CV OF ELAPULLI SANKARANARAYANAN PRAKASH, MBBS, MD (PHYSIOLOGY)

Associate Professor of Physiology
Department of Biomedical Sciences
Mercer University School of Medicine

Preferred Name and Name used in publications: E.S.Prakash
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EDUCATION:

Postgraduate Certificate in Medical Education [Distance Learning], June 2019
University of Dundee, Scotland, UK.
The Modules Completed to qualify for this Certificate are listed below. Each Module is 20 Scottish Qualifications Framework Master Level Credits:

1. Teaching and Learning in Medical Education
2. Assessment in Medical Education
3. Technology-Enhanced Learning

MD [Doctor of Medicine], Field of Study: Physiology, 2004. *(Degree by coursework & dissertation.)*
Pondicherry University, Pondicherry (Puducherry), India;
Jawaharlal Institute of Postgraduate Medical Education & Research, Pondicherry, India.
Dates Attended: Apr 2001 - Mar 2004

MBBS [Bachelor of Medicine and Bachelor of Surgery], 2001
The Tamil Nadu Dr. MGR Medical University, Chennai, India.
Dates Attended: Jul 1995 – Jan 2001 (5 ½ years including 1-year internship at Kilpauk Medical College, Chennai, Tamil Nadu, India, between Jan 2000 and Jan 2001.

POSTDOCTORAL TRAINING:

Dept of Physiology, Jawaharlal Inst. of Postgraduate Medical Education & Research, Pondicherry, India.
Position Title: Senior Resident
Dates: May 2004 – Jan 2006
Mentor: Professor Madanmohan Trakroo

PROFESSIONAL CERTIFICATION:

Registered Medical Practitioner, The Tamil Nadu Medical Council, India, Registration Number 67482, valid until Jul 2, 2023, in India.

ACADEMIC APPOINTMENTS:

Years of Experience as Faculty Member in a Medical Education Program: 13 years +

Inclusive Dates	Rank	Institution, Department
Feb 11, 2011 - date	Associate Professor of Physiology / Basic Medical Sciences. Tenured effective July 1, 2015	Mercer University School of Medicine, Dept. of Biomedical Sciences, Macon, GA
May 10, 2008 – Feb 6, 2011	Associate Professor of Physiology	AIMST University Faculty of Medicine, Bedong, Kedah, Malaysia.
May 10, 2006 – May 9, 2008	Senior Lecturer of Physiology	AIMST University Faculty of Medicine, Bedong, Kedah, Malaysia.

ADMINISTRATIVE APPOINTMENTS:

Inclusive Dates	Title	Institution
Aug 2017 – Jun 2018	Associate Dean of Preclerkship Clinical Skills Education	Mercer University School of Medicine, Macon, GA
Oct 2014 – Jul 2017	Associate Dean of Admissions (Macon Campus)	Mercer University School of Medicine, Macon, GA

EDUCATIONAL LEADERSHIP APPOINTMENTS:

i) Discipline Head, Physiology, Mercer University School of Medicine; July 2012 – June 2016.

ii) Co-Chair of Block 3 Committee (Cardiology, Pulmonology and Renal Modules), a 16-week curricular block committee in Year 2 of the revised M.D. curriculum at Mercer University School of Medicine; Jan 2016-date.

iii) Phase Coordinator - Cardiology Phase, Biomedical Problems Program, Mercer University School of Medicine; 2014-15 to 2016-17 academic year.

iv) Academic Coordinator, AIMST University Faculty of Medicine, Kedah, Malaysia; Jan 2009 – Jan 2011

v) Examination Coordinator, MBBS Professional Examination II; AIMST University Faculty of Medicine, Kedah, Malaysia; Jun 2008 - Dec 2011.

vi) Coordinator of Special Study Modules Program, AIMST University Faculty of Medicine, Kedah, Malaysia; August 2008 – Jan 2011.

vii) Course Coordinator: Molecular and Cellular Basis of Medicine Element 2 (Physiology)**,** AIMST University Faculty of Medicine, Kedah, Malaysia; July 2006 - Jan 2011

