



BLUE KNIGHT™

JUNE 2024

Incubating and Accelerating Early-Stage Innovations to Enhance Preparedness and Response to Health Security Threats

Johnson & Johnson



ASPR
ADMINISTRATION FOR STRATEGIC
PREPAREDNESS AND RESPONSE

BLUE KNIGHT™

Blue Knight is a unique joint initiative between Johnson & Johnson Innovation – JLABS (JLABS) and the Biomedical Advanced Research and Development Authority (BARDA), part of the Administration for Strategic Preparedness and Response (ASPR) at the U.S. Department of Health and Human Services. This collaboration aims to stimulate early-stage innovation and incubation of science and technologies to improve health security and unlock new approaches to solving health issues. Through this collaboration, **Blue Knight** is dedicated to harnessing the collective power of the global community to combat 21st century health threats, both known and unknown, and bring new solutions to patients.

Facts At a Glance

as of April 2024

APRIL
2019

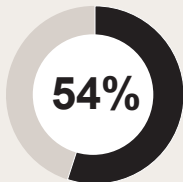
BARDA and Johnson & Johnson Innovation — JJI announce future collaboration to spur early-stage innovation, along with announcement of JLABS @ Washington, DC

AUGUST
2020

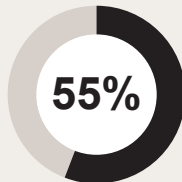
BLUE KNIGHT™
launches

46

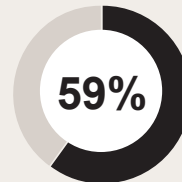
Companies have been supported through **BLUE KNIGHT™**



Female-led **BLUE KNIGHT™** companies



Minority-led **BLUE KNIGHT™** companies



BLUE KNIGHT™ companies led by first-time entrepreneurs

MORE THAN
400
APPLICANTS

From 2021-2023 the average acceptance rate of applications was 10%

\$966M

Raised in secured and contingent funding by **BLUE KNIGHT™** companies

3

BLUE KNIGHT™ Resident **QuickFire Challenges**

4

SYMPOSIA
Attracting more than 4,000 registrants

~50

MENTORS
Engaged from Johnson & Johnson and BARDA

R&D STAGE <small>as of April 2024</small>	% OF BLUE KNIGHT™ COMPANIES
Discovery (Research, TI/TV)/Concept	6%
Lead (H2-LO)/Prototype	6%
Pre-clinical (GLP Tox-IND)/Animal testing	55%
Clinical (Phase 1, Phase 2a, Phase 2b, Phase 3)	27%
Marketed Products	6%

COMPANIES ARE DEVELOPING APPROACHES TO ADDRESS PILLARS FOR PREPAREDNESS <small>as of April 2024</small>				
6	6	11	22	4
Enabling technologies that support development	Detecting potential threats	Preventing infection and/or transmission	Treating infections and disease	Facilitating equitable access to and supply of medical countermeasures

This information is self-reported by companies and may not reflect the full set of companies.

The BLUE KNIGHT™ Story: Securing a Safe, Healthy Future through Collaboration

WHO WE ARE

Blue Knight is a collaboration dedicated to anticipating potential health security threats, activating the global innovation community, and amplifying scientific and technological advancements with the aim to prepare for and respond to our rapidly evolving global health environment. This initiative supports early-stage innovators, entrepreneurs, and startup companies who are working on the next disruptive scientific technologies to help improve patient health, with a focus on technologies with multi-use applications in preparedness and commercial indications to develop sustainable preparedness solutions.

OUR UNIQUE APPROACH

Since the inception of **Blue Knight** in August 2020, the program has grown to support 46 companies from across the global community through a highly competitive application process. **Blue Knight** implements a personalized approach to support each company's specific needs to translate their technologies to patients. The program supports early-stage companies strategically aligned to both BARDA and Johnson & Johnson areas of interest. By bringing together key stakeholders, **Blue Knight** is catalyzing a community of entrepreneurs, investors, and thought leaders to accelerate the development of technologies that secure a safe, healthy future.



BLUE KNIGHT™ sits at the intersection of Johnson & Johnson and BARDA's strategic areas of focus.

