

FREDERICK COUNTY
MARYLAND

LIFE SCIENCES ROADMAP

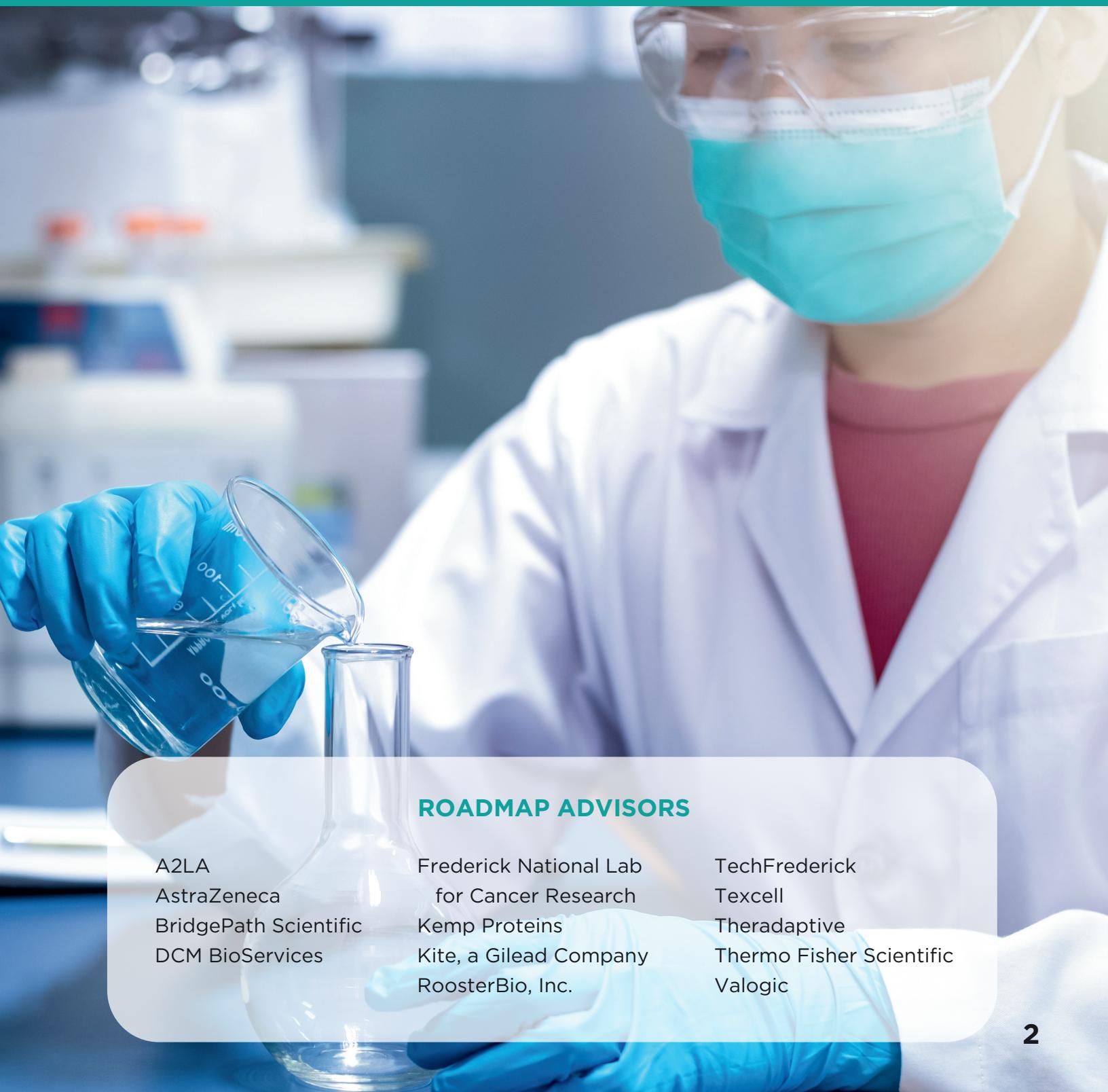
Division of Economic
Opportunity

FREDERICK COUNTY
MARYLAND



VISION:

For Frederick County, Maryland to become a leading center of life sciences innovation, driving economic growth and improving global health outcomes through collaboration, research excellence, and entrepreneurial spirit.



ROADMAP ADVISORS

A2LA
AstraZeneca
BridgePath Scientific
DCM BioServices

Frederick National Lab
for Cancer Research
Kemp Proteins
Kite, a Gilead Company
RoosterBio, Inc.