SUMMARY OF TEACHING DUTIES AT MERCER UNIVERSITY SCHOOL OF MEDICINE (2011-date):

1. Tutor for Case-Based Small Group Tutorials:

Tutor (for Small Group Tutorials) and Student Oral Case Analysis (SOCA) Examiner in Biomedical Problems Program, a clinically oriented interdisciplinary basic sciences curriculum at MUSM, for the following Phases/Modules for MS2 (Feb 2011-date). ***Group size:*** 6-8 students; ***Teaching-Learning (T-L) approach:*** Case-based learning; ***Required group meetings:*** approximately 30 hr for a 4-week Module, and 40-50 hr for Phases/Modules lasting 5-6 weeks.

Phase/Module (No. of Weeks)	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Musculoskeletal (4)	-	-	-	-	-	-	-	-	√	-
Cardiology (5-6)	-	√	√	√	√	√	√	√	√	√
Pulmonary (5)	-	-	-	-	-	-	-	-	√	√
Gastrointestinal (5-6)	-	√	√	√	√	√	-	-	√	√
Renal (4-5)	√	√	√	√	√	√	√	√	√	√
Endocrinology (6)	√	√	√	√	-	-	-	-	√	√
Reproduction (4)	-	-	-	-	-	-	-	-	-	√

√: Completed

2. Physiology and Pathophysiology Resource Faculty:

- 2011-date: Cardiology and Gastrointestinal Phases/Modules;
- 2018-19: Cardiology, Pulmonary, Renal, Gastrointestinal & Musculoskeletal Modules

3. Preclerkship Clinical Skills Teaching for MS1 and MS2 (August 2017 - June 2018): Faculty facilitator for MS1 and MS2 in clinical skills training sessions (history taking, physical examination, interpersonal and communication skills) across Years 1 and 2.

- Development of multiple Case Scenarios for use in teaching and assessment

4. **For Masters in Preclinical Sciences Students: Capstone Course, *Masters in Preclinical Sciences Program,* 2013-date:** Mentoring preparation of brief literature reviews, Grading *Capstone Course* Oral Presentations & Written Assignments.

5. Other Teaching within Mercer University:
Lecture on Basics of Electrocardiography for Engineering Undergraduate Students, Mercer School of Engineering, Oct 2017; Oct 2019.

PEER-REVIEWED PUBLICATIONS:

1. Prakash ES. How about including Free-Standing Open-Ended Questions in Readiness Assessment and Application Activities in Team-Based Learning, in addition to MCQs? *Advances in Physiology Education* https://doi.org/10.1152/advan.00168.2019; Published online Feb 14, 2020. PMID: 32057261

2. Prakash ES. The effect of frequency and depth of breathing on RR interval spectral power is sometimes mistakenly ignored. My comments are available as ***Supporting Information*** for the Cross-Talk: Malik M et al. Heart rate variability is a valid measure of cardiac autonomic responsiveness. *Journal of Physiology* 2019; August 2019 at https://physoc.onlinelibrary.wiley.com/doi/full/10.1113/JP277500

3. Prakash ES. What is the best definition of the term hyperventilation? Advances in Physiology Education 2015; http://advan.physiology.org/content/39/2/137

4. Prakash ES. Understanding the impact of arterial stenosis on blood flow through a tissue. Advances in Physiology Education June 2015; http://advan.physiology.org/content/39/2/122

5. Prakash ES. Understanding baroreflex regulation of blood pressure from a patient with autonomic failure (Case Study). MedEdPORTAL 2015; https://www.mededportal.org/publication/10049

6. Prakash ES. Problem Solving Exercises in Cardiovascular Physiology and Pathophysiology. (40 pages). Life Science Teaching Resource Community, Oct 2014 http://www.lifescitrc.org/resource.cfm?submissionID=9699

7. Prakash ES. Problem Solving Exercises in Gastrointestinal Physiology and Pathophysiology. (28 pages). Life Science Teaching Resource Community, 2014 http://www.lifescitrc.org/resource.cfm?submissionID=9466

