A Research Participation Road Map

for interested clinicians

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Benefits of partnering in clinical research and how it may affect your practice

How a research project affects you and your clinic can be widely varied and depends on the type of study and the nature of your involvement. Potential benefits include:

- bringing new knowledge, skills, and resources to your practice
- an opportunity to participate in the process of discovery
- an opportunity to ask and answer the questions that are most relevant to your patients
- offering patients access to clinical trials, including additional new diagnostic tests or treatments

Types of research participation

There are many ways to get involved in research, each requiring different levels of commitment and expertise as well as access to resources. Here are 10 possible starting places

1. Join or consult the Research Registry to locate potential collaborators

Collaboration between clinicians, academic faculty, and administrators can increase the chances of a research project being successfully launched and completed. To find, and network with, collaborators who share expertise and interest in your topic area, you can consult and join the <u>BC</u> Physical Therapy Research Collaboration Registry.

2. Become a clinical faculty member

Benefits of a Clinical Faculty appointment include: the opportunity to teach enthusiastic learners; association and collaboration with others in the Faculty of Medicine and throughout UBC, as well as at other universities; and the resources to facilitate research focused on improving patient care, patient outcomes and professional practice. **If you want to learn more go to**http://physicaltherapy.med.ubc.ca/clinical-education/how-to-become/how-to-become-a-ubc-clinical-faculty-member/

3. Contact the Knowledge Broker, to join in a research or knowledge translation project

UBC is proud to partner with PABC and with the Vancouver Coastal Health Research Institute to support Alison Hoens, a Clinical Professor whose role is to facilitate (1) practice-informed research and (2) research-informed practice. Past projects have benefitted greatly from grassroots clinician involvement. These include development of the lateral epicondyle and Achilles tendinopathy toolkits, Skin and Wound Care project, Guidelines for the provision of wheelchairs, the SAFEMOB and AECOPD projects, Total Joint Arthroplasty Outcome Measures project and FEATHERS: Functional Engagement in Assisted Therapy through Exercise Robotics

4. Supervise an MPT systematic review group

Students in the clinical program work in small groups to complete a systematic review or research project in a specific area of rehabilitation practice. Each group works under the supervision of a faculty member or a community based clinician researcher. Clinicians can supervise an MPT group in the performance of a systematic review if they have a relevant question and have experience in systematic review methodology. To be eligible, the clinician needs to have experience performing and publishing a systematic review or they can attend the systematic review lectures given to the MPT students (for free). These instructional sessions on systematic reviews are held yearly, usually during the middle two or last two weeks of July. Students then participate in a research symposium on campus, usually in August. Contact the department if you are interested.

5. Participate in MPT student project research day

This presentation day, usually held in August, is a culmination of the knowledge acquired and skills gained in PHTH 526: Clinical Decision-Making II and PHTH 532: Rehabilitation Research I. Students work collaboratively in small groups to complete a systematic review or research project in a specific area of rehabilitation practice. Each student group works under the supervision of a faculty member or a community based clinician researcher. Stay tuned to our website to learn when this event will take place every year.

6. Research participation through the MRSc Online Program

Quality improvement or "practice redesign" studies are often of interest to clinicians. The <u>UBC</u> <u>Online Master of Rehabilitation Science program</u> offers an excellent opportunity for clinicians who wish to gain knowledge which will allow them to impact care and shape future practice. Unlike a traditional thesis-based program, the MRSc is a combination of courses and a work- or practice-based research project. It allows you to obtain a master's degree while working full-time. This prevents any loss of income while pursuing graduate studies.

7. Enroll in the Rehabilitation Science Research graduate program

The <u>Graduate Program in Rehabilitation Science</u> is designed to prepare individuals to conduct research independently and in collaboration with other scientists. Students will investigate an area of research relevant to rehabilitation through critical analysis of problems related to basic sciences, clinical practice, or to development of theory. Both the MSc and PhD programs require completion and defense of a thesis. An MSc can be performed on a part-time basis, however a PhD program typically requires a full time commitment to studies.

8. Present a case history, program innovation or clinical study at the PABC annual general meeting

Often, innovation starts at the grassroots with careful observations of outcomes following individual or group interventions. Susan Harris and Darlene Reid will be giving a PABC webinar in the new year. Check out our resource on <u>How To Make A Poster For Conference Presentation Of A Case</u>

<u>Study Or Program Initiative</u> (Susan Harris And Darlene To Hold Webinar In New Year), and feel free to join us at the UBC-hosted poster session at the PABC annual general meeting held annually in April.

