

# GUIDE TO TECH TRANSFER OPPORTUNITIES IN MARYLAND

## EXPAND YOUR WORK WITH ABUNDANT FEDERAL ASSETS

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### INDEX

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|                                                   |   |
|---------------------------------------------------|---|
| Why Choose Maryland?                              | 1 |
| What's Possible in Maryland                       | 1 |
| Identifying Your Tech Transfer Target and Request | 2 |
| Assistance in Finding the Right Partnership       | 3 |
| Federal Lab Consortium (FLC)                      | 3 |
| Selected Laboratories                             | 3 |
| National Defense Laboratories and Centers         | 8 |
| Selling to the Government                         | 9 |

Tech Transfer moves innovations from the research lab to the commercial sector to create new ventures, making new products and cures available to the public. Approaching the government as a customer/contractor is a different process that is briefly touched upon in this guide. This document gives you ideas for what's possible in federal asset Tech Transfer in Montgomery County (and greater), Maryland.

### WHY CHOOSE MARYLAND?

Maryland is home to twice as many federal labs and government assets as any other state. Maryland has America's highest concentration of employed doctoral scientists and concentration of STEM workforce. With Washington, D.C. as its neighbor, Maryland ranks first among the states in federal Research and Development (R&D) obligations and is home to more than 78 federal laboratories including the National Institutes of Health (NIH) which is comprised of 27 Institute/Centers, the Food and Drug Administration (FDA), Department of Defense (DoD) laboratories and Centers for Medicaid Services (CMS).

### WHAT'S POSSIBLE IN MARYLAND

This document provides a sampling of well known federal and non-federal entities conducting Technology Transfer in Maryland and the U.S. to help you find the right strategic partner and better refine your 'ask'—i.e. 'what is it that I want to do'.

Government-wide and agency-specific legislation and regulations provide a variety of legal mechanisms to federal laboratory engagement with the private sector. There are several ways to access and exchange technologies, one is through licensing—to authorize the use, performance, or release of something from one party to another. Standard and required terms for these agreements vary based on legislation, regulations, and other governing policies.

For instance, partnering agreements demonstrate differing technology transfer mechanisms used to provide flexibility depending on the project, intellectual property ownership and indemnification concerns, among other contract terms. The federal government grants licenses for thousands of its available technologies, however Tech Transfer agreements can broadly fall into the following categories:

- **Intellectual Property Protection**, such as patents and copyrights
- **Collaborative Agreements**, such as material transfer agreements; clinical trial agreements and others
- **Research Partnership Agreements**, such as Cooperative Research and Development Agreements (CRADAs); intramural and extramural research (Intramural research is done by scientists employed by the Federal government. Extramural research is done by universities, medical centers and other institutions across the U.S., as well as in some foreign countries by investigators who have been awarded grants)
- **Resource Use Agreements**, such as those for use of facilities. Federal lab equipment and facilities have excess capacity that they're willing to lease out for a fee. Get access to unique facilities (Nano/Bio Fabrication, Vacuum Chambers, Biological Science Level Labs, Restricted Agricultural Fields, Munson Road Range, Nano Manipulators, Vehicle Treadmills, Bio-Reactors, High Energy Lasers and more)
- **Educational Agreements**, such as training
- **Personnel Exchange Mechanisms**, such as for guest researchers and fellows, and technical/scientific board advice
- **Agreements with Intermediaries**, such as partnership intermediary agreements

Federal assets and laboratories can also be accessed for:

- **In/Out-Licensing Opportunities**
- **Broad Agency Announcements (BAA)**, used by agencies to invite industry to fulfill their requirements for scientific study and experimentation directed toward advancing the state-of-the-art or increasing knowledge or understanding
- **Patent Landscape Advice**

## IDENTIFYING YOUR TECH TRANSFER TARGET AND REQUEST

There are over 40,000 researchers working in Department of Defense Laboratories alone, across every conceivable type of science and engineering. The process and mechanisms for Tech Transfer vary by federal agency and lab and every federal lab has their own office and process. Companies often need to sift through laboratories and researchers one by one to see what might fit.

