UNIVERSITY SPINOUT FOUNDER'S HANDBOOK

(South Carolina Edition)

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ABOUT HUTCHISON

Hutchison is a law firm focused on the special needs of businesses, and those who work with and invest in them. The firm represents many premier technology and life science companies. In addition, we represent businesses large and small, across a range of industries and advise venture capital funds and angel groups on investment transactions. We serve our clients by providing strategic advice and counsel primarily in the areas of corporate and securities law, mergers and acquisitions, finance, licensing, strategic alliances, contracts, intellectual property protection, employment law and tax.

Since our founding in 1996, we have represented hundreds of university spinouts in a broad range of transactions, from inception and the initial license of university technology, through fundraising, strategic alliances, product launch, IPO and exit. Our extensive experience working with executives and entrepreneurs to launch new ventures has enabled us to gain a thorough understanding of the issues that university spinouts face. We've also earned the trust of a potent network of investors and advisors who help entrepreneurial-minded faculty members navigate the challenging process of bringing novel technology to the market.

DISCLAIMER

Hutchison's Founder's Handbook is intended to be a general guide to key legal and select business issues involved in starting a company to develop technology generated at a university. We recognize that each team and technology is unique, so there may be issues important to your company that are not addressed in this general guide. This Founder's Handbook is not intended to be specific legal or business advice. We urge you to seek the counsel of an experienced business and licensing attorney before starting a business based on technology licensed from a university.

Many of our spinout clients trace their roots to the Southeast's major research universities, such as Clemson, Duke, Emory University, the University of Florida, Georgia Tech, the Medical University of South Carolina, the University of Memphis, North Carolina State University, the University of North Carolina, the University of Virginia, Virginia Tech and Wake Forest University, among others. See full list of our university experience.

INTRODUCTION

This handbook is intended to serve as a general guide to key legal and select business issues faced by entrepreneurs starting a company to develop university-based technology. Among the questions addressed in the handbook include:

- What type of company should we form? LLC? If corporation, should it be C or S?
- How do shares get allocated among founders, employees, investors and others?
- What is my role with the company?
- How can we make the company attractive to investors?
- How does venture capital or angel funding work?
- What do I need to know about intellectual property rights?
- What sort of deal should we expect to have with the university?
- How are conflicts of interest with the university managed?
- What pitfalls do I need to avoid when starting my company?
- How can I get this venture started now?

We believe you will find the information in this handbook useful and informative and we welcome any feedback or questions you may have.

If you are thinking about starting a business to develop and commercialize the results of academic research, read on. Launching a university "spinout" company can be an extremely rewarding endeavor, as it is often the best way to move the fruits of academic research to the marketplace, solving important human health, technological and other societal problems while creating significant wealth. But many companies fail, so the process can be demanding, frustrating and costly. We believe that doing some homework before getting started and selecting experienced partners can improve your chances of success and we hope that this handbook will help you on the path to a successful venture.

BUSINESS PLAN

Before diving into the nuts and bolts of legal and practical considerations for starting a business, entrepreneurs are well advised to develop a business plan. An excellent business plan is no guarantee of success, either in raising initial funding or meeting key milestones. Nor does a mediocre plan doom a venture to fail. In fact, our experience shows that many of the most successful ventures develop in ways not anticipated by the original business plan. This might lead some new entrepreneurs to question the value of investing the time and energy into developing a detailed business plan. We believe that the research and disciplined analysis involved in developing a convincing business plan (memorialized in an executive summary and supporting Gantt chart and financial model) are vital steps in preparing to launch a technology-based venture. Countless decision points and unexpected challenges will arise – the business plan provides a framework for helping manage these decisions and challenges.

The best business plans demonstrate that the founders understand not only their technology, but also the market environment, the buyers and what resources and actions are needed to actually move the technology from its current status to a point where it has a much higher value. All too often, business plans focus almost exclusively on the problem to be addressed and on the company's technology. The implicit assumption is that if the technology is developed successfully, the market will automatically adopt it. Plans should show that the founders understand how purchasing decisions are made and how their product will be commercialized to maximize success, assuming the technical hurdles are overcome. The plan should also demonstrate an exit strategy and a realistic exit scenario that would generate attractive investor returns.

CHOICE OF ENTITY

What kind of company should I form?

One of the first steps in launching a university spinout is to create a company. Choosing the legal form of entity that is appropriate for your company is critical since the form will affect fundamental matters, such as how the business and its owners will be taxed and who can invest in the company. There are several options and many factors that one can weigh. In most cases, however, the choice will be clear. For most university technology startups that envision raising significant amounts of money from investors, the best option is usually to form a corporation under the laws of Delaware or your home state. On the other hand, if your company will fund its operations from grants, service revenue or other sources, you may be better off starting out as a limited liability company (LLC). In rare cases, a corporation that elects "S" status for tax purposes can be a useful entity. Although the form can be changed later in the company's life, it is worth spending a little (but not too much) time at the beginning selecting the most suitable form.

Why Do I Even Need to Form an Entity?

There are two main reasons to form an entity. First, a legal entity such as a corporation or an LLC provides significant protection against personal liability. The financial risk for the owners of corporations and LLCs is generally limited to the amount of their investment in the business and they will not have personal liability for the obligations of the entity itself. There are certain exceptions to this general rule, such as if the owners and managers personally engage in wrongful or reckless conduct or if they voluntarily accept personal liability by signing a personal guaranty of a loan or lease. In general, however, the corporation or LLC will insulate the other assets of owners from creditors of the company.

Second, without a legal entity, parties such as the university and investors will not be willing to participate in your venture. In short, without a legal entity, you will have a very hard time getting very far with your business venture and will take on unnecessary risk.

Common Types of Legal Entities

CORPORATION

A corporation is a very common form of legal entity for a for-profit business. It is created by filing a Certificate (or Articles) of Incorporation with the designated official (typically the "Secretary of State") in the state in which the corporation is formed. The Certificate of Incorporation serves as the "constitution" of the company, setting out the basic economic and voting rights of the owners (called stockholders or shareholders). These rights can get complicated, but the fundamental rights include the right to elect a Board of Directors, the right to vote on fundamental changes to the corporation or its business and the right to a share of proceeds after creditors have been paid in the event of a sale of the company. A corporation may be referred to as a "C" corporation or an "S" corporation. These designations refer to sections of the Internal Revenue Code and affect the tax status of the corporation. All corporations are treated as a "C" corporation for tax purposes unless a special "S" tax election is made with the IRS.

WHY DELAWARE?

For companies that are planning to raise money from investors to fund research, development and growth, incorporating in Delaware is a common practice. Delaware's corporate laws are widely considered to be the most sophisticated, comprehensive and well-defined in the U.S. In addition, Delaware is generally favorable to management, the board and majority owners, whereas some other states put greater emphasis on protecting the rights of minority stockholders. For these reasons, Delaware corporate law has become the national standard. Investors and their corporate attorneys nationwide are comfortable working with corporations formed in Delaware.

LIMITED LIABILITY COMPANY (LLC)

An LLC is created by filing a Certificate (or Articles) of Organization (or Formation) with the appropriate state agency. The owners of an LLC are generally referred to as members rather than "shareholders" or "stockholders." In most cases, the LLC members will elect "managers" who govern the LLC much as a Board of Directors manages a corporation. The Certificate of Formation will ordinarily not say much about the ownership or governance of the LLC. Instead, the members of the LLC will enter into an "Operating Agreement" or Limited Liability Company Agreement which will define the economic, voting and other rights of the members and managers. Thus, in many ways, an LLC can be quite similar to a corporation, even though different terminology is used.

LLCs are distinguished from C corporations in at least one very important respect—tax treatment. LLCs, like S corporations, are typically taxed as "pass-through" entities. This means that an LLC is normally treated as a partnership for federal and state income tax purposes. As such, the LLC itself does not owe tax on income that it earns. Instead, the owners are treated as the recipients of their share of the income and owe any resulting taxes. Similarly, if the LLC loses money during a year, the losses are "passed through" to the owners and may under certain circumstances be used by the owners to offset income from other sources. The taxation of LLCs and their owners can get quite complicated and these complexities drive some business owners to seek the simplicity of a C corporation, even though some potential tax benefits may be lost.

C CORPORATIONS

Since corporations and LLCs provide comparable protections from personal liability, your decision to operate as a C Corporation or S Corporation or as an LLC will be driven principally by your business objectives and expected funding needs. The C Corporation is the most commonly chosen form of entity for university-based spinouts that intend to seek outside capital from angel investors, venture capitalists or other institutional investors. Several factors help explain this:

- C Corporations allow for an unlimited number and type of shareholders and for various classes of stock with differing rights, which is needed to accommodate the demands of outside investors. S Corporations, on the other hand, can only have one class of stock, are limited to 100 stockholders and can generally have only U.S. individuals and certain limited types of entities as stockholders. Restricting a startup business to a single class of stock will prove unwieldy as outside investors generally expect a class of stock with preferential rights ("preferred stock") to protect their interests.
- Many venture capitalists will only invest in C Corporations, because the venture funds they manage are restricted from investing in pass-through entities (such as S Corporations or LLCs) based on the needs of their investors.
- Certain federal tax incentives enacted to encourage investment in startup ventures are only available under current law if the business is a C Corporation. One such incentive, for example, allows non-corporate investors in a qualifying C Corporation to exclude from income 100% of the gain realized (up to certain maximum limits) on the sale of stock (referred to as "qualified small business stock") that they acquired from the qualifying corporation after September 27, 2010 and have held for at least 5 years (subject to certain restrictions).
- Stock options, including tax-favored "incentive stock options," can be easily issued as a means of compensating employees in a C Corporation. Stock options are relatively easily understood by employees and investors, and the laws governing their use are well established. Structuring equity compensation in an LLC can raise more complex issues.
- The law governing corporations is well settled, and investors (or at least their lawyers) generally understand how their rights are protected. The LLC form of entity is a comparatively newer business form (laws permitting LLCs have been enacted by the states only within the past 40 years or so), and thus the law is to some degree still developing.

One significant disadvantage of the C Corporation is that it is subject to "double taxation." This means that the corporation itself must pay federal (and, where applicable, state) income tax on its profits and capital gains. Then, when these profits are distributed as dividends to the corporation's stockholders, each stockholder is generally taxed on his or her share of those dividends. However, most technology-based businesses do not expect profits in the early years of the business and any profits that may be generated are typically reinvested in the business and not distributed to the stockholders. Thus, from a practical perspective, the issue of double taxation is generally not a major concern for a company focused on technology development during the operational stage of the business. It can, however, limit the type of exit (M&A) structures which are economically feasible.