Through Blue Knight, stakeholders can directly engage with early-stage companies developing high-priority technologies that align with their areas of interest. This public-private partnership develops a pipeline of early-stage innovation and allows BARDA and Johnson & Johnson to engage with companies as they progress to meet critical milestones along commercialization pathways for both preparedness and commercial applications.



“BLUE KNIGHT™ catalyzes a new community of high-potential, early-stage entrepreneurs who are working to improve global health security, which goes hand in hand with the JLABS mission of tackling the world's toughest health challenges.”

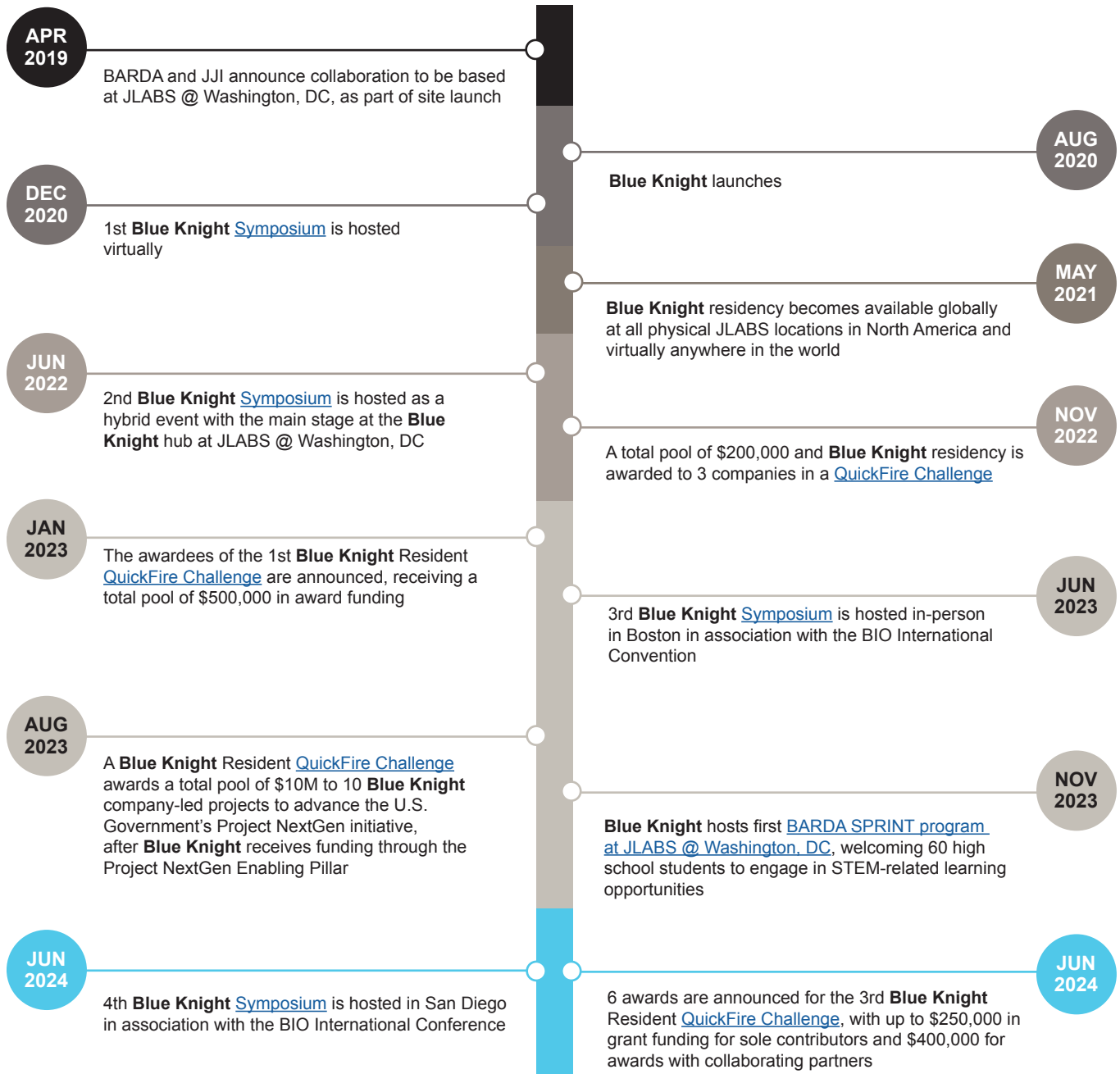
Melinda Richter,
Global Head, Johnson & Johnson
Innovation – JLABS



“BARDA is committed to finding new and innovative ways to accelerate solutions, and BLUE KNIGHT™ is foundational to our goal of protecting national health security and stimulating an earlier pipeline of innovative technologies that are developing next-gen solutions.”

