NYU

SCIENTISTS GUIDE

TO

STARTUPS

FOR

Faculty, Researchers and Students at New York University

NYU Innovation Venture Fund **NYU** Office of Industrial Liaison



About the Guide

THE NYU SCIENTIST'S GUIDE TO STARTUPS is intended as a quick reference tool for NYU scientist's interested in starting a company based on their inventions. This guide is focused specifically on technology-based companies formed to commercialize one or more related inventions made at NYU and protected via intellectual property rights (e.g. patent or copyright) owned by NYU. If you are interested in exploring how to get your technology out of your NYU laboratory and into the market, this guide is for you.

A STARTUP is a new business venture in its earliest stage of development. A startup company might be the best way for the science and discoveries originating in your research to transform into commercial products like therapeutic agents, devices, industrial materials, and software applications.

NYU scientists have participated in the formation of dozens of companies over the years based on licenses to NYU technology. While not every startup succeeds, the track record has been impressive and includes companies like Anaderm, Atreaon, Axonyx, BioDigital Systems, Brainscope, Constellation Pharmaceuticals, Smart Therapeutics, Spin Transfer Technologies, Sugen, Touchco and others.

If you are contemplating your own startup, you can be assured that entrepreneurship knowledge and resources run deep throughout the University. Tapping into it is a matter of knowing where to look. Within the NYU community, you can find many answers to your questions related to launching a business based on NYU intellectual property, as well as connections to the many people who can help you do so. This guide will help you find the many ways to plug into NYU's entrepreneurial resources and transform your existing technology into a commercial venture.

For more information, visit NYU's entrepreneur homepage (nyu.edu/entrepreneur), the NYU Innovation Venture Fund (nyu.edu/venturefund), or the NYU Office of Industrial Liaison (nyu.edu/oil). Information on NYU's official policies can be found in the NYU Faculty Handbook at (bit.ly/nyufhbook). The contents of this guide are not intended to replace or supersede these policies.

NYU Innovation Venture Fund

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NOTE: This booklet is modeled on MIT's "Inventor's Guide to Startups," with adaptations for NYU. We are grateful to Lita Nelson of the MIT Technology Licensing Office for their kind permission to use their excellent material and to MIT for permission to use its copyright.

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A STARTUP

is a new business venture that can be a useful means of developing and commercializing technology that has been developed at NYU. If you are interested in the formation of a new business startup to commercialize your NYU technology, the Office of Industrial Liaison ("OIL", NYU's technology transfer office) and NYU Innovation Venture Fund are here to work with you and your prospective co-founders. Among other things, OIL and the NYU Innovation Venture Fund will work to protect and secure intellectual property rights in the technology, provide input into the development of a business plan for your startup, coordinate meetings with potential investors, business partners, and entrepreneurs, and access other resources for advice at NYU to help you in founding the company.

70+

NYU startup companies formed

SELECTED RECENT NYU STARTUPS

Anzenna

Atreaon

BeneVir

BioDigital Systems

BrainScope

Cardium

Constellation Pharmaceuticals

deTect Bioscience

Digital Assembly

Entrupy

HealthCair

NeuroControl

NeuroInterface

Opgen

Perceptive Pixel

PGTi

Propel Orthodontics

RF Test Labs

Spin Transfer Technologies

Synthezyme

Tagasauris

TouchCo

Tactonic Technologies

Startup Launch

Every startup is different. The founding and launch of a startup is often critical to the eventual success of the startup. In the early stages, decisions are made that can affect the startup and its development of your technology for the life of the company. A poorly organized startup likely will not meet the goals and hopes a founder has for it. A well-organized startup does not guarantee success but can increase its likelihood. NYU can help you launch your startup on a coherent foundation.

The time and effort required to start and develop a business depends on multiple factors, such as the founder's ability to engage in the business, the composition and skill set of the team members, the maturity of the technology, and the additional resources that may be obtained through venture competitions, grants, strategic connections, etc.

How long does it take?

There is no standard timeline to launching a startup. However, in the following pages we will walk you through the key steps to get your business off the ground.

In many cases, preparing a patent application is a critical early step in the commercialization process. A patent application typically takes a few weeks to prepare and file, including the time it takes inventors to review and revise a preliminary draft of the application. However, inventors and entrepreneurs may spend months, and sometimes years, tapping into the resources available at NYU and the larger NYC ecosystem as they develop their business and technology commercialization plans, validate them with potential customers and partners, build a team, and secure funding, all while pursuing their academic research and education responsibilities. The time it takes to attract and close a first round of private funding takes a minimum of several months by itself.

How much can I tell people about my technology?

Only after your invention/discovery is protected by a patent application is it safe to discuss publicly. If you would like to discuss your technology with those external to NYU before a patent application has been filed, you should first speak with OIL. You will have to ensure that the external company or individual signs a confidentiality agreement, consenting to keep your invention in confidence before you engage in discussion. OIL will help you with this process. Note: This type of agreement may sometimes be referred to as a "Non-Disclosure Agreement" (NDA) or a "Confidential Disclosure Agreement" (CDA).

