



SHP Student Interns for Research and Scholarly Activities Application of Project Proposal Form

Instructions:

Please fill out the form and return via email to Nipa Sahasrabuddhe (ns1115@shp.rutgers.edu) by **March 31, 2023**. Please fill each box to the right of each required field. If you are sending attachments, please ensure your contact information is added to all your forms.

Faculty Contact Information:

| | |
|---------------------|--|
| Date submitted: | 3-31-2023 |
| Faculty Name: | Jean-Francois Daneault |
| Department/Program: | Rehabilitation and Movement Sciences |
| Telephone number: | 973-972-8482 |
| E-mail: | jf.daneault@rutgers.edu |

Project Detail:

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|--|--|
| Project Title: (56 characters max) | Analyzing movement patterns to better understand how the brain controls movement |
| Hypothesis: | The characteristics of movement patterns during different tasks can inform about potential motor control impairments. |
| Description: (Include design, methodology, data collection, techniques, data analysis to be employed, evaluation and interpretation methodology for research component) | 3D motion capture data (already collected) will be analyzed using Python and Matlab code that segment movement patterns and extract their characteristics. Once the data is analyzed, statistics will be performed to assess the difference between tasks and subjects. |
| Specific Student Responsibilities: | Under faculty and/or graduate student supervision, the student will complete the following activities, including but not limited to: 1. Organize data 2. Perform data analysis using pre-established analysis pipelines 3. Perform statistical analyses on the dataset 4. Write a first draft of an abstract or manuscript |
| Start / end date of project: | June 15 2023/August 15 2023 |

Educational:

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|---|---|
| WHAT OTHER EDUCATIONAL OPPORTUNITIES ARE AVAILABLE TO STUDENTS? (e.g., journal club, seminars, clinic, rounds) | The student will learn about the analysis of 3D motion capture. The student will also be invited to join lab meetings pertaining to other research projects. The student will also be encouraged to allocate some amount of time to participate in the numerous other research projects currently being performed in the lab. |
| WHERE DO YOU PLAN TO PRESENT OR PUBLISH THE FINDINGS WITH THE STUDENT? (e.g., national or state meetings, newsletter or journal, SHP poster day) | The results will be presented at an appropriate conference. The results may also be published in manuscript form in a neuroscience journal. |

CHECK ALL APPROPRIATE BOXES BELOW AND PROVIDE REQUESTED INFORMATION.

This project is: ☐ clinical ☒ laboratory ☒ behavioral ☐ survey ☐ educational
☐ Other: please specify _____

☒ This project involves the use of human subjects (including chart review, retrospective studies and questionnaires).

Pending ☐ Approved ☒ IRB Protocol Number Pro2019002001

IRB approval must be obtained by June 2023

Signature of Department Chair

Date

OR-For internal use

Form: (1)

Reviewed date: 4/5/2023 _____

Date processed on website: _____