



# LIFE SCIENCES

## GREATER BALTIMORE INDUSTRY PROFILE 2020

### The Greater Baltimore Region 7 Jurisdictions

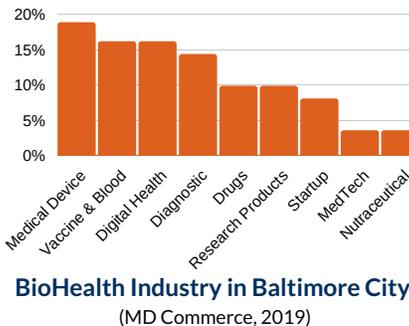
- ▲ Anne Arundel County
- ▲ Baltimore City
- ▲ Baltimore County
- ▲ Carroll County
- ▲ Cecil County
- ▲ Harford County
- ▲ Howard County



The Greater Baltimore Region has long been a hub of research in the life sciences, research that has led to breakthroughs in preventing, lessening, or curing countless medical conditions. The world may now be realizing the Region's strengths in life science R&D, though Greater Baltimore's life science companies have successfully developed groundbreaking technologies for decades. The Region benefits from unparalleled access to federal resources, world class universities focused in the life sciences, and an ecosystem of public and private assets ready to assist scientists and innovators.

### Maryland's Life Science Workforce Leads the Nation...and the World

The Region is home to three of the top life science universities in the country: **The Johns Hopkins University, University of Maryland Baltimore, and University of Maryland Baltimore County** - which leads the nation in African-American graduates earning MD-PhDs (UMBC, 2019). Together with the flagship **University of Maryland College Park** the scientific community in Greater Baltimore provides a robust pipeline of talent for life science innovation.



- Concentration of...
- Employed PhD Scientists
  - Employed Bio & Health PhDs
  - Microbiologists
  - Biological Scientists, all other
- (MD Commerce, 2020; BLS, 2019)

### Leading the Fight Against COVID-19

#1

Source of Coronavirus Data  
Johns Hopkins University & Medicine

Contract Manufacturer  
Emergent BioSolutions (World Vaccine Congress, 2018)

The Region's decades of expertise in vaccine research uniquely positions it as a leader in the fight against COVID-19. In addition to Johns Hopkins' significant and ongoing contributions to this effort, the **University of Maryland Center for Vaccine Development & Global Health** has clinical trials underway for a vaccine.

### Unparalleled Access to Federal Resources Federal Laboratories

Greater Baltimore is home to numerous federal labs, such as those at **Aberdeen Proving Ground** (Harford County) and the **NIH Biomedical Research Center at The Johns Hopkins Bayview Medical Campus** (Baltimore City). Seventy-eight federal labs, including all of NIH's 27 institutes, are headquartered in Maryland.

Within a 1-Hour Drive



### Federal R&D Funding

The **Johns Hopkins University** is perennially the #1 recipient of scientific research funding (NSF, 2018). MD's companies receive the 4th most SBIR funding of any state (SBIR, 2019). In total, Maryland receives more federal R&D dollars per worker than any other state, helping to fuel private-sector innovation.

Maryland

# #1

Density of Federal R&D Obligations  
(NSF, 2018)

# LIFE SCIENCES

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### Moving Discoveries from the Lab to the Marketplace

The Greater Baltimore region specializes in bringing life science innovations out of the lab and into the marketplace, turning ideas into realities that save lives. In the long term, new companies may choose dynamic headquarters in incubators including, among others, **bwtech@UMBC** or **Johns Hopkins Technology Ventures**, and in Greater Baltimore's supply of affordable, quality lab space.

#### University of Maryland BioPark



The **UM BioPark** is home to over 900 research scientists and entrepreneurs conducting hundreds of clinical and translational research projects each year on behalf of over 200 corporate sponsors.



#### Science + Technology Park at Johns Hopkins

Dozens of companies have taken root at **Science + Technology Park at Johns Hopkins**, benefiting from unique collaborations with Hopkins personnel in over 1 million square feet of available lab space.

## INNOVATION

### Unique Opportunities for Continued Innovation

The Region's life science companies exist within an ecosystem of endless innovation, with numerous centers serving the specialized needs of startups. Whether the company is developing a biomedical device or a new cancer drug, there are industry-specific resources in the Region available to assist them from start to finish.



### State & Local Support



The State of Maryland is "all in" on Life Sciences as demonstrated through efforts like the **Life Science Advisory Board** and the **BioHealth Investment Incentive Tax Credit**. In addition, the Region's local governments and industry groups such as the **Maryland Technology Council** and **BioHealth Innovation** provide numerous resources for companies.



### A Dynamic Life Sciences Ecosystem – with Momentum

**\$177M+**

Life Science VC  
Investments in 2019

(Crunchbase, 2020; EAGB, 2020)

Maryland life science companies benefit from a top 10 venture capital community. Recent investments in Greater Baltimore include **GrayBug** raising \$80 million, **Thrive Early Detection Co.** and **AsclepiX Therapeutics** and - both JHU spinouts - raising \$110 million and \$35 million, respectively, and **CSA Medical** raising \$45 million. Notably, **Paragon Bioservices** was acquired by Catalent for \$1.2 billion, UMB spinout **Brethe** was acquired by Abiomed, and Baltimore's **Emergent BioSolutions** spent more than \$1 billion on the acquisitions of PaxVax, Adapt Pharma, and others.

### Largest Life Science Companies



(BBJ, 2018)

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