Steps to Startup Launch

Talk to OIL and the Innovation Venture Fund: We encourage you to contact the Office of Industrial Liaison ("OIL") and Innovation Venture Fund early in the process to discuss your invention, how to protect the intellectual property, and your thoughts about developing and commercializing the intellectual property through a startup company.

Protect Intellectual Property: In a startup, a major source of value, and thus a major tool for attracting investment, is intellectual property (usually patents and/or copyrights covering technology or software code). Engage with the patent attorney contracted by OIL to get a patent application filed on your invention before you make any public disclosure or communication of it, since early disclosure limits your ability to get patent protection outside the U.S.

Seek Input, Network and Build Your Team: NYU provides a wealth of resources for scientists and inventors looking for help to start a company. The NYU entrepreneurial ecosystem, as summarized in the pages that follow, can help NYU inventors through all facets of the startup process—from developing a business model all the way to meeting like-minded entrepreneurs, team members, advisors and potential business partners. This ecosystem can also help you find ways to demonstrate your invention's commercial viability, meet investors, and work towards securing funding.

Develop Your Business Model: A business plan is often a key part of this phase through which you can develop a thorough understanding of target customers and applications, market potential, competition, funding needs, how you plan to develop the product, key management plans, and overall exit strategies. Understanding funding needs and development plans are especially important for nascent technology that cannot yet generate the revenues sufficient to sustain and grow the company.

Negotiate the License or Option Agreement: OIL will negotiate with the appropriate representative of the company to grant a license to your startup. In some cases, a short-term option agreement may precede a license so that your company can demonstrate to potential funders that it has secured the rights to negotiate for a license to the technology.

Pursue Funding: Commercializing technology is typically a capital-intensive process. You'll need to present your opportunity to people with the funds to help you make it happen: venture capitalists, angel investors and perhaps in the initial stages, friends and family. The NYU Innovation Venture Fund offers the potential for both a direct source of capital, as well as a source of introductions to other angel and venture capital investors.

>300 MILLION DOLLARS

NYU's annual research funding

767 Number of NYU patents granted

54%NYU patents licensed

Intellectual Property Basics

What is intellectual property?

Intellectual property is an intangible—such as ideas, discoveries, inventions, know-how or a creative work—that can be bought, sold, or licensed. Different forms of intellectual property are protectable by patents, trade secrets, copyrights, and trademarks, which may be used to prevent others from using, manufacturing, copying, or selling the property in tangible form without permission.

Who owns my inventions?

Under NYU's Statement of Policy on Patents, NYU owns most inventions made at NYU in the scope of NYU employment, in the course of NYU research, and/or with greater than incidental use of NYU resources. Faculty and researchers are required to disclose and assign their inventions to the University. NYU is committed to promoting inventions for the public good and facilitating their protection, development, dissemination and commercialization. When NYU works with an inventor to protect and commercialize an invention, NYU distributes the proceeds of the invention as outlined in the policy. In fact, NYU has one of the most generous policies in the country with regard to the sharing of invention-related incomes: It shares with the inventor(s) 42.5% of net proceeds (e.g., royalties, milestone payments, growth in startup equity) from NYU's commercialization of inventions. When NYU declines to patent an invention, NYU may release the invention to the inventor(s).

For more information pertaining to intellectual property and OIL, visit: oil.med.nyu .edu/faqs-inventors-handbook

NYU Intellectual Property Policy

NYU's Statement of Policy on Patents, Statement of Policy on Copyrights, Statement of Policy on Computer Software Copyrights, and NYU's policies on other matters related to intellectual property can be found in the **Faculty Handbook**.

The Faculty Handbook is available at: bit.ly/nyufhbook.

24 NYU biomedical products on the market

NYU products in clinical trials

Working with OIL: The Office of Industrial Liaison

(NYU's Technology Transfer Office)

NYU's Office of Industrial Liaison seeks to promote the commercial development of NYU technologies. Below, you will find additional basic information regarding intellectual property protection and how OIL works with scientists and inventors to help protect and promote their discoveries and inventions.

Where do I start?

Following the procedures outlined below will go far toward protecting your proprietary rights and those of the University. In doing so, you will provide OIL staff members with the information they need to determine the ownership of the invention, to sort out any obligations NYU may have to sponsors of the research that led to the invention, and to ascertain what sort of intellectual property protection (e.g., patent or copyright) is warranted so that a commercialization of the technology may be pursued.

NOTIFICATION—You should notify OIL as soon as possible after you come up with an invention or discovery that may be patentable. In order to avoid loss of certain patent rights, patent applications must be filed on inventions before public disclosure (i.e., publishing). OIL will work with you to accommodate your publication schedule while filing these patent applications, and is available to advise on the consequences of specific public disclosures on patentability.

