Infection and Rapid Transmission of SARS-C0V-2 in Ferrets

Project Number	Former Number	Contact PI/Project Leader	Awardee Organization
3R01AI140705-03S1	5R01AI140705-02	JUNG, JAE U	UNIVERSITY OF SOUTHERN CALIFORNIA

Description

Abstract Text

Project Summary/Abstract The massive outbreak of newly emerged coronavirus disease 2019 (COVID-19) has been rapidly spread worldwide, leading to a pandemic infection and serious global health emergency. In order to prevent further dissemination of severe acute respiratory syndrome coronavirus 2 (SARS- CoV-2), understanding the in vivo characteristics of viral infection and transmission is of high priority. Specifically, an animal model that recapitulates the COVID-19 clinical symptoms in human infection is urgently needed in order to decipher the transmission routes and pathobiology of this virus and ultimately allow testing of pharmaceutical interventions. With our expertise in the development of animal model, we have recently established a ferret model for SARS-CoV-2 infection and transmission that highly recapitulates aspects of the human infection. The main goal of this study is to comprehensively characterize ferret animal model for SARS-CoV-2 infection, transmission and pathogenesis for **vaccine** interventions.

Public Health Relevance Statement

Project Narrative The goal of this proposal is to comprehensively characterize ferret animal model for SARS-CoV-2 infection, transmission and pathogenesis for vaccine interventions.

NIH Spending Category

Bioengineering Coronaviruses Emerging Infectious Diseases Immunization Infectious Diseases Lung Nanotechnology Vaccine Related

Project Terms

2019-nCoV 4 year old Age Animal Model Basic Science Biochemical Body Temperature COVID-19 Characteristics Clinical Coughing Disease Outbreaks Epithelial Cells Exhibits Feces Ferrets Ferritin Genes Genetic Genotype Goals Human Immune Evasion Immunity In Vitro Infection Intervention Length Lung Modeling Mus Nanotechnology Nonstructural Protein Nose Pathogenesis Pathogenicity Patients Permeability Pharmacologic Substance Proteins Recombinants Reproducibility Role Route Safety Saliva Sampling Serum

Read More

Thank you for your feedback!

Details

Contact PI/ Project Leader

Name
JUNG, JAE U

Title
CHAIR AND PROFESSOR

Contact
jungj@ccf.org

Other PIs

Not Applicable

Program Official

Name
ALARCON, RODOLFO M

Contact
rodolfo.alarcon@nih.gov

Organization

Name
UNIVERSITY OF SOUTHERN CALIFORNIA

City
Los Angeles

Country
UNITED STATES (US)

Department Type
MICROBIOLOGY/IMMUN/VIROL(

Organization Type
SCHOOLS OF MEDICINE

State Code
CA

Congressional District
37

Other Information

FOA
PA-18-935

Study Section
Special Emphasis Panel[ZRG1(02)-M]

Fiscal Year
2020

Award Notice Date
20-May-2020

Administering Institutes or Centers
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

DUNS Number
072933393

CFDA Code
855

Project Start Date
01-July-2018

Project End Date
02-July-2020

Budget Start Date
01-July-2020

Budget End Date
02-July-2020

Project Funding Information for 2020

Total Funding
$26,293

Direct Costs
$20,834

Indirect Costs
$5,459

Year	Funding IC	
2020	NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES	$26,293

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	$546,000	Bioengineering; Coronaviruses; Emerging Infectious Diseases; Immunization; Infectious Diseases; Lung; Nanotechnology Vaccine Related

Sub Projects

No Sub Projects information available for 3R01AI1407

Thank you for your feedback!

Publications

No Publications available for 3R01AI140705-03S1

Patents

No Patents information available for 3R01AI140705-03S1

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 3R01AI140705-03S1

Clinical Studies

No Clinical Studies information available for 3R01AI140705-03S1

News and More

Related News Releases

No news release information available for 3R01AI140705-03S1

History

No Historical information available for 3R01AI140705-03S1

Similar Projects

No Similar Projects information available for 3R01AI140705-03S1

Thank you for your feedback!