However, if it will be important to the business to be able to pass losses and deductions through to the owners and avoid double taxation, then you may want to more seriously consider an LLC or S Corporation. Both are treated as pass-through entities for federal and state income tax purposes, which means that they are generally not subject to federal or state income tax at the entity level. Under the U.S. Federal income tax laws, there is no separate S Corporation income tax or LLC income tax. Rather, taxable income or losses of the S Corporation or LLC are passed directly through to the owners. As between the two, LLCs can offer greater flexibility in allocating profits and losses. The profits and losses of an S Corporation can only be allocated in accordance with the owners' pro rata ownership interests, whereas in an LLC, the owners can divide profits and losses in almost any manner they choose.

Since converting from an LLC to a C Corporation is relatively simple and often can be done on a tax-free basis, one option is to form initially as an LLC to take advantage of the ability to pass through early-stage losses and then convert to a C Corporation when you are ready to raise outside capital. Keep in mind, however, that there will be costs involved in converting, so this option only makes sense if you do not expect to seek outside capital for some significant period of time after the company is formed. Also, founders will not be eligible for the benefits of qualified small business stock described above. As mentioned above, if you plan to seek outside capital from angel investors, venture capitalists or other institutional investors, and you expect to seek such outside capital relatively soon after the company is formed, then starting out as a C Corporation is often the best choice.

OWNERSHIP OF THE COMPANY

How do shares get allocated among founders, employees, investors and others?

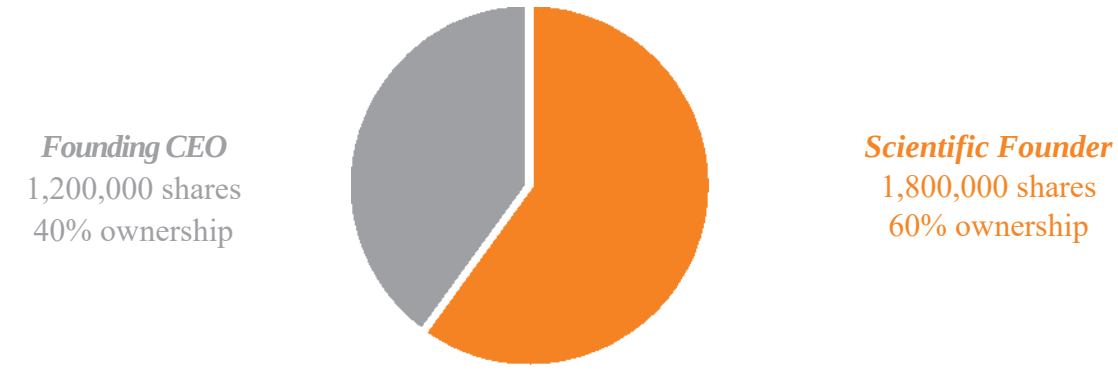
A corporation is owned by its stockholders. At any given time, each stockholder owns a certain number of shares of stock, with all of the shares outstanding representing 100% ownership of the company. As a company develops, new stockholders will be added, additional shares will be issued and some stockholders may transfer their shares, but the total will always, of course, add up to 100%. For a typical university spinout, share ownership will change over time in a series of fairly predictable steps. An example of these steps, and the impact on ownership, follows. The stages described below can vary on a case by case basis – sometimes these stages take place in a different order or simultaneously (or not at all) – but the general pattern is quite common among university spinouts.

STAGE 1: FOUNDERS' STOCK

When the company is first formed, shares are issued to its founders. The term "founder" is not a formal legal term – rather, it is a common way to identify the people who form the company and become its stockholders at the very beginning. The total number of shares at this stage is determined arbitrarily but is often in the range of 2-10 million shares. Of greater importance than the number of shares is each founder's relative percentage ownership of the company. The percentage of each founder's stock ownership must be decided by the founders as a group and generally is based upon their relative initial contributions to the creation of the company and anticipated contributions during the company's first few years of operations. Among the factors that should be considered by founders in making this determination are:

- development of the company's technology;
- creation of the business idea and business plan;
- leadership in promoting the company;
- assumption of risk in launching the company; and
- investment of time, effort and money in the company.

The chart below shows two founders, one of whom ("Scientific Founder") initially receives 1,800,000 shares of stock, with the other ("Founding CEO") receiving 1,200,000 shares. Because these are the only issued shares at this stage, Scientific Founder owns 60% of the company and Founding CEO owns 40%.



A NOTE ON VESTING OF FOUNDERS' STOCK

Founders often receive a large portion of their stock based on what they will contribute to the company during its early years. If a founder abandons the venture early on, it would be unfair to the other participants for the founder to keep all of his shares. In order to ensure that each founder "earns" the initial stock that is issued to him, it is advisable to have a mechanism for the company to reclaim shares that are not earned. This is often implemented with a Restricted Stock Purchase Agreement which subjects the shares to "vesting" – meaning that the shares are earned or become vested over time. If the founder leaves the company during the vesting period, then the unvested shares are returned to the company, typically in exchange for the nominal amount originally paid for the shares.

There are no hard and fast rules for vesting, but several factors that are usually considered are:

- the overall length of the vesting period;
- up-front vesting;
- accelerated vesting upon involuntary termination of service; and
- accelerated vesting upon a change of control.

Generally, founders' stock vests over a three to four-year period. It is fairly common for founders to have 10% to 25% of their stock vested up front in recognition of historical contributions. If a founder voluntarily resigns or is terminated for cause, no additional stock should vest. However, if a founder is forced out of the company prematurely by others or for health reasons, it may be appropriate for the founder to get the benefit of additional vesting. Also, if the company is sold or acquired before the end of the vesting period, it is common to relax or eliminate the vesting arrangement.

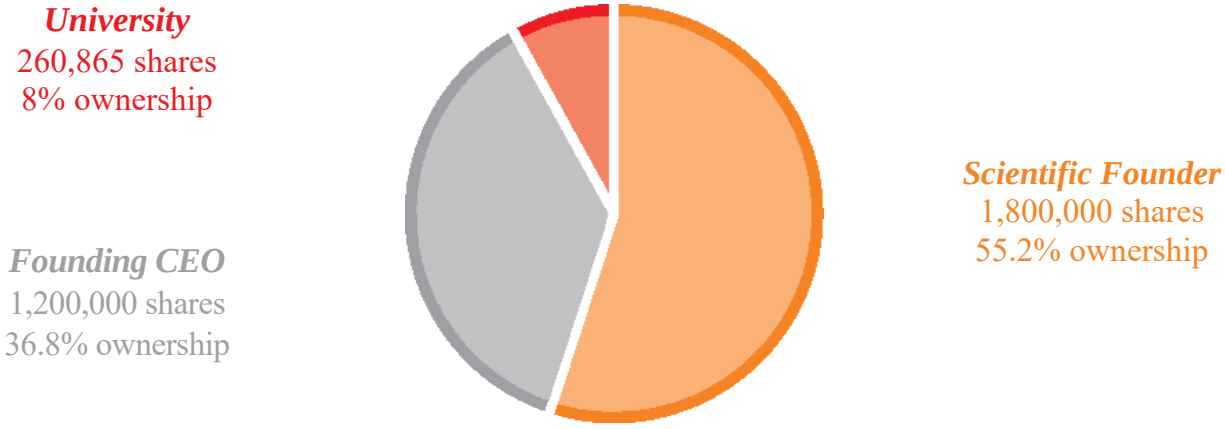
Implementing a vesting arrangement can have unfavorable tax consequences if appropriate measures are not taken at the time the vesting restrictions are placed on the shares. We often recommend that each founder make a "Section 83(b)" election. This is a simple filing with the IRS that is made within 30 days of the issuance of the shares that are subject to vesting. If the founder does not make the Section 83(b) election on a timely basis, then the founder will be subject to ordinary income tax on the increase in value of the shares each time the shares vest. By making a Section 83(b) election at the company's inception, when the shares have very little value, the founder will generally owe no tax as a result of subsequent vesting of the shares.

Sometimes founders will enter into more complex buy-sell arrangements to give the company and co-founders the right to buy out the entire interest of a founder who ceases to be actively involved (a "call" right) and/or gives a departing founder the right to require the company to buy out their interest (a "put" right). For most spinout companies, however, a simple vesting arrangement strikes an appropriate balance.

STAGE 2: STOCK TO THE UNIVERSITY

Universities (or their related company or foundation that holds patents generated at the university) are important partners for spinout companies. Particularly at the early stages of a spinout's existence, the resources of the university will often serve as the launch pad for the venture. In recognition of the university's ownership of the patents and other contributions, the spinout company will often issue shares to the university as part of an overall package of compensation to the university in exchange for a license to core intellectual property. This package is discussed in greater detail below in the "License Agreement" section. In the meantime, we will note simply that spinout companies often issue common stock to the university (or its related foundation) representing ownership typically in the range of 5%-10% of the company's total issued and outstanding shares.

Some universities expect their initial ownership interest to be protected from dilution for some period of time or until certain milestones are achieved. For instance, a university that receives shares representing 8% of the company might seek an anti-dilution clause – a promise from the company to issue additional shares to restore the university to an 8% ownership position after the company completes its initial financing. The accompanying chart shows the university receiving a simple 8% interest that is subject to future dilution on the same basis as the founders.