As a result of the America Invents Act (AIA), signed by President Obama on September 16, 2011, the United States is now a "first-to-file" country and no longer a "first-to-invent" country and therefore it is best to file a patent application as early as possible. OIL will work with you to accommodate your publication schedule during the patent filing process. To enable OIL to determine the invention's patentability and commercial potential, certain information is needed. To help prepare this information, a form for the confidential disclosure of invention has been prepared and is available online at: bit.ly/nyuinvdisc.

The confidential disclosure will include:

- A summary telling exactly what the invention is—Is it a compound, process, machine, manufacture, composition; a new use for, or an improvement on, a known item or process?
- A description of the benefit or use of the invention—What problem does it solve?
- A list of pertinent literature, including patents—If there is no pertinent literature, list the closest known. Copies of all listed literature (called "references" in patent language) should be included, along with a brief explanation of the difference between each reference and the invention, describing the advantages of the invention over the references.

1.6
BILLION DOLLARS

NYU license income (2004-10)

NYU inventors receive

42.5%*

of any net income resulting from the commercialization of the invention, (one of the most generous incomesharing policies in the country)

- Other research collaborators and funding sources—If you were collaborating with other scientists (whether from NYU or from other institutions) or if your research project has been funded by an agency, foundation, or another source, include all details.
- Any pending disclosure (presentation or publication).

RESPONSE—OIL will acknowledge receipt of a confidential disclosure. Next, it will evaluate the invention for patentability and marketability in consultation with the inventors to determine whether or not to seek patent protection.

If the decision is to proceed with patent protection, OIL will cover all patenting costs prior to signing an agreement with the startup, coordinate the application process, relying on the inventor's participation and the services of a patent attorney. The inventor(s) assigns all rights to the University, and shall receive 42.5% of any net income resulting from the commercialization of the invention.

It is important to know that the patenting process has certain timeframes and windows of opportunity for filing patent applications. Any agreement with a potential startup company will need to take into account relevant patent deadlines so that all parties may make an informed decision when considering a commitment to the significant expense of patent prosecution.

Once a patent application is filed, OIL will begin to seek commercial partners, which could include existing companies or a new startup company. While existing companies can offer the necessary infrastructure such as channels to market, sector knowledge, facilities, commercial management, and an existing network in place, startups may offer greater commitment to the technology and have the potential to contribute to local economic development via the creation of jobs. In the case of platform technologies, startups can pursue multiple applications of the technology through various partnerships. The startup route also ensures that the entrepreneur's commitment and energy drive the development of the technology and that changing corporate priorities do not affect the development of the technology. OIL will work in consultation with you to determine the best path forward.

For more information on working with OIL, visit: nyu.edu/oil.

^{*}NYU-Poly's revenue-sharing agreement is slightly different and NYU-Poly inventors should consult NYU-Poly's patent policy.

US university in license income (2004-10)

more licensing income per research dollar, than US university average

Startup Licensing

NYU's goal in any license agreement is to ensure that the technology will be developed by the licensee for public benefit and, that if successful, NYU and the inventors of the technology shall share fairly in the value created by the technology.

License agreements are typically negotiated between OIL and the company management. Inventors are generally kept apprised of the negotiation but do not represent the company (unless they have left the University to form the company) to avoid conflict of interest.

The terms of startup licenses are flexible and take into account the financial realities of many startups as well as the particular industry in which the company will be competing. Standard requirements in a license for an NYU startup will include negotiated financial terms such as equity, annual fees and a royalty on product sales, and reimbursement of patent costs. The non-financial terms of the license are equally important and may include:

- Degree of exclusivity: nonexclusive, exclusive, or restricted by field of use
- Reservation of rights for the Federal Government (if the invention is derived from federally-funded research) and for NYU and other non-profit organizations for their research and educational activities
- Performance (or "diligence") requirements to assure that the company has the resources and is capably developing the technology
- Company funded research to the inventor's lab (if applicable)
- Insurance and indemnification

In many cases, OIL will work with startups to delay major financial payments for a reasonable period until the company raises significant investment capital.

Will NYU assign (transfer ownership of) the patent to my startup?

No. NYU does not assign patents to startups. Instead, NYU will offer an exclusive, worldwide license which gives most of the rights that an assignment would give. This typically satisfies the needs of the company.

Does OIL take a seat for NYU on the company's board of directors? No.

Can I get a license to my invention from NYU if I haven't incorporated the company yet?

No, but an option agreement may be possible. Such an agreement will, for a limited time, preserve the opportunity for your company to negotiate a license.

more startups launched per research dollar, than US university average

BILLION DOLLARS raised by NYU Startups

If my startup is based on an invention jointly owned by NYU and another institution, how do I get started?

To be exclusive, the invention will need to be licensed from both NYU and the other institution. In practice, OIL will work out an Inter-Institutional Agreement (IIA) with the other institution whereby one of the institutions will "take the lead" and negotiate one license with your company.

If my startup needs technology from another institution besides NYU, but not jointly owned with NYU, will I need a separate license?

Yes, under most circumstances, you will need a license to use the technology from another institution.

If my invention is unpatented software, do I still need a license for a startup?

