

BIOHACKING VILLAGE

C  MMUNITY

PROSPECTUS

VILLAGEB.IO

2023

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Mission and Vision

THE BIOHACKING VILLAGE, a 501(C)3 organization, (EIN:83-3941279), is uniquely poised to inform global conversations in health care cybersecurity research. The Biohacking Village brings forth compelling issues in emerging biotechnology, regulations, medical and pharmaceutical manufacturing, cybersecurity, and citizen science. We have been a platform for pursuing greater depth in the bioeconomy, exploring new avenues for collaborations, and innovation. Our participants and attendees include: patients, clinicians, hackers, manufacturers, regulators, hospital administrators, and others seeking healthier futures through meaningful technology. This community delivers hands-on, strident learning labs to influence healthcare, industry, and manufacturing.

Mission

Healthier Tech for Healthier People.

Bring the forefront of citizen science and biomedical cybersecurity to deliver action-oriented, safer care delivery in an increasingly IoT, digitally connected, and interoperable healthcare ecosystem.

Vision

We collaborate and build trusting relationships with key senior stakeholders at medical and pharmaceutical manufacturers, healthcare delivery organizations, regulatory and governmental bodies, and the security researcher community. By maintaining the pulse on the biomedical ecosystem and healthcare industry and trends among key external groups, we identify opportunities to collaborate on common objectives to improve patient outcomes.

We are keen on finding partners and senior stakeholders who are interested in supporting and growing with us. We provide an environment for industry partners, government officials, security researchers, citizen scientists, and other leading experts to participate in discussions that focus on equity, excellence, participation, respect, integrity, leadership, science and innovative solutions.

**BIOHACKING
VILLAGE**



BIOHACKING VILLAGE



DEVICE LAB

A highly-collaborative environment where security researchers test medical instruments, applications, and devices in real-time from participating Medical Device Manufacturers. Any potential issues are reported directly to the manufacturer, and coordinated vulnerability disclosures are produced.



SPEAKER LAB

Fostering critical thinking, problem solving, human interaction literacy, ethics debates, creativity, and collaboration. Subject matter experts and researchers share the future of their research, reflecting the biological technologies and emerging threats.



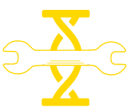
CATALYST LAB

Providing interaction with thought leaders from the medical device and citizen science communities through training and hands-on workshops and solutions design, to cover the entirety of the biomedical device and security ecosystem.



CAPTURE THE FLAG

Featuring the virtual learning environment of St. Elvis Hospital, the CTF offers protocol, regulatory, and biological challenges to access and assess vulnerabilities in real devices.




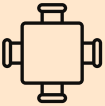




TABLETOP EXERCISES





















Experiential and immersive sessions of increasing complexity and difficulty regarding vulnerabilities in a series of Machiavellian healthcare industry scenarios.

Biohacking Village Statistics

VITAL SIGNS

	2022	2021	2020
 Attendance	3,500 Attendees 65 Speakers 75 Volunteers	27 Speakers 95 Volunteers	50 Speakers 45 Volunteers
 Capture the Flag	Players: 670 Challenges: 398 Time : 50h Volunteers : 22	184 Players 130 Teams 140 Challenges 75 Consecutive hours	125 Players 100 Teams 100 Challenges 90 Consecutive hours
 Devices	2,573 Attendees 19 Devices 9 MDMs	30 Devices 15 Sponsors 7 MDMs	9 Devices 15 Sponsors 7 MDMs
 Communications	1000+ Discord users Virtual "Loft" Space Digital Twin Hospital	2 ISAC Sponsored TTXs 1000+ Discord users Virtual "Loft" Space	500 Discord users YouTube Channel
 Commitment	6,500 volunteer hours 145 curated content hours 16 Sponsors	4,500 volunteer hours 154 curated content hours	4,500 volunteer hours 134 curated content hours
 Vulnerabilities	13 vulnerabilities reported	7 vulnerabilities reported	4 vulnerabilities reported

OPPORTUNITY

	\$5,000	\$1,000	\$500	\$100	\$10
	Platinum	Gold	Silver	Bronze	
 Social Media Recognition					
 Podcast/Interview Feature					
 Threat Intel Updates					
 Tee Shirt					
 CVD Assistance					

**The Biohacking Village is a CVE Numbering Authority (CNA). Disclosure assistance includes development of disclosure strategy, coordination among involved parties, and assistance with preparing communications for individual disclosures, with up to three (3) CVEs per year, included under this arrangement. Should other services, such as technical validation of the vulnerability, penetration testing or process development, be requested from Biohacking Village or MedSec that are not in scope of the specific vulnerability disclosure, a separate agreement will be made with that organization. Disclosure assistance is also available for a separate offering. Inquire for rates.

