

Development of an Integrated Stroke Rehabilitation Research Program through Strategic Alliances

Diane W. Braza, MD

Mentors: David Harder, PhD; Joseph Kerschner, MD **Collaborators:** John McGuire, MD; Brian Schmit, PhD

Background:

- Research is a core mission of academic departments.
- Few academic Physical Medicine and Rehabilitation programs have well defined, extramurally funded research programs.
- MCW PM&R extramural funding has recently declined due to departing faculty.

Opportunity:

Chair leadership changes and a decline in extramural research funding provided an opportunity to redefine the research mission and five year research plan for PM&R.

Purpose:

Explore new models for PM&R research, focusing on areas of clinical and research strength to advance clinical translational research, population health research, clinical trials and increase extramurally funded research.

- Identify collaborators within our institution and / or partnering institutions with expertise in rehabilitation related research.
- Formalize an agreement between participating institutions for collaborative rehabilitation research efforts which optimize patient outcomes across the care continuum

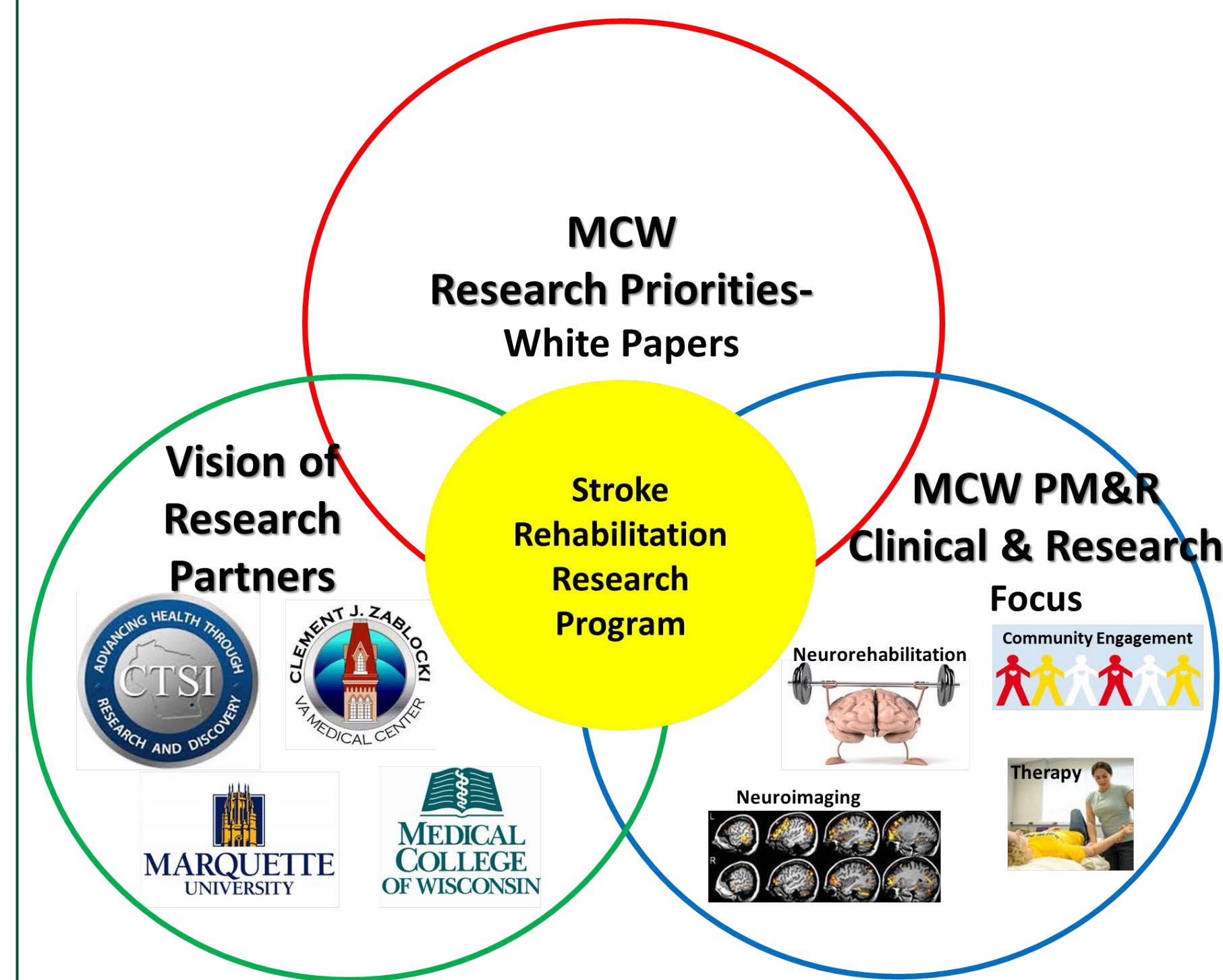
Methods:

