



Indiana University
School of Medicine

Indiana Center for Vascular Biology and Medicine Newsletter

Fall 2014

Vessels and Vitality



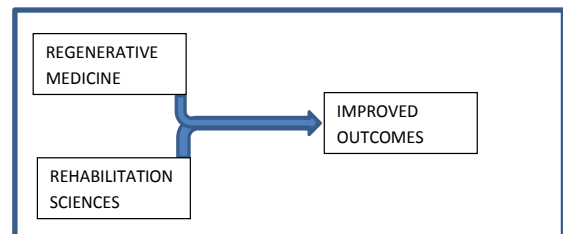
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This Fall, the ICVBM Newsletter features Terry Loghmani, PT, PhD, Director of the Laboratory of Applied Regenerative Medicine (ARM) in the Indiana University School of Health and Rehabilitation Sciences (IU SHRS). This Laboratory was recently established by Dean Austin Agho, with the mission to contribute to and expand the science of **regenerative rehabilitation**. Regenerative



rehabilitation is an emerging field dedicated to the integration of rehabilitation sciences with the field of Regenerative Medicine. Regenerative Medicine has been an increasingly important focus for many investigators within the Indiana Center of Medicine, since **blood vessels play a critical role in supporting and even directing tissue repair and regeneration**.

The primary goal of the innovative field of **regenerative rehabilitation** is to pioneer and refine effective intervention protocols specifically to maximize tissue healing, repair and regeneration, and thus optimize results. Dr. Loghmani will catalyze a merger of research efforts in rehabilitation science and regenerative medicine, which we expect to enhance communication and collaboration among experts from various disciplines. Just as has been seen with our other collaborations, we anticipate that her new interdisciplinary work will lead to ultimately improved research and therapeutic outcomes.



Dr. Loghmani's home program in the School of Health and Rehabilitation Sciences incorporates researchers and clinicians from multiple professions, including physical therapists, occupational therapists, physician assistants and nutritionists that will make unique and valuable contributions to this initiative on both basic science and translational levels. Key goals of her program work

will include the integration of physical therapeutics, activity and mechanical loading/stimulation into vascular and regenerative medicine-related studies; and development of a program for evaluation of physical performance, functional mobility, health-related quality of life and disability prevention.

Dr. Loghmani has been a practicing physical therapist since 1983. She is also a certified orthopedic manual therapist with a sub-specialty in instrument-assisted soft tissue mobilization (IASTM). She has been a faculty member in the IU Department of Physical Therapy since 1998 and received her doctorate from the IU School of Medicine in Anatomy and Cell Biology in 2010. Terry's research focus has been on the tissue effects of IASTM in pre-clinical studies, and on clinical outcomes of IASTM in human subjects. Her specific research efforts in regenerative rehabilitation will initially focus on:

- 1) the effects of IASTM and **massage-based modalities on circulating progenitor cells as related to tissue healing** and improved clinical outcomes, and
- 2) the effects of regenerative **cell-based interventions on human age-related frailty and functional outcomes** measured in the ARM.

As director of the ARM Lab, Dr. Loghmani will serve to help coordinate efforts in the SHRS with ICVBM investigators towards the advancement of regenerative medicine and rehabilitation sciences. The field of regenerative rehabilitation offers cutting-edge opportunities to contribute to a body of knowledge that will ultimately enhance the physical well-being for patients with a wide variety of conditions, with a correspondingly far-reaching impact.