Yes. A copyright license is required if the software is owned by NYU under NYU's copyright policies.

Can I continue to do research on the technology on which my startup is based?

Yes, though there may be conflict of interest limitations on the research being conducted. Researchers are not permitted to use NYU resources (e.g., laboratories, equipment, funding, personnel) to develop technology for the primary purpose of benefiting a startup. Subject to disclosure and review of a potential conflict of interest, NYU researchers are generally permitted to receive research funding from their startups, pursuant to a Sponsored Research Agreement negotiated by OIL.

Conflicts aside, NYU will have the right to use the invention in research. In NYU license agreements, NYU always reserves the right to use licensed inventions for non-commercial research purposes. Once licensed to the startup, the invention likely can be used at NYU for research purposes only.

Do I have to leave my position as a faculty researcher for a company to be formed around my technology?

No. In fact, most faculty members choose to remain in their positions at the University, doing what they do best—new research and teaching. Instead, faculty members typically take an advisory role or join the scientific advisory board (SAB) of the new company, once a management team has been formed. Oftentimes, an entrepreneurial student, technician, PhD, or post-doc who worked under the PI may decide to join the company full time upon graduating or completing his or her program, in order to carry forward the commercialization efforts of the technology.

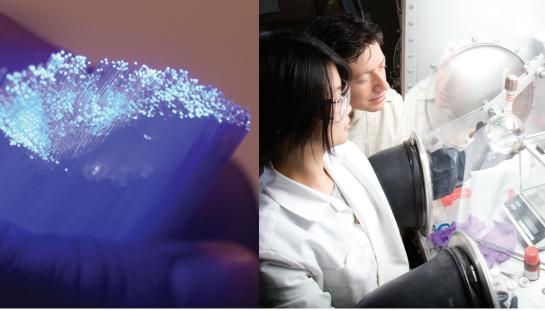
Can I use the "NYU" name?

No. Other than to reference their NYU affiliation for identification purposes, NYU faculty are not permitted to use the NYU name, or any NYU mark, symbol or logo, as part of or in connection with their non-NYU activities. The "NYU" brand is an intellectual property of NYU's that cannot be used in ways to suggest an affiliation between it and a for-profit entity, like your startup. Accordingly, NYU's agreement with the startup company will provide that the company cannot use the NYU name, except to make factual statements regarding the NYU affiliation of the scientific founder. "NYU" must not be part of the company's name.

Can students be involved in the company's work?

Students (and post-docs) frequently play a key role in university startups by facilitating knowledge transfer as members of the company's founding team. However, under NYU's conflicts policy, faculty usually are not permitted to use NYU students for personal financial gain. Any potential involvement of students needs to be disclosed and considered in accordance with the conflicts policies before the activity commences in an approved conflicts of interest plan.





Conflicts of Interest and Commitment

When inventors form a startup, they typically receive equity in the company and may continue to play a consulting or advisory role to the company as it grows. If you are a faculty member or are engaged in research at the University, conflicts of interest can potentially arise between your financial relationship with the startup and your obligations to the University and the interests of the University. In addition, if you are a faculty member, conflicts of commitment can potentially arise if your time and effort with your startup compromise your ability to meet your obligations to the University.

While NYU supports startups based on NYU technologies, NYU has policies designed to ensure that real and perceived individual and institutional conflicts of interest and individual conflicts of commitment are managed properly. Full-time faculty and others engaged in research have an obligation to the University to disclose their intention of becoming involved in a company to commercialize an invention. Inventors must work with their Dean and Chair to address real and perceived conflicts of interest and/or commitment before a company is launched.

In practice, the University manages potential conflicts of interest through the development of a conflict management plan. NYU will not enter into a license agreement with a startup until the University is satisfied that any potential conflicts are being appropriately managed.

For example, to prevent conflicts, NYU may place limitations on a faculty inventor's right to perform research that uses or tests the technology being developed by the startup. University policies also do not permit NYU faculty and researcher staff to serve in management positions or as employees of a startup company, and full-time NYU faculty cannot spend more than an average of one day per seven-day week on outside consulting, including all time spent on startup company business. The most common faculty role at a startup is serving on or chairing the Scientific Advisory Board (SAB).

NYU's full policy on conflicts of commitment can be found in the **Faculty Handbook**: bit.ly/nyufhbook.

The NYU Entrepreneurial Ecosystem

NYU actively promotes startup ventures based on NYU technologies. The University has a vast network of entrepreneurial organizations, events, and resources that create the ecosystem necessary to foster new company creation and growth. Many of these span across the University's 15 schools, colleges and institutions. NYU believes that collaboration across NYU schools, campuses, and organizations is the best way to spark new ideas and spur innovation.

In this section, you'll find information on OIL, the Innovation Venture Fund, as well as other resources particularly useful for those looking to launch companies with a strong technology component.