Note how percentage shrinks as the "pie" grows

STAGE 3: EQUITY COMPENSATION

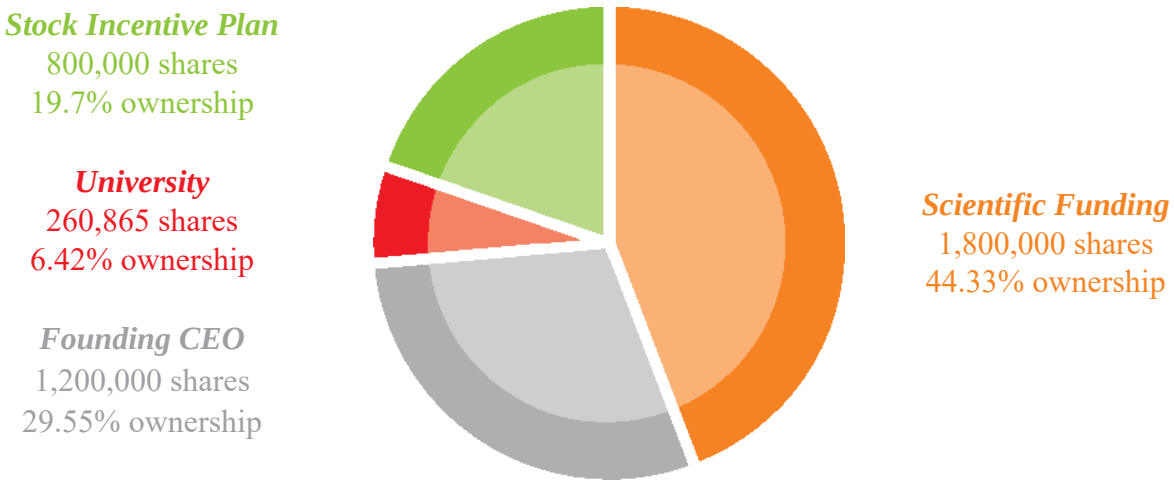
Most university spinouts will begin with active participation of one or more expert academic scientists. Ordinarily, their contributions are necessary, but not sufficient for success. The company must attract and retain qualified employees, consultants and advisors. Since startup companies are notoriously short on cash, they often limit salaries and consulting fees and make up the difference with equity compensation. Startup companies (that are corporations) use two basic types of equity compensation – stock options and restricted stock. Restricted stock is stock that the company issues outright, but which may be repurchased by the company (generally for a nominal

price) under specified circumstances similar to founders' stock. The main advantage of restricted stock is that the recipient owns the shares at the time of receipt, meaning he is entitled to dividends, voting rights and to treat gains from selling these shares as capital gains. As noted above, a recipient may wish to make a timely Section 83(b) election, especially if the shares are issued at a time when the share value is low.

As the company makes progress and grows in value, it can become expensive to issue restricted stock, since the recipient will need to either pay fair market value for the shares or pay tax on the value of the shares. A common alternative is the stock option. A stock option is a contract in which the company grants the employee (or other person) the right to purchase a certain number of shares of the company's stock at a predetermined price (usually the value of the stock at the time the grant is made). The right to "exercise" the option and purchase shares vests over time – generally, over three to four years, and in equal monthly or quarterly installments. Often, there is a probationary period (referred to as "cliff vesting") of six to twelve months before any of the stock options vest.

Most venture capitalists require that a company put in place an equity incentive plan (or "option pool") with shares reserved for grant under the plan representing approximately 12% to 20% of the company's total shares. The size of this pool will depend primarily on expectations about how many key and senior-level people will be needed to round out the company's management team; the more key people to be recruited, the larger the option pool.

The chart below shows the impact of adding a stock option pool. At this stage, each founder continues to own his or her initial stake in the company, but there is now a significant portion of the company's shares set aside (or "reserved") for the Stock Incentive Plan. As a result, each founder experiences some dilution of ownership – while the founder continues to own all of his or her shares, the overall percentage interest in the company represented by those shares has now been reduced or "diluted" by the shares set aside for equity compensation. The size of the Stock Incentive Plan is a matter for negotiation between the founders and the investors. In this example, the option pool is set at close to 20% of the company's total outstanding shares before taking into account shares issued in the company's first (Series Seed or Series A) financing.



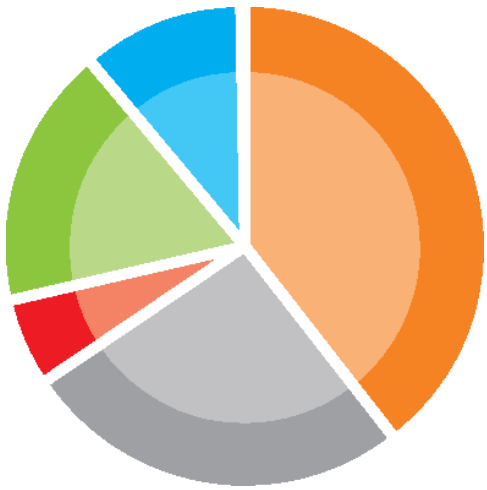
STAGE 4: OUTSIDE FINANCING

University spinouts, like other technology development companies, need capital for research and product development. For some, this capital will come largely from the government or foundations in the form of grants and contracts. For others, alliances or sublicensing deals with established players will provide funding and a channel to the market. A few may be able to finance activities with funds from the founders. But most spinouts will need to access capital from private investors, such as "angels" (i.e., wealthy individuals) or venture capital (VC) funds. Traditionally, angel investors are the first outsiders to invest in a spinout. Because technology development carries considerable risk, angels and VC funds expect large returns on their successful investments. Consequently, outside investors will generally demand a significant ownership position in exchange for their investment.

The first chart below assumes that an angel investor (or a small band of angels) invests $500,000 for approximately 11% of the company's shares. In this example, the angel(s) pay $1.00 for each share of Series A Preferred Stock. Of course, some angel deals involve much smaller or much larger amounts invested, but our experience suggests that most angel financing deals for technology-based ventures fall between $100,000 and $1 million.

DARE I PLAY IT "SAFE"?

In recent years, it has become increasingly common for early stage companies to raise capital with a financial instrument called a "SAFE" (simple agreement for future equity). These instruments, created by ycombinator (www.ycombinator.com/documents/), can be a very simple and efficient tool to raise capital. A SAFE is not necessarily the right instrument for all early stage fundraising, but it is definitely worth considering, especially for smaller rounds of financing.



The next chart shows the impact of a $3 million investment by a venture capital fund at a price of $1.50 per share for a 30% interest in the company. At this stage, the company would be said to have a valuation of nearly $10 million (since $1.50 per share times 6.56 million shares implies that 100% of the company would be worth nearly $10 million). On paper, at least, the shares owned by Scientific Founder would have a value of $2.7MM (i.e., 1.8 million shares times $1.50 value per share), Founding CEO's stake would be worth $1.8 million and the 500,000 shares purchased by Angel Fund A would now have a value of $750,000 (i.e., 500,000 shares times $1.50 value per share). It is customary when discussing a company's valuation to calculate the value on the basis that each share has an equal value even though, as discussed below in the section on "Angel and Venture Capital Basics," there are important distinctions between common stock and preferred stock.

Should the company continue to raise capital from investors, the company would issue additional shares to the investors and would also likely increase the equity compensation pool in order to be able to continue to attract and retain talented personnel. This results in additional dilution to the founders. Over time, a founders' stake can be reduced to a fairly small percentage of the company, but the value of the founder shares can be substantial. Additionally, founders who remain actively involved may expect to protect themselves from excessive dilution by receiving stock options as part of their compensation for continued service. See example of founder dilution spreadsheet at the end of handbook.

MY ROLE WITH THE COMPANY

What is my role with the company? How might it change over time?

A founder can participate in the company in a number of ways. Each role comes with different rights and responsibilities and it is common for a founder's role to change over time, as the company develops and the founder's priorities evolve. By definition, a founder will be a stockholder in the company. A founder can hold one or more other roles with the company, such as serving on the Board of Directors or on an advisory board, being employed as an officer of the company or serving as a consultant to the company. These roles are discussed in greater detail below.

BOARD OF DIRECTORS

The Board of Directors is a group of individuals elected by the stockholders to oversee the affairs of the corporation. All Boards operate a little differently, but typically the Board of Directors will be responsible for (1) hiring and firing the senior management of the company (e.g., the CEO and CFO), (2) reviewing and approving annual operating plans and budgets, (3) approving or rejecting major initiatives and significant transactions and (4) helping the company find talent, resources and opportunities. In performing their duties, members of a Board of Directors have a fiduciary duty to look after the best interests of the company's stockholders, so it is essential that individuals who serve on a Board take the responsibility seriously and commit to devote appropriate time to the task and to put the company's interests ahead of their own. When a company is first started, one or more of the founders will generally serve as the Board of Directors.

The Board of Directors of a corporation (and the corresponding "manager" or "managers" of an LLC) have a great deal of control over, and responsibility for, the affairs of the company. Warren Buffett has been quoted as saying that the only real job of a Board of Directors is to hire and fire the CEO. While this is certainly a vital part of the job, Boards are charged generally with overseeing the management of a company to ensure that the interests of the company's stockholders are being served. By law, Boards generally have significant power and authority to control the affairs of a corporation. This power and authority come with a commensurate amount of responsibility - Board members have a fiduciary duty to protect the interests of the corporation's stockholders. Failing to meet these duties can result in personal liability of the Director to the stockholders and to the corporation that he or she was supposed to protect. So, what are these duties? In essence, the Board member has a duty of "care," meaning that the Director must use reasonable efforts to stay informed about the affairs of the company and make informed and deliberative decisions as to its management. Directors also have a duty of "loyalty," essentially meaning that they cannot gain an improper personal benefit from decisions made in their capacity as directors.

Although the Board has substantial responsibility, serving as a director generally involves a relatively modest time commitment. Founders and officers who serve on the Board should not expect additional compensation for such service, since their stock ownership position and/or salary are generally viewed as sufficient compensation for their additional role as a Board member. On the other hand, if the company recruits an individual with experience in the relevant industry, good connections or other valuable skills who is not otherwise employed by the company,

the company will generally provide stock options, cover expenses and, in some cases, pay a modest fee for that person's service on the Board. The company will also generally agree to defend the directors against any claims made against them and, as resources are available, will procure insurance (known as directors and officers, or D&O, insurance) to provide additional protection.

CORPORATE OPPORTUNITY AND THE ACADEMIC FOUNDER

Fiduciary obligations of directors can pose particular challenges to university faculty. Academic founders are often prolific inventors and leaders in their respective fields. As such, they can be expected to continue to publish, invent, consult and/or collaborate on a wide-ranging basis. This thought leadership is part of what makes them valuable as founders of companies, but it also sows the seeds of potential conflict. As research interests of the founder and the company diverge and other priorities (publications, pursuing funding for the academic research enterprise, paid consultancies, other ventures, etc.) become paramount, tensions can arise between a founder and the other company stakeholders. A founder may want to publish material the company considers proprietary. Or the founder may seek to pursue independently opportunities that are of interest or value to the company. All too often, the founders and other key stakeholders fail to have a full and open discussion regarding the scope of the founder's commitment to the common enterprise. Investors, for example, have been known to think that they have an interest in all of the intellectual output of a founder (despite intellectual property agreements that define a much narrower scope).

On the other hand, it is not unusual for a founder to feel that his commitment has been met by contributing to certain core intellectual property and that he is free to pursue any other venture of his choosing without restriction.

Finally, some academic founders believe that their role is limited to scientific or technical leadership. Although this is commonly the area where the academic founder can make the greatest contribution, the founder who chooses to serve on the board of directors remains subject to the same fiduciary duties as any other director.

