# UCF'S INFECTIOUS DISEASE AND TRAVEL HEALTH INITIATIVE

## Pioneering resilience for a healthier tomorrow

In a world grappling with the profound challenges posed by infectious diseases and global travel, the University of Central Florida (UCF) stands at the forefront of groundbreaking research and innovation. An exceptional new initiative—the Infectious Disease and Travel Health Initiative—is set to revolutionize how we approach health resilience, disease outbreak mitigation, traveler safety, and the continuity of essential services. Spearheaded by eminent researchers from UCF's College of Medicine, including Dr. Kenneth A. Alexander, Dr. Griff Parks, Dr. Eric Schrimshaw, and Dr. Taj Azarian, along with Dr. Robertico Croes, principal investigator from the UCF Rosen College of Hospitality Management, this initiative is poised to make a profound impact.

Under the visionary leadership of UCF President Alexander N. Cartwright, who envisions UCF as a 'University for the Future', the initiative secured $4.5 million in funding through the UCF Strategic Investment Program. This substantial backing underscores the institution's commitment to becoming a top public university and the world's leading public metropolitan research university.

**THREE PILLARS OF FOCUS**

The Infectious Disease and Travel Health Initiative concentrates on three major areas:

**1. Advanced Warning System:** Using cutting-edge data collection methods, the initiative aims to provide a robust early warning system to anticipate and respond to potential infectious disease outbreaks. This system is critical for safeguarding public health, traveler safety, and economic stability.

**2. Bridging Science and Behavior:** To ensure the synergy of science and behavior, the initiative brings travelers and those who serve them closer to scientific knowledge. This integration is essential in creating informed and responsible responses to health crises.

**3. Supporting Small- and Medium-sized Businesses:** The initiative will create a resource hub for small- to medium-sized businesses in tourist areas. This invaluable tool will help businesses navigate and manage future health crisis situations, fostering resilience in the tourism industry.

**A COLLABORATIVE POWERHOUSE**

The initiative establishes a collaborative platform that brings together the expertise, resources, and influence from areas across UCF, including the College of Medicine, Rosen College of Hospitality Management, College of Engineering and Computer Science, College

seeks funding opportunities to advance the science of infectious disease mitigation. As part of this expansive research, engineering and computer science researchers delve into bioinformatics, pathogenic outbreak simulation, AI, and machine learning to expedite therapy design. Meanwhile, the team at the Rosen College of Hospitality Management focuses on pivotal research areas that encompass travel-related aspects of infectious diseases, health disparities, social determinants, the dynamics between communities and industries, as well as behavioral economics.

## MULTIFACETED APPROACH TO HEALTH RESILIENCE

The research, education, and knowledge dissemination activities of the initiative encompass data analysis, intervention development, commercialization of biomedical science innovations, and collaboration with local, state, federal, and global government agencies, hospitals, community organizations, travel associations, and other stakeholders interested in bolstering health resilience to infectious disease outbreaks.

The initiative envisions a research hub that coordinates efforts on a global scale. In pursuit of this vision, the initiative is developing an online portal to improve connectivity between all stakeholders in infectious disease response. The research hub will be housed in the Rosen College, and the online platform will bring together government agencies, faculty, academic and industry researchers, healthcare and hospitality corporations, and other stakeholders who share an interest in enhancing our collective response to infectious disease outbreaks.

## PROGRESS MADE BY THE INITIATIVE THUS FAR

Since its inception, the initiative has achieved significant milestones, including the successful recruitment of faculty members, the allocation of $100,000 for seed awards, active engagement in the pursuit of substantial research grants, and the imminent launch of a dedicated website poised to serve as a central hub for information and collaboration.

## MEASURING SUCCESS THROUGH RELEVANCE AND IMPACT

The initiative is working towards several positive outcomes, including the establishment of pathways for translating laboratory research outputs—such as new vaccines, personal protective equipment, and modeling data—to the appropriate stakeholders and supply chains. By doing so, these innovations can be readied for commercial use, positively impacting the lives of people in Central Florida. The reputation of the Rosen College of Hospitality Management in research further amplifies the initiative's impact on a global scale.

of Nursing, College of Health Professions and Sciences, and the UCF Academic Health Science Center. In addition, research clusters such as Coastal and Genomics are actively involved with the project. With an emphasis on interdisciplinarity, the initiative has brought together a remarkable team of 20 world-class faculty members.

These experts address diverse issues in hospitality and travel, population health and community resilience, nanotechnology, vaccines, and infectious diseases, collaborating with hospitals, hospitality, and healthcare stakeholders for community resilience and translational research connections.

## PIONEERING RESEARCH THEMES

Recognizing the immense potential in big data, modeling, simulation, artificial intelligence (AI), and machine learning, the initiative actively



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**Dr. Frank Badu-Baiden** is an Assistant Professor at the UCF Rosen College of Hospitality Management. He holds a Ph.D. in Hotel and Tourism Management from the School of Hotel and Tourism Management at Hong Kong Polytechnic University, where he also earned his alumnus status. He possesses an M.Phil. degree in Tourism Management from the University of Cape Coast in Ghana. With extensive teaching experience across Asia and Africa and a designation as a Certified Hospitality Educator (CHE), Dr. Badu-Baiden has cultivated profound insights into the hospitality and tourism sectors. His diverse research interests include consumer (tourist) psychology, destination marketing, sustainability and gastronomy, and health and travel medicine, where he collaborates with a team of researchers in the infectious disease and community resilience cluster.
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