OOKAMI PROJECT APPLICATION

Date: March 30 2021

Project Title: Adaptive Physics Refinement Models for Simulating Cancer Cells

Usage:

- Testbed

Principal Investigator:

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Usage Description:

We are developing a new multiscale, multiphysics algorithm for efficiently and accurately capturing circulating tumor cell motion in complex microvascular geometries. We have ported the code to Summit and tested performance at scale for GPU/CPU resources but are looking to scale up on Fugaku and run initial performance tests here to get a baseline.

Computational Resources:

- Total node hours per year: 200

- Size (nodes) and duration (hours) for a typical batch job: We are looking to test performance and scale vs. complete production runs so trying to run jobs that run for at most an hour including initialization.

- Disk space (home, project, scratch): 50 GB

Personnel Resources:

Help isn't required but any assistance to port or tune the code would be very welcome.

Required software:

MPI

If your research is supported by US federal agencies:

- Agency: NIH

- Grant number(s):U01CA253511