As a starting point, founders can help minimize the chance of future disputes by entering into Proprietary Information & Noncompete Agreements that clearly identify the extent of the founder's commitment to the company. But they must continue to monitor activities in order to identify and manage conflicts of interest, and must not include intellectual property commitments that conflict with university policies.

OFFICER

It is also natural at the early stages for the individuals who founded and own the enterprise to be responsible for controlling its day-to-day activities. At this stage, founders frequently will also serve as officers of the company, with titles such as President or Chief Scientific Officer.

In the hierarchy of a corporation, the Board answers only to the stockholders. Immediately below the Board are the CEO and other officers (such as a CFO and various Vice Presidents), who are charged with managing the day-to-day affairs of the company. At the earliest stages, one or more of the key officer roles will be held by founders. Over time, as dedicated personnel are brought into the company, academic founders will frequently relinquish these roles. This allows them to focus on other priorities – such as academic research and providing guidance to the company's scientific direction – and to allow experienced business executives and investors to take on responsibility for the management of the company's business affairs.

Ordinarily, officers are employees of the company. As such, they will typically draw a competitive salary, receive a significant grant of stock options and be eligible for periodic bonuses and whatever benefits the company offers.

CONSULTANT/ADVISOR

Often, a scientific founder will continue to regularly meet with management and participate in Board meetings, even without holding a formal position on the Board or serving as an officer of the company. Depending on the resources available, the level of commitment by the founder and other factors, the company may pay a competitive rate for consulting services.

ADVISORY BOARD MEMBER

Many companies focused on developing new products based on science and technology will empanel a group of knowledgeable authorities in the field to provide informed advice and guidance. These groups are often referred to as a Scientific Advisory Board, Technical Advisory Board, Clinical Advisory Board or the like. At a minimum, these boards are intended to add to the company's credibility by association with prominent, reputable experts. In some cases, these groups will hold regular meetings with the company's key technical people to help shape product development activities, clinical trial strategy or other matters. More often, though, the advisory board members will be asked only to be available for periodic consultation and will not be expected to commit time to attend regular meetings. Generally speaking, an advisory board role implies ongoing communication and participation, but with little financial commitment by the company and a very limited commitment of effort by the advisor. Advisory board members are typically compensated with a modest grant of stock options.

ANGEL AND VENTURE CAPITAL BASICS

How does angel investing and venture capital work?

As noted above, many spinout companies need to raise outside funding to invest in research and development. Two of the most significant sources of risk capital are angel investors and venture capital. "Angels" are simply wealthy individuals or groups of wealthy individuals. Venture capital is a professionally managed pool of capital that is raised from public and private pension funds, endowments, foundations, banks, insurance companies, corporations and wealthy families and individuals. Venture capitalists ("VCs") generally invest in companies which can, if successful, have a liquidity event (either a sale of the company or an IPO) within five to seven years and that will generate returns of five to ten times (or more) the amount invested. Typically, VCs invest with terms that are designed to provide them considerable control and to maximize the return for their investors. The common VC investment terms can be broadly categorized into financial rights, governance rights and exit rights. Generally speaking, angel investors will seek to negotiate for some, but less than all, of the rights that VCs typically require. In recent years many VCs have de-emphasized investing in very early stage companies, and concurrently many angel investors have required more of the rights typically demanded by VCs to protect their investments. An introduction to the terms and conditions common in VC funding follows.

FINANCIAL RIGHTS

The starting point in a discussion of financial terms for a VC investment is the ***pre-money valuation*** of the company. In particular, VCs and other stakeholders will need to determine what percentage of the company the VCs will receive in exchange for a specified investment amount. Pre-money valuation is determined based on negotiation between the current stakeholders (generally, the company's senior executives in consultation with the Board of Directors and other trusted advisors) and new investors. Generally speaking, the current stakeholders push for a higher pre-money valuation in order to minimize the amount of dilution that current stockholders will experience, and VCs will generally seek a lower pre-money valuation in order to maximize the potential return on their investment. In considering whether to invest at a certain pre-money valuation, VCs analyze the projected value of the company under realistic scenarios assuming success.

Consider a simple example. The company and the VC agree that the company should be able to achieve key technical and business milestones over three years and that the company will require $10 million to reach these objectives. The parties also agree, based on reviewing comparable transactions and the value proposition of the company, that if the objectives are met, the company would have a potential value at exit of $100 million. If this company raised $10 million at a pre-money valuation of $10 million, the VC would own 50% of the company. At the time of the $100 million exit, the VC would therefore receive $50 million (before accounting for some of the special financial rights described below). For some investors, the opportunity to generate "only" a 500% (or "5x") return would not be sufficiently attractive. If the pre-money valuation were set at $3 million, then the VC would own about 77% (ten divided by thirteen) of the company and be entitled to approximately $77 million (a 7.7x return on the $10 million investment). The negotiation on valuation also takes into account the risks that the company will not achieve its objectives, the risks that competition or changes in the market will reduce the value of the company

and other risks. Of course, supply and demand play an important role, so a company that can elicit interest from multiple VCs should be able to negotiate for a higher valuation.

Valuation, including the per share price, is generally determined on a ***fully-diluted basis***. Fully-diluted means:

- the total number of issued shares of common stock owned by founders and others,
- plus all shares of common stock which would be issued if all outstanding options and warrants were exercised,
- plus all shares of common stock which would be issued if all convertible preferred stock were converted into common stock,
- plus all shares of common stock which could be issued if all shares reserved for grants under a stock option or incentive plan were issued.

Most venture capital investments are structured as convertible preferred stock with a ***liquidation preference*** and other rights (described below). A liquidation preference is a feature of the stock that provides that the holder of that stock is entitled to receive a stated amount per share in a liquidation or sale of the company before holders of common stock or other "junior" securities are entitled to receive value for their stock. The amount of the liquidation preference will generally be equal to the investor's purchase price, plus accrued and unpaid dividends, to ensure that the VCs get their money back before the holders of the common stock and any junior preferred stock (e.g., founders, management, employees and earlier angel investors, if any) if the company is sold or liquidated. In some cases, typically when the company is in distress or for some other reason there is a major imbalance in negotiating strength, the liquidation preference will be a multiple of the amount invested.

In some cases, VCs insist that the preferred stock be ***participating preferred stock***. This means that the holders of the preferred stock share on a pro rata basis with the holders of the common stock in any proceeds that remain after they receive payment of their liquidation preference. These participation rights allow the VCs to share in the upside if the company is successfully sold. If convertible preferred stock is non-participating, then the VCs will have the right to choose between the liquidation preference – which would generally give them a return of their investment and would likely be chosen if the company were sold on relatively unfavorable terms – or converting the preferred stock into common stock, in which case they would give up the liquidation preference and instead would be entitled to receive a pro rata share of the total value of the transaction.

Sometimes, preferred stock will also bear a fixed rate ***dividend***. Due to the cash constraints of early stage companies, the dividend is not payable on a regular basis; instead, it accrues over time and may be added to the liquidation preference payable upon a sale or liquidation of the company. These accruing dividends may be viewed as a return for the time value of money.

After a VC obtains a specified percentage interest in the company, they will want to ensure that the interest cannot be diminished against their will. VCs protect their ownership percentages through preemptive rights, anti-

dilution protection and price protection. ***Preemptive rights*** give investors the right to purchase a portion of the shares of stock sold by the company in future financing rounds, thereby enabling them to maintain their percentage ownership in the company. ***Anti-dilution protection*** adjusts the investors' ownership percentages if the company effects a stock split, stock dividend or recapitalization. ***Price protection*** (also commonly referred to as "price-based anti-dilution" protection) is a term that, in effect, generates a retroactive reduction in the effective price paid by the VC for its shares of preferred stock in the event the company sells stock at a price lower than that paid by the VCs. Technically, this feature applies by changing the ratio for converting the preferred stock to common stock, but the effect of this is that if the company sells shares in the future at a price lower than the price paid by the VCs, the company will have to issue additional shares to the VCs. Consequently, the other stockholders who do not have this protection experience the bulk of the dilution.

There are two common types of anti-dilution price protection: weighted average and full ratchet. A weighted average anti-dilution provision reduces the effective price paid by the VC, but applies a formula that takes into account the lower issue price as well as the number of shares that the company issues at that price. A full ratchet, on the other hand, has the effect of retroactively reducing the price paid by the VCs to the lowest price at which the company subsequently sells its stock *regardless* of the number of shares of stock the company issues at that price. Nearly all VC investments will have either a weighted average or full-ratchet anti-dilution, but these terms, like many others, vary based on overall market conditions for capital and the attractiveness of a particular investment opportunity.

Governance Rights

Most venture capital investments provide VCs with considerable ability to control a company. Even where VCs obtain a minority interest in a company, they will insist that the company's governance structure ensure that they have these protections and control. For example, most investment structures provide that the VCs have the right to elect one or more members of the Board of Directors. This ensures that VCs' representatives have regular opportunities to confer with management and to review and vote upon executive employment matters, budgets, material transactions and other strategic matters. In some cases, investment documents will require that certain actions require the specific approval of the investor-designated members of the board, even where general corporate law principles would provide that the matter could be approved by a simple majority of the board.

In addition, preferred shares will often have ***protective voting provisions***. These are special voting rights which provide that a company may not engage in certain activities or complete certain transactions without first having received the affirmative vote of a designated group of stockholders. For example, terms of an investment may require that the company obtain the consent of holders of a majority of the company's Series A Convertible Preferred Stock in order to issue additional shares of stock, to deviate from an approved budget, to incur debt, to enter into a strategic license or partnership or to merge with, acquire or be acquired by another company.

Exit Rights

VCs must achieve liquidity in order to provide the requisite rate of return to their investors. In other words, they must convert their shares of the companies in which they invest into cash or marketable securities so they can distribute these proceeds to investors in their VC funds. Most VC funds have a limited life of 10 years and most investments from a fund are made in the first 4 years. Therefore, investments are structured to provide liquidity within 5 to 7 years so that investments that are made in a fund's third and fourth years are liquidated as the fund winds up and its assets are distributed to the fund's investors. The primary liquidity events for VCs are the sale of the company for cash or marketable securities or the sale of company stock following an Initial Public Offering (IPO) by the company. VCs also may obtain a right to require the company to redeem or repurchase their stock after a specified period of time, although this right is rarely exercised.

Generally, VCs do not have a contractual right to require the company to be sold but have enough influence (through their seats on the Board and special voting protections) that they have the practical ability to force a sale. For example, if VCs believe that a sale of the company will provide a more favorable return on investment than continuing to invest in development efforts, the VCs have the ability to prevent the company from selling additional stock to raise capital, leaving the company with no alternative but pursuing a sale of the business.