8. Prakash ES. Hemodilution is a mechanism of anemia in patients with heart failure. European Journal of Heart Failure 2013; 15: 1074 http://onlinelibrary.wiley.com/doi/10.1093/eurjhf/hft120/abstract

9. Prakash E. How not to do things. The Clinical Teacher 2013; 10, 333-334. http://onlinelibrary.wiley.com/doi/10.1111/tct.12003/abstract

10. Prakash ES. The importance of testing medical students' knowledge of what is least likely. Academic Medicine 2012; 87 (11): 1454.

11. Prakash ES. 'Sympathovagal balance from HRV: an obituary', but what is sympathovagal balance? Experimental Physiology 2012; 97(10): 1140. http://onlinelibrary.wiley.com/doi/10.1113/expphysiol.2012.067322/abstract

12. Prakash ES. Which one of these variables is most critically regulated: extracellular fluid (ECF) volume or ECF osmolality or ECF pH or effective arterial blood volume? Medical Physiology Online 2012 **http://medicalphysiologyonline.wordpress.com/2012/07/27/which-is-most-critically-regulated/**

13. Prakash E. Using the term essential hypertension. The Clinical Teacher 2012; 9: 430. http://onlinelibrary.wiley.com/doi/10.1111/tct.12011/abstract

14. Prakash ES and Fink GD. Could hypertension possibly be adaptive? Clinical and Experimental Pharmacology and Physiology 2010, 37: e99-e106. http://www.ncbi.nlm.nih.gov/pubmed/19719749

15. Prakash ES. Letter by Prakash regarding the article "Impaired heart rate recovery and chronotropic incompetence in patients with heart failure with preserved ejection fraction" Circulation: Heart Failure 2010; 3 e: 1 http://circheartfailure.ahajournals.org/cgi/content/full/3/2/e1

16. Prakash ES, Narayan KA, and Sethuraman KR. Students' perceptions regarding the usefulness of explicit discussion of the 'Structure of the Observed Learning Outcomes [SOLO]', Advances in Physiology Education 2010; 34: 145-149. http://advan.physiology.org/cgi/content/full/34/3/145

17. Prakash ES. Explicit constructivism: a missing link in ineffective lectures? Advances in Physiology Education 2010; 34: 93-96. http://advan.physiology.org/content/34/2/93

18. Prakash ES. To give or not to give my lecture slides before I deliver my lecture? Medical Physiology Online, 2010 http://medicalphysiologyonline.wordpress.com/2010/03/21/to-give-or-not-to-give/

19. Pavithran P, **Prakash ES,** Madanmohan, Dutta TK. Effect of antihypertensive drug therapy on short-term heart rate variability in newly diagnosed hypertension. Clinical and Experimental Pharmacology and Physiology, 2009. http://www.ncbi.nlm.nih.gov/pubmed/19769606

20. Prakash ES and Sethuraman KR. Letter regarding the article 'Cold-activated brown adipose tissue in healthy humans' by Lichtenbelt et al. Medical Physiology Online 2009 http://medicalphysiologyonline.wordpress.com/2009/06/17/brownadiposetissueletter/

21. Prakash ES. The ultimate goal in neural regulation of cardiovascular function revisited. Advances in Physiology Education 2008; 32: 107-108 http://advan.physiology.org/cgi/content/full/32/1/107

22. Madanmohan, Mahadevan SK, Balakrishnan S, Gopalakrishnan M, **and Prakash ES.** Effect of six weeks yoga training on weight loss following step test, respiratory pressures, handgrip strength and handgrip endurance in young healthy subjects. Indian Journal of Physiology and Pharmacology 2008; 52: 164-170. http://www.ncbi.nlm.nih.gov/pubmed/19130860

23. Prakash ES. When noradrenergic restraint of cerebral blood flow makes homeostatic sense. Response to: Sympathetic activity does/does not influence cerebral blood flow. Journal of Applied Physiology 2008; 105: 1369-1373. http://jap.physiology.org/content/105/4/1369.full.pdf+html