9. Café Scientifique

Through its Café Scientifique program, the Canadian Institutes of Health Research (CIHR) organize Café events to encourage dialogue about health-related issues of popular interest to the general public, and in turn provoke questions and provide answers. These events allow direct engagement and conversation between the public and experts in a given field at a café, a pub or a restaurant. Café Scientifiques in which our faculty members participate are posted on our website, along with other events that may be of interest to physiotherapists. You can get more information on this program by visiting the CIHR website and all upcoming Café events are listed on their Facebook page.

10. Partner with academic researchers

Clinical research involves a continuum of possible types of partnerships. At one end, clinician participation may involve responding to a survey, or recruiting patients into a clinical trial, with most or all other research procedures taking place elsewhere. At the next level of collaboration, clinicians may engage with researchers to develop research ideas or participate in study design and implementation. In the most highly engaged practice-based partnerships, community clinicians may serve as co-investigators or even principal investigators for a study and participate fully in the development, implementation, analysis and dissemination of a research project. Partnerships between community clinicians and academic researchers can help research studies:

- Identify research priorities
- Develop questions that are relevant to clinical practice and the community context
- Increase the participation of diverse and representative clinical practices and patient populations
- Develop research and patient education protocols and materials informed by insights into clinical care, the busy clinical context, and patient experiences
- Improve the implementation and dissemination of findings in the clinical context

Academic researchers usually have a specific area of interest that is important to them. These interests may be derived from care of patients with special problems or because of a larger interest in improving public health. To be successful, researchers must establish themselves as an expert in a particular area, whether it be basic science, clinical, epidemiologic, or health services-related. This is typically done by building a program of related research projects and presenting the findings of this research to peers at meetings and in professional journals. Academic promotion is based on demonstration of expertise as evidenced by securing funding for research projects, authoring significant publications, serving on committees of professional organizations or government agencies, and providing education and mentoring for physical therapy students and young researchers.

The vast majority of academic faculty need to acquire the money for equipment to conduct research and to pay the salaries of the research team. Collaborators should be prepared for the fact that most

projects are not funded the first time a proposal is submitted, so it can be a year or two and often more before the project actually gets off the ground. For every project that's funded, several are not. Researchers cannot guarantee that a proposal will be funded, so the time spent in study development asks all collaborators to work toward an uncertain goal. Collaborating clinicians are often asked to write letters of support and a description of their capabilities and contributions to a project; these letters are sometimes required and they always strengthen grant proposals.

Once the grant is submitted, there is no guarantee that it will be funded. Sometimes it may take 6 to 12 months to find out funding status, as research grants usually go through a peer-review process by other scientists, followed by reviews from the funding agency. It is not unusual for a large grant to be revised and submitted up to three times or to multiple agencies before it is funded.

All UBC researchers are required to follow rules and regulations that are specified by UBC, their funders, and provincial and federal governments. Some of the most important regulations have to do with assuring that research does not harm study participants, and that patient confidentiality is protected.

Clinical research activities that involve people must be approved by an Institutional Review Board (IRB). The purpose of the IRB is to make sure that the study has undergone appropriate scientific review, has an acceptable balance of risks and benefits for research subjects, follows appropriate methods of informed consent for research participants, and has appropriate systems in place to monitor patient safety and confidentiality as the research proceeds. Sometimes multiple IRBs need to be involved or approval to conduct research at a clinical location is required in addition to ethics approval. The IRB at UBC is the Clinical Research Ethics Board (CREB). The review process is intended to protect those who participate in research by providing oversight of issues such as study quality (Is it good science?), disclosure of risks and benefits (If there's the possibility of any benefit or discomfort or risk to the participants, how will you let participants know about it?), and the design and administration of consent forms (Are the consent forms clear and explained in a consistent manner?). Additionally all study team members are required to complete the Tri Council Policy Statement2 (TCPS2) Tutorial (CORE) before submission. This tutorial provides an essential orientation to Canadian human research ethics guidelines. The Principal Investigator and all Co-Investigators must be familiar with the TCPS2. CREB approval must be renewed annually, and changes in the research protocol must be submitted, reviewed, and approved as they occur. IRB application and review can take several months, depending on the complexity of the study and number of groups that must provide final approval before a study can be implemented. Therefore, even after a research project has been funded there is usually some delay due to IRB approval and other bureaucratic requirements before the study can commence. IRB delays can be frustrating, but proper human subjects review is an essential part of the research process.

If you are eligible, you can gain access to the Clinical Research Ethics system at UBC without an academic partner by <u>becoming a clinical faculty member</u>.

Community clinical partners can define research questions they and their patients want answered. When clinicians contribute their clinical and practical expertise to the definition of a research question, they take a critical first step in designing a feasible study and give research findings the best chance to be applicable and valid.