VCs also typically obtain registration rights. ***"Demand" registration rights*** give the VCs the right to require the company to register its shares with the Securities and Exchange Commission (SEC), so that the VCs can sell their shares in the public capital markets. Also, VCs will generally have ***"piggyback" registration rights*** that give them the right to include their stock in future registered offerings that the company may wish to complete. Although it is very uncommon for VCs to exercise registration rights to compel a company to go public, the existence of the rights and the requirements that the VCs achieve liquidity can put pressure on a company to sell or go public.

VCs may also insist on ***redemption rights*** to give them a way to achieve liquidity if it is not available through a sale or public offering. This gives the investors the right to require the company to repurchase their stock after a specified period, typically 4 to 7 years. The redemption price for the VCs' stock may be based upon the liquidation preference (i.e., the purchase price, plus accrued and unpaid dividends), the fair market value of the stock as determined by an appraiser or the value of the stock based upon a multiple of the company's earnings. An early stage company (particularly one which is struggling) may not be able to finance the buyout of an investor and the redemption right may not be a practical way to gain liquidity. However, this right gives the VCs tremendous leverage to force management to deal with their need for an exit and can result in a forced sale of the company. Also, if the VCs trigger their redemption right and the company breaches its payment obligations, the VCs may be able to take over control of the Board of Directors of the company, putting them in a position to direct any future activities of the company.

Other exit rights that VCs typically require are ***"tag-along"*** and ***"drag-along"*** rights. Tag-along rights give the investors the right to include their stock in any sale of stock by management or founders. Drag-along rights give

the investors the right to force management or founders to sell their stock in a sale of stock by the investors that meets certain requirements.

It is not uncommon for the financial, governance and exit rights of VCs to be revised during the life of a company. For example, a company seeking to develop a novel human therapeutic may require three or more rounds of venture capital before it reaches the stage of development where it is suitable to attempt to access public capital markets through an IPO or be sold. Each new round of financing may include a combination of new and current investors and involve a significant renegotiation of the investment terms.

Nearly all of the rights associated with a VC investment may be renegotiated at these subsequent rounds of financing. As a general rule, new investors will seek to have preferences and priorities over existing investors. In the case of financial rights, for example, later investors will generally want their liquidation preference to have priority over (or be "senior" to) the liquidation preference of earlier investors. Existing investors, however, can be expected to prefer a *pari passu* arrangement, where all preferred investors share equally in proceeds from a sale. With respect to governance rights, holders of the initial series of preferred stock (Series A) may wish to retain a class vote over important company transactions, whereas new investors – who may be making a larger investment – may believe that class voting privileges should be exercised only by the new investors (Series B holders). A compromise might involve the holders of Series A and Series B voting together as a single class on some or all of the protective provisions. Series B investors may wish to have one or more of their representatives replace existing member(s) of the Board of Directors. Later stage investors will generally require assurance that earlier investors cannot exercise redemption rights or registration rights in a way that adversely affects the interests of the later stage investors. Initial VC investors may have difficulty accepting these adjustments if the effect is that their ability to force a liquidity event is deferred until after the 10 year life of their investment funds. Market conditions, notably the perceived attractiveness of the company relative to other investment opportunities, will significantly affect the negotiations regarding these relative rights.

CONCLUSION

VC investment terms may seem onerous and complex to entrepreneurs. However, entrepreneurs, with the assistance of legal counsel experienced in venture capital financings, will be in a better position to negotiate an investment structure that meets the needs of both the company and the new investors if they understand the VC's goals.

INTELLECTUAL PROPERTY BASICS

What do I need to know about intellectual property?

Rights in intellectual property secure to their owners certain exclusive rights for a specific period of time. The periods of exclusivity allow people to profit from their invention, creativity or the goodwill associated with their goods and services. This promotes creativity and development and encourages investment in new ideas and inventions. Intellectual property often comprises the crown jewels of a university spinout. There are four general types of intellectual property – patents, copyrights, trade secrets and trademarks – each of which is discussed briefly below. For most university spinouts, patents filed on discoveries made in university labs or the copyrights in a software offering will form the cornerstone of the company's intellectual property portfolio.

Patents

WHAT A PATENT IS — AND WHAT IT IS NOT

A patent is a legal right granted by a government providing the owner of the patent with the exclusive right to make use, sell or import the invention. In exchange for these exclusive rights, the inventor must fully disclose the invention to the public. Patent rights arise solely through registration and protection must generally be sought on a country-by-country basis.

Patents can be granted for many types of inventions, including machines, processes (such as scientific assays and methods of manufacture) and composition of matter. The common requirement is that the invention must be novel (i.e., not previously invented), useful and non-obvious. A detailed discussion of these concepts is outside the scope of this handbook. Suffice it to say that determining whether a particular invention is patentable can be complicated and that actually securing favorable patent rights in commercially significant markets will be a time-consuming and expensive process. For the right technologies, however, the rewards of patent-based exclusivity can be enormous.

A patent filing is made up of numerous components. Although each component is meaningful, the scope of the patent, and therefore its value, is defined by the ***claims***. The claims of an issued patent define activities that no person can engage in without permission (or "license") provided by the patent owner.

This right to prevent others from making or using the invention is sometimes confused with "freedom to operate" the invention. A common misconception about patents is that having a patent on an invention gives the patent holder the right to practice the invention. This is simply not the case – if practicing the claimed invention involves the use of inventions included in the claims of valid patents held by others, then the patent holder must secure a license from the third party or else risk a suit for patent infringement.

As a spinout develops, and before it invests large sums in developing a product, it will want to understand whether any of its technology might be eligible for patent protection and may want to consider whether any third

party patents might present an obstacle to making and marketing the products. In the U.S. at least, some rights may be lost if the nature of the invention is disclosed or commercial activities using the invention begin more than a year prior to the filing of the application. Moreover, gaining a thorough understanding of third party intellectual property can dramatically affect plans for product development as well as strategies for bringing the products to market through partnerships. The earlier the spinout knows of its opportunities and roadblocks, the more easily it can navigate a path to the market.

HOW TO GET A PATENT

For a U.S. spinout company, the patent application process will generally start with the university making one or more applications with the United States Patent and Trademark Office (the "PTO"). A patent examiner at the PTO will evaluate the patentability of the inventions claimed in the patent application. The examiner typically will engage in a written dialogue with the patent agent or the attorney prosecuting the patent application regarding the scope of the application and other issues. It is not unusual for the applicant to begin with a request for broad claims and for the examiner to start with a broad rejection. The process will generally unfold over a number of months or years, and may include meetings to discuss what claims, if any, will be included in any issued patents.

Since patents are issued by governments, the scope of the patent protection generally does not extend beyond the issuing country's borders (though there are exceptions). Many countries are parties to the Patent Cooperation Treaty (the "PCT"), which allows applicants to file an "International Application" at the applicant's home country patent office. An international PCT application preserves an applicant's ability to later file separate patent applications in each PCT member country designated in the application (provided the later filed applications are made within certain set timelines). The filing party must file applications in each individual country and complete the applications at each of the designated offices.

Patent Strategy

In short, the process of building a commercially meaningful patent estate is often a lengthy, expensive and complex process. Calculated risks, educated guesses, budgetary constraints and prioritization will all figure into the exercise. Among the key questions are: Which inventions should I try to patent? In which countries should I try to get patent coverage? How long will this take? How much will it cost? In answering these questions, both upfront and over time, a company will establish and implement key parts of its IP strategy. Developing an IP strategy is outside the scope of this handbook, but one excellent resource on the subject is *iProperty: Profiting from Ideas in an Age of Global Innovation*, by William Barrett, Christopher Price and Thomas Hunt. A couple other useful articles are:

- http://www.wipo.int/sme/en/documents/managing_patent_costs_fulltext.html
- http://www.bpmlegal.com/patfees.html

As a spinout company is developing its business plan, it is important to allocate sufficient resources to building its patent estate. One inescapable fact is that the costs of creating and maintaining a patent portfolio tend to climb rapidly after the first few years. For this reason, it is essential for most startups to secure external funding – typically from investors and/or strategic alliance partners – to help build a strong and valuable set of patent rights.

COPYRIGHTS

Copyright protection is available for an original work of authorship. Most commonly for spinout companies this takes the form of written works, pictures, designs, software, user interfaces and databases. The owner of the copyrighted work has the exclusive right to reproduce, distribute, publicly perform, publicly display or prepare derivative works of the copyrighted work. Copyrights do not protect ideas, facts, procedures, processes, systems, methods of operation, concepts, principles or discoveries, only the specific way these ideas are expressed.

Typically, copyright infringement occurs when a protected work is copied or used in some form without the consent of the copyright owner. In some instances, such uses may be defensible as a "fair use" of the copyrighted material, such as for scholarship, research, teaching, news reporting, commentary and criticism. Fair use is a multi-faceted consideration, however, and caution should always be used when making any use of a creative work that was not created by the spinout.

Unlike patent protection, copyrights automatically arise when a work is reduced to a tangible medium. If a work is created by an employee during the course of employment, then the copyright is generally deemed to be owned by the employer. However, a work that is created or produced by a person other than an employee of the company (such as an independent contractor) will not be deemed to be owned by the company unless there is an appropriate agreement in place transferring those rights to the company.

DOMAIN NAMES

In order to establish an appropriate web presence, a new company should obtain one or more internet domain names from a domain name registrar. Domain names are not a separate form of intellectual property; however, it is important to avoid selecting a domain name that might be confusingly similar to another established trademark. In order for a domain name to serve as a trademark, it must be used as a trademark in the body of the website or in some other manner so as to meet the normal requirements for trademark usage. Similarly, a company name is not necessarily a trademark unless it is used by the company in connection with the sale of goods and services in a manner that generates trademark rights.

There is no required registration or application process for copyright rights to exist. However, a copyright may be registered in the United States Copyright Office which is part of the Library of Congress. Such registration provides the following benefits:

- it is necessary in order to file an infringement action;

- if it occurs prior to the infringement, then the copyright owner is entitled to statutory damages and attorney's fees; and
- it provides evidence of ownership of the work at issue.

The current term of a copyright for works created within the scope of the author's employment, or otherwise as a work made for hire, is 95 years from the year of first publication or 120 years from the year of its creation, which ever occurs first. For works authored by an individual, the copyright term is the life of the author, plus 70 years.

