



NATIONAL SECURITY  
TECHNOLOGY ACCELERATOR



**MD5 LAUNCH - A program that creates startup ventures commercialize dual-use technology developed in defense research labs.**

**FAQ - Frequently Asked Questions:**

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## Detailed answers to above questions:

### What is the MD5 Launch Program?

MD5 Launch is a program at NYU that is funded by the Department of Defense (DoD). As a result of significant government investment in scientific research at defense research labs, it appears that IP having significant commercial value exists in the patent portfolio for these labs. The MD5 Launch Program investigates those IP opportunities that we feel have significant value, are synergistic with NYU research efforts and can be brought to market through a startup venture. This brings a multitude of benefits to the University and all those involved in the activity.

### How are viable MD5 Launch Projects identified?

We review technology licensing opportunities at Department of Defense (DoD) research labs such as Army Research Lab (ARL), Naval Research Lab (NRL), Air Force Research Lab (AFRL), Army Medical Research and Materiel Command (AMRMC). We also consider technologies developed at non-DoD research labs (such as Department of Energy, Homeland Security, and DARPA) if they deliver a benefit to a DoD customer. We generally take the following approach:

- 1) We begin by reviewing available defense technologies that we feel have an excellent potential for commercialization and are synergistic with research performed at NYU.
- 2) We search for IP license opportunities in various locations. For example, they are often found at the specific lab's Technology Transfer webpage. ([Here](#) is the location for the Tech Transfer opportunities at the Army Research Lab.) Or we browse web pages at a consolidator website such as [www.techlinkcenter.org](http://www.techlinkcenter.org).
- 3) We only consider projects that either have licensable IP (patented) or are in the process of creating licensable IP (e.g. provisional patents and/or patents-applied-for).
- 4) We seek only those technology licensing opportunities that will benefit from the creation of a startup venture during the first year of the project. The startup venture would license the defense IP (as well as any NYU IP that may be developed during the project) and develop products that deliver desirable solutions to solve target customer problems. Realizing that the startup needs to sustain itself after one year based on its own grants and early-stage funding, we avoid capital-intensive technology strategies or those based on IP that may not generate sufficient business based on the projected costs and market size. IP based on "methods" alone are sometimes difficult for startups.
- 5) We seek technologies that will deliver non-trivial benefits to US Department of Defense users and at the same time meet the needs of commercial customers. As such, we only consider dual-use technologies for which both defense and commercial applications exist. In this way, economies of scale will deliver cost and technology maturity benefits to a broad group of customers.

### What steps are involved in initiating a funded MD5 Launch Project?

To optimize the successful launch of a startup, we perform as much preparation as possible, including vetting of the technology and understanding of the potential dual-use applications and market opportunities. Once we identify a potential project candidate, we study the opportunity in three areas:

- 1) Technology: We engage the help of an NYU Faculty Advisor knowledgeable of the technology area and competing technology solutions. We facilitate discussions with the defense principal

investigator to learn the details about the technology including any risks and new opportunities so that we can decide about the viability of the opportunity.

- 2) Market: We enlist the help of industry mentors with knowledge of market dynamics, access and key partners.
- 3) Investment: We begin discussions with early-stage investors that have a good view of investment community's interest in the target sectors.

With this information we try to make the best possible decision about proceeding with an IP project. If we decide to proceed, we assemble a prospectus for the project that includes a detailed description of the startup opportunity, a job description for the ideal lead researcher candidate, and a commercialization workplan with a projected timeline and milestones. Our decision is reviewed by MD5 before project funding is allocated.

### **What are the primary benefits to NYU Faculty Advisors that participate in an MD5 Launch Project?**

NYU Faculty Advisors choose to participate in MD5 Launch research projects because it meets their interests and helps them in various ways. The following are some of the benefits:

- 1) The Faculty Advisor will bring an interesting new project into their lab including a postdoc/researcher with an entrepreneurial trajectory funded for up to one year. The project brings a budget to cover its expenses.
- 2) The advisor may establish new connections with defense labs including the project principal investigators and research team as well as industry partners and others involved in the research area. These connections may lead to collaboration opportunities and future funding sources. The relationships that are developed at this level are often at high levels and quite valuable.
- 3) The project will fund the Faculty Advisor (typically ½ month of summer salary) for their time commitment and real involvement in the project beyond mere mentoring.
- 4) The projects may involve the development of additional innovative research at NYU for which the advisor may share in patent applications and authoring of publications (as appropriate).

### **What are the desired characteristics for the entrepreneurial Postdoctoral/Research Associate and how are they recruited?**

The success of the project and the startup greatly depends on the quality of the primary researcher hired for the project. We never hire an individual merely to fill a spot. The position is a rare opportunity for a burgeoning entrepreneur to receive a salary during the preliminary investigative phase of startup growth. Therefore, we search for interested candidates that not only have an excellent technical background in the subject research area and have a project management expertise, but they also must have entrepreneurial passions. In some cases, the best candidates may not need to have a doctorate because of significant other educational and industry experience and as such others may also be considered. Often candidates considering postdoctoral/research appointments are not entrepreneurial and rather seek a career path that leads to a university faculty position. Therefore, it's important to cast a wide net when recruiting for viable candidates. Typically, we investigate the following possible sources for candidates:

- 1) Faculty Advisor's network: It's likely that the advisor has the most useful network of candidates having the desired background. That advisor may reach out to a targeted group of past and recent students, contact colleagues at NYU and other universities that may be able to refer their qualified students, and post a description of the job opportunity on a research group website.

- 2) Email lists including NYU department email lists (forwarded through colleagues at other departments), as well as Listservs and other pertinent email lists having members that are interested in the primary subject topic and for which similar job opportunities are posted.
- 3) Academic Career websites (including [NYU](#)).
- 4) Job websites (e.g. Indeed, ZipRecruiter, LinkedIn): While these are not normally very successful for academic research positions, this position is more entrepreneurial and can attract others. However, the job description may need to be rewritten to better target the job candidates that are seeking entrepreneurial opportunities and have the qualifications.

### **How is IP handled?**

There are a several IP sources:

- Defense lab IP: This is ultimately licensed by the startup, not NYU. However, during the project, we pre-negotiate the terms of such a license since the value of the startup depends on it. Defense lab licenses can be exclusive or non-exclusive for vertical markets and territories.
- Collaborative IP: If an agreement is established between NYU and the defense research lab such as a Cooperative Research And Development Agreement (CRADA), IP developed is handled by the terms defined in that agreement.
- NYU IP: Any technology developed independently at NYU would be handled under NYU's licensing terms as it relates to a startup that potentially licenses that future technology.

### **How is startup equity distributed?**

At the end of the project, NYU would seek to help facilitate the creation of the startup. As with any startup coming out of NYU, the equity distribution is negotiated amongst the stakeholders: NYU, the intended co-founders, and the Faculty Advisor. NYU's equity share is normally determined based on NYU IP that is developed during the project and know-how contributed in the creation of the opportunity. The Faculty Advisor's share depends on the level of their contribution and participation in the project. Additional equity participation may be provided by the founders as "Advisory Shares" at their discretion.

### **How is the startup funded?**

Since no startup funding is provided by the MD5 Launch program, it's important that funding sources are established during the Project. Multiple funding sources are possible, including university innovation funds, grants (such as NSF), federal funding (such as NSF I-Corps), participation in accelerators, investments from private investors (friends and family), angel investors and early-stage venture capital. Alternatively, depending on the timing of capital required, it may be possible for the startup to bootstrap operations whereby funds are generated by early sales and paid pilot projects.