Before approaching a lab or Office of Technology Transfer (OTT), consider what you have that is directly relevant to the mission of the researcher/laboratory. Search the literature to ascertain what scientists within the laboratory are undertaking research and development on, that may be of mutual interest.

Prepare a 2 page document that outlines the following:

1. Company summary, outline of your team, clients and partners that you are working with that may be recognizable (financial information is not essential, 25% of the document). Each lab may have its own procedure for submissions

2. Outline of your technology and how its relevant to the mission of the researcher/lab (50% of the document)
3. Proposed research plan/proposal/request (25% of the document)

An OTT will usually have to circulate this document to a few researchers before finding the right fit. This summary document can help solicit enough internal interest to initiate a more detailed conversation, and hopefully a Tech Transfer agreement, with a Federal laboratory.

## ASSISTANCE IN FINDING THE RIGHT PARTNERSHIP

### FEDERAL LAB CONSORTIUM (FLC)

The [FLC](#) is a professional association/network that is organized into six regional subdivisions: Far West, Midwest, **Mid-Atlantic**, Mid-Continent, Northeast, and Southeast. Each Consortium member laboratory is a member of the region in which it is located. **Maryland is part of the Mid-Atlantic Region.**

The Mid-Atlantic Region of the FLC comprises over 100 federal laboratories and over 350 federal facilities, each of which is represented by Agency Representatives (ARs) and Laboratory Representatives (LRs). Regional Coordinators (RCs) and Deputy Regional Coordinators (DRCs) manage the technology transfer efforts of the FLC and carry out the affairs and activities of the region and can link you to federal technology, technical expertise, and research and development (R&D) assets. **The FLC is your best concierge desk from which to access all things Tech Transfer,** in addition to the Tech Transfer professionals within each lab.

The Mid-Atlantic Region provides gateway services, networking opportunities, conferences, publications, training, and technology locator assistance across all federal agencies.

To learn about other Tech Transfer agreement options, check out these resources:

- [T2 Mechanisms database](#)
- [FLC T2 Playbook](#)
- [TechLink Guide to Tech Transfer](#)
- [Find a range of on-demand learning resources with courses and webinars](#)
- [Licensing the Technology: Biotechnology Commercialization Strategies Using University and Federal Labs \(2nd Edition\)](#)
- [National Institute of Standards and Technology: Unleashing American Innovation](#)
- [Maryland Technology Development Corporation, Tech Transfer](#)
- [The U.S. National Institutes of Health—Founding A National Biomedical “Innovation Ecosystem”](#)

**DefTech** is an initiative of the Maryland Department of Commerce, funded by the Department of Defense Office of Economic Adjustment and the U.S. Department of Commerce Economic Development Administration. It helps businesses remain competitive by helping them leverage the cutting-edge technology, facilities, equipment, and expertise available in Maryland Department of Defense Labs.

**Energetics Technology Center, Inc. (ETC)** uses an incubation model to assist the Department of Defense in Technology Transfer activities. Working closely with the Army Research Laboratory (ARL) and Naval Surface Warfare Center Aircraft Division (NAWC AD) through two Partnership Intermediary Agreements (PIAs), ETC is searching for entrepreneurs and technologists that want to create new business ventures and established businesses to license DoD technologies and take them to market. Established in 2006, ETC has brought in over \$60 million to Maryland in contract awards and appropriations.

**The Fort Detrick Alliance** facilitates communication and understanding between Federal agencies at Fort Detrick and the community at large. They work to build relationships between Fort Detrick and its constituencies in the region: individuals; businesses; civic, social, and educational organizations; and local and State government entities.

## SELECTED LABORATORIES

### **National Institutes of Health (NIH)** *FLC Member*

The NIH is the nation's medical research agency, a significant entity within the FLC with over 27 institutions and centers, each with their own research focus.