TechFrederick
Texcell
Theradadaptive
Thermo Fisher Scientific
Valogic

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LETTER FROM THE COUNTY EXECUTIVE

Members of Frederick County's Life Sciences Industry,

In 2019 when I was serving on the County Council, we adopted the Livable Frederick Master Plan. This award-winning plan is driven by a community vision that states, "Frederick County is a unique and vibrant community where people live, work and thrive while feeling a strong sense of place and belonging." This vision for Frederick County has guided my administration since day one. Having strong industry sectors is an important part of this vision and I am particularly excited to share with you our commitment to fostering the growth and development of the Life Sciences industry.

The Life Sciences industry is not only a vital component of our local economy but also a beacon of hope for advancements in healthcare, biotechnology, and scientific research. Frederick County is home to a vibrant ecosystem of Life Sciences companies, research institutions, and academic centers, and I am dedicated to building upon Frederick County's strong foundation. With the third highest concentrations of life science-related jobs in the state, our County has the potential to emerge as a global leader in Life Science innovation.

This roadmap outlines our vision, mission, guiding principles, action steps, and recommendations, serving as a compass for economic and workforce development efforts. Developing this plan involved the collaborative efforts of a multidisciplinary life sciences work group, alongside contributions from County staff, the BEACON Center, and numerous other individuals and organizations. It will serve as a path to align our collective vision and leverage Frederick County's strengths to promote growth of this impactful industry.

We stand at a pivotal moment, brimming with opportunity and momentum. Let us embrace the challenge of merging innovation with compassion to establish Frederick County as a prosperous, inclusive, and equitable community for all. By working together with stakeholders from all sectors, we can build upon our thriving ecosystem where Life Sciences companies flourish, high-quality jobs are created, and groundbreaking discoveries are made.

Sincerely,



Jessica Fitzwater
Frederick County Executive

LIFE SCIENCES DEFINED

The Life Sciences industry is made up of companies from the biotech, medical technology and related fields that aim to innovate and improve the healthcare ecosystem.

3rd

In the Nation
for Biopharma
Cluster

source: *Genetic Engineering & Biotechnology News*

130+

Bio and Life Science
Companies

source: *Maryland Department
of Commerce*

Overview

Frederick County, Maryland is a vibrant economic hub, energized by a culture of collaboration and forward-thinking innovation. Anchored by institutions like Fort Detrick and its federal laboratories, and bolstered by global industry giants such as AstraZeneca, Thermo Fisher Scientific, Lonza and Kite, Frederick County also nurtures locally-grown companies that have blossomed into small-to-medium-sized enterprises like BioFactura, RoosterBio and Theradaptive.

Our county proudly leads the charge in life sciences innovation through strategic alliances, pioneering research endeavors, and a highly skilled workforce. We propel economic expansion, nurture talent, and spearhead breakthroughs that not only enrich our local community, but also drive global advancements in health and prosperity.

Given this robust foundation, the purpose of this document is to serve as a roadmap for continuing the growth of the life sciences sector in Frederick County, Maryland. This roadmap will act as a comprehensive guide for the coming years, acknowledging that achieving these goals will require a long-term approach. It includes actionable items that we can begin implementing today.



INDUSTRY CHAMPIONS

Industry champions must emerge. Building life science industry champions requires a comprehensive approach that encompasses various aspects of the industry, including research, development, commercialization and market penetration, and must be led by the private sector, facilitated by the Frederick County Office of Economic Development (FCOED).

Invest in Research and Development (R&D):

- Allocate resources for cutting-edge research in life sciences, including biotechnology, pharmaceuticals, medical devices and diagnostics.
- Foster collaboration between academia, research institutions, and industry players to accelerate innovation and discovery.

Promote Collaboration and Partnerships:

- Promote collaboration between industry players, research and education institutions, government agencies and healthcare providers to accelerate innovation and bring new products to market.
- Facilitate public-private partnerships to address key challenges in healthcare delivery, such as access to affordable treatments and diagnostics.

Promote Global Competitiveness:

- Encourage international collaboration and partnerships to leverage global expertise, resources and markets.
- Advocate for policies that promote free trade, intellectual property rights and fair competition in the global life sciences industry.

Support Entrepreneurship and Startups:

- Invest in and support various incubators, accelerators and funding organizations specifically tailored for life sciences startups.
- Provide mentorship, networking opportunities, and funding to support early-stage companies in navigating regulatory pathways, securing intellectual property, and commercializing their products.

Encourage Market Access and Adoption:

- Work with payers, healthcare providers and regulators to ensure timely access to innovative treatments and diagnostics.
- Support initiatives to raise awareness among healthcare professionals and patients about the benefits of new therapies and technologies.



KNOWLEDGE AND TALENT

Invest in education and workforce development programs to cultivate the skilled workforce necessary to fuel the growth of the life sciences industry in Frederick County, Maryland.

