
BIOGRAPHICAL SKETCH

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NAME Kaushik Parthasarathi	POSITION TITLE Assistant Professor		
eRA COMMONS USER NAME			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Bharathiar University	BE	1989	Instrumentation Eng
Medical College of Virginia	MS	1993	Biomedical Eng
The Pennsylvania State University	PhD	1999	Bioengineering
Columbia University	Post Doc	2002	Physiology

Please refer to the application instructions in order to complete sections A, B, and C of the Biographical Sketch.

A. Positions and Honors:

Professional Positions:

- 10/1989 - 07/1991 Instrumentation Engineer, Department of Maintenance, Hindustan Petroleum Corporation Limited, Vishakapatnam, India
- 10/1991 - 08/1993 Graduate and Technical Assistant, Departments of Biomedical Engineering and Ophthalmology, Medical College of Virginia, Richmond, VA
- 08/1993 - 08/1999 Graduate Assistant, Department of Bioengineering, The Pennsylvania State University, University Park, PA
- 08/1999 - 08/2002 Post-Doctoral Research Scientist, Department of Physiology & Cellular Biophysics, SLRHC, Columbia University, New York, NY
- 08/2002 - 11/2007 Associate Research Scientist, Department of Physiology & Cellular Biophysics, SLRHC, Columbia University, New York, NY
- 11/2007 - 10/2008 Associate Research Scientist, Division of Pulmonary, Allergy & Critical Care, Department of Medicine, Columbia University, New York, NY
- 11/2007 - 10/2008 Associate Research Scientist, Department of Medicine, St. Luke's-Roosevelt Hospital Center, New York, NY
- 10/2008 - present Assistant Professor, Department of Physiology, University of Tennessee Health Science Center, Memphis, TN

Honors and Awards:

- Outstanding Student Award, Bharathiar University, 1988
- Distinction, Bachelor of Engineering, Bharathiar University, India, 1989
- University Rank Three, Bachelor of Engineering, Bharathiar University, India, 1989
- Graduate Assistantship - Medical College of Virginia, 1992-1993
- Department Chair Selection Committee, Medical College of Virginia, 1993
- Graduate Assistantship, Penn State, 1993 - 1999
- Program Committee, Biomedical Engineering Society Conference, University Park, PA, 1996
- Dean of Libraries Selection Committee, Penn State, 1997
- Abstract selected for special highlights, ATS conference, 2003

Scientific Session Chair, ATS conference, 2005

Web Director, Pulmonary Circulation Assembly, American Thoracic Society, 2007-

Awards Committee, Microcirculatory Society, 2008-

Communications Committee/Newsletter Co-Editor, Respiration Section, American Physiological Society, 2008-

Journal Referee:

American Journal of Physiology, American Journal of Respiratory, Cell & Molecular Biology, International Journal of Lung, Microcirculation, Microvascular Research

Invited Lectures:

Bio-transport group seminar series, Penn State, University Park, PA, 1998

Pulmonary Division, Roosevelt Hospital, New York, NY, 2001

Antenucci Seminar Series, St. Luke's- Roosevelt Hospital, New York, NY, 2001

Featured Topic on Cell Signaling in the Lung, Experimental Biology, Orlando, FL, 2001

APS Respiratory Section Sponsored Session, Experimental Biology, New Orleans, LA, 2002

Grover Conference on Pulmonary Signaling Mechanisms, Sedalia, CO, 2002

Histochemical Society Symposium, Experimental Biology, San Diego, CA, 2003

Research Conference Speaker, Mara Lung Center, Roosevelt Hospital, New York, NY, 2004

Experimental Biology Symposium, San Diego, 2008

Professional Societies:

