

UWM Research Foundation, Inc.  
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### UWMRF Statement for NIST ROI Initiative

The University of Wisconsin-Milwaukee Research Foundation (UWMRF) is grateful for the opportunity to review and respond to the new Request for Information (RFI) issued by the National Institute of Standards and Technology (NIST). UWMRF commends NIST for undertaking a Return on Investment (ROI) initiative, and in particular, for allowing us to solicit our organization's viewpoints on this policy as well as conducting public forums.

The UWMRF was launched in 2006 to support research and innovation at the University of Wisconsin-Milwaukee (UWM). In 2016, UWM was designated as an R-1 research intensive university by the Carnegie Classification System of Higher Education, placing UWM among 115 top-tier research institutions in the nation out of more than 4,600. The UWMRF continues to help create an environment that attracts, retains, and supports innovative researchers who contribute to this important distinction. For more than ten years, intellectual property has been a key element for strengthening partnerships between companies in the Milwaukee region and UWM. Our intellectual property framework recognizes the importance of this property to a company's competitive position while it ensures that UWM's academic and research mission is not restricted. UWMRF collaborates with other technology transfer offices, like the Association of University Technology Managers (AUTM), to promote technology transfer and commercialization of jointly owned inventions.

As we continue to bridge the gap between research and commercialization around the Milwaukee region, UWMRF asks that the NIST ROI initiative pursues actions consistent with the principles we hold to be foundational to technology transfer: the freedom to invent and local empowerment. We believe that researchers should be allowed the freedom to develop their technologies for the overall benefit of humankind, and universities and local businesses should be empowered to ensure the widespread, ethical distribution of the social benefits of those technologies. UWMRF finds inspiration for these tenets of academic freedom and local empowerment in the Wisconsin Idea, the long tradition that the University of Wisconsin System, and by extension its supporting organizations like UWMRF, should strive to serve every family in our state.

UWMRF also strongly recommends keeping the Bayh-Dole Act unchanged, as it is the statutory framework for promoting the transfer of federally-funded research to the public. For forty years, Bayh-Dole has provided an elegant legislative solution by authorizing U.S. universities, non-profit organizations, and small businesses to retain title to their federally-funded intellectual property. In exchange, these institutions must serve a clear public interest by pursuing the development of the underlying technologies, submit to transparent and enumerated government protections, and direct their revenue to research and educational purposes. This legislation, as currently written, gives

individual researchers and their universities clear guidance on both the rights to their inventions and their obligations to the public. That combination of clarity and local control has been a central reason for the enormous successes of the technology transfer industry, including more than 80,000 patents issued to research institutions, four million jobs created, a \$600 billion contribution to U.S. GDP, and \$1.3 trillion in U.S. gross industrial output.

The results of Bayh-Dole have exceeded the hopes of the act's authors by providing significant social and economic benefits to the nation. At the same time, UWMRF recognizes that nothing in science and technology remains static, which is why we have been an eager participant in promoting the well-being of Bayh-Dole by defending its purpose and participating in subsequent amendments and regulatory forms to enhance and expand its efficacy.

UWMRF recommends that the framework at the heart of the law be extended as a template for other federal agencies. The government should presume that the researchers and tech transfer professionals, whether at universities or federal laboratories, will be best equipped to bring technology from lab to market. When UWMRF collaborates with federal laboratories, we find that government employees must often seek out several extra layers of approval, often at agency offices across the country, before they can proceed with inter-institutional agreements or licensing contacts with UWMRF. We gratefully acknowledge the well-intentioned desire to protect taxpayers and citizens by preventing conflicts of interest and other undesirable outcomes. But Bayh-Dole offers the template for a better solution. Give federal laboratories the resources to succeed at technology transfer, empower them with a clear statement of their mission to develop inventions, and enact a simple, straightforward enforcement mechanism designed to provide confidence in the system as much as to capture the rare instances of abuse. Like Bayh-Dole, all technology transfer processes and policies can unleash innovation by trusting local experts, giving them freedom to operate, and ensuring they have adequate resources to fulfill their mission.