Education Pathways:

- Collaborate with local colleges and universities to develop training programs and implement curriculum and courses that align with the needs of the life sciences industry.
- Continue to partner with Mount St. Mary's University, Hood College and Frederick Community College to provide on-ramps to educational opportunities and careers in this exciting field. Frederick County institutions offer diverse educational programs from short-term training certificates to advanced degrees. Frederick County also attracts talent from regional institutions like Johns Hopkins University, the University of Maryland, Universities at Shady Grove, etc.

Talent Attraction and Retention

- Assist companies in attracting and retaining top talent.
- Assist employers in the development of best practices to attract and retain top talent. Provide labor market data and analysis regarding life science industry competitive salaries, benefits, and quality-of-life amenities.
- Market local and regional life science job opportunities.
- Provide HB1 Visa information and assistance.

Career Pathways:

- Foster strong connections between educational institutions, workforce services and life sciences companies to facilitate skill transfer and workforce development.
- Support and encourage companies that offer internships and apprenticeships providing hands-on experience and training for students and recent graduates.
- Connect life science employers with resources that would help address their custom training needs. Provide training and career opportunities to individuals at all levels of education in the County.

Workforce Training:

- Develop and fund training programs that focus on skills specific to the life sciences, such as biotechnology, laboratory techniques and regulatory compliance.
- Seek input from industry stakeholders around development of effective workforce development strategies that support growth in this industry.
- Hold a Workforce Summit focused on the life sciences industry.
- Partner with organizations like BioHub Maryland, BioBuzz and other industry organizations to support their mission to help residents of all backgrounds pursue career opportunities in the life sciences by offering trainings and career opportunities.



INFRASTRUCTURE



Promote infrastructure projects to support the growth of the life sciences industry in Frederick County, Maryland.

TRANSPORTATION

- Ensure continued convenient access to major highways, airports, and public transportation to facilitate collaboration and commerce.
- Foster relationships between Frederick Municipal Airport and the business community to ensure the awareness of this asset in Frederick County.



UTILITIES

- Ensure reliable and cost-effective access to essential utilities like electricity, water, and waste management.
- Facilitate conversations for investment in necessary infrastructure for water and sewer in Frederick County, MD. Hold strategic meetings to engage the key stakeholders to review proposals for development in these areas.
- Engage stakeholders in conversations about the importance of 5G network availability in Frederick County.

PERMITTING

- Work closely with local government agencies to streamline permitting processes and expedite the establishment of new facilities to encourage investment in the region for biotech projects.

SITE READINESS

Ensure site readiness for the growth of the life sciences sector in Frederick County Maryland, by identifying development sites and real estate opportunities in our community.



LABORATORY SPACES

- Develop and renovate laboratory spaces to meet the needs of life sciences companies, including wet labs, clean rooms, and other specialized facilities.
- Promote spaces in Frederick County that are tailored to the needs of the life sciences.

BIOTECH PARKS

- Establish or expand biotech parks and innovation districts to provide a hub for life sciences companies, research institutions, and entrepreneurs, providing opportunities for collaboration.

COLLABORATIVE WORKSPACES

- Create and support shared workspaces, incubators, and accelerators to foster innovation, collaboration, and networking. For example, the recent expansion of Frederick Innovation Technology Center Inc. that supports start-up companies with access to wet labs, office space, and networking.

PROCESS IMPROVEMENT

IDENTIFY SUITABLE SITES

- Conduct a thorough assessment to identify locations within the county that are conducive to biotech industry growth. Consider factors such as proximity to research institutions, transportation infrastructure, and available utilities.

FACILITATE PLANNING APPROVALS

- Provide support and guidance to biotech companies navigating the planning approval process. Establish clear guidelines and procedures to ensure compliance with zoning regulations and environmental standards while expediting project approvals.

MARKETING AND PROMOTION

Promotion and marketing are crucial for raising the visibility and reputation of Frederick County, Maryland as a life sciences hub.

MARKETING CAMPAIGNS

- Launch targeted marketing campaigns to showcase the county's assets, success stories and resources to attract businesses, talent and investors
- Partner with local businesses, organizations, and institutions to amplify the message and create a unified voice. Identify and collaborate with influencers, thought leaders, and industry experts to promote the region's life sciences ecosystem.
- Share success stories, innovation breakthroughs, and impactful research to create a narrative around Frederick County's life sciences sector.
- Enhance the website, social media, and online platforms to showcase the life sciences community, resources, and news.

ENHANCE EXTERNAL MARKETING

- Provide accessible information regarding available sites and buildings on the FCOED website.
- Participate in Site Selector Familiarization Tours ensuring that at least one of the site selectors represents the life sciences industry.
- Participate in conferences both regionally and nationally with the goal of sharing expertise, promoting businesses, fostering valuable connections, and showcasing Frederick County to attract new companies to the area.
- Host a life sciences conference in Frederick County featuring local businesses and fostering collaboration with companies from the region and the nation.