OIL: Office of Industrial Liaison (NYU's Tech Transfer Office)

The mission of the NYU Office of Industrial Liaison is to promote the commercial development of various NYU technologies into products to benefit the public, while providing resources to the University to support its research, education, and patient care missions. OIL achieves this goal by patenting NYU inventions, copyrighting software and then licensing that intellectual property to companies both large and small. The Office also facilitates research collaborations between NYU researchers and industry on projects of mutual interest.

OIL oversees an Applied Research Support Fund (ARSF) to encourage and promote the development of original research projects and technologies from the School of Medicine that have near-term potential for licensing and commercialization. To date, a total of \$2.7M has been granted by NYU under the ARSF, and over \$28M has been generated from subsequent licensing and commercialization.

Financial support from the ARSF is used to hire technical assistance and to purchase adequate supplies in order to carry out the proposed work. Funds are not meant to supplement investigators salaries or to financially support graduate students. A maximum budget of \$75,000 in direct costs may be requested. Funding is only for one year and cannot be renewed.

The Office also runs a biotechnology venture internship providing experience in business planning and venture development to graduate science students and post-docs, to complement their scientific education.

NYU OIL officers are available as a resource to all NYU faculty, staff, and student inventors who would like to discuss their inventions, their business ideas or general questions about the startup process. Additionally, OIL has many relationships both within and outside of academia that may be appropriate sources for guidance, advice, cooperation, or possible funding sources.

OIL can advise on:

- The inventorship and/or ownership of a particular invention
- Any obligations to previous sources of funding behind a particular invention
- Conflict of interest issues and NYU's policies and guidelines related to them
- Potential partners for collaboration
- Early stage technology development
- Sources of capital

For more detailed information on OIL, visit nyu.edu/oil.

The most complex problems will yield only to a combination of the deepest insights and the boldest willingness to act. So, entrepreneurship occupies a special place at universities: the span of higher education's research enterprise and the interests of its scholars to advance human knowledge not only through inquiry into the fundamental nature of things, but also through a desire to apply knowledge to solve the problems of the societies in which we live.

JOHN SEXTON

President, New York University

Community

NYU Entrepreneurs Online

There is a wealth of additional information online for entrepreneurs, regardless of your venture's stage or sector. Whether you are launching a company rooted in healthcare, information technology, or clean energy, you will find useful information online. To find these resources, events, and more, visit:

- Entrepreneurship @ NYU: nyu.edu/entrepreneur

 The source for access to the full array of resources available within the NYU entrepreneurial ecosystem: from NYU startup success stories to bootcamps, venture competitions, funding sources and more.
- NYU Entrepreneurs Network: nyue.org
 Home to the NYU Entrepreneurs Network blog, events calendar, the NYU
 Entrepreneurs Speakers Series (see below), and more.
- NYU Entrepreneurs Newsletters: bit.ly/nyuenews

 Sign up for these recurring email newsletters detailing upcoming talks, events, news and resources for NYU Entrepreneurs. The NYU Bioentrepreneurs monthly newsletter is geared specifically towards NYU faculty, researchers and students interested in all aspects of life science startups.
- NYU Entrepreneurs on Twitter: twitter.com/nyuentrepreneur

 Join a community of more than 3,000 and follow @NYUEntrepreneur on Twitter to stay on top of NYU entrepreneurial news and events.
- NYU Entrepreneurs on Facebook: facebook.com/nyuentrepreneur
 A great way to connect with more than 600 fellow NYU entrepreneurs.
- NYU Venture Community on LinkedIn: linkd.in/nyuvencom
 An online community of more than 1,400 NYU students, alumni, faculty, and staff interested in all aspects of entrepreneurship. The NYUVC welcomes members from any NYU school, sector, or industry function and is a great way for students to connect with NYU entrepreneurs, venture capitalists, and others in the startup community.

NYU Faculty Entrepreneurs (NYUFE)

The NYU Faculty Entrepreneurs is a group of faculty interested in entrepreneurship from over nine schools across NYU. The group was formed to create an easy way to share information and facilitate discussion among faculty at NYU about entrepreneurial activities, opportunities and resources. The group exists as a Google Group (list serve), but also gets together in person from time to time. To subscribe to the Google Group and learn about upcoming events, please visit: bit.ly/nyufegg.

NYU Entrepreneurs Speaker Series

The NYU Entrepreneurs Speaker Series (NYUESS) is an ongoing series of talks, panels and interviews with leading entrepreneurs, startup investors and innovation thought leaders that is sponsored by the NYU Innovation Venture Fund. The mission of the NYUESS is to support, encourage and inspire NYU students, faculty and researchers in entrepreneurial pursuits and technology commercialization.

Talks are held throughout the year at the Washington Square, Medical Center and Poly campuses. For a list of upcoming talks and venues, visit: nyue.org/speaker-series.

