As in any relationship, at times, issues may arise in a university-small business partnership. This tutorial will address some of the most common issues so that the small business can take appropriate action in advance to mitigate their occurrence. Let’s start with propagating federal prime contract clauses and requirements.

PROPAGATING FEDERAL PRIME CONTRACT CLAUSES AND REQUIREMENTS

When a small business is the prime contractor, which is always the case with a Small Business Innovation Research (SBIR) or a Small Business Technology Transfer (STTR) award, the small business is responsible for protecting the interests of the Federal sponsor. This responsibility includes ensuring that all representations, certifications, clauses and deliverables propagate appropriately to all of its subcontractors. Universities may or may not routinely operate in a manner consistent with these propagated requirements. For example, a software technology firm will likely be required to provide source code of the contracted software deliverable to the Federal sponsor. The firm may also be required to guard and protect the code, on behalf of both itself and the Federal sponsor. In contrast, a university group is likely to either not share the code with outside parties or make it completely open and thus share with the world. Therefore, the small business will need to assure that the university group understands the need to follow the requirements of the sponsor or risk not being awarded the subcontract.

As another example, Federal contracts typically require employment only of US citizens and permanent resident aliens, under those contracts. In contrast, at many universities, there are many foreign students, often including the majority of graduate students in engineering and other science, technology, engineering and math (STEM) disciplines. A Federal subcontract will place restrictions on who can be employed on the contract – again, a requirement that may or may not be immediately acceptable or familiar to faculty members.

INTELLECTUAL PROPERTY (IP) OWNERSHIP

Another area in which potential issues arise is with intellectual property or IP ownership. We have already discussed the basic role of the Office of Technology Transfer (OTT) within a university. It is also important to understand what constitutes proper use of IP. For example, suppose a university group has invented a new biochemical process. Let’s further assume that the university has decided not to file for IP protection and has even permitted faculty and students to publish this research in peer-reviewed, widely disseminated journals and conference proceedings. Knowing this, a small business may conclude that...
since the IP has already been disseminated, it is therefore free to use by anyone, including the small business.

This conclusion, however, could have very negative consequences. The university is likely to consider that researchers anywhere in the world may in fact use the IP for their own non-commercial, research purposes and for as long as the IP is appropriately cited. The university is likely to include in this consideration the right by faculty anywhere in the world to also teach courses using said IP, again for as long as the use is properly attributed. However, the university is likely not to permit commercial use of this IP without further consideration (such as a paid license). Just because disclosure has occurred and in all likelihood patent filings are no longer possible after the first anniversary of said disclosure, it does not mean that commercial rights have been surrendered. In fact, arguably, one technology transition strategy may well be to disclose the IP widely under educational and publication rights, and then see whether any commercial entity is interested in licensing the commercial rights. To avoid misunderstandings of this nature, a small business would do well to think through its IP interests and, as appropriate, discuss these fully at the outset with the OTT.

**STUDENT SUPPORT**

Another potential issue relates to student support. Student support is an essential function of sponsored funding, whether via a Federal sponsor, a small business, or some other mechanism. On the surface, the idea is straightforward: someone may make funds available to pay the student's tuition and a stipend or modest salary. However, the notion of student support can be somewhat nuanced.

First, there is substantial variance in the cost of tuition. Public schools routinely assess tuition at “in and out of State rates.” Some schools also have some form of discounted tuition. Every or nearly every university may offer tuition waivers or gratis tuition. Often, tuition waivers as well as release time and sometimes even student stipends, are used as a partial match on funded proposals. A small business should therefore explore whether a university will in fact offer waivers and other matching resources. Funds not used to pay sticker price tuition can then be used to pay for other aspects of the funded effort, such as additional salaries.

In addition, both student stipends and indirect cost on stipends as well as on faculty salaries may vary. There may be different salary rates and definitely different overhead rates depending on whether the work is taking place at a university facility or at a third party, off-campus facility, such as at the small business. A small business should make a case to pay a fair market salary, but at minimum indirect cost. In general, indirect costs should support some aspect of the student’s remuneration. For example, if the student is getting health insurance through the university then that cost is a reasonable part of the university's overhead or G&A. On the other hand, if the student is getting health insurance through her or his parents, then it is not reasonable to charge this portion of the fringe to the (sub)contract and thus to the Federal sponsor or the small business.