American Thoracic Society

American Physiological Society

Biomedical Engineering Society

Microcirculatory Society

B. Peer-reviewed publications:

1. **Parthasarathi K** and R.N. Pittman. Measurements of hemoglobin concentration and oxygen saturation profiles in arterioles using intravital videomicroscopy and image analysis. *Advances in Experimental Medicine and Biology*. 361: 249 - 60, 1994
2. **Parthasarathi K**, and H.H. Lipowsky. Capillary recruitment in response to tissue hypoxia and its dependence on red blood cell deformability. *American Journal of Physiology*. 277(6 Pt 2): H2145-57, 1999.
3. Kuebler WM, **K. Parthasarathi**, P.M. Wang, J. Bhattacharya. A novel signaling mechanism between gas and blood compartments of the lung. *Journal of Clinical Investigation*. 105(7): 905-13, 2000.
4. Bhattacharya S, N. Sen, S. Quadri, **K. Parthasarathi**, and J. Bhattacharya. Dual signaling by the alpha(v) beta(3)-integrin activates cytosolic PLA(2) in bovine pulmonary artery endothelial cell. *American Journal of Physiology - Lung Cell & Molecular Physiology*. 280(5): L1049-56, 2001.
5. **Parthasarathi K**, H. Ichimura, S. Quadri, A. Issekutz, and J. Bhattacharya. Mitochondrial reactive oxygen species regulate spatial profile of proinflammatory responses in lung venular capillaries. *Journal of Immunology*. 169(12): 7078-86, 2002.
6. Bhattacharya S, N. Sen, R. Patel, **K. Parthasarathi**, and J. Bhattacharya. High tidal volume ventilation induces proinflammatory signaling in rat lung endothelium. *American Journal of Respiratory Cell & Molecular Biology*. 28(2): 218-24, 2003.
7. Ichimura H, **K. Parthasarathi**, A. Issekutz, and J. Bhattacharya. Mechano-oxidative coupling by mitochondria induced P-selectin expression in pressure-stressed capillaries. *Journal of Clinical Investigation*. 111: 691-699, 2003.

8. Quadri S, K., M. Bhattacharjee, **K. Parthasarathi**, T. Tanita and J. Bhattacharya. Endothelial barrier strengthening by activation of focal adhesion kinase. *Journal of Biological Chemistry*. 278(15): 13342-13349, 2003.
9. Ichimura H*, **K. Parthasarathi***, A. Issekutz, J. Bhattacharya. Pressure-induced leukocyte margination in lung postcapillary venules. *Am J Physiol Lung Cell Mol Physiol*. 289(3): L407-12, 2005. (*both authors contributed equally)
10. Padilla J, E. Daley, A. Chow, K. Robinson, **K. Parthasarathi**, A. McKenzie, T. Tschernig, V. Kurup, D. Donaldson, G. Grunig. IL-13 regulates the immune response to inhaled antigens. *J Immunol*. 174(12): 8097-105, 2005.
11. Yiming M, **K. Parthasarathi**, A. Issekutz, S. Bhattacharya. Sequence of endothelial signaling during lung expansion. *Am J Respir Cell Mol Biol*. 33(6): 549-54, 2005.
12. Ichimura H*, **K. Parthasarathi***, J. Lindert, J. Bhattacharya. Lung surfactant secretion by inter-alveolar Ca²⁺ signaling. *Am J Physiol - Lung Cell & Molecular Physiology*. 291: L596-601, 2006. (*both authors contributed equally)
13. **K. Parthasarathi**, H. Ichimura, E. Monma, J. Lindert, S. Quadri, A. Issekutz, and J. Bhattacharya. Connexin 43 mediates spread of Ca²⁺ dependent proinflammatory responses in lung capillaries. *Journal of Clinical Investigation*. 116: 2193-200, 2006.
14. Lindert J, Perlman CE, **Parthasarathi K**, Bhattacharya J. Chloride-dependent secretion of alveolar wall liquid determined by optical-sectioning microscopy. *Am J Respir Cell Mol Biol*. 36(6):688-96, 2006.
15. Bertuglia S, Ichimura H, Fossati G, **Parthasarathi K**, Leoni F, Modena D, Cremonesi P, Bhattacharya J, Mascagni P. ITF1697, a Stable Lys-Pro-Containing Peptide, Inhibits Weibel-Palade Body Exocytosis Induced by Ischemia/Reperfusion and Pressure Elevation. *Mol Med*. 13(11-12):615-24, 2007.
16. **Parthasarathi K**, Islam N and Bhattacharya J. Endothelial gap junctions mediate spatial spread of acid-induced lung injury (in preparation)

Reviews:

Kuebler WM, **Parthasarathi K**, Lindert J, and Bhattacharya J. Real-time lung microscopy. *J Appl Physiol*. 102(3):1255-64, 2007.

Book Chapters:

Kaushik Parthasarathi. Second-messenger signaling in lung capillaries in "Cell signaling in vascular inflammation". Jahar Bhattacharya (Ed). Humana Press, Totowa, N.J. 2005.

Kaushik Parthasarathi & Sadiqa Quadri. "Cadherins and Connexins in Pulmonary Endothelial Function" in "Pulmonary Endothelium". Rounds & Voelkel (Eds) *In press*.

C. Ongoing research support:

RO1 (HL 75503, Years 5-9) Parthasarathi (PI) September 2003 – December 2012
National Heart, Lung and Blood Institute
Inflammatory mechanisms in lung vascular segments

The objective is to understand signaling heterogeneity in different segments of lung circulation.