Back to Search Results

Description

Details

Sub-Projects

Publications

Patents

Outcomes

Clinical Studies

News and More

History

Similar Projects

Preclinical Development of Human Monoclonal Antibodies for Postexposure Treatment of Crimean-Congo Hemorrhagic Fever

Project Number
5R01AI132246-04

Contact PI/Project Leader
GEISBERT, THOMAS WILLIAM

Awardee Organization
UNIVERSITY OF TEXAS MED BR GALVESTON

Description

Abstract Text

PROJECT SUMMARY/ABSTRACT Crimean-Congo hemorrhagic fever virus (**CCHFV**) is a tick-borne emerging pathogen that causes severe and often fatal hemorrhagic fever in humans across a broad geographic range that includes more than 30 countries. The NIAID lists **CCHFV** as a Category A priority pathogen, a biological agent that poses the highest risk to national security and public health. CCHF is of particular importance to public health as there are no licensed vaccines or treatments available for use in humans, and because of the concern that the virus could be used as an agent of biological terrorism. The goal of this project is to develop a monoclonal antibody-based postexposure treatment as a potential medical countermeasure that can provide protection across all six genetically distinct clades of **CCHFV**. Monoclonal antibodies will be compared in vitro to select candidates that protect against CCHFVs representing all major M segment clades. The most promising antibodies will then be tested using the STAT-1 knockout mouse model for their ability to protect against disease when the antibodies are given following challenge with **CCHFV**. Dosing and treatment regimens will then be optimized. The lead candidate antibody will be evaluated for its ability to protect nonhuman primates from **CCHFV** disease when administered after exposure. This proposal will draw together the expertise needed to develop lead anti- **CCHFV** mouse monoclonal antibodies chimerized with human constant regions, as well as to develop and optimize fully human anti-CCHF monoclonal antibodies.

Public Health Relevance Statement

PROJECT NARRATIVE Crimean-Congo hemorrhagic fever virus (CCHFV) is a tick borne emerging pathogen that causes severe and often fatal hemorrhagic fever in humans across a broad geographic range that includes more than 30 countries. CCHFV is of particular importance to public health as there are no licensed vaccines or treatments available for use in humans and because of the concern that it could be used as an agent of biological terrorism. The monoclonal antibody-based postexposure treatment strategy proposed here offers a potential medical countermeasure that can provide coverage across all six genetically distinct clades of CCHFV.

NIH Spending Category

Biodefense Biotechnology Emerging Infectious Diseases Immunization Immunotherapy Infectious Diseases Orphan Drug Rare Diseases Vector-Borne Diseases

Project Terms

Advanced Development Africa African African Green Monkey Animal Model Animals Antibodies Antiviral Agents Arboviruses Argentinian Hemorrhagic Fever Ascites Binding Biological Assay Biological Products Bioterrorism Category A pathogen Cavia Clinical Treatment Complement-Dependent Cytotoxicity Containment Country Crimean Hemorrhagic Fever Crimean-Congo Hemorrhagic Fever Virus Data Dengue Virus Development Disease Disease Outbreaks Disease model Dose Ebola Ebola virus Enzyme-Linked Immunosorbent Assay Etiology Generations Genome Geography Glycoproteins Goals Human Immunoglobulin Constant Region Immunohistochemistry Immunotherapy

Read More

Details

Contact PI/ Project Leader

Name
GEISBERT, THOMAS WILLIAM

Title
PROFESSOR

Contact
geisbert@bu.edu

Other PIs

Not Applicable

Program Official

Name
DYALL, JULIE

Contact
dyallj@mail.nih.gov

Thank you for your feedback!

Back to Search Results

Description

Details

Sub-Projects

Publications

Patents

Outcomes

Clinical Studies

News and More

History

Similar Projects

Preclinical Development of Human Monoclonal Antibodies for Postexposure Treatment of Crimean-Congo Hemorrhagic Fever

Project Number
5R01AI132246-04

Contact PI/Project Leader
GEISBERT, THOMAS WILLIAM

Awardee Organization
UNIVERSITY OF TEXAS MED BR GALVESTON

Country
UNITED STATES (US)

Other Information

FOA
RFA-AI-16-034

Study Section
ZAI1-LR-M(M2)

Fiscal Year
2020

Award Notice Date
02-June-2020

Administering Institutes or Centers
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

DUNS Number
800771149

CFDA Code
855

Project Start Date
01-June-2017

Project End Date
31-May-2022

Budget Start Date
01-June-2020

Budget End Date
31-May-2021

Project Funding Information for 2020

Total Funding
$1,117,358

Direct Costs
$870,257

Indirect Costs
$247,101

Year	Funding IC	FY Total Cost by IC
2020	NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES	$1,117,358

NIH Categorical Spending

Click here for more information on NIH Categorical Spending

Funding IC	FY Total Cost by IC	NIH Spending Category
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES	$1,117,358	Biodefense; Biotechnology; Emerging Infectious Diseases; Immunization; Immunotherapy; Infectious Diseases; Orphan Drug; Rare Diseases; Vector-Borne Diseases;

Sub Projects

No Sub Projects information available for 5R01AI132246-04

Publications

No Publications available for 5R01AI132246-04

Patents

No Patents information available for 5R01AI132246-04

Outcomes

The Project Outcomes shown here are displayed verbatim as submitted by the Principal Investigator (PI) for this award. Any opinions, findings, and conclusions or recommendations expressed are those of the PI and do not necessarily reflect the views of the National Institutes of Health. NIH has not endorsed the content below.

No Outcomes available for 5R01AI132246-04

Clinical Studies

Back to Search Results

Description

Details

Sub-Projects

Publications

Patents

Outcomes

Clinical Studies

News and More

History

Similar Projects

Preclinical Development of Human Monoclonal Antibodies for Postexposure Treatment of Crimean-Congo Hemorrhagic Fever

Project Number
5R01AI132246-04

Contact PI/Project Leader
GEISBERT, THOMAS WILLIAM

Awardee Organization
UNIVERSITY OF TEXAS MED BR GALVESTON

Related News Releases

No news release information available for 5R01AI132246-04

History

No Historical information available for 5R01AI132246-04

Similar Projects

No Similar Projects information available for 5R01AI132246-04