Potential Tech Transfer partners with the NIH include:

- Large & Mid-size Companies
- Start-up companies
- Technology Scouts
- Investors (e.g., angels and venture capitalists)
- Entrepreneurs
- Economic development entities
- Foundations and philanthropies
- Service providers (e.g., law, accounting & consulting firms)

**NIH Office of Intramural Research, Office of Technology Transfer Center (TTC)** manages technologies from the National Cancer Institute and nine other Institutes/Centers. The NIH Technology Transfer Offices (TTOs) carry out patenting, partnership, and licensing functions. A listing of the NIH TTOs is shown below.

#### **NIH Labs:**

- **NCATS**—National Center for Advancing Translational Sciences Office of Strategic Alliances
- **NCI**—National Cancer Institute Technology Transfer Center\*
- **NHGRI**—National Human Genome Research Institute Technology Transfer Office
- **NHLBI**—National Heart, Lung, and Blood Institute Office of Technology Transfer and Development\*
- **NIAID**—National Institute of Allergy and Infectious Diseases Technology Transfer and Intellectual Property Office\*
- **NIDCR**—National Institute of Dental and Craniofacial Research Office of Technology Transfer and Innovation Access

*\*Provides Tech Transfer services for other, smaller Institutes/Centers.*

- **NIDDK**—National Institute of Diabetes and Digestive and Kidney Diseases Technology Avancement Office
- **NIMH**—National Institute of Mental Health Office of Technology Transfer
- **NINDS**—National Institute of Neurological Disorders and Stroke Technology Transfer Office

Contact information for these offices may be found at [ott.nih.gov/tdcs](http://ott.nih.gov/tdcs)

## RESEARCH OPPORTUNITIES

- General information on the NIH intramural licensing program may be found at the NIH Office of Technology Transfer website at [ott.nih.gov/licensing](http://ott.nih.gov/licensing)
- [Use this tool](#) to search for NIH intramural investigators by focus area
- Abstracts for technologies currently available for out-licensing, and the appropriate contact information, may be accessed via [ott.nih.gov/opportunities](http://ott.nih.gov/opportunities)
- [Use this tool](#) to search for researchers at the National Cancer Institute, Center for Cancer Research
- The NIH Office of Technology Transfer also distributes abstracts via an RSS feed; visit [ott.nih.gov/rss](http://ott.nih.gov/rss) to join this service. Some NIH TTOs may also distribute announcements about their opportunities via an email system; information will be available at their websites

## NON-DILUTIVE FUNDING, CONTRACTING AND GRANTS

- Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) Programs—The NIH has programs with non-dilutive funding set aside to support small business entities conducting research (recipients must be at least 51% U.S. owned). Detailed information on these opportunities may be found at [sbir.nih.gov](http://sbir.nih.gov). Please contact the MCEDC if you require assistance applying for an SBIR/STTR program or setting up a U.S. Corporation to be eligible for this funding
- If you are interested in extramural research with the NIH, the [NIH Research Portfolio Online Reporting Tool](#) provides access to reports, data, and analyses of NIH research activities, including information on NIH expenditures and the results of NIH supported research. If contracting to the NIH is of interest, a good entry-point is to team up with an existing contractor
- Being a large research organization, the NIH has numerous R&D Contracting Opportunities. For information on such opportunities, visit the NIH Office of Extramural Research Contracts web site at [grants.nih.gov/funding/contracts.htm](http://grants.nih.gov/funding/contracts.htm)
- Grant Opportunities—Approximately 80% of the NIH budget is awarded through non-dilutive grants. Applicants for most grant programs can be either for-profit or non-profit organizations. Visit the NIH Office of Extramural Research web site at [grants.nih.gov/grants/oer.htm](http://grants.nih.gov/grants/oer.htm)

## **National Institute of Standards and Technology (NIST)** *FLC Member*

The [National Institute of Standards and Technology](#) is part of the U.S. Department of Commerce. NIST is one of the nation's oldest physical science laboratories. Fast-moving sectors such as nanotechnology, quantum information science, homeland security, information technology, and advanced manufacturing need sophisticated technical support systems to flourish and grow. NIST provides that support by continually improving the U.S. measurement system, developing new technologies, fostering standards, and providing both the business and technical evaluation tools needed to produce quality products and organizations.

