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The Florida LAB LINK

In this Issue

Team Member Spotlight
Page 1

Artificial Intelligence (AI) in Public Health
Ashley Merryman, MBA
Page 2–3

Packaging and Shipping
Page 4

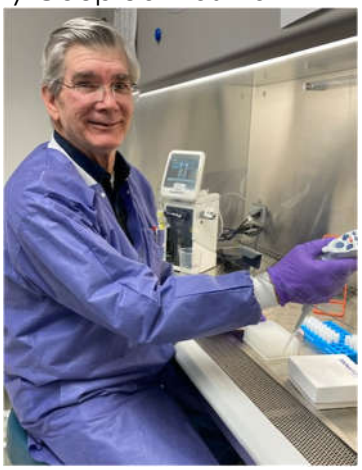
BPHL Directory
Page 5

Team Member Spotlight

Meet Walter Mock, BA

Jacksonville Chemical Threat (CT) Defense Analyst

Walter was born and raised here in Jacksonville, FL. He graduated with a B.A. in Biology from the University of North Florida. His career with the FDOH initially began in October 2003 in the Environmental Lab, where he has gained experience and expertise on Liquid chromatography (LC), Gas chromatography (GC), and Inductively Coupled Plasma Spectroscopy (ICP). In 2012, he joined the CT Section where he serves as a BPHL CT Coordinator here in Jacksonville. Walter and his wife raised 2 daughters and now enjoy their 2 grandsons, as well as hunting and fishing during leisure time.



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Exploring the Nexus of AI and Biological Threats

Ashley Merryman, MBA

In recent years, the convergence of artificial intelligence (AI) and biological threats has garnered increasing attention from scientists, policymakers, and the public alike. As AI technologies continue to advance at a rapid pace, there is a growing realization of both the potential benefits and risks they pose in the realm of biological security. From early detection of infectious diseases to the development of bioweapons, the intersection of AI and bioterrorism presents a complex landscape that demands careful consideration and proactive measures.

Detecting and Monitoring Outbreaks

One of the most promising applications of AI in the context of biological threats is its capacity for early detection and monitoring of disease outbreaks. By analyzing vast amounts of data from various sources such as social media, medical records, and satellite imagery, AI algorithms can identify patterns indicative of potential epidemics before they escalate. For instance, researchers have developed AI models capable of predicting the spread of infectious diseases like Ebola with remarkable accuracy, enabling authorities to implement timely interventions and mitigate the impact on public health.

Enhancing Biosecurity Measures

AI-powered technologies also hold significant potential for enhancing biosecurity measures aimed at preventing and responding to biological threats. Machine learning algorithms can assist in the rapid identification of pathogens and the development of vaccines or treatments, accelerating the response to emerging infectious diseases. Moreover, AI systems can optimize the allocation of resources during public

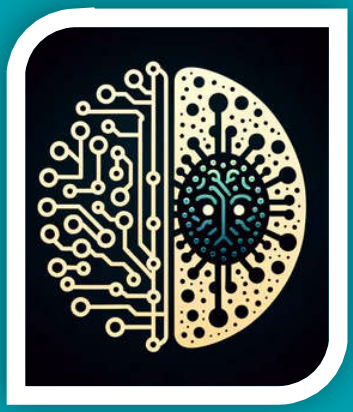
health crises, guiding decisions regarding quarantine protocols, medical supplies distribution, and health care resource management.

Challenges and Ethical Considerations

Despite the promising advancements, the integration of AI into biological security efforts is not without its challenges and ethical considerations. Concerns have been raised regarding data privacy, algorithmic biases, and the potential misuse of AI-driven tools for nefarious purposes. There is a pressing need for robust governance frameworks and ethical guidelines to ensure that AI technologies are deployed responsibly and in alignment with public safety and security objectives.

Conclusion

The future of AI in addressing biological threats is undeniably promising, offering innovative solutions for early detection, rapid response, and effective containment of infectious diseases. However, realizing this potential requires a concerted effort to navigate the complex interplay between technological innovation, biosecurity concerns, and ethical considerations. By leveraging AI responsibly and ethically, we can harness its transformative power to safeguard public health and strengthen global resilience against biological threats.



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2. Gates, B. (2018). The next epidemic—lessons from Ebola. New England Journal of Medicine, 378(15), 1385-1387.
3. Yongjun, X., Xin, L., & Xin, C., et al. (2021). Artificial intelligence: A powerful paradigm for scientific research. *The Innovation*, 2(4). https://doi.org/10.1016/j.xinn.2021.100179
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Unless otherwise indicated, all photography is for illustrative purposes only and all persons depicted are models.

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Packing and Shipping Dangerous Goods Training Schedule:

The BPHL will conduct 10 live classes at various locations across the State of Florida.
All classes are scheduled from 9:30am to 4:00pm local time.
Course Title: FDOH 2024 Division 6.2 Infectious Substances Packaging and Shipping Training.
Course ID: 1114654

Follow this link to a how-to guide for registering for the course. We recommend everyone look it over, even if they have used Train before.
https://www.floridahealth.gov/programs-and-services/public-health-laboratories/educational-opportunities/packaging-and-shipping-training.html

The following sessions have been scheduled and are currently available in Train through the registration link here. (https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.train.org%2Fflorida%2Fhome&data=05%7C02%7CRudys.Garcia%40flhealth.gov%7Cdf6e96e832cb436ac99908dc24122bca%7C28cd8f803c444b2781a0cd2b03a31b8d%7C0%7C0%7C638424907670674194%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C0%7C%7C%7C&sdata=DTpi4pQlGEq7WBZ%2FD8%2F0sRymAhXhSFXKsfVsLTmlamk%3D&reserved=0).

March 27, 2024
Ft Lauderdale (Broward CHD, Admin site)
780 SW 24th St., Ft Lauderdale, FL 33315

March 28, 2024
Sarasota (Sarasota CHD, Ringling site)
2200 Ringling Blvd., Sarasota, FL 34237

April 10, 2024
Orlando (Orange CHD, Lake Ellenor site)
6101 Lake Ellenor Dr., Orlando, FL 32809

April 11, 2024
BPHL Jacksonville Lab
1217 N. Pearl St., Jacksonville, FL 32202

May 8, 20204
Ft Myers (Lee CHD, Pondella site)
83 Pondella Rd., North Fort Myers, FL 33903

May 6, 2024
BPHL Tampa Lab
3602 Spectrum Blvd., Tampa, FL 33612

Bureau of Public Health Laboratories-Directory

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After hours (24/7)	Bioterrorism Event			Chemical Threat Event
	Jacksonville 904-945-4415 904-637-9260	Tampa 813-459-4039	Miami 305-433-0442	904-271-1593

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	Tampa	Adam Robinson Shan “Justin” Hubsmith	813-233-2323 813-233-2237	813-956-8853 (Cell) 813-455-9105 (Cell)
	Miami	Mario Bustosgiraldo Jillien Durand	305-325-2538 305-325-2548	305-409-9924 (Cell) 305- 849-5040 (Cell)
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	Jacksonville	Rudys Garcia	904-791-1568	904-465-1164 (Cell)

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Lab Administrator		Michelle Latona	904-791-1525	904-945-4396 (Cell)
Lead Chemist				
Preparedness Coordinators	Jacksonville Tampa	Zena Johnson Angela Ren	904-791-1719 813-233-2293	904-637-9286 (Cell) 813-363-0623 (Cell)