NYU Entrepreneurs Network (NYUEN)

The NYU Entrepreneurs Network (NYUEN) is multi-disciplinary collaborative of 21 entrepreneurship, technology and innovation-related graduate and undergraduate organizations representing students from more than ten schools across the University. The NYUEN facilitates coordination and collaboration between the student organizations and their respective schools, NYU alumni and the larger New York City entrepreneurial and venture ecosystems. In doing so, the NYUEN strives to put NYU at the forefront of the NYC entrepreneurial and venture communities. Each member organization runs activities that help fledgling entrepreneurs hone their skills and meet like-minded peers. Learn more about the member organizations and the NYU schools, colleges and institutes they represent at: nyue.org/about.

Day 1 Expos

The NYU Day 1 Expos are sector-specific (information technology or life science) events where NYU researchers can share promising research with commercial potential with the NYC venture capital and entrepreneurial communities.

At these Expos you will find a science fair of innovation. NYU graduate students, faculty and researchers discuss their discoveries and the commercial applicability in an intimate setting where our guests—entrepreneurs, technology executives, angel and venture capital investors—can provide valuable insights, open doors, explore opportunities for collaboration, as well as be a rich source for education and networking.

More than twenty projects are displayed at each Expo. There are typically two showcases per year—one focused on information technologies and the other on life sciences. Our guests are encouraged to stop and speak with each NYU inventor, learn more, engage in Q&A, and discuss opportunities for collaboration and further commercialization efforts. For more information, please contact the NYU Innovation Venture Fund.

Incubators

Incubators can shorten the time and lower the cost from innovation to launch. They can also provide the entrepreneurial community and resources that startups need in order to grow into scalable ventures. In 2004, NYU-Poly started the Brooklyn Enterprise on Science and Technology (BEST), its first business incubator at its downtown Brooklyn campus. In 2009, NYU partnered with New York City to open a second incubator on Varick Street in SoHo. Also in 2009, with the support of the New York State Energy and Research Development Authority, NYC ACRE (Accelerator for Clean and Renewable Economy) launched. It is also housed on Varick Street and focuses on cleantech-oriented companies. In early 2012, NYU-Poly opened a new City-sponsored business incubator to support the development of startup businesses in Brooklyn. This DUMBO Incubator, located at 20 Jay Street, is home to technology entrepreneurs from the downtown Brooklyn neighborhood and across New York City. For more information, visit: poly. edu/business/incubators.

New York City is also home to several other incubators, co-working spaces, hacker-spaces, and accelerators, including those with affordable wet lab facilities, that provide low-cost, short term space for early stage startup ventures. For a complete list, visit: nyu.edu/entrepreneur.

Developing Your Venture

NYU Startup Bootcamps

NYU Startup Bootcamps are a new set of extra-curricular educational initiatives organized by the NYU Innovation Venture Fund to expose our faculty, graduate students, and researchers to the basic activities of commercializing research via a startup venture. Bootcamps consists of a series of seminars and networking events, with each session including a featured speaker and topic in the technology commercialization process.

Sample topics include:

- Protecting your Discovery & Working with Technology Transfer
- Introduction to the Regulatory & Commercialization Process
- Developing your Business Plan and Investor Pitch
- Essential Legal, Accounting and Tax Considerations for Startups
- Funding your Startup
- Business Plan Workshops

Propelled by a broad range of research interests, NYU's talented faculty and students have captured the world's top honors—Nobels, Rhodes scholarships, Abels, Putnam prizes, Pulitzers, and National Medals in Science and the Arts. Leaders in their fields, many of them are eager to expand on NYU's existing track record of finding expression for research, ideas, and innovations outside the university setting.

DAVID MCLAUGHLIN

Provost, New York University

Sign up for one of the NYU Entrepreneurs newsletters at **bit.ly/nyuenews** to learn about future bootcamp dates.

Entrepreneurs-in-Residence

The Entrepreneur-in-Residence (EIR) program is a NYU-wide program sponsored by the Stern School's Berkley Center for Entrepreneurship & Innovation with support from the NYU Innovation Venture Fund. The EIR Program was created in order to support the growing rate of early-stage technology commercialization and entrepreneurship across the University.

EIRs are founders of or former senior executives from successful entrepreneurial ventures. The EIRs provide very early-state hoc consulting, coaching and mentoring designed to help NYU entrepreneurs progress their venture concepts to the next level. Specifically, EIRs assist NYU faculty, students, and researchers with critical issues such as:

- Exploring business models and strategy
- Technology commercialization and product development plans
- Go-to-market plans and strategies
- Evaluating funding needs and identifying financing options
- Forming strategic partnerships
- Talent acquisition and compensation strategies

EIRs host on-campus office hours at the Washington Square, Medical Center and NYU-Poly campuses throughout the year. To view a list of current EIRs or to make an appointment with one, visit: bit.ly/nyueirs.

Venture Fellows Program

The NYU Venture Fellows Program connects members of NYU's scientific and business communities to advance the commercialization of technologies developed within the University. The NYU Venture Fellows Program partners a select interdisciplinary team of NYU Stern graduate business (MBA) students to collaborate with NYU faculty and researchers to transform novel information, life science and clean energy technologies into commercially viable products and businesses.

