Start-Up Guide Series:

What to Expect When Licensing from UMA

For a company based on an invention made in the course of UMA research, a key asset will be a license to patents on the invention. A patent gives the owner the exclusive right to make, use, offer for sale, sell or import a patented article for a period ending 20 years after the first patent filing date. A license to these exclusive rights is an incentive for investors and the company's management, as they can expect significant profits from the company's efforts.

Patents have been licensed in the U.S. at least since the Patent Act of 1890, and the terms and conditions of a license from UMA to a startup company, as summarized below, are quite traditional. You will immediately notice that there will be quite a few payments to the university! Just like there are many different fees and payments due when buying a house, there are quite a few in licensing as well. Keep in mind that these various forms of payment are fungible, e.g., if the royalty rate is higher than other fees may be lower, and vice-versa. Also keep in mind that payments are not necessarily large; they may be small for incremental technologies in small or crowded markets. And, of course, the resources available to a start-up company are quite different from those of a big company, so early financial terms are more modest in start-up licenses than they would be for established companies (thus startup licenses are sometimes referred to as "back-end loaded.")

A license is a highly complex and customized contract, with many terms and conditions that are interesting reading only for lawyers. The terms described below are the business and financial terms that potential investors are most likely to ask you about.

1. Degree of exclusivity. Although there are times that a non-exclusive license is sufficient, most startups need the lure of market exclusivity to raise money. If an invention has a naturally confined field of use, e.g., a radio antenna, then the license may be for all fields. If an invention has many diverse uses, e.g., an aluminum alloy, then the license may be exclusive for a particular "field of use," e.g., aircraft and spacecraft applications. This would allow UMass to license the rights in other fields, e.g., dental implants.

2. Retained rights. For obvious reasons, the university retains the right to use the invention in research and education, and to allow the inventors to continue their research should they relocate to another academic institution.

3. Equity. It is traditional to charge an "up-front fee," the amount depending on the value of the invention, the size of the market and the level of development. Since startups usually don't have funds to pay such a fee, or investors don't want their funds used in that way, a

modest amount of equity is given to the university in lieu of a cash fee. The amount of equity can vary based on the same factors as for cash fees, but except in unusual cases the university's share is below 10%.

4. Non-dilution. A company may have 1,000 shares of stock today, and a 6% equity stake would be 60 shares. But nothing would prevent the company from creating another 9,000 shares tomorrow, in which case the 60 shares would drop in value to 0.6%! In order to prevent such artificial changes in the value of the license equity, the license protects the university equity from dilution until some threshold of outside investment has been made, e.g., until $4 million has been raised. This means the university would get 6% of any newly created shares until this threshold is reached.

5. Performance milestones. An exclusive license requires that the licensee commit to developing and selling products; otherwise the patent rights would be wasted. The university and the company negotiate a set of milestone events and dates the milestones should be reached; e.g., make a prototype within 6 months, start manufacturing within 12 months, and begin sales within 18 months. For a startup, however, there are many unknowns regarding product development and fundraising. So, the license also includes a provision allowing for adjustment of milestones to allow for unforeseen technical and business challenges.

6. Milestone fees. When performance milestones are reached, this usually means a certain amount of risk has been removed, and a set of increasing fees are typically due at those achievement points. For a startup company, early milestone fees are necessarily modest. But later milestone fees, such as those close to product launch, will be more significant considering that the company's success at that point will make more traditional milestone fees affordable. How large or small such fees may be depends on the value of the invention, the size of the market and profit margins in that market, so such fees can differ greatly from license to license.

7. Minimum annual royalties. These fees usually don't become due for a period of years after the license begins. They are fully creditable against royalties due for a given year, so if royalties exceed the minimum amount, no added fee is due.

8. Running royalties. Royalties are paid as a percentage of "Net Sales," which is essentially sales revenue less returns and rebates. Royalty rates vary widely from license to license, depending on the value of the invention, the size of the market, profit margins in that market and the size of other payments under the license. But only a "shelf-ready" product would have a royalty obligation of 10% or more.

9. Sublicensing revenue. An exclusive license usually allows the company to sub-license to other companies. For example, a company might develop a product to a certain extent, and then sublicense that product to an established company to sell. Presumably the sublicensee would pay a considerably higher royalty than that owed to the university, so there would be income for the initial company after the university royalties are paid. A sublicense may also include other fees and payments, such as up-front fees and milestone

fees, as described above. The university typically gets a share of such non-royalty sublicensing income, in a downward sliding scale to be negotiated in each license. The reason for the sliding scale is if a company sublicenses the day after the license is signed, the value of the sublicense is almost entirely from the university patent rights; but if a company fully develops a commercial product and then sublicenses, the value of the sublicense will also be based on the company's own patents, copyrights and know-how.

10. <u>Patenting costs.</u> Because the university has limited funds for patenting, the company is required to pay ongoing patenting costs once a license is signed. This way, the university can re-cycle those funds to patent more inventions. The university has no funds for foreign patenting, which can get very expensive very fast; so the company has to decide which countries it wishes to license patents in, and pay the costs of securing them. Patent costs incurred before the license are also reimbursed, but startup companies are typically given a time payment plan that allows those costs to be paid in installments based on the amount of funds raised.

11. <u>Risks and Liabilities.</u> Once a company takes a license, what happens from that point forward is decided entirely by the company. There are a number of risks in developing, making, marketing and selling products, such as infringing patents of others, injury, death or property damage caused by the company's products, and worker injuries, to name but a few. A license contains several provisions that assure the university that the company will take full responsibility for these risks, even if someone sues the university. The license also requires the company to have an insurance policy that covers such risks.

12. <u>Term and termination.</u> An exclusive license usually runs until the last patent expires, but can be terminated at the company's discretion upon 90 days' notice. The reason is so the university can get back unused technologies and license them to other companies. The university, however, can only terminate for "material breach," e.g., failure to pay amounts due, failure to meet commercial milestones, etc.

License agreements are complex contracts expected to last 20 years or more, and there are many other terms and conditions not mentioned here. Unlike an apartment lease or insurance contract, the terms and conditions of patent licenses are usually negotiated paragraph-by-paragraph, resulting in a highly customized agreement. The TTO is glad to discuss all of these terms with your company representative and your attorney.