

Tapan B. Kikani, PT, PhD

Curriculum Vitae

E-mail: TKikani@gmail.com

Current Appointments:

Redeemer Health, Meadowbrook, Pennsylvania

Innovation Officer	2005 - present
Faculty at Experience University	2007 - present
Vice President Health System Rehabilitation Services	2000 - 2020

Education:

Doctor of Physiology (Ph.D.) Thomas Jefferson University	1993
<i>Cooperative activation of myosin by light chain phosphorylation in permeabilized smooth muscle.</i>	
Post-Doctoral Research Thomas Jefferson University	1995
<i>Potassium channel regulation by phosphorylation before and after alcohol consumption.</i>	
Bachelor of Science in Physical Therapy Bombay University	1983

Teaching Experience:

Innovation Officer: Redeemer Health	2005 - Present
<ul style="list-style-type: none">➤ Dramatically redesigned the creative vision and learning process at all levels of the health system in collaboration with CEO.➤ Independently developed the Innovation Competency for leaders which outlines steps for fostering creative and safe environments. Championed these changes by teaching iterative problem-solving through monthly workshops.➤ Incorporated the guiding principles from the Association of Experiential Education to promote an Experiential Learning environment by leading simulations, engaging students, and promoting discussion. Lead to effective implementation of new healthcare delivery models with the goal of achieving the Triple Aim.➤ Educated strategic leadership on the value of Tele-Rehab in March 2020 with successful implementation across all service lines. Created the curricula for therapists to utilize active reflection and provide effective and ethical treatment virtually in adult and pediatric settings.	

Faculty Guide <i>Experience U</i> :	2007 - Present
<ul style="list-style-type: none">➤ Directed the development and implementation of patient relations curriculum that strives to strengthen the foundation of values and their expression in daily experiences.➤ Served as Faculty Guide and Producer to teach storytelling, empathy, and other translational skills in small groups. Included performance learning and active participation to communicate abstract ideas.➤ Developed the virtual format for the <i>Experience U</i> curriculum to innovatively continue the experiential learning for all staff. Effectively taught virtual sessions since March 2021	

Employee Health and Safety Co-Chair:	2005- 2010
<ul style="list-style-type: none">➤ Led the employee safety initiative across the health system including safe patient handling, fall prevention, and holistic health. Employed 'learning by doing' methodology.	

Tapan B. Kikani PT., PhD

- Measured success of reduced musculoskeletal injuries and 2 million saving over 2 years.

Student Clinical Programs Founder: 2000 - 2020

- Founded program and successfully mentored more than 100 clinical students from 11 academic programs by fostering skill development and clinical mentor culture. Continuing these programs through the pandemic establishing virtual channels.

Lecturer and Capstone Advisor: **University of Montana** 2018- Present

- Served as industry innovation capstone advisor advising their cumulative thesis and mentoring their career path.
- Lecturer for 'Value of Rehab' course in Rehab Administration Certificate program. 2020- Present

Speaking:

- Invited lecturer- **Thomas Jefferson Allied Health School** Created an experiential learning format for teaching Physiology to Physical Therapy Students (1991-1993)
- Keynote Speaker- Performance Excellence Conference **Mercy Health System** (2018)
- Invited Speaker- Annual **Back End of Innovation** Conference, 'Curating the Ideal Team for Innovation' (2019)
- Speaker- **Pennsylvania Physical Therapy Association** Annual Conference on topics of 'Role of Rehab in ACO' (2015) and 'Using Data to Drive Value of Physical Therapy' (2016)

Service:

- Advisory Board Member **Guldmann Inc.** (2017- Present)
- **APTA** Health System Council Webinar Committee (2017-2020)
- **APTA** Steering Committee of the Health System Council (2020- Present)
- **PPTA** Abstract Reviewer (2010- Present)

Awards and Honors:

- *Susan Komen Foundation Grant for PreHab education.* To provide 1-1 and group education for underprivileged women and their families before breast surgery.
- Alumni Research Award for Scientific Excellence in Doctoral Thesis.
- *Sigma Xi* Student Research Award, *Sigma Xi* Scientific Research Society, Young Investigator's Award, The Physiological Society of Philadelphia
- Foerderer Fellowship for graduate studies towards PhD. Thomas Jefferson University.
- National Institute of Health Training Grant, Post-doctoral Fellowship.

Industry Experience:

- Progression in responsibility and success in strategic health system goals of improving patient and employee experience and high reliability. Areas of responsibility include all of Rehab Services in acute, sub-acute, SNF, and multiple outpatient locations including consulting to home care rehab services. Responsibility of Outpatient Wound Center, Respiratory, Pulmonary and Neurology clinical outpatient services.