The NYU Venture Fellows Program follows the academic semester cycle. Candidate technology projects and Fellows are considered twice a year, and the Fellows complete their work within 10 weeks. At the end of the project, teams will have completed a proposal for commercializing the technology that includes a feasibility analysis and actionable next steps. Products should be well positioned to begin market tests, prototyping and/or commercial product development.

For more information, contact the NYU Innovation Venture Fund.

NYU Technology Venture Competition

The NYU Technology Venture Competition serves as a catalyst for the creation and acceleration of new and existing early stage businesses based on technologies developed at NYU. The competition is open to all current NYU students, faculty and research staff and kicks-off in September and runs through May of each academic year. During this 8-month program, participants benefit from team-building initiatives, entrepreneurial workshops, bootcamps, mentoring and coaching as they develop their technologies into viable business ventures. Run by the Stern School's Berkley Center for Entrepreneurship & Innovation and sponsored by the NYU Innovation Venture Fund, the competition awards a total cash prize of \$75,000 and pro bono services to the winners. For more information, visit: nyu.edu/entrepreneur.

NYU Venture Mentor Network

NYU stands at the heart of a rich community of successful entrepreneurs and business people. The NYU Venture Mentor Network taps into this knowledge base by matching prospective entrepreneurs with volunteer mentors who can boost the probability of a startup's success. Budding entrepreneurs who apply are assigned to a team of mentors who provide practical, day-to-day professional advice and coaching. The mentoring service is open to NYU faculty, students, alumni, staff, and licensees of NYU technology who reside in the New York City area. This service is provided by the Berkley Center for Entrepreneurship & Innovation at the NYU Stern School of Business. For more information, or to apply to be mentored, visit: nyu.edu/entrepreneur.

Berkley Center for Entrepreneurship & Innovation

NYU Stern's Berkley Center provides NYU students, alumni, faculty and staff a platform to leverage their professional experience and skills to launch new ventures or accelerate the growth of existing ones. Each year, more than 800 aspiring entrepreneurs and early-stage CEOs turn to the Berkley Center for information, guidance and startup assistance. Programs offered by the Berkley Center include the NYU Entrepreneurs Challenge (venture competitions), Innovation Lab, Himelberg Speaker Series, Venture Mentor Network and Entrepreneurs-in-Residence, among others. For more information on these and other programs, visit: bit.ly/nyuberkley.

Funding

Applied Research Support Fund (ARSF)

The Applied Research Support Fund (ARSF), managed by OIL, provides funding for commercially promising technologies from the NYU School of Medicine. The purpose of the ARSF is to encourage and promote the development of original research projects and technologies that have near-term potential for licensing and commercialization. To date, a total of \$2.7M has been granted by NYU under the ARSF, and over \$28M has been generated from subsequent licensing and commercialization.

Entrepreneurial success in a university setting is not only about financial return but also about exciting and attracting students and faculty, and adding the element of societal impact to the academic ethos. Many of the most exciting basic science challenges were, and are, found in what has become known as 'Pasteur's Quadrant,' where basic science's quest for fundamental understanding meets the desire to fund useful applications that will benefit society.

PAUL HORN
Sr. Vice Provost for Research,
New York University

Financial support from the ARSF is used to hire technical assistance and to purchase adequate supplies in order to carry out the proposed work. Funds are not meant to supplement investigators salaries or to financially support graduate students. A maximum budget of \$75,000 in direct costs may be requested. Funding is only for one year and cannot be renewed.

For more information on how to apply and to see a list of previous recipients, visit oil.med.nyu.edu/applied-research-support-fund

BioAccelerate NYC Prize

The BioAccelerate NYC Prize is a citywide competition that provides funding for biomedical research that has significant commercial promise. The New York City Investment Fund (NYCIF) sponsors the competition, with participation from the New York City Economic Development Corporation.

The goal is to make New York City a center of bioscience that will, in turn, create jobs in the five boroughs. The BioAccelerate NYC Prize is aimed towards research that has reached the "proof of concept" stage, but has not yet reached the point of commercialization. It's during this in-between stage, known as the "valley of death," that research often stalls due to lack of funding. The BioAccelerate NYC Prize aims to fill that void and enable vital healthcare initiatives to move forward. Prior NYU winners include Dr. Chuanju Liu (Medicine), Dr. Kalle Levon (NYU-Poly), Dr. Mark Philips (Medicine) and Dr. Ramanuj Dasgupta (Medicine). For more information, visit: bioacceleratenyc.org. Applications for the BioAccelerate NYC Prize must be submitted through OIL.