- Best academic research practices in PM&R were identified and studied.
- Mentorship support was identified through the Association of Academic Physiatry (AAP) and MCW Clinical Translational Science Institute (CTSI).
- Concurrently, MCW leaders formulated research priorities. Nine White Papers have been drafted and will form the basis for strategic research decisions.
- Identification of PM&R clinical strengths coupled with identification of pertinent engineering and physical therapy researchers at Marquette University (MU) led to a focus on Neurorehabilitation (stroke and spasticity).
- Round table discussions with key stakeholders followed, focusing on identification of research strengths, research opportunities and shared goals.
- Core resources and potential sources of extramural funding (NIDDR, NIH, U.S. Department of Defense, U.S. Department of VA, private foundations) were identified.

Outcomes:

- Steps to formalize a collaborative stroke rehabilitation clinical translational research program have been initiated through discussions with the Dean of Medical School, CTSI leaders, MU Dean of Research and MCW center leaders.
- An AAP research consulting site visit was completed in early April 2014, including presentation of this vision by all participants.
- Initial feedback was very positive.

Strategic Alliances



Evaluation:

Evaluation strategy will consist of metrics assessing individual and program productivity:

- Pilot projects
- Number of grant submissions
- Extramural funding
- Number of mentored trainees, junior faculty and young investigators.
- Number of publications

Next Steps:

- Engage additional key stakeholders
- Develop one year and five year research goals including
 - PM&R fellow/ graduate student training programs
 - Development of a stroke database
 - Development of a stroke interdisciplinary grants program
 - New clinical programs featuring adaptive devices/ new technologies

Summary:

Through strategic alliances, a vision for an integrated Stroke Rehabilitation Research Program has been created.

ABSTRACT: 2014 ELAM Institutional Action Project Poster Symposium

Project Title: Development of an Integrated Stroke Rehabilitation Research Program through Strategic Alliances

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Background, Challenge or Opportunity: Despite research being identified as a core mission of academic Physical Medicine & Rehabilitation (PM&R) departments, very few academic PM&R programs have well defined, extramurally funded research programs. PM&R research efforts at MCW have been limited to a small number of faculty, consisting primarily of National Institutes of Health (NIH) and Department of Veteran's Affairs (VA) extramural funding. Prior departmental research included principal investigator led research to implementation of an interdisciplinary "research advisors for cellular, translational and outcomes research" program. Given recent departmental leadership changes, limited extramural research funding, opportunity exists to redefine the research mission and five year research plan for PM&R.

Purpose/Objectives:

- Explore new models for PM&R research, focusing on areas of clinical strength within the department to advance clinical translational research and clinical trials.
- Identify collaborators within our institution and / or partnering institutions with expertise in rehabilitation related research
- Formalize an agreement between participating institutions for collaborative rehabilitation research efforts which optimize patient outcomes across the care continuum

Methods/Approach:

- Best academic research practices in PM&R were studied. Mentorship support was identified through the Association of Academic Physiatry.
- Identification of a research mentor in the MCW Clinical Translational Science Institute (CTSI), recognition of PM&R clinical strengths coupled with identification of successful engineering and physical therapy researchers at Marquette University (MU) presented an opportunity to focus research efforts on stroke and spasticity.
- With support of CTSI, lab meetings and tours were arranged between institutional researchers and clinicians at MCW and MU.
- PM&R Research Grand Rounds highlighted stroke rehabilitation, including currently funded projects, clinically based functional research questions, and possible future directions.
- Round table discussion followed, focused on identification of research strengths, research opportunities and shared goals.
- Core resources and potential sources of extramural funding (NIDDR, NIH, U.S. Department of Defense, U.S. Department of VA, private foundations) have been identified.
- Efforts to dialogue with leaders of NIH designated national stroke centers have begun.
- Steps to formalize a collaborative stroke rehabilitation clinical translational research program have been initiated through discussions with the Dean of the Medical School, CTSI leaders, MU Dean of Research and MCW center leaders.

Outcomes and Evaluation Strategy: This initiative resulted in competitive selection for participation in a research site visit, sponsored through the Association of Academic Physiatry to be held in early April 2014. The key stakeholders for this project will meet with nationally recognized and extramurally funded PM&R leaders to further focus the proposed collaborative research plan, identify key resources, "must haves", mentorship and recruitment needs, and funding opportunities.

The evaluation strategy will consist of metrics assessing individual and program productivity, including publications, number of grant submissions and national presentations, receipt of extramural funding, and number of mentored trainees, junior faculty and young investigators.