

Jonathan Rayner, PhD.

Associate Professor of Microbiology and Immunology
 Director of the Laboratory of Infectious Disease

\$17,812,458 Total Grant Funding 20 Invited Lectures 58 Articles & Abstracts

Research Interests

(Re)-Emerging Infectious Diseases
 Mosquito-Borne Viruses

Viral pathogenesis
 Surveillance Diagnostics

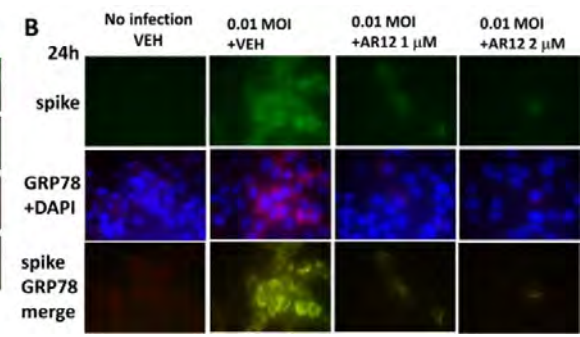
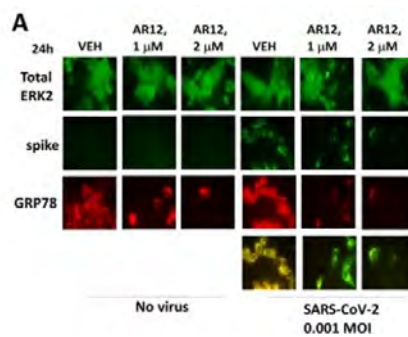
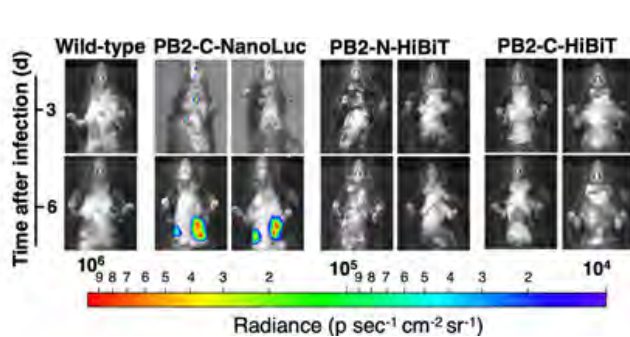
Vaccines
 Therapeutics

Experimental Capabilities

Drug Discovery

Animal Models Development

Preclinical Safety & Efficacy



In Vivo imaging of fluorescent influenza viruses three and six days post-infection. Radiance is shown on the heat map below.

Representative images of GRP78 and SARS-CoV-2 spike protein expression and co-localization. Vero cells were treated with vehicle control or AR12 and 6h later infected with SARS-CoV-2 as described in the Methods. Cells were fixed after 24h and the expression of GRP78 and ERK2 determined.

2022 Scientific Reports

“Real-time Tracking of Bioluminescent Influenza A Virus Infection in Mice”

2022 Applied Biosciences

“Boronium Salt as an Antiviral Agent Against Enveloped Viruses Influenza A and SARS-Cov-2”

2022 Vector Borne Zoonotic Diseases

“Tick-Borne Pathogens Associated with Medically Important Ticks in Alabama: A Four-Year Survey”

2021 Vaccines

“DNA-Launched Virus-Like Particle Vaccines in an Immune Competent Mouse Model of Chikungunya Virus Infection”

2023 Viruses

“Immune Response to Chikungunya Virus: Sex as a Biological Variable and Implications for Natural Delivery Via the Mosquito”



UNIVERSITY OF SOUTH ALABAMA
 COMMERCIALIZATION AND
 INDUSTRY COLLABORATION

251.460.7932

techtransfer@southalabama.edu

775 University Blvd, Building 2 Suite 150; Mobile, AL 36608

<https://www.southalabama.edu/departments/research/ocic/>