#### Points to Consider when Universities Partner with Foundations: A University Perspective

The purpose of this document is to enhance the dialog between universities and foundations and to promote their constructive collaboration. Although we use the word "universities," we include research institutes and although we refer to "foundations," we include non-profit societies and associations. The document was developed as a result of two meetings held at Stanford University in May 2013 and May 2014 to discuss how better to translate foundation funded research into meaningful products for society.

Universities and foundations share many research, education, and public service goals. Both are non-profit organizations and many depend on third parties to provide funding to support their missions. Both have obligations to be good stewards of these funds and to use them to advance and disseminate knowledge in their areas of interest.

The relationships among universities and foundations are long-standing and strong. Foundations support a range of research and educational activities at universities with the hope that their mission and stakeholders will benefit from the research they sponsor. While foundations provide a relatively small percentage of a university's overall research budget compared to that funded by the federal government, foundation support provides much needed and important funding that enables faculty to expand their research horizons.

University researchers conduct basic and applied research across a broad spectrum of disciplines. Early stage innovations may emerge from such research. Universities throughout the country have established technology transfer offices to help move these new technologies to industry quickly and effectively so that society can benefit from these innovations. Foundations, too, want these innovations to have a timely impact. University and foundation goals are closely aligned.

We offer the following points for universities and foundations to consider in establishing and sustaining successful partnerships:

# Point 1. Universities and foundations should work together to publicize the importance and impact of foundation-sponsored research support.

Foundation funding is a growing source of much-needed research support. Universities and foundations should work together to assure recognition of the impact of this support.

Universities should expect to provide foundations with useful reports describing the benefits of their research support. Since the principal investigators are in the best position to provide this valuable information to the foundations, universities need to be diligent in informing faculty about the implications of foundation terms, reporting obligations and their stewardship responsibilities. However, the true impact of funding can be hampered by detailed reporting requirements, which become a time-consuming and therefore costly burden for faculty researchers and universities. Universities and foundations should work together to assure that

foundation support is accounted for properly and the value of foundation support is recognized.

## Point 2. Universities and foundations should work together so that intellectual property created under foundation funding benefits the public.

Most universities have established technology transfer programs to license their novel technologies to companies for development and commercialization. The personnel, resources, and processes are in place to achieve public use and benefit, consistent with the mission of foundations. Generally, the university technology transfer office is (a) close to the investigator and his or her broader research program, (b) very familiar with the intellectual property directly linked to the foundation support and any other intellectual property funded by other sponsors, and (c) equipped to manage the licensing program. Inventions are treated independently from the source of sponsorship because the technology transfer organization's goal is to transfer as many technologies as possible to committed licensees.

The challenge for all technology transfer offices is finding good prospective partners and negotiating license agreements for early stage inventions that typically emerge from university research. Some foundations may be concerned that university technology transfer programs do not give the foundation-funded inventions enough attention and have not done as good a job of transferring the innovations as they expect. As a result, a few foundations seek rights that can complicate the licensing process – such as rights to control the licensing, "pre-approval of license," "march-in" rights where title for the invention reverts to the foundation, or the right to cancel a license if the foundation does not agree with the commercialization efforts.

On the surface, these provisions may appear sensible. However, the unanticipated consequence can be to limit rather than promote the application of an invention to the public good.

Inserting third party approvals, such as Foundation review, can greatly delay or stop the negotiation process. Requiring march-in or license cancellation rights by the foundation can be chilling for commercialization partners. It is useful to note that while the government has march-in rights in principle, they have never been invoked since the passage of the Bayh-Dole Act. Rather than directly inserting themselves into the university's licensing activities, some foundations have recently sought an automatic, commercial license to inventions. Foundations generally already have a license for their own research purposes, because most universities retain research rights on behalf of other non-profit organizations in exclusive licenses. In most cases, the research use license is all that is necessary for most foundations to use a technology because they do not have commercialization capabilities. However, a commercialization license to the foundation prevents the university from granting exclusive commercial rights to a company, which may be needed to encourage investment in, and development of, certain technologies for public benefit.

Some foundations require that a university assign ownership to a sponsoring foundation if the

university is not exploiting the invention or abandons a patent application. In general, universities cannot agree to these terms because universities may be put in the position of having conflicting obligations. Research leading to an invention is typically funded only in part by a foundation award; often the research is also sponsored by the federal government or another non-profit entity. If the federal government has contributed to supporting the research, the Bayh-Dole Act requires the title to revert back to the federal government and the university cannot assign ownership to the foundation. Complex terms required by a foundation can also lead to conflicts with other non-profit funders.