SBIR/STTR Grants

The Small Business Innovation Research (SBIR) program is sponsored by eleven federal agencies, including the National Institute of Health (NIH), National Science Foundation (NSF), and Department of Defense (DoD). These organizations are obligated to contribute 2.5 percent of their annual R&D budget to fund entrepreneurs and small businesses performing research. This means that about \$2.5 billion/year in grants (with no obligation to repay and no dilution of equity) are available to fund small businesses under this program. SBIR funds can be used for just about any industry: life science, physical sciences, information technology, or even education technology. A sister program known as Small Business Technology Transfer (STTR) allows for R&D to be performed in partnership with a University or non-profit research institution. SBIR/STTR grants may exceed \$1 million, and are typically provided over two distinct phases:

- Phase I award: typically provides about \$150,000 for feasibility studies and proof-of-concept experimentation.
- Phase II awards: If Phase I proves successful, the company may be invited to apply for a Phase II award providing upwards of \$1 million over multiple years. Phase II expands upon the initial Phase I results and further develops the concept, usually to the prototype stage. Only Phase I awardees are eligible to participate.

The NYC Economic Development Corporation (NYCEDC) and other organizations host workshops that cover all aspects of SBIR and STTR proposal preparation. For more information about the NYCEDCs workshops, visit: bit.ly/nycsbir. For more information on the SBIR and STTR programs, visit sbir.gov. To sign up for alerts for SBIR/STTR solicitations that relate to your field, go to www.pnl.gov/edo/opportunities/sbir.stm.

NYU Innovation Venture Fund

The NYU Innovation Venture Fund is a seed-stage venture capital fund created to invest in startups founded by NYU students, faculty and researchers, and/or those commercializing NYU-developed technologies and intellectual property. The Fund seeks inventions, discoveries, products or services that were developed in whole or in part at NYU and are ready for commercial product development, rather than those requiring further basic research.

Though a complete business plan and team is not required for consideration, the technology underpinning the venture concept should have achieved the proof-of-concept or prototype stage and solve a measurable customer problem in a large and growing market. The founders should be the nucleus around which a strong, entrepreneurial team can form and execute a financially attractive business plan.

About the Fund:

■ Size: \$20m

■ Initial investment size: \$100-250k

■ Type of investments: Equity & convertible debt

Stage: Seed & Series A

■ Investment horizon: 3-8 years

Areas of interest: Information technologies, life sciences, materials & physical sciences, energy/clean technologies.

For more information, visit: nyu.edu/venturefund.

Other Resources: The NYC Entrepreneurial Ecoystem

NYU and New York City are rich in resources that can help NYU entrepreneurs develop their business plans, secure funding, launch their ventures, and grow their businesses. Whether you are a first-timer or a serial entrepreneur, there is a bounty of resources, organizations and financial incentives available to help you make your startup a success. These resources—funding, blogs, newsletters, associations, events, incubators and more—can help you get started, answer questions and connect you with others that can help you launch your venture. A few noteworthy resources include:



NY Academy of Science

NYU is a member of the New York Academy of Sciences (NYAS). One of the oldest scientific organizations in the US, the Academy nurtures all stages of the scientific pipeline, from a child's first moment of curiosity to a graduate student's doctorate dissertation; from a collaboration among senior researchers to the fulfillment of the scientific inspiration of an entrepreneur. Among the many programs offered, the Academy runs the Science Alliance to advance the careers of students and postdocs in science, technology, engineering, and mathematics. The Alliance provides career advice and opportunities to network and interact with investigators across many institutions and disciplines. For more information, visit: nyas.org.



NYCEDC: New York City Economic Development Corporation

The NYCEDC's mission is to encourage economic growth in each of the five boroughs of New York City by strengthening the City's competitive position and facilitating investments that build capacity, generate prosperity and catalyze the economic vibrancy of city life as a whole. NYCEDC has created an entrepreneurial ecosystem to develop businesses across industries and stages of development with access to affordable workspaces, information, funding, training, and innovative competitions. For more information, visit: nycedc.com/opportunities/opportunities-entrepreneurs.



A Partnership for New York City Organization

NYC Tech Connect

NYC Tech Connect launched in January 2011 as a public-private partnership funded jointly by the New York City Investment Fund (NYCIF), the Partnership for New York City and the New York City Council. The mission of NYC Tech Connect is to foster the development of a stronger entrepreneurial ecosystem in NYC in the hard sciences. Through collaboration with universities and other strategic partners, NYC Tech Connect provides programs, expertise and resources designed to accelerate the development of entrepreneurs and their resulting technology startups. Additionally, NYC Tech Connect's Entrepreneur-in-Residence blogs on topics directly related to science-focused startups, such as building a team, finding advisors, and locating wet-lab space. For the blog, see blog.nyctechconnect.com. For information on NYC Tech Connect, visit: nyctechconnect.com.



NYC Venture Connect

In February 2009, Mayor Bloomberg announced 11 initiatives to diversify the City's economy, all designed to foster entrepreneurship and innovation. One of those initiatives is a website, designed to enhance the success of high-growth potential and venture capital fundable entrepreneurs in the City by offering a centralized portal with helpful information on the growing startup community in New York. NYC Venture Connect is an initiative of the NYCEDC and is maintained by the Center for Technology, Innovation and Community Engagement at Columbia University. For more information, visit: nycventureconnect.com.

Other Resources

For an up-to-date list of the resources available for NYU Entrepreneurs, visit: nyu.edu/entrepreneur.

