

# CAES IBC Bi-annual Meeting February 19<sup>th</sup>, 2026

## In Attendance

Dr. Doug Brackney (chair)(CAES)

Dr. Quan Zeng (CAES)

Dr. Blaire Steven (CAES)

Dr. Neil Schultes (CAES)

Dr. Caitlin Hanlon (outside committee member) (Quinnipiac University)

## Absent

Dr. Rachel Jeffreys (outside committee member) (Southern Connecticut State University)

Dr. Philip Armstrong (CAES) illness

Dr. Brackney motion to open meeting 10:02 (seconded by Dr. Schultes)

## **Infectious Agents Proposals**

**PI Name:** Dr. Doug Brackney

**Infectious Agent:** Pseudotyped Semiliki Forest virus single round infectious particles

**Training Status:** Satisfactory

**Risk Group:** 2

**Containment Conditions:** BSL3

**Risk Assessment:** This infectious agent can only replicate in the cell it infects and cannot spread to other cells. Potential risk to human health if accidentally inoculated through the use of a needle; however, no injections are proposed. Work will be completed in BSL3 laboratory and all liquid waste decontaminated with 10% bleach and all solid waste autoclaved. Minimal risk to human health. poses no threat to human or animal health and is a native plant pathogen in Connecticut. It will be used for standard laboratory experiments infecting potato plants via mechanical and vector transmission.

**Committee Decision:** Unanimously approved

**PI Name:** Dr. Robert Marra

**Infectious Agent:** Litylenchus crenatae

**Training Status:** Satisfactory

**Risk Group:** 1

**Containment Conditions:** BSL2

**Risk Assessment:** This agent poses no risk to human health

**Committee Decision:** Unanimously approved

## **Recombinant and Synthetic Nucleic Acids Proposals**

**PI Name:** Dr. Doug Brackney

**Project Title:** Using single round infectious particles to examine vector specificity

**Training Status:** Satisfactory

**Applicable NIH Guidelines Section:** III-D-1-a

**Containment Conditions:** BSL3

**Risk Assessment:** The goal of the project is to test if the structural proteins dictate vector specificity during the initial steps of infection. Defective Semliki Forest virus (SFV) particles will be pseudotyped with the structural proteins of other alphaviruses in trans. The SFV structural proteins have been replaced with GFP so the single round infectious particles (SRIPs) can infect a single cell, replicate thereby producing GFP but are unable to be packaged and produce new virions to infect new cells. The SRIPs were produced by Dr. Brackney's colleague at UCSD by transfecting cells with the SFV-GFP genome and plasmids containing the structural proteins from Eastern equine encephalitis virus (EEEV), Sindbis virus (SINV) and chikungunya virus (CHIKV) in trans. SRIPs will be fed to mosquitoes and midguts harvested 3 days post exposure and assessed for infection outcomes by microscopy. This work poses minimal threat to human or animal health and procedures are in place to properly dispose of any recombinant DNA.

**Committee Decision:** Unanimously approved

**PI Name:** Dr. Washington da Silva

**Project Title:** Synthesis of dsRNA and siRNA

**Training Status:** Satisfactory

**Applicable NIH Guidelines Section:** III-E

**Containment Conditions:** BSL2

**Risk Assessment:** This was a minor amendment from existing protocol da Silva 2025-03 in order to change personnel. Dr. Felipe Oliveira has been added and Dr. Rania El-Tanbouly has been removed.

**Committee Decision:** Unanimously approved with no concerns

**PI Name:** Dr. Neil Schultes

**Project Title:** Development of a synthetic apple stigma media

**Training Status:** Satisfactory

**Applicable NIH Guidelines Section:** III-E

**Containment Conditions:** BSL2

**Risk Assessment:** This project proposes to develop an improved stigma media to study epiphytic growth of *Erwinia amylovora* on apple flower stigma. The *E. amylovora* strain 1189 carries a plasmid containing the a HrpA promoter-mCherry reporter plasmid. Recombinant Ea 1189 will be grown on different synthetic media to determine which media support growth and expression of mCherry. There is no risk to human or animal health.

**Committee Decision:** Unanimously approved with no concerns

**PI Name:** Dr. Blaire Steven

**Project Title:** Fluorescent labelling of mosquito commensals

**Training Status:** Satisfactory

**Applicable NIH Guidelines Section:** III-E


**Containment Conditions:** BSL2

**Risk Assessment:** This project proposes to identify mucinase degrading commensals from mosquitoes and integrate TN7 transposon containing different fluorescent protein and antibiotic resistance gene configurations to track the localization of commensals in the midgut of mosquitoes. The proposed antibiotic resistance genes are for common laboratory antibiotics and not clinical antibiotics so they pose no risk to spreading antibiotic resistance of clinical concern. Nevertheless, the protocol has a well described plan for decontamination of surfaces and waste to help mitigate any releases. There is no risk to human or animal health for the proposed studies.

**Committee Decision:** Unanimously approved with no concerns



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Caitlin D Hanlon

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*Blaire Steven*

*Neil Schultes*

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