Dr. Gary Disbrow,
Director, BARDA

Timeline of Program & Partnerships



“When it comes to addressing current and future health threats, identifying the most promising early-stage companies and giving them the support they need to see their innovations realized is a top priority.”

Ashim Subedee,
Director, Catalyst Office, BARDA DRIVE



BLUE KNIGHT™ Residency Promotes Company Acceleration

RESIDENT SELECTION

The **Blue Knight** initiative invites applications from innovative companies aiming to make a significant impact in the field of health security. Each application is evaluated by reviewers from Johnson & Johnson with input from BARDA. Our process ensures we select next generation solutions that align with both the Johnson & Johnson and BARDA missions, while also helping to advance end-to-end solutions that demonstrate the potential to address technological gaps and fulfill unmet need.

Blue Knight companies are JLABS companies, therefore applicants need to meet JLABS requirements – including the requirement that eligible applicants must be an incorporated company. **Blue Knight** applications are reviewed and selected on a rolling basis, based on the following criteria:

- **Compelling and credible science and/or technology that has the potential to change the trajectory of health**
- **Strategic alignment with Johnson & Johnson and BARDA areas of focus**
- **Addressing an area of significant unmet need**
- **Demonstrating a strong team and financial solvency**

BENEFITS OF THE PROGRAM

Blue Knight companies are JLABS companies and have access to the JLABS ecosystem and, therefore, JLABS benefits, including modular lab units, office space, shared core laboratory equipment and business facilities based on the availability at the location of residency, both physical and virtual. Virtual engagement options are available for qualifying companies who are not location dependent or do not require lab space. However, **Blue Knight** companies have access to additional, unique benefits:

- **JLABS Space Access & Fee Assistance**
Access to modular lab units, office space, shared core laboratory equipment & business facilities, with fee assistance for certain associated costs
- **Resident Quickfire Challenges**
Limited-competition opportunities for non-dilutive funding for current and alumni **Blue Knight** companies
- **Cross-Sector Mentorship**
Dedicated mentorship from both the Johnson & Johnson Family of Companies and BARDA
- **Programming & Visibility**
Blue Knight companies have access to unique visibility and programming, including opportunities with key ecosystem leaders and representatives at conferences and events
- **Dedicated Equipment**
Dedicated equipment for **Blue Knight** companies will be available at select JLABS locations
- **JLABS Ecosystem**
As part of the JLABS ecosystem, residents enjoy access to business services teams and designated mentors, entry to Resource and Investor Hubs with resources and virtual and onsite programming



FOSTERING INNOVATION COMMUNITIES

Blue Knight regularly hosts events and programming designed to cultivate community on local and national levels and inspire innovation. Among these are symposia, featuring global conversation with innovators, investors, partners and thought leaders, to discover and accelerate next-gen potential solutions. Many of these programs are available to the public and are intended to raise awareness of strategically aligned areas, foster community, and spur collaboration in mission-aligned areas of interest throughout the wider innovation community of individual entrepreneurs, investors, and academia.

As part of the mutual interest in fostering the innovation ecosystem, **Blue Knight** collaborates with BARDA on events and activations surrounding its SPRINT (Science, Preparedness & Response, Innovations, and New Technologies) Program, a STEM outreach program designed to create scientific enrichment opportunities for youth and support their potential in STEM and public service careers. By partnering on the inaugural SPRINT Program event in 2023, approximately 60 local Washington, DC area high schoolers toured the JLABS @ Washington DC facilities and had the opportunity

to engage directly with **Blue Knight** and JLABS companies, learning about their career trajectories and STEM career paths. **Blue Knight** has also welcomed four undergraduate and graduate students as BARDA Alliance interns to give the next generation of public health changemakers practical experience in public-private partnerships.

