



SHP Student Interns for Research and Scholarly Activities Project Proposal Form

Instructions:

Please fill each box to the right of the required fields, obtain the required signature and return via email to Michele Sisco (mcoral@shp.rutgers.edu) by **March 24, 2026**.

If you are sending attachments, please ensure your contact information is added to all your forms.

Please note if you are a Non-Resident Alien to see the tax withholdings:
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Faculty Contact Information:

Date submitted:	3-22-23
Faculty Name:	Judith Deutsch
Department/Program:	Rehabilitation and Movement Science- Doctor of Physical Therapy
Telephone number:	973 972 2373
E-mail:	deutsch@shp.rutgers.edu

Project Detail:

Project Title: (56 characters max)
 VCYCLE: Virtual Cycling in Persons with Parkinson's Disease

Hypothesis:
 There will be no difference in exercise intensity and enjoyment when participants cycle in an immersive compared to non-immersive virtual environment. There will be no difference in exercise intensity when participants cycle in a virtual environment compared to a non-virtual environment in both a continuous and interval mode. There will however be a difference between mode of cycling. Enjoyment will be great in the virtual environment conditions regardless of cycling mode.

Description:
 (Include design, methodology, data collection, techniques, data analysis to be employed, evaluation and interpretation methodology for research component)

The study's purpose is to determine whether cycling in a virtual environment compared to a non-virtual environment will demonstrate greater exercise intensity and enjoyment in persons with Parkinson's disease. The study takes place over two sessions. In the first session, participants will cycle in a virtual environment of immersive and semi-immersive conditions. In the second session, participants will cycle in a semi-immersive virtual environment and then a non-virtual environment. These four bouts will take place under both continuous and interval modes. Participants will also complete a clinical test of motor performance and a physical activity questionnaire beforehand. Outcome measures include oxygen consumption

Specific Student Responsibilities:
 The student will be involved with reviewing the relevant literature and reducing, analyzing and interpreting the data. Previous programming experience, preferably with Python would be ideal, but not required.

Start / end date of project: To be agreed upon with student based on their schedule

WHAT OTHER EDUCATIONAL OPPORTUNITIES ARE AVAILABLE TO STUDENTS?

(e.g., journal club, seminars, clinic, rounds)

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)

journal club with other lab members
working with collaborating lab colleagues

Virtual Reality conference and appropriate 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 Pro2020000518

IRB approval must be obtained by June 2025

Are you an Employee at RU? Yes No

Are you a Non-resident Alien? Yes No

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Signature of Department Chair

3/06/06
Date