TRADE SECRETS

Trade secret law may be used to protect manufacturing processes, customer lists, certain types of business information and other "formulas, patterns, compilations, programs, devices, methods, techniques or processes." Computer software source code often is maintained as a trade secret. To qualify as a trade secret, the information must have economic value because of its secrecy, and the owner must take reasonable steps to maintain its secrecy. Trade secret law is similar in essence, but may vary in particulars, from state to state, as well as internationally. Additionally, a number of developing countries provide little or no trade secret protection.

The owner of trade secrets has the right to prevent others from using or transferring the trade secrets without permission. Trade secrets, however, do not protect against a third party independently developing the same process or information (without reliance on the company's information). Trade secrets protection can last forever, so long as the trade secrets retain economic value, they remain secret, and reasonable steps are taken to preserve their secrecy. Classic example of trade secrets are the formula for Coca-Cola and Kentucky Fried Chicken's "original recipe."

TRADEMARKS

Trademarks are the words, logos and other devices that a company uses to identify its goods and services and to distinguish those goods and services from those provided by another entity. Trademarks do not protect the underlying goods or services being provided, rather they prevent others from using a similar mark that will result in consumer confusion as to the source or affiliation of the products being provided.

In the United States, ownership of a trademark arises based on the use of the mark. If a mark is used without seeking a registration, the owner's rights will generally be limited to the geographic area in which the mark has been used. Registering the mark with the U.S. Trademark Office provides the following benefits:

- it establishes a nationwide constructive date of first use;
- it allows for the recovery of attorney's fees, treble damages and other import restriction remedies;
- it provides *prima facie* evidence of the facts set forth in the PTO registration certificate; and
- it provides valuable documentation for obtaining and retaining Internet domain names.

Trademarks (sometimes referred to as "service marks" when used in connection with services) can include names for products and services, logos, slogans and in certain instances product packaging. Trademarks can be "arbitrary," "fanciful," "suggestive" or "descriptive." Generally, arbitrary, fanciful and suggestive marks are those that bear little or no relationship to the actual goods or services, and therefore, are entitled to a relatively broad scope of protection. By comparison, marks that merely describe in some fashion the goods or services are entitled to protection only upon proof that relevant consumers already associate the mark with the goods or services provided by the owner of the mark.

Trademark owners have the right to prevent others from using confusingly similar marks and to prevent others from reselling their goods without use of their marks.

As long as properly used, trademarks can provide protection for an unlimited length of time. However, trademark rights can be diminished, eroded or lost if the owner does not continuously use the mark, if the owner does not actively enforce the owner's rights against known infringers or if the trademark loses its significance in the marketplace by becoming generic.

CONCLUSION

A university spinout will often be formed to develop and capitalize on a set of related and complementary inventions claimed in one or more "families" of patents or around a core piece of software that may be protected by copyrights and trade secrets. As the company develops, it may generate additional patents, together with complementary copyrights, trade secrets and trademarks. In order to maximize the value of its intellectual property in a cost-effective manner, the company will first need to understand the strengths and weaknesses of its intellectual property. It should then craft and implement an intellectual property strategy that accounts for third party IP rights and supports its business objectives.

LICENSING UNIVERSITY TECHNOLOGY

What sort of deal should we expect to have with the university?

BACKGROUND

Annual surveys published by the Association of University Technology Managers (AUTM) reveal that over 1,000 new companies are formed each year to develop and commercialize inventions generated by research universities in the United States. Although each university has its own process and priorities when licensing technology to startup companies, common themes are evident as a result of both the underlying legal regime and the dissemination of knowledge and practice through professional organizations such as AUTM.

BAYH-DOLE ACT

Many of these themes trace their roots to the federal Bayh-Dole Act of 1980, which allows universities to own the patents on inventions that are developed by university researchers engaged in federally-funded research.

The fundamental premise of the Bayh-Dole Act is that if universities own the inventions and have a set of incentives to encourage commercialization, research will lead to more innovation, resulting in improvements to the quality of life and economic growth – society will get a greater return on the government's investment in basic research. To encourage these outcomes, the law strongly favors universities owning the inventions, which is why most spinout transactions are set up as a grant to the spinout of a license to the patented intellectual property that will form the basis of the spinout's business, rather than a sale (or "assignment") of those patents. So long as the university continues to own the IP, it has some ability to require that the licensee use the IP in an appropriate and constructive manner, enabling it to demonstrate to the Federal Government that it is meeting its obligations under Bayh-Dole.

First and foremost, this translates to requirements in license agreements that licensees provide credible plans for product development and that they work diligently to execute on the plans. When negotiating the due diligence requirements of a university license, it is important to tailor objectives that are consistent with the company's strategy and which are readily achievable with available, or reasonably expected, resources.

A university often will reserve certain rights for itself, such as the right to use the technology for educational and research purposes and to publish papers about the technology. If the research is sponsored by the government, then under the Bayh-Dole Act, the government will reserve the right to exploit the technology for governmental purposes and require that, to the extent practicable, the products covered by the licensed patents and used or sold in the United States be manufactured substantially in the United States.

SCOPE OF LICENSE

A license to practice patent rights can be defined in a variety of ways. For instance, the patent owner may grant a license that is exclusive or non-exclusive, it can limit the rights to practice the patent rights to a specified time period or geographic area, and it can impose limits on what kinds of products can be made or what kinds of industries can be served with the patent rights (this last concept is generally referred to as the "Field" or "Field of Use" of the license). In many instances, a spinout company will want the broadest rights to the relevant patents, meaning a worldwide license that is exclusive for all fields of use and which also includes related improvements generated by the academic founders in their labs at the university. Determining the scope of the spinout company's rights, and its associated obligations to develop those rights, is often the most challenging part of negotiating the license agreement.

The company will also want the right to grant sublicenses to the technology, for very practical business reasons. The worldwide development of a new product will almost always require working with partners to develop, make and distribute products. And sublicensing rights in one technical field or geographic area can be an effective way to generate revenues to fund operations and, potentially, distributions to stockholders. It is not uncommon for universities to impose some restrictions on sublicensing, in an effort to maintain a greater degree of control over the technology. But most university tech transfer professionals are open to meeting the reasonable needs of the spinout company. The more clearly a company can articulate its development and commercialization strategy, the easier it will be to negotiate appropriate sublicensing terms suitable to implement the strategy.

LICENSE FEE

A license fee generally is a fixed cash payment made at the time the license agreement is signed. Often, university spinouts agree to pay as a license fee an amount that is nominal, as in a few thousand dollars or less.

PATENT COSTS

In addition to paying a license fee, the spinout typically will be responsible for past and future patent expenses. In many cases, the company is able to negotiate a deferral of all or a portion of the past patent expenses for a period of time or until the spinout has raised a certain amount of capital. In some cases, the spinout will simply assume control of prosecuting the patents at its own expense. More often, the university will maintain some degree of control over ongoing patent prosecution and will require the spinout to reimburse it for those costs. The spinout company should ensure that the license agreement gives it sufficient rights to prosecute patents and to enforce the licensed patent rights against third parties. In addition, the spinout will want to avoid being obligated to cover costs to seek patents in countries that are not commercially important to the company or to be responsible for 100% of the patent costs if the spinout does not have exclusive rights to the patents in all fields of use. Perhaps most importantly, the spinout company will want to closely monitor the activity of patent counsel and advise the university of its needs to ensure that the company's IP strategy is being implemented and that the associated costs are understood and approved in advance.

ROYALTIES

The spinout company usually will agree to pay a percentage, typically in the low single digits, of its revenues from sales of products that utilize the licensed technology. Generally, royalties are based on the amount of "net sales" (essentially gross revenues, less taxes, shipping, returns and certain discounts) by the spinout company of products or services that involve the use of the licensed patents. While negotiations about royalties will begin with a simple percentage, the discussions can get more complex as the parties confront so-called "royalty stacking" issues. Royalty stacking comes into play when a company is required to pay royalties under two or more licenses on the sale of the same product. Customarily, license agreements include a mechanism to reduce the royalties that are owed to the university when the spinout must also pay a portion of its revenues as royalties to others.

SUBLICENSE REVENUE

Typically, university licenses grant the spinout company the right to sublicense the university technology to third parties, because all of the parties involved recognize that developing and commercializing new technology in a global marketplace will often require the resources of other companies. In some cases, the university will simply earn the same royalty on sales by a sublicensee as it would on sales by the licensee (sometimes referred to as a "pass through" royalty). It is also common to allocate a share of the proceeds from a sublicense between the spinout company and the university. Numerous approaches to sublicense revenue sharing are possible – ideally, a spinout should take care to negotiate one that fits both its preferred business strategy as well as likely alternative strategies.

In practical terms, sublicensing revenues and milestone payments (see below) are often the most likely source of financial return for university spinouts.

MILESTONE PAYMENTS

Milestone payments are lump sum payments that are payable to the university upon the completion of certain major events, such as the closing of a significant financing, obtaining regulatory approval of a product or completing the first commercial sale of a product.

STOCK

Many spinout companies issue stock to the university or a university-related entity. Spinout companies tend to appreciate this type of arrangement because, like milestones, issuing stock tends to reduce the up-front cash costs of the license to the company and helps to increase the long-term alignment of interests between the spinout and the university. Universities are supportive of these equity arrangements because they facilitate technology transfer to the private sector and provide the university with an opportunity for substantial financial rewards if the spinout company is sold on favorable terms or completes a successful public offering of its shares.

EXIT FEE

An increasing trend is for universities to ask for or receive an "exit fee" in lieu of stock. These fees are typically in the very low single digit percentage range. The use of an "exit fee" eliminates the need for a significant amount of paperwork from equity documents and, at some universities, greatly reduces the conflict of interest complications.

CONCLUSION

Many successful companies have been launched based upon core technology that was developed at and licensed from universities. However, licensing a technology from a university poses many unique issues and can be a daunting challenge. Structuring and negotiating the terms of the university license can be greatly facilitated by a licensing attorney who is experienced in working with university spinout companies.

LEVERAGING UNIVERSITY RESOURCES

How can we make the best use of university resources in a legal and ethical way?

Spinout companies are generally founded on the work of leading university faculty and their research collaborators. These innovators will have done much or perhaps all of the relevant research in well-equipped, well-staffed university labs. The logistical and financial challenge of replicating these resources off campus may be insurmountable. Fortunately, many leading research universities allow companies access, for reasonable consideration, to university facilities and personnel, through sponsored research agreements, leasing and other arrangements. These arrangements enable commercialization work to proceed much more quickly and cost

effectively, by leveraging the resources available within the labs of the founders. Such arrangements are not without risk and downside and are usually temporary measures implemented as part of a strategy to transition the technology from the academic environment to the commercial world. But these temporary, transitional steps are often vital to the success of the enterprise.