### **NIST Labs:**

- [Communications Technology Laboratory](#)
- [Engineering Laboratory](#)
- [Information Technology Laboratory](#)
- [Material Measurement Laboratory](#)
- [Physical Measurement Laboratory](#)

### **HOW TO WORK WITH NIST**

- **User facilities**—NIST has several user facilities available for both proprietary and non-proprietary research
- **Joint Research Organizations**—NIST has long-standing research partnerships that have produced unparalleled technical breakthroughs. Some of these institutes are in proximity to the NIST campuses in Maryland and Colorado but others are strategically located to leverage local expertise and resources
- **NIST Research Partnerships**—NIST formally collaborates with industry, academia and other government agencies to perform research that furthers the NIST mission
- **NIST Extramural Programs**—NIST provides three important externally focused services: the Hollings Manufacturing Extension Partnership (MEP), the Baldrige Performance Excellence Program (BPEP) and the Manufacturing USA program. These programs are public-private partnerships that fill the gap where pre competitive research—work that is too expensive or specialized for any one company to undertake alone—can move a whole industry forward
- **NIST Centers of Excellence Program**—The NIST [Centers of Excellence](#) program seeks to provide an interdisciplinary environment where researchers from NIST, academia and industry will collaborate on emerging areas of basic and applied research and innovations in measurement science
- **NIST Funding Opportunities**—NIST provides extramural research funding through competitive grants, the Small Business Innovation Research (SBIR) program and other programs
- **Accessing NIST Research Results**—NIST works to disseminate its research results as broadly as possible through peer-reviewed research journals, technical reports, conference presentations, patent disclosures and other methods

### **CONTRACTING & FUNDING OPPORTUNITIES**

- NIST provides extramural research funding through competitive grants, the Small Business Innovation Research program and other programs

### **Department of Defense (DoD)** *FLC Member*

The Department's Laboratories engage in activities ranging from basic research through defense system acquisition support to direct operational support of deployed warfighters. These laboratories comprise hundreds of facilities across 22 states, and employ tens of thousands of scientists and engineers, both civilian and military, public employees and contractors. The Department Laboratories conduct substantial amounts of reimbursable research and development for DoD and Intelligence Community customer organizations.

The Defense Innovation Marketplace provides a centralized resource for the Department's Acquisition and Science and Technology professionals on information about industry's Independent research and development activities. In five easy steps, your company has the opportunity to [share your organization's Research and Development projects](#) with a broader DoD audience than previously possible.

### **Department of Defense Research & Engineering Enterprise** *FLC Member*

The Under Secretary of Defense for Research and Engineering USD (R&E), is a senior official of the United States Department of Defense. The Department of Defense Research and Engineering and its laboratories are charged with the development and oversight of technology strategy for the DoD.

### **Fort Detrick, Maryland** *FLC Member*

Fort Detrick United States Army Futures Command installation is located in Frederick, Maryland. Five cabinet level agencies are housed on Fort Detrick which hosts most elements of the United States biological defense program. The National Cancer Institute occupies approximately 68 acres of adjoining land that was transferred from the Defense Department to Health and Human Services with the launch of the United States 'war on cancer'.

### **Defense Advanced Research Projects Agency (DARPA)** *FLC Member*

DARPA comprises approximately 220 government employees in six technical offices, including nearly 100 program managers, who together oversee about 250 research and development programs. DARPA continues to work closely with the Department of Defense (DoD), multiple U.S. government agencies, as well as its academic and industry partners, to provide technical and scientific solutions to address the COVID-19 pandemic.