BRANDING

- Create a unique and recognizable brand that captures the essence of Frederick County's life sciences ecosystem.



FUNDING & SERVICES

Develop funding mechanisms to provide support services to facilitate research, innovation and commercialization.

INVESTOR NETWORK

- Seek connections with angel investors, venture capital firms, and private equity groups interested in investing in the Life Sciences.

CORPORATE PARTNERSHIPS

- Explore collaboration opportunities with established biotechnology businesses, medical device manufacturers, and other industry players. Facilitate strategic partnerships, licensing agreements, and joint ventures can provide access to resources, expertise, and distribution channels needed to accelerate product development and commercialization.

TECHNOLOGY TRANSFER

- Collaborate with academic institutions, research centers, and technology transfer offices to access intellectual property, licensing opportunities, and research expertise.
- Develop relationships with technology transfer offices to enhance the commercialization of university and federal laboratory developed technologies by connecting researchers with industry partners, investors, and entrepreneurs interested in licensing or sponsoring their innovations.

INCUBATORS AND ACCELERATORS

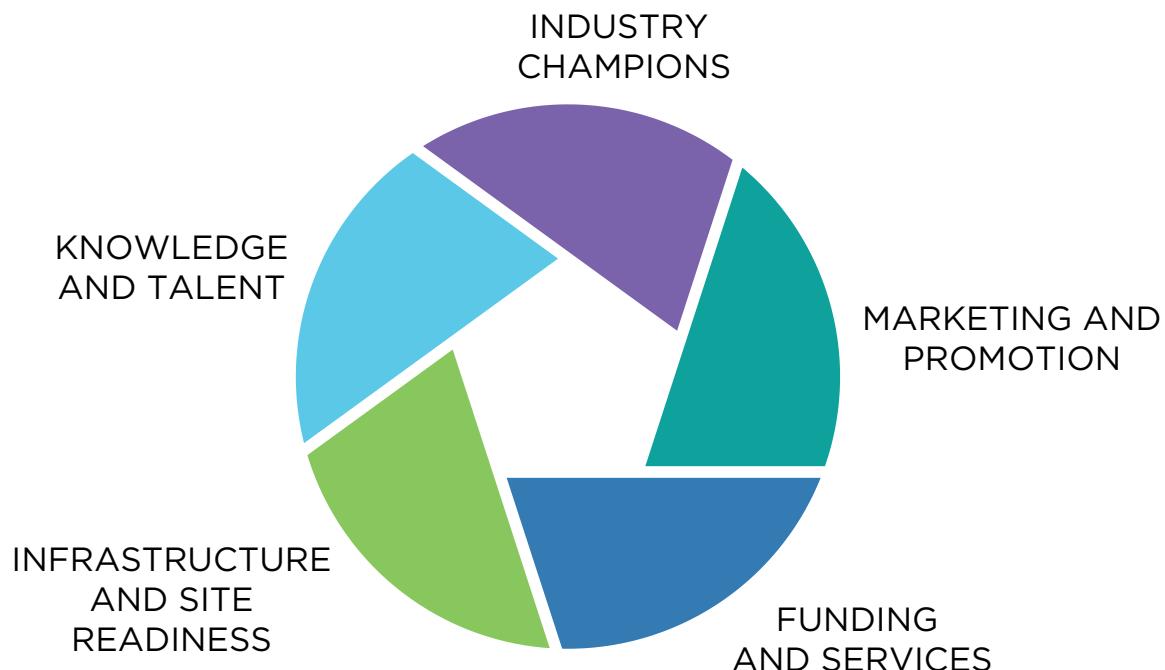
- Investigate joining incubator and accelerator programs specifically tailored to the life sciences sector. These programs offer access to mentorship, networking opportunities, laboratory facilities, business development support, and funding opportunities designed to help startups navigate the challenges of early-stage growth and scale their operations effectively.

SUPPORT SERVICES

- Engage business incubation programs, entrepreneurship centers, and business support services offered by economic development organizations, chambers of commerce, and industry-specific initiatives in the region. Provide guidance on business planning, market research, regulatory compliance, access to capital, and other critical aspects of starting and growing a life sciences venture.

FREDERICK COUNTY MARYLAND

This roadmap for advancing the life sciences sector focuses on these key areas: Industry Champions, Knowledge and Talent, Infrastructure and Site Readiness, Marketing and Promotion, and Funding and Services. For Frederick County to achieve success will require a collective effort involving local and state governments, as well as community businesses. By concentrating on these critical elements, we will strive to cultivate the life sciences sector in Frederick County, establishing the area as a premier destination for life sciences professionals and businesses.



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