University Policies/Conflicts of Interest

When a university faculty member starts a company and the company licenses technology from the university, the faculty member may face a variety of actual or perceived conflicts of interest. Open and honest dialogue will enable these conflicts of interest to be managed or resolved in advance and in a manner that serves both the faculty entrepreneur and the university employer.

Effective management of conflicts of interest begins with recognizing potential areas of concern and providing full and fair disclosure to the affected parties. To address these concerns, universities have developed policies that require disclosure of situations where faculty members have a significant financial interest that might conflict with their roles and responsibilities as university employees. Universities also institute policies to monitor inventions by their faculty members, some of which require disclosure of inventions made in the course of "extramural" activities. As these policies vary from institution to institution, it is essential to review your university's policy with care and to set up contracts between the company and the university-affiliated founder(s) that respect these other commitments while meeting the company's legitimate interests.

Spinout companies are well advised to adopt conflict of interest policies as well, as these help set the ground rules for the company's business and may be required in order to access various types of federal and state funding.

In order to successfully work through these issues, it is important for the faculty entrepreneur to disclose all potential conflicts of interest to the university.

Sponsored Research Agreements

As discussed above under "Licensing University Technology – Scope of License", spinout companies will sometimes secure rights – or options to acquire rights – to future inventions as part of the spinout license with the university. Whether or not the license agreement gives the spinout company rights to future inventions, a spinout company may find it useful to "outsource" some of its research activities back to the lab of one or more of the academic founders. For the early stage company, this will often provide an attractive and cost-effective alternative to outfitting facilities and staffing them – the company can "rent" facilities well suited to the company's needs together with staff experienced in working with the relevant technology. For the academic researchers, sponsored research arrangements can provide an important source of incremental revenue together with an opportunity to continue to contribute to the development of the technology with minimal disruption to the research enterprise. Sponsored research is generally not appropriate for late stage product development, but when there are still

meaningful scientific questions to be addressed, a sponsored research arrangement can be an ideal mechanism to advance technology development.

Sponsored research is not without its challenges. Most institutions require a standard overhead rate in addition to the actual cost of services. These overhead rates are set by the Federal Government and typically range between 50-100%. Some resist requests that the sponsor get favorable rights to the research results. A first option to license technologies developed under these sponsored projects is fair, a baseline and a must to achieve. Some have painfully slow cumbersome contracting process. The role of graduate students in projects must be carefully considered to ensure appropriate protection of company information, compliance with university conflict of interest policies adopted to protect students and the integrity of the academic and research enterprise. Sometimes sponsored research arrangements prove unsatisfactory due to a mismatch in the priorities or timing expectations of the academic researchers and the commercial enterprise. For these reasons and others, spinouts will certainly wish to consider commercial alternatives for conducting research. But in many cases, important aspects of the research may be suited to a sponsored research arrangement, particularly if the spinout is comfortable that it will be able to capitalize on favorable research results.

TOP 10 STARTUP COMPANY MISTAKES

What are some of the common legal mistakes that spinout companies make?

1. FAILURE TO PROTECT INTELLECTUAL PROPERTY

For technology-based startup companies, the worth of the business is based largely upon its intellectual property. Intellectual property provides barriers to entry by competitors and enables the high profit margins that produce high valuations for a company. It is imperative, from the very beginning, to explore protecting intellectual property, such as copyrights, trademarks and trade secrets with experienced legal counsel, and if there is potentially patentable technology, discuss patent protection with patent counsel. In addition, properly worded non-disclosure agreements for contractors and invention assignment agreements for employees and technical consultants are essential to protect the intellectual property of the business.

2. EXCESSIVE FEAR OF DILUTION

(Or where would Microsoft be if Bill Gates had insisted on owning 100% of it?) Most technology-based entrepreneurial ventures require intense effort from a team of talented people as well as funds from investors willing to back the team. Providing these contributors with a meaningful stake in the business will help align incentives and improve the odds of success. Founders who are unwilling to treat their partners fairly may find that the best and brightest of them will leave for better opportunities. Remember that owning a smaller piece of a successful company is far more valuable than retaining a larger piece of a company that fails or cannot fully capitalize on its potential.

3. FAILURE TO READ CONTRACTS

Believe it or not, people sign agreements that they don't read. All too often we are asked by clients to help them address problems created by contracts that they signed without fully understanding what they were agreeing to. Although an executive may not be able to read every contract he or she signs, someone in the company or its outside legal counsel should read the contracts and advise the company as to the risks associated with the various provisions.

4. NEGLECTING OBLIGATIONS TO FORMER (OR CONCURRENT) EMPLOYERS

Every entrepreneur should exercise extreme caution in leaving his or her former employer to start a business, particularly if it may compete with that employer. Many people simply do not know whether they have executed a non-disclosure, non-solicitation or non-competition agreement with their current employers. For a professor or other university employee, a clear understanding of his institution's policies on intellectual property ownership, conflicts of interest, conflicts of commitment and use of university resources is vital.

5. FAILING TO REQUIRE VESTING OF STOCK OR OPTIONS

One of the purposes of awarding restricted stock or stock options is to ensure that the key individuals will continue to contribute to the company for a certain period of time. To accomplish this, the stock or options are often subject to vesting requirements. In the case of restricted stock, if the individual does not stay for the full period of vesting (usually 2 to 4 years), any unvested stock is subject to repurchase by the corporation at the price paid for the stock by the individual, regardless of the fair market value of the stock at the time or repurchase. In the case of stock options, the options only become exercisable upon accomplishing certain performance milestones or upon the passage of time. If the individual leaves, then the unvested stock will be repurchased and the unexercised options will be forfeited. Although founders often want fully vested stock, it is just as important that founders have restrictions on their stock to avoid unfair consequences in the event that one of them should die, become disabled or simply lose interest in the company.

6. UNDERSTANDING HOW HARD IT CAN BE TO RAISE CAPITAL

Raising capital is often the hardest thing that startup companies have to do. The amount of capital required and the time to raise it are almost always underestimated by a factor of at least two. It generally takes at least six months (and often more) of intensive effort to raise capital for a startup company. During this time, the key management members must be devoted almost exclusively to fundraising. It is very difficult trying to start a company and hit the technology window, while at the same time taking valuable time to raise capital. Very few people have a knack for raising capital quickly and in most cases it takes a number of months or years before the fundraising can be successfully completed.

7. NEGLECTING AVAILABLE RESOURCES, SUCH AS GOVERNMENT GRANTS AND TAX CREDITS

Fundraising is difficult, time-consuming and sometimes unsuccessful. Some technology-based ventures are able to prosper and succeed without capital from investors. For many of these, resources from federal and state governments can jumpstart the business. The laws and practices in this area are constantly evolving, so be sure to contact knowledgeable people in your network to help steer you to appropriate resources. A listing of some of these resources is included at the end of this handbook.

8. FAILING TO KEEP GOOD LEGAL AND ACCOUNTING RECORDS

Many companies in the technology development sectors will seek outside funding from investors, government agencies and/or corporate partners. Many may also wish to get acquired someday. All of these activities become much more difficult if the company lacks a solid paper trail documenting the flow of funds and documenting the rights and obligations of the company, its owners, employees and business associates. In extreme cases, the liability shield generally afforded by forming a corporation or limited liability company will be lost if records are not properly maintained.

9. PROMISING A CERTAIN PERCENTAGE INTEREST IN THE COMPANY

Time and again, we are contacted by clients for help trying to solve the same problem. It goes something like this: When we were first getting started, we did not have money to pay people for their work. So when my [friend, neighbor, former colleague, etc.] offered to help with [marketing, finance, website, etc.], I agreed to give him [2%, 5%, 10%, etc.] of the company. He did some work on the project, but when [he got busy with his job/child/boat], I realized he was not the right person for the job, etc., and I ended up hiring a professional to do the work. We are now getting ready to [raise money, sell the company, etc.] and he is demanding his [2%, 5%, 10%, etc.] What do I do now? The single best way to solve this problem is to avoid getting into it in the first place. Before making any promises related to ownership in the venture, talk to your lawyer about putting it in writing in a sensible way (hint: see vesting in #5 above).

10. FAILURE TO LISTEN AND TO DELEGATE

Starting a new venture is not easy. But the job will become a whole lot harder if you try to become an expert at everything. Identify business partners who can lend their expertise, share the burden and dispense with issues before the issues even have a chance to become problems. Product development, competitors, team building and fundraising will be plenty challenge enough. There is no need for you to become an expert on tax, accounting, HR, legal and other “non-core” functions.

GETTING STARTED

Startup ventures want to get things done quickly, efficiently and right. We recommend working with experienced professionals who can help you get off to a running start. The following checklist may be a good place to start.

Action Item	External Resource	Complete?
Basic Incorporation Matters		
Select company name		
Check name for availability	Attorney	
File for incorporation in appropriate state	Attorney	
Elect Board of Directors	Attorney	
Appoint officers	Attorney	
Adopt bylaws	Attorney	
Adopt conflict of interest and financial controls policies	Attorney	
Issue founder's stock (with vesting suitable to historic and future contributions) in exchange for cash and/or property (including any business plans, IP, websites or other company-specific property created or acquired)	Attorney	
File 83(b) election forms	Attorney	
Stockholders Agreement (or Restricted Stock Agreements, as applicable)	Attorney	
File S election (if applicable) (Form 2553)	Attorney or Accountant	
Obtain federal employer identification number (EIN) (Form SS-4)	Attorney	
Qualify to do business in state where business operates	Attorney	
Personnel/Employee Matters		
Clear any prior noncompete obligation		
Satisfy university conflict of interest requirements		
Proprietary Information Agreement (PIA) for each founder	Attorney	
Offer letter and PIA for each employee	Attorney	
Form I-9 (immigration form) for each employee		
Consulting Agreement for each consultant/contractor	Attorney	
Stock Incentive Plan	Attorney	
Stock Incentive Awards for key personnel	Attorney	
Consider medical and other benefit programs	Benefits Professional	
Intellectual Property		
Develop preliminary IP strategy and budget	Attorney	
Secure license from University	Attorney	
Prepare appropriate form mutual and unilateral confidentiality agreements	Attorney	
Tax/Finance/Administration		
Establish organized, secure system for corporate records (including material contracts and employee files)		
Open bank account		
Procure adequate liability, casualty and worker's compensation insurance	Insurance Agent	
Federal, state and local tax filings	Accountant	
Payroll and tax administration	Payroll Service	
Obtain business license from city, town, county, if applicable		
Register for government incentives (e.g., state business investor tax credit, where applicable)	Attorney	
File annual report in state of incorporation and where business operates	Attorney	
BEA filings if foreign ownership > 10%	Attorney	
Grant specific registration requirements (DUNS number, etc.)	Grant Consultant	