**ETHICS IN HIRING FACULTY MEMBERS**

Let's move on to another potential issue regarding the ethics of hiring faculty members. One common question that comes up is how a faculty member may be hired to work on a project. Pursuant to university policies, faculty members may be hired as consultants as opposed to subcontractors. However, it is important to keep in mind that with STTRs, the relationship must be with the research institution and is therefore a subcontracting arrangement. Unlike most corporate and government settings, faculty are not employed for 100% of their time. Rather, a faculty member is employed for the duration of the academic year, which is normally about nine months in duration. In addition, most universities allow faculty to consult on a part-time basis outside of the university during the same academic year. Faculty and small businesses should request the university’s guidelines on consulting arrangements with faculty in order to understand the guidelines and avoid conflicts.

From a university’s standpoint, a faculty member is formally paid to teach, subject to any release time agreements. Should the faculty member receive release time, she or he will teach less. The released time portion will then be used to undertake research or some other duties as agreed upon. However, the nine months academic year salary of the faculty member does not change with the existence of release time. In contrast, summer salary does increase the total remuneration of the faculty member. However, that cannot exceed the prorata summer paid period. For example, if a faculty member is paid $75K over nine months, then the summer salary can add another one-third of that, or another $25K. Thus, the faculty member may not be paid more than $100K through the university, in this example. As one may expect, however, consulting may add funds beyond or even well beyond $100K.

There are two other aspects concerning university salaries and their apportionment that should be understood as well. First, the university charges indirect rates on funding used to buy out salaries or pay summer salaries. Some of the indirect funds are used to pay into the fringe benefits pool. Other funds are used to pay into the general G&A and overhead pools. The latter are then used to pay for any number of expenses the university
may wish to pay for. Hence, it is to the benefit of the university to collect salary release funds and summer salary funds.

To summarize, from a financial standpoint, the faculty member benefits (from most to least) in the following order: consulting (all funds go to the member), summer pay (funds less indirect go to the member), and release time (less teaching but not one penny of extra pay). Similarly, the university benefits (from most to least) in a different order: release time (most of indirect and all difference on direct goes to the university), summer pay (most indirect goes to the university), and consulting (not one penny goes to the university). Given the natural difference in the order of salary benefits between a faculty member and her or his university, there is often possibility of conflict. Always, the ethical way for a small business to handle this situation, is to recommend that the faculty member reach agreement with the university (at least the department chair level and probably best with both the department and the Office of Sponsored Programs (OSP)), and only then solicit funds in a particular form from the small business.

### AVOIDING DUPLICATION OF EFFORT
Another important issue is possible duplication of effort. An entity – whether in academia, government or industry – should take care not to get funded multiple times to do the same work. Most Federal proposals – SBIR/STTRs included – require the proposer to disclose what other related work she or he may be undertaking, under Federal or other funding. A small business should follow the same method when developing its own proposals. When working with a university faculty member, a small business should be careful to tactfully but firmly discuss the possibilities of a potential duplication of effort. This is especially true when joint work involves research and development (R&D) in the faculty member’s established areas of research (which may already be funded by Federal agencies).

### DEFENSE WORK AND NATIONAL SECURITY
A final issue relates to defense work. Many small businesses work on important defense, energy, aerospace and other Federal programs. Often, the work has classified elements, which requires exchange of classified information, storage of the same, classified electronic communications, and so on. Any such contract, if subcontracted to another entity, may then require classification and security clauses to be propagated to the subcontractor. Thus, in a defense setting, the small business may need to issue a DD254 to the subcontractor, validate their facility clearance, and make a list of employees with the need to know and so forth.

### CONCLUSION
Working with a university can, and should be, a truly rewarding and positive experience. Understanding how to team with a university and what potential pitfalls to avoid will go a long way towards ensuring this experience for small business partners.

#### Faculty Benefits

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