Tapan B. Kikani PT., PhD

- Successful compliance year to year with national The Joint Commission standards for Rehab, Stroke and Joint Replacement. Consistent ROI with increasing volumes by 8% year to year with management of revenue cycle, increased point of service collections and expense control.
- Successful incorporation of inpatient and outpatient EMR resulting in improved productivity and compliance.

Tapan B. Vyas-Kikani, PT, PhD Publications

Full Papers

M. Covarrubias, **T.B. Vyas**, L. Escobar, and A. Wei. Alcohols inhibit a cloned potassium channel at a discrete saturable site. *J. Biol. Chem.* 270:19408-19416, 1995.

Covarrubias, M., A. Wei, L. Salkoff and **T.B. Vyas**. Elimination of rapid potassium channel inactivation by phosphorylation of the inactivation gate. *Neuron.* 13:1403-1412, 1994.

Vyas, T.B., S.U. Mooers, S.R. Narayan, M.J. Siegman and T.M. Butler. Cross-bridge cycling at rest and during activation. *J. Biol. Chem.* 269:7316-7322, 1994.

Vyas, T.B., S.U. Mooers, S.R. Narayan, J.C. Withered, M.J. Siegman and T.M. Butler. Cooperative activation of myosin by light chain phosphorylation in permeabilized smooth muscle. *Am. J. Physiol.* 263:C210-C219, 1992.

Siegman, M.J., **T.B. Vyas**, S.U. Mooers and T.M. Butler. Energetics and regulation of smooth muscle contraction. *Jap. J. Pharmacol.* 58:75P-80P, 1992.

Siegman, M.J., T.M. Butler, **T.B. Vyas**, S.U. Mooers and S.R. Narayan. Cooperative mechanisms in the regulation of smooth muscle contraction. In: *Regulation of Smooth Muscle: Progress in Solving the puzzle.* Edited by R.S. Moreland, B.M. Twarog and R.H. Cox. Plenum Publishing Corp., NY, 1991, pp.77-84.

Siegman, M.J., **T.B. Vyas**, S.U. Mooers, S.R. Narayan and T.M. Butler. Cooperative activation of crossbridge cycling by myosin light chain phosphorylation in smooth muscle and the kinetics of release of myosin-bound nucleotide. *Proceedings of the International Symposium on "Smooth Muscle"*. Kyushu University, Fukuoka, Japan, January 29-February 1, 1992.

Butler, T.M., M.J. Siegman, **T.B. Vyas**, S.U. Mooers, S.R. Narayan and C.S. Owen. Cooperative activation of myosin : A dual role for myosin light chain phosphorylation in the regulation of smooth muscle. *Biophysical J.* 59: 426a, 1991.

Siegman, M.J., **T.B. Vyas**, S.U. Mooers, S.R. Narayan and T. M. Butler., Myosin light chain phosphorylation cooperatively activates crossbridge cycling in smooth muscle. *The Physiologist* 34:112, 1991.

Abstracts

Ring A, **Kikani T.B.** Using data to drive value of physical therapy. Pennsylvania Physical Therapy Association Annual Conference, October 2016.

Tapan B. Kikani PT., PhD

Vyas T.B., A. Wei, S. Slater, C. Stubbs, X-L. Gong, R. Sorensen and M. Covarrubias. Non-independent phosphorylation sites in the inactivation gate of a cloned K⁺ channel. *Biophysical J.* 69, 1995.

Escobar L., **T.B. Vyas**, C. Choe and M. Covarrubias. A saturable general anesthetic site in a cloned K⁺ channel. *Biophysical J.* 69, 1995.

Vyas T.B., C. Choe, A. Wei and M. Covarrubias. Point mutation enhances sensitivity to ethanol in a human K⁺ channel. *Biophys. J.* 66:143a, 1994.

Covarrubias, M., A. Wei, **T.B. Vyas** and L. Salkoff. The inactivation gate of a human K⁺ channel is modulated by protein phosphorylation. *Biophys. J.* 66:342a, 1994.

Vyas T.B., A. Wei, L. Salkoff and M. Covarrubias. Fast inactivation of a human K⁺ channel is regulated by protein phosphorylation. *Soc. Neurosci. Abstr.* 19:712, 1993.

Vyas T.B., S.U. Mooers, S.R. Narayan, M.J. Siegman and T.M. Butler. Kinetics of myosin bound ADP exchange in smooth muscle. *Biophysical J.* 64:256a, 1993.

Vyas T.B., S.U. Mooers, S.R. Narayan, M.J. Siegman and T.M. Butler. Turnover of the myosin-bound nucleotide at rest and during activation in permeabilized smooth muscle. *Biophysical J.* 61:17a, 1992.