ONLINE RESOURCES

ONLINE RESOURCES FOR STARTUP VENTURES

- Small Business Innovation Research – https://www.sbir.gov/
- Small Business Innovation Research (SBIR) Program – https://www.sbir.gov/about/about-sttr
- Internal Revenue Service (Small Business Center) – https://www.irs.gov/businesses/small/index.html

SELECT STATE GOVERNMENT AGENCIES

- SC Launch: The SC Launch Program creates the framework to fuel South Carolina's innovation economy by providing the resources necessary to successfully launch and grow startups – https://www.scra.org/how-sc-launch-works/
- SCRA Grant Sources: Through academic, entrepreneurial and industry programs, SCRA provides several types of funding opportunities to qualified companies in the following sectors: Advanced Materials & Manufacturing; Information Technology; and Life Sciences – https://www.scra.org/funding/
- SCRA Resource Partner Network – https://www.scra.org/resources/#rpn
- SC Coordinating Council for Economic Development: Bringing together the state's leading groups focused on creating a stronger entrepreneurial environment in South Carolina – https://www.sccommerce.com/sc-coordinating-council-economic-development
- SC Small Business Chamber of Commerce – https://scsbc.org/about/resources/
- South Carolina Small Business Development Centers – https://www.scsbdc.com/

SELECT LOCAL RESOURCES

- Charleston Digital Corridor: The Charleston Digital Corridor serves as the central hub for technology companies in the area – https://www.charlestondigitalcorridor.com/
- Charleston Entrepreneurial Support – https://www.crda.org/doing-business-here/entrepreneurial-resources/
- Charleston Regional Development Alliance – https://www.crda.org/
- Charleston Technology Center: The Charleston Technology Center project is a 6 story, 76,000 square foot office building development in the fast-growing upper Peninsula location in Charleston, South Carolina – http://ironbridgecapital.com/essential_grid/charleston-technology-center/
- CharlestonWorks: A directory of all known tech-specific companies in the Charleston metro area – https://www.charlestonworks.com/
- Women Entrepreneurs of Charleston – https://www.womenentrepreneurscharleston.com/
- The Harbor Entrepreneur Center – http://www.harborec.com/
- Columbia Resources – https://colatoday.6amcity.com/columbia-incubators/

SELECT LOCAL RESOURCES CONTINUED

- Greenville NEXT – https://nextsc.org/
- Greenville Spartanburg Anderson Technology Council (GSATC): Provides networking, education, business development and community service opportunities through its newsletter, meeting, job fair and community training programs, as well as hosting Tech After Five, a series of free, sponsor-supported professional networking events – https://gsatc.org/
- Greenville Entrepreneurial Ecosystem Resources – https://fundingsage.com/entrepreneurial-ecosystem-spotlight-greenville-sc/
- Hartsville South Carolina Governor's School for Science & Mathematics – https://www.scgssm.org/about
- Upstate SC Alliance: A public/private regional economic development organization that markets the dynamic 10-county Upstate region to the world – http://www.upstatescalliance.com/

SELECT UNIVERSITY SUPPORT AND RESOURCES

- MUSC Foundation for Research Development: MUSC Foundation for Research Development is responsible for evaluating all intellectual assets the enterprise owns and generates, extracting value, and forging industry and other relationships resulting in products and services that provide real-life solutions to the world's medical needs – https://research.musc.edu/resources/frd
- MUSC Primed Accelerator Program: Entrepreneurs working on products specifically in the medical device or pharma/bio industries can attend this 28-week accelerator program – http://www.harborec.com/blog/2016/6/13/musc-frd-and-the-harbor-develop-primed-accelerator-program
- MUSC Innovators Meetup: MUSC's Innovators Meetup is a place for want-to-be entrepreneurs to incubate ideas and receive motivation and support from like-minded colleagues – https://web.musc.edu/resources/innovators
- College of Charleston: The Center for Entrepreneurship is a primary point of contact for entrepreneurship development in the region. Its mission is to develop the regional entrepreneurial capability by helping current and future entrepreneurs start and grow businesses, while supporting responsible enterprises – http://sb.cofc.edu/centers/centerforentrepreneurship/index.php
- Clemson University Research Foundation (CURF): CURF is a 501(c)(3) corporation founded in 1986 to support research and business incubation at Clemson University – http://curf.clemson.edu/technology-transfer-process/
- Clemson University MBA in Entrepreneurship & Innovation Program: A one-year, intensive, experiential program where students begin with an idea, apply rigorous business principles and graduate with both an MBA degree and a market-ready business – https://www.clemson.edu/business/departments/mba/academics/entrepreneurship/index.html

SELECT UNIVERSITY SUPPORT AND RESOURCES CONTINUED

- Clemson University Arthur M. Spiro Institute for Entrepreneurial Leadership: Supports educational, research and outreach programs that promote entrepreneurial activity and economic development of the region, state and nation. The focus is on wealth creation through entrepreneurial activity. Programs include EcoPlosian, Social LaunchPad and LaunchPadSC – https://www.clemson.edu/centers-institutes/spiro/
- Clemson University Sustainable Entrepreneurs & Economic Development (SEED): Education certificate program draws on the experiences of local business leaders to help early stage entrepreneurs build sustainable success – http://calendar.clemson.edu/event/seed#.XCePaFxKiUk
- University of South Carolina Technology Commercialization Office (TCO): The TCO is the primary resource for University of South Carolina inventors, industry partners and entrepreneurs who share a passion for innovation – https://sc.edu/about/offices_and_divisions/technology_commercialization/
- University of South Carolina Faber Entrepreneurship Center: Promotes experiential learning through in-depth consulting projects as part of student course work – https://sc.edu/study/colleges_schools/moore/business_solutions/research_and_partnership_centers/faber_entrepreneurship_center/index.php
- University of South Carolina Entrepreneurship Club (ECLUBSC): A student-run organization that aims to inspire, educate and grow entrepreneurs at the University of South Carolina – http://www.eclubsc.com/
- Innovista/USC, University of South Carolina: Connects businesses, industry and entrepreneurs to the resources of USC to create jobs, accelerate innovation and drive economic prosperity in the state, region and around the world – http://engageusc.com/

OTHER ENTREPRENEURIAL SUPPORT

- South Carolina Incubators/Accelerators – https://www.scra.org/resources/#rpn
- South Carolina Innovation Hub – https://www.scinnovationhub.com/
- South Carolina Investment Groups:
  - Alerion Ventures – http://alerion.ventures/
  - Charleston Angel Partners – https://www.chapsc.com/
  - Spectrum Venture Capital – https://www.spectrumvc.com/
  - Upstate Carolina Angel Network (UCAN): Provides intellectual and financial capital to startup and early-state, high growth businesses. To date, they have invested $4.5 million in 16 companies – https://venturesouth.vc/ucan/
- South Carolina Score Chapters: Volunteers committed to helping entrepreneurs start a new business or build up an existing business – https://www.sciway.net/econ/score.html
- Michelin Development Corporation: Provides low-interest loans and business expertise to create quality sustainable jobs and promote economic growth – https://michelindevelopment.com/

OTHER ENTREPRENEURIAL SUPPORT CONTINUED

- SCBIO: A member organization that exists to support and advance South Carolina's life science industry through collaboration, advocacy, workforce development, enhanced purchasing power and education – https://www.scbio.org/cpages/home

ADDITIONAL RESOURCES

- Starting A Business – State of South Carolina – https://sc.gov/business/Pages/STARTINGABUSINESS.aspx
- SCRA Product Development Road Map – https://www.scra.org/startup-road-map/
- Charleston Entrepreneur Ecosystem – https://charlestonee.com/
- Silicon Harbor Magazine – http://siliconharbormag.com/
- Ewing Marion Kauffman Foundation – http://www.kauffman.org/
- Ben Horowitz, *The Hard Thing About Hard Things* – http://www.amazon.com/The-Hard-Thing-AboutThings-ebook/dp/B00DQ845EA
- MIT Business Plan Competition Resources – https://www.mit100k.org/#about
- Chris Heivly, *Build the Fort* – https://www.amazon.com/Build-Fort-Lessons-Learned-year-old/dp/0976498634/ref=sr_1_1?ie=UTF8&qid=1509375683&sr=8-1&keywords=chris+heivly+build+a+fort
- Brad Feld and Jason Mendelson, *Venture Deals* – http://www.amazon.com/gp/product/B00AO2PWOI/
- Don Rose and Cam Patterson, *Research to Revenue* – https://www.amazon.com/gp/product/B00W1VH7K2/
- Guy Kawasaki, *The Art of the Start* – http://guykawasaki.com/books/the-art-of-the-start
- The Balance Small Business – https://www.thebalancesmb.com/executive-summary-of-the-business-plan-2948012
- Slide Bean – https://slidebean.com/blog/startups/pitch-deck-presentation-complete-guide
- Eva Garland Consulting, LLC, *Winning SBIR/STTR Grants: A Ten-Week Plan for Preparing Your NIH Phase I Application* – http://www.evagarland.com/egc-publishes-new-phase-ii-book/
- Hutchison PLLC – http://www.hutchlaw.com

EXAMPLE OF FOUNDER DILUTION SPREADSHEET

	Formation	I	II	III	IV	V
Founders	100.00%	70.00%	63.00%	49.00%	35.39%	25.28%
CEO		30.00%	27.00%	21.00%	15.17%	10.83%
University			10.00%	10.00%	10.00%	7.14%
Stock Option Pool				20.00%	14.44%	10.32%
Seed Investors					25.00%	17.86%
Series A Investors						28.57%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

I - Hire CEO	
CEO Equity Grant (Fully-diluted basis)	**30.00%**

II - Sign University License	
University Equity Grant (Fully-diluted basis)	**10.00%**
Anti-Dilution Protection Stops at:	**$ 2,000,000**

III - Add Stock Option Plan	
Stock Option Pool (Fully-diluted basis)	**20.00%**

IV - Seed Financing	
Pre-Money Valuation	**$ 1,000,000**
Investment Amount	**$ 333,333**

V - Series A Financing	
Pre-Money Valuation	**$ 5,000,000**
Investment Amount	**$ 2,000,000**

Download founder dilution spreadsheet to use your own company ownership numbers.

QUESTIONS / CONTACT

Please feel free to contact us for a confidential, complimentary initial consultation.

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