Our Reach

- **Governments, Industry Leadership, Legal, Insurers, and Regulatory Bodies:** Discussions on best practices, needed modifications to current and future state of legislative actions.
- **Healthcare Delivery Organisations** attend to understand your security posture and normalise conversation outside of contract agreements, along with market research into what customers are looking for in products.
- **Clinicians, Physicians, Nurses** come to learn about the practicality and usability of the medical devices from a biological and technical standpoint to continue to use it at its highest capability for patient care.
- **Patients:** We are all patients whether active or passively under physician care. The Biohacking Village provides an opportunity to discuss the patient experience with devices and give them more insight into the privacy and security metrics, while surveying them for improvements in standards of care.
- **Information Technology and Cybersecurity Analysts:** Learn about new resources, attack vectors, and solutions from the community. Researchers are excited to discuss and teach about their point of view and understanding of technology and devices.
- **Research and Development:** New device ideation via discussions with citizen scientists, as well as opportunities for employment and internships. critical to the health of companies doing the research to remain competitive in the market.
- **Medical and Pharmaceutical Manufacturers** participate by bringing instruments, equipment, and solutions to the Device Lab to get researcher feedback on their security posture while learning about new TTPs from the community.
- **Human Resources and Recruitment:** Identifying talent to build and assist in mitigating difficult obstacles often takes 'fresh eyes'
- **Mergers & Acquisitions:** cyber risk is the biggest concern post-acquisition, specifically data breach compromising. By providing an opportunity to inspect the devices the companies will have an understanding if critical cybersecurity issues are present.
- **Marketing:** Share your commitment to cybersecurity of medical, pharmaceutical, and consumer devices with international government entities, healthcare delivery organizations, patients, partner associations, and the security researcher community. The Biohacking Village is followed and discussed in various journals, news articles, and conferences as a vector for progressive guidance and innovation in the fields of biotechnology, cybersecurity, and citizen science. Marketing with us allows organizations to send intentional messaging and create desired impacts on customers, stakeholders, and society.

If global indicators on Return on Investment (ROI) are any barometer, the value you get from being at the Biohacking Village are exponential. By providing you with access to a cross section of the researcher community, each of which bill out at \$25,000, thus your ROI is in fact exponentially larger than \$25k.

Global Medical Cyber Market:

Digital biosecurity vulnerabilities directly translate to breaches in the bio-manufacturing industry. This could lead to disruptions in production, recalls, reputational damage, financial loss, PII risk: informational damage (data leakage from trials and data generated from medical devices), files being accessed/copied or malicious code introduced into the system.



- What is the estimated value of the Global Healthcare Cybersecurity Market?
 - The Global Healthcare Cybersecurity Market was estimated to be valued at \$16.2 Billion in 2021. It is projected to be \$57.25 Billion by 2030.
- What is the growth rate of the Global Healthcare Cybersecurity Market?
 - The growth rate of the Global Healthcare Cybersecurity Market is 16.3% from 2021 to 2030.

Report looks at countries as defined in the MDSAP: Healthcare Cybersecurity Market Research Report by Type, by Deployment, by End User, by Region - Global Forecast to 2027 - Cumulative Impact of COVID-19 and <https://www.alliedmarketresearch.com/healthcare-cyber-security-market>

Return on Investment (ROI): Cybersecurity has traditionally not been something device or pharmaceutical manufacturers have benefited from financially. However, with the COVID-19 pandemic, consumers (i.e. hds) are delaying sales cycles, fda is delaying approval, and every day device makers lose out on revenue from getting a device into the field.



Growth Drivers:

- Growing cases of healthcare cyber-attacks in developed as well as developing economies
- Rising security and regulatory compliance-related issues in North America and Europe
- Increasing incidences of data leaks in developing countries
- Technological advancements in healthcare cybersecurity software in Europe and North America

Pitfalls & Challenges:

- High cost of healthcare cybersecurity solutions in developing and underdeveloped regions
- Lack of trained professionals for operating the cybersecurity solutions

Increased number of data security and privacy concerns and a demand for advanced solutions for security operations has increased the demand for the cost effective solution. The solution segment in the healthcare cybersecurity market will grow due to the rising awareness about the electronic health records and the regulatory and protective concerns will contribute to the growth of the market.

Source: <https://www.precedenceresearch.com/healthcare-cybersecurity-market>

CORE TEAM

Our leadership team has years of experience in the field and has been on the bleeding edge and setting the tone for biomedical cybersecurity collaboration since its inception, to bring a full and comprehensive view of the complex and diverse ecosystem of biomedical technology, citizen science, cybersecurity, and healthcare. The Biohacking Village is organized by volunteers from all facets of the worldwide hacker community.