UWMRF recommends the following specific actions in pursuit of the above:

- **Reassert Technology Transfer as a Priority of Federal Research:** A clearly stated priority of technology transfer for federal laboratories would further empower the tech transfer professionals to enable a spectrum of industrial partnership opportunities, finding ways to say yes when delegated authority and given clear guidelines.
- **Local control:** Technology professionals within the federal government, regardless of where their offices may be located, must often obtain legal review and approvals from Washington, D.C., which slows down the process and leads to inefficiency. We propose more authority be delegated to those working at federal laboratories and branch offices, as they best understand the precise circumstances and can determine the relative importance of every decision.
- **State Enumerated Obligations for Federal Laboratories:** A clear interpretation of the federal rules governing technology transfer would make partnerships more attractive to industry, give technology transfer professionals the confidence to successfully carry out their duties, and give federal agencies a definite means of overseeing the industry.

- **Conflict of interest:** In a university setting, our intellectual property and licensing managers identify and protect against conflicts of interest while still allowing university researchers to assist in licensing their technologies or forming startup companies to commercially develop their technologies. Federal laboratories would have better success in technology transfer if they enables their researchers with the same authority.
- **Develop a Measurement System for Tech Transfer Emphasizing Social Benefit:** The generation of revenue, profit, and other financial returns give a certain indication of the important contributions of technology transfer, but they can never tell the whole story. We recommend that the federal government, in consultation with universities, develop a metric that accounts for the underlying social and public purpose of developing federal research into technologies.
- **Expand Federal Funding for Accelerator Funds and I-Corps:** Non-profit licensors are being asked to de-risk technology more before it is transferred to the business community. This can be done in a variety of ways that increase interactions with the business community generally, such as grant review committees, mentorship, and customer interviews through I-Corps programs. The I-Corps programs have been instrumental in training and preparing scientists, engineers, and students to extend their focus beyond the university laboratory and to accelerate the economic and societal benefits of basic research projects that have commercialization potential. The American Innovation and Competitiveness Act authorized the I-Corps at NSF, and encouraged its expansion. Since its creation in FY2011, several other federal agencies have funded I-Corps cohorts and we feel the efforts could still be expanded.
- **Create Collaborative R&D Tax Credit:** To facilitate increased collaborative efforts between universities and industry, language in the basic research tax credit which narrowly defines basic research projects as “not having a specific commercial objective” should be broadened. At a minimum, Congress should delete such language from current law and allow any research expenditures at universities to qualify for the basic research credit. Industry should also receive an additional tax incentive to conduct collaborative research with universities and federal laboratories. This could easily be done by doubling the existing credit from a 20% flat credit to a 40% flat tax credit.
- **Simplify and streamline technology transfer reporting requirements:** It is critical to advancing technology transfer efforts of federal contractors that current reporting requirements are simplified and improved. The iEdison system is a legacy system that has never been properly resourced. It is extremely burdensome for users. In addition, NIH required literal compliance with prescribed government support statements on reported patents and has insisted that faulty statement, even on abandoned or expired patents, must be corrected. Moreover, use of iEdison is not mandatory, and several agencies have their own burdensome reporting requirements. A uniform, simplified invention reporting system utilizing current information technology standards across all federal agencies should be implemented in place of the current system.

A strong patent system that asserts certainty of ownership serves a vital role in the transfer of federally-funded technology. For that reason, we define the current challenge facing technology transfer as fine-tuning a patenting system and expanding an industry that together have produced extraordinary scientific and economic gains since 1980. To do so will mean finding more ways to extend the benefits technology transfer has achieved to more and more of the American public.

The University of Wisconsin-Milwaukee is driven by a mission to improve lives and the Milwaukee economy through education and research. The UWM Research Foundation was formed to strengthen that mission – through fostering cutting edge research, impacting the marketplace with that research, and enhancing the success of UWM students by arming them with skills in innovation, creativity, and entrepreneurship. Today, UWMRF intellectual property has become a key element for strengthening the partnerships between companies and UW-Milwaukee. UWMRF has built a portfolio of technologies with key strengths in water technologies, drug discovery, nanomaterials, sensors, medical devices, and energy. As we continue to build on this success, we ask that you take our suggestions and maintain academic freedom, ensure the removal of bureaucratic roadblocks, and resume an investment in the future of scientific discovery. UWMRF is grateful for the opportunity to share our concerns with NIST and we hope to hear from you soon.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Thompson", with a long horizontal flourish extending to the right.

Brian Thompson

President

A handwritten signature in black ink, appearing to read "Jessica Silvaggi", written in a cursive style.

Jessica Silvaggi, Ph.D., C.L.P.

Director of Technology Commercialization