ACCELERATING CRITICAL INFLECTION POINTS WITH NON-DILUTIVE FUNDING

Blue Knight has launched three **Blue Knight** Resident QuickFire Challenges, where residents and alumni are invited to apply for limited-competition non-dilutive funding. These opportunities aim to help **Blue Knight** companies reach critical inflection points to advance their science and technologies. More than \$12M in BARDA funding has been distributed to **Blue Knight** companies through grant mechanisms as a result of these challenges. As a result, QuickFire Challenge awardees have streamlined manufacturing strategies, amassed valuable preclinical data critical to investors, and demonstrated proof of concept using in vivo models against disease threats.



“BLUE KNIGHT™ is a testament to the power of collaboration in driving innovation and safeguarding public health.”

Rachel Rath,

BARDA Alliance Director, Johnson & Johnson Innovation — JLABS

BLUE KNIGHT™ Companies Address Critical Pillars for Preparedness

THE PATH TO MORE PREPARED, PROTECTED, AND HEALTHIER INDIVIDUALS, FAMILIES, AND COMMUNITIES

<p>1. Enabling technologies that support development</p>	<p># of Approaches by BLUE KNIGHT™ Companies</p>
<p>Role in Readiness: Strengthening resilience against future health threats by enhancing our ability to develop and manufacture medical countermeasures more rapidly and efficiently.</p> <p>Examples of strategically aligned technologies may include: Technologies that enhance and accelerate development and manufacturing, including improving efficiency, enhancing drug substance yield, or improving cell line productivity; Technologies that improve predictive/modeling capabilities; Technologies that improve the efficiency and accuracy of the discovery and design process</p>	<p>● ● ● ● ● ●</p>
<p>2. Detecting potential threats</p>	<p># of Approaches by BLUE KNIGHT™ Companies</p>
<p>Role in Readiness: Providing information to assess potential disease and infection at the individual and population levels, allowing for timely and targeted responses to contain and mitigate the spread of health threats.</p> <p>Examples of strategically aligned technologies may include: Technologies that allow for better deployment of medical countermeasures through patient stratification and inform patient care; Technologies that can predict new and emerging threats or variants.</p>	<p>● ● ● ● ● ●</p>
<p>3. Preventing infection and/or transmission</p>	<p># of Approaches by BLUE KNIGHT™ Companies</p>
<p>Role in Readiness: Serving as a frontline defense to contain known and unknown health threats by proactively limiting/preventing spread, reducing the burden on healthcare systems, and bolstering preparedness to confront emerging pathogens.</p> <p>Examples of strategically aligned technologies may include: Pre-exposure prophylaxis targeting immunological and inflammatory pathways of relevance; vaccine platforms to improve breadth/duration of protection and efficacy; technologies that facilitate more controlled or limited dosing.</p>	<p>● ● ● ● ● ● ● ● ● ● ●</p>
<p>4. Treating infections and disease</p>	<p># of Approaches by BLUE KNIGHT™ Companies</p>
<p>Role in Readiness: Developing accessible and effective treatment options that not only alleviate suffering and reduce mortality rates but may also prevent the spread of illnesses.</p> <p>Examples of strategically aligned technologies may include: Broad spectrum therapeutics targeting the host response through immunological and inflammatory pathways of relevance; Technologies that improve the breadth/duration of treatment and/or more controlled or limited dosing; Technologies that allow for treatment across the blood brain barrier; Development of novel delivery systems (non-viral, DNA); Novel drug delivery systems that improve safety and efficacy.</p>	<p>● ●</p>
<p>5. Facilitating equitable access to and supply of medical countermeasures</p>	<p># of Approaches by BLUE KNIGHT™ Companies</p>
<p>Role in Readiness: Ensuring medical countermeasures are available and accessible for everyone who needs them, when they are needed.</p> <p>Examples of strategically aligned technologies may include: Storage and delivery technologies that improve access; Novel technologies that reduce reliance on cold-chain requirements; Technologies that support access to medical countermeasures for high priority populations including pediatrics, essential works, rural communities, and populations that have been disproportionately impacted by previous health threats.</p>	<p>● ● ● ● ●</p>

The BLUE KNIGHT™ Portfolio of Companies:

The **Blue Knight** program stimulates growth on a local level through fee assistance, access to capital-efficient lab space, and acceptance into an open network of mentorship regardless of location. **Blue Knight** companies are supported through physical footprints at JLABS sites and virtual residency.