**For a complete listing of DARPA opportunities please visit the [SAM.gov](#) website.**

In addition to program-specific opportunities, [each DARPA technical office maintains an "office-wide" Broad Agency Announcement \(BAA\)](#) that covers a range of technical areas of interest to each particular office. The office-wide BAAs are refreshed on an annual basis and offer a mechanism for researchers to reach DARPA with ideas that they feel could be valuable to national security.

### **Biomedical Advanced Research and Development Authority (BARDA)** *FLC Member*

BARDA provides an integrated, systematic approach to the development of the necessary vaccines, drugs, therapies, and diagnostic tools for public health medical emergencies such as chemical, biological, radiological, and nuclear (CBRN) accidents, incidents and attacks; pandemic influenza (PI), and emerging infectious diseases (EID).

If you or your company are developing a medical countermeasure or platform technology to combat chemical, biological, radiological, or nuclear threats, pandemic influenza or other emerging infectious diseases, [consider doing business with BARDA](#).



## GOVERNMENT TECH TRANSFER ASSETS THAT FALL OUTSIDE THE FLC:

- [The Fraunhofer USA Center Mid-Atlantic \(CMA\)](#)
- [The Foundation for the National Institutes of Health \(FNIH\)](#)
- [Food and Drug Administration Office of Technology Transfer Program](#)
- [Walter Reed National Military Medical Center](#)
- [Henry Jackson Foundation](#)

## FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFRDC'S)

[FFRDCs](#) are private-sector resources, operating in the public interest. As of today there are 41 of them. They perform work closely associated with inherently governmental functions and assist the government with its long-term research or development needs.

FFRDCs enjoy a special relationship with their government sponsors, marked by special access to government data and resources. They work with their government partners—also called sponsors—to assist with:

- Systems engineering and integration
- Research and development
- Study and analysis

FFRDCs work in the fields of aviation, defense, energy, health and human services, space, federal agency modernization, homeland security, and more. The National Science Foundation maintains the list of current federally funded research and development centers at [nsf.gov/statistics/ffrdclist](https://www.nsf.gov/statistics/ffrdclist).

- [FFRDC: A Primer—Federally Funded Research and Development Centers in the 21st Century](#)

## MITRE

[MITRE](#) works in the public interest across federal, state and local governments, as well as industry and academia. They bring innovative ideas into existence in areas as varied as artificial intelligence, intuitive data science, quantum information science, health informatics, space security, policy and economic expertise, trustworthy autonomy, cyber threat sharing, and cyber resilience. MITRE [operates Federally Funded Research and Development Centers](#) and has an independent research program that explores new and expanded uses of technologies to solve sponsors' problems.

## **SELLING TO THE GOVERNMENT**

If you would like to sell your products or services to the the government as a potential customer, then please contact:

- [NIH Office of Small Business Recruitment](#)
- U.S. General Services Administration (GSA)

The GSA Schedule is also known as Federal Supply.

Schedule, and Multiple Award Schedule (MAS), is a long term government-wide contract with commercial companies that provide access to millions of commercial products and services at fair and reasonable prices to the government. MAS connects government buyers and industry.

Schedule policy and procedures are guided by two major governing regulatory documents:

- Federal Acquisition Regulation (FAR)—Pursuant to 41 U.S.C. 152(3), [FAR Part 38](#) prescribes policies and procedures that GSA must follow in managing the Schedule program. [FAR Subpart 8.4](#) prescribes ordering procedures for federal agencies when placing orders for supplies and services under Schedule.
- General Services Administration Acquisition Manual (GSAM)—[GSAM](#) covers GSA acquisition policies and practices.

Visit the [Buyer](#) and [Seller](#) pages for additional information on how these regulations and policies guide your Schedule experience.

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[Visit FLC's full Maryland list](#)

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For more information, contact [Julie@thinkmoco.com](mailto:Julie@thinkmoco.com)

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