Nina Alli: Executive Director

Regulatory and Compliance Cyber Specialist at ThermoFisher | Electronic Medical Records and Internet of Medical Things SME | Biomedical Informatics, MSc | Translational Medicine, MSc | Marine Corps Veteran | DiMe Strategic Advisory Board

Nicholas Farr: Treasurer

Non-Profit Focused CPA

Sydney Swaine-Simon: Board Secretary

Co-founder @District 3, Co-founder of NeuroTechX, Project Lead for the NeuroTech Primer,

Jay Radcliffe: Device Lab

Director of Product Security Testing and Research at Thermo Fisher Scientific

Lee Wilkins: Communications

Head Of Strategic & Community Initiatives at Milieux Institute

Zena Ahmed: Speaker Lab

MPH Health Policy candidate at Yale School of Public Health | MS in Translational Medicine | Health Justice Fellow at Beyond Flexner Alliance

Šárka Pekarova: Capture the Flag

Product Security at ThermoFisher | Medical and Healthcare, Industrial Control Systems Cyber Security Social Engineering | Physical Security

Scott Hanson: Business Development

Medical Device and Product Security Regulatory Leader at MedSec

Jasmine Jackson: Education

Ecosystem Application Security Engineer at Atlassian and Adjunct Professor

Erik Berg: Table Top Exercises

Information Assurance Lead at US Merchant Marine Academy, Cyber Systems Operations Officer in the New York Air National Guard, Cybersecurity Team at Siemens-Healthineers

Advisors

Andrea Coravos (CEO of HumanFirst):

HumanFirst serves leading organizations pioneering decentralized clinical trials and virtual care.

Charles Fracchia (CEO of BioBright):

BioBright platform, enables organizations to make better, data-driven decisions in near realtime.

Matias Katz (CEO of Byos):

Byos is a Edge Microsegmentation protects organisations from the risk of ubiquitous remote, guest and IoT network connectivity

Jorge Canabal Acevedo, MD (University of Puerto Rico)

Primary Care Physician with a focus on disaster recovery, rare diseases, and cybersecurity

2022 SPONSORS

Johnson & Johnson



ThermoFisher
SCIENTIFIC

Medtronic



SIEMENS
Healthineers



evidation



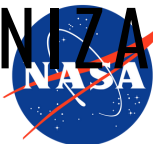
HumanFirst



2022 RESOURCE PARTNERS



2022 HEALTHCARE ORGANIZATIONS



Universidad
de Puerto Rico



BIOHACKING VILLAGE EVENTS



April 2023
San Juan, Puerto Rico



TBD 2023
European Union

DEF CON 

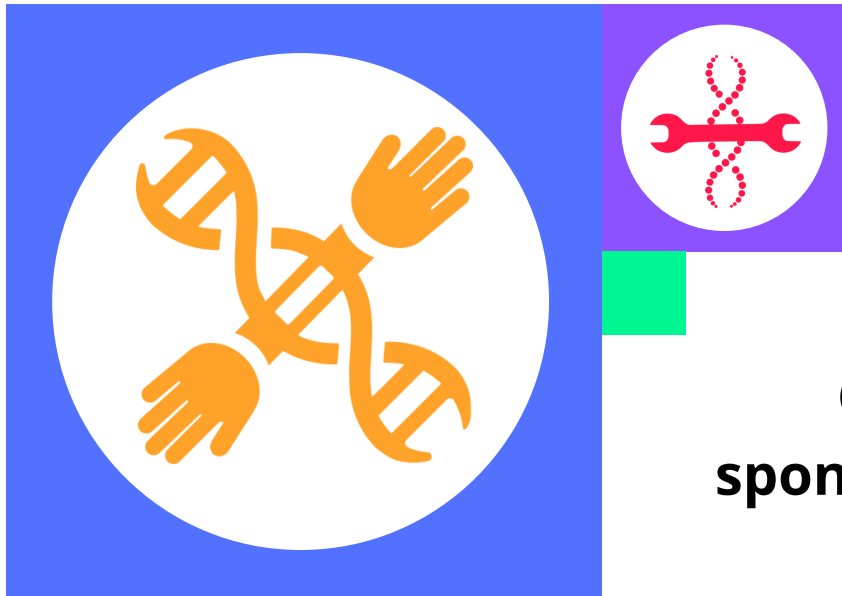
10-13 August 2023
Las Vegas, NV, USA



BIOHACKING VILLAGE

DEVICE LAB 

October 2023
Remote/Online
Devices



**Contact us:
sponsor@villageb.io**



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