisciplinary approach to research and education, and to enrich the experience that our students aspire to achieve," said Fekete.