In response to foundation concerns about attention to technology transfer, universities need to ensure that they have appropriate capabilities in place to do effective technology transfer and their communications with foundations about these activities are open and timely. In addition, they need to include diligent development obligations in exclusive licenses to ensure that inventions are pursued for public benefit. Where appropriate, universities should include contractual provisions to address market needs that might otherwise be neglected.

# Point 3. Universities and foundations should work together to determine how best to share the benefits of licensing.

Several foundations have become interested in receiving a portion of revenue if a licensed invention, funded in whole or part by the foundation, is successfully commercialized. Since the federal government and most other sponsors do not require a share of royalties, this has become an area of concern for universities.

The infrastructure costs to support a technology transfer office and to file, prosecute, and maintain patents are very high. From the university's perspective, the university has taken the financial risk to file patents and has dedicated significant resources to marketing the invention, negotiating a license, and managing the project around the invention along the way. These costs are borne by universities because of the importance of transferring innovations for public benefit. Although each university has its own patent and royalty sharing policy, royalties returned to the university are always used for further research and education.

Foundations do not cover the full cost of the research if infrastructure expenses for facilities and administration are not allowed in the project budget. If the foundation also will not share in patent expenses or technology transfer infrastructure expenses, there is a further inequity if a foundation nevertheless expects to receive a share of royalties.

Some foundations ask for a pre-set percentage of royalties, which is inherently arbitrary regardless of the percentage because no one can predict what the foundation contribution will be to a technology that has not yet been invented. Other foundations prefer sharing in proportion to the total funding that led to an invention, determined when an invention is disclosed. However, this is often a complicated accounting exercise. What was the foundation's contribution to the particular invention? How has research that was going on around the investigator contributed to the environment from which an invention emerged?

How should the university account for specialized facilities it has provided to allow the research to take place? Or its support for trainees involved in the research? Or the unrecovered infrastructure and facilities expenses that the university must provide to support the research?

In considering requests for royalty sharing, foundations should recognize that in most cases the federal government, the university or other sources will likely have provided most of the financial resources leading to a particular invention. One of the most important factors to consider is that the vast majority of licensed inventions do not generate significant royalties and that university costs to support technology transfer and patent filings are seldom recovered, with few exceptions. Even if royalties are shared, universities need to recoup infrastructure costs and patent expenses before a distribution is made.

#### Point 4. Universities and foundations should work together to ensure the viability of basic and applied research.

A robust research enterprise creates an environment for inventions to emerge. Without that, discussions of how best to transfer the results of foundation research may become irrelevant. It is in the interest of both foundations and universities to be strong, vocal partners in advocating for maintaining, at a minimum, the current the level of federal funding for research in the U.S.

An important part of this message is that even with current funding levels, universities must make up for the fact that the government does not pay for the full and true cost of research. These costs include building and maintaining laboratories, libraries and other specialized facilities and administrative costs, such as regulatory compliance related to research. The federal government determines how much of the facilities and administration costs they will reimburse ("indirect cost rate") based on an audited financial review, but the negotiated rate is historically much less than true costs. Thus, all universities subsidize research for every external dollar of research through donations (endowments and expendable gifts), student tuition and state taxes for public universities.

The National Academy of Sciences report on Research Universities and the Future of America says that <u>all sponsors</u>

should strive to support the full cost, direct and indirect, of research and other activities they procure from universities so that it is no longer necessary to subsidize these sponsored grants by drawing on resources intended to support other important university missions such as undergraduate education and clinical care.

Foundations and universities should discuss the rationale for requests to waive indirect costs (in whole or in part) and seek ways to work together to address the challenge of supporting the full cost of research in the U.S.

#### **Summary**

Foundations and universities have a long history of partnership and synergy. We are truly "sister organizations" because we share the common goal of advancing knowledge for society's benefit. Universities must continue to recognize the value of foundation and other non-profit funding of research and be good stewards, as they are with other gifts or grants.

As individual universities and individual foundations explore and establish relationships that support their particular needs and circumstances, the two should proactively seek beneficial solutions to questions regarding reporting results, intellectual property, royalty sharing, and licensing and infrastructure costs.

Universities are encouraged to discuss with foundations the type of research performed at the university, how it relates to industrial R&D and the value chain of products that are ultimately commercialized by the private sector through technology transfer and licensing overall. This discussion should be transparent about the limited returns that are typical when licensing early stage technology and about the safeguards universities should employ to assure active development of an invention by a licensee. Universities should solicit feedback from the philanthropic sector to better understand trends and concerns from their perspective.

Foundations and universities have accomplished a great deal together and should continue to enhance their relationships and trust as they strive to achieve their mutual goals.