Make an account at <https://portal.xsede.org/>

Details on “Startup” allocations are here: <https://portal.xsede.org/allocations/startup>

Get to Submit/Review request: <https://portal.xsede.org/group/xup/submit-request/#/>

Clicked on “Startup”

Tells us we will need these things for a new Startup request:

· Title

· Abstract

· Keywords

· Principal investigator

· Field of science

· Documents (PI CV (2 pages limit))

· Resources

· Resource disclosure

Click to start a new one and begin guided submission

Things entered:

**Title:**

Investigating and predicting microbial responses to microgravity

**Abstract:**

Microbes are going to continue to be inextricable and invaluable co-explorers joining us as we venture into our next era of longer duration human-spaceflight missions, and understanding them as best we can is essential for the maintenance of human health both directly and indirectly – via their role/presence in space life-support systems. Using existing, publicly available space biology datasets from simulated or actual microgravity (flown) experiments, we will investigate microbial transcriptomic responses. We will then utilize any consistent transcriptomic responses detected to develop a predictive framework of how microbes, in general, have thus far been seen to respond to microgravity.

**Keywords:**

space biology, microbiology, microgravity, transcriptomics, bioinformatics

**Field of science:**

-- Other Biological Sciences

**Allocation end date:**

2022-07-03

**Disclose access to other compute resources:**

We don't have access to other compute resources for this project aside from a personal laptop. This is an unfunded collaboration with PI Michael D. Lee, in the US, working remotely with Blue Marble Space Institute of Science (BMSIS) Visiting Scholar and student Jovel Varghese Jose in India. PI Lee will be teaching and advising Jovel, who solely has a laptop to work on. That will suffice for much of the analysis we will eventually perform, but it lacks the storage, RAM, and computational power necessary to process the many datasets we need to process prior to analysis.

**Compute**

Selected: “Jetstream IU/TACC”

Entered:

Amount requested: 50,000 SUs

How many virtual machines: 4

How many public IP addresses: 4

**Storage**

Selected: “Jetstream Storage IU/TACC Storage”

Entered:

Amount requested: 500 GB

**Other**

Nothing selected

Uploaded PI CV

(also uploaded a “progress report” document in this case, but that shouldn’t be there)

Answered no to question about funding

Nothing entered for publications.

Submitted request on 4-Jul-2020