BLUE KNIGHT™ Impact by Geography

NORTH AMERICA

STATES

Alabama
California
District of Columbia
Florida
Indiana
Maryland
Massachusetts
Michigan
Minnesota
New York
Oklahoma
Pennsylvania
Texas
Virginia
Washington

LATIN AMERICA

COUNTRIES

Colombia

EMEA

COUNTRIES

Belgium
France
Germany
Ireland
Israel
The Netherlands

APAC

COUNTRIES

Australia
Singapore


COMPANY DISTRIBUTION BY JLABS SITE

11	JLABS @ Washington, DC, the BLUE KNIGHT™ Hub
9	JLABS @ NYC
2	JLABS @ SSF
5	JLABS @ Toronto
2	JLABS @ San Diego
2	JLABS @ TMC
1	Affiliate Site
15	Virtual


Includes companies with multiple physical footprints.

Spotlight on BLUE KNIGHT™ Companies


Explore examples of the trajectories growth in team size, physical footprint, funding, research and development and/or technology readiness level since joining **Blue Knight**.

	COMPANY GROWTH	FOOTPRINT GROWTH	FUNDING GROWTH	R&D GROWTH	TECHNOLOGY READINESS LEVEL (TRL) GROWTH
	4 → 9 Employees	1 Lab Bench → 3 Private Labs 1 Lab Bench	\$0.8M → \$5.1M In dilutive and non-dilutive funding	Lead → Preclinical	TRL4 → TRL8


CHO Plus is addressing the high costs and capacity limitations associated with biologics manufacturing—important for mitigating the next pandemic or other emergent health threats. The CHO Plus cell engineering technology makes cells more productive for manufacturing therapeutic antibodies, vaccines, and viral vectors

	3 → 7 Employees	1 Lab Bench → 2 Lab Benches	\$1M → \$4.3M In dilutive and non-dilutive funding	Discovery → Clinical	TRL2 → TRL7
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mPOD, Inc. is a next-gen diagnostics company founded on a vision to transform accessibility to healthcare insights. mPOD is committed to global health equity by developing & deploying scalable POC/OTC tools & platforms.

	4 → 17 Employees	1 Lab Bench → 2+ Private Labs 1 Workstation 5 Private Offices	Not publicly available	Discovery → Preclinical	TRL1 → TRL3
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Specific Biologics has developed inhalable, programmable Dualase™ gene editors for diseases of the lung. Built on this platform, Specific Biologics is developing the technology to target and eliminate the genomes of new viruses as rapidly programmable antiviral therapeutics.

	2 → 11 Employees	Virtual → 3 Private Labs 2 Private Offices	\$1M → \$11.3M In dilutive and non-dilutive funding	Preclinical → Clinical Development	TRL3 → TRL5
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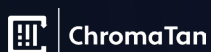
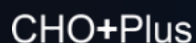
The neutrophil is the largest immune cell population in the body, yet may become deregulated and cause significant damage to the host. Immunyx has developed new approaches to modulating the toxic activity of neutrophils across several diseases by using small molecules with novel MOA to broadly prevent neutrophil damage.

	5 → 41 Employees	1 Private Office → 1 Private Office	\$1.8M → \$11.8M In dilutive and non-dilutive funding	Lead/ Prototype → Marketed Products	TRL2 → TRL8
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Acclinate has developed e-DICT, a HIPAA compliant platform utilizing predictive analytics & ML to identify diverse members who are most likely to participate in genomic research and clinical trials. Health equity is at the core of their platform and value-proposition is their education and longitudinal engagement.

BLUE KNIGHT™ Companies

Current and Alumni



Scan for more information
on each company



Thank you

For More Information:



SCAN TO MEET WITH
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INNOVATION UPDATES



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