24. Prakash ES. Effect of prazosin on dynamic cerebral autoregulation during acute hypotension in healthy human subjects. Stroke 2008; 39: e167. http://stroke.ahajournals.org/cgi/content/full/39/11/e167

25. Prakash ES. The causes of exercise limitation depend on the intensity of exercise. Response to: 'Cardiac denervation does or does not play a major role in exercise limitation following cardiac transplantation'. Journal of Applied Physiology 2008; 104: 565-567. http://jap.physiology.org/content/104/2/565.full.pdf+html

26. Prakash ES. Is the use of hypertonic mannitol appropriate in the management of intracerebral hemorrhage? Stroke 2008; 39: e85. http://stroke.ahajournals.org/cgi/content/full/39/5/e85

27. Prakash ES. Drawbacks in using hypercapnic acidosis in preoperative children with single ventricle physiology. Journal of Applied Physiology 2008; 104: 1841-1842 http://jap.physiology.org/content/104/6/1841.full.pdf+html

28. Prakash ES. The perfect teacher and the story of his zero defects project. Advances in Physiology Education 2007, 31: 373. **http://advan.physiology.org/cgi/content/full/31/4/373**

29. Tarmalinggam Y and **Prakash ES.** How does conjugated bilirubin appear in blood stream? Advances in Physiology Education 2007; 31: 370-371. http://advan.physiology.org/cgi/content/full/31/4/370

30. Balakrishnan S, Gopalakrishnan M, Alagesan M and **Prakash ES.** What is the ultimate goal in acid-base regulation? Advances in Physiology Education 2007; 31: 51-54.

http://advan.physiology.org/cgi/content/full/31/1/51

31. Prakash ES. Comment on: Increased mechanoreceptor/metaboreceptor stimulation explains the exaggerated exercise pressor reflex seen in heart failure. Journal of Applied Physiology 2007; 102: 498-501. http://jap.physiology.org/content/jap/102/1/498.full.pdf

32. Prakash ES. Open peer review of manuscripts submitted to journals for publication: the only way of setting the record of contribution to science straight enough. Medical Education Online 2007; 1. http://www.med-ed-online.org/pdf/l0000016.pdf

33. Prakash ES. Is there anybody without a potential conflict of interest? A reader responds to "By Financial Disclosures, We're Fixing the Wrong Problem". MedScape General Medicine 2007; http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2234312/

34. Prakash ES and Pavithran P. A novel tilt table testing protocol for investigating patients suspected to have neurally mediated syncope. International Journal of Cardiology 2007; 121: 315-316 http://www.ncbi.nlm.nih.gov/pubmed/17182134

35. Prakash ES and Madanmohan. What does one mean by arterial blood oxygenation? Advances in Physiology Education 2006; 30: 46-47.
http://advan.physiology.org/cgi/content/full/30/1/46

36. Prakash ES, Ravindra PN, Madanmohan, Anilkumar R, and Balachander J. Effect of deep breathing at six breaths per minute on frequency of premature ventricular complexes. International Journal of Cardiology 2006; 111: 450-452
http://www.ncbi.nlm.nih.gov/pubmed/17004338

37. Senthilvelou M, Purushothaman P, Krishna R, and **Prakash ES.** Gender differences in vasoconstrictor reserve. Indian Journal of Physiology and Pharmacology 2006; 50: 316-318.
http://www.ncbi.nlm.nih.gov/pubmed/17193907

38. Prakash ES and Madanmohan. How to tell heart rate from an ECG? Advances in Physiology Education 2005; 29: 57 http://advan.physiology.org/cgi/content/full/29/2/57 Full version of this learning object is available from the Life Science Teaching Resource Community Archive at http://www.lifescitrc.org/resource.cfm?submissionID=769

39. Prakash ES. How to be a bad teacher? Advances in Physiology Education 2005; 29: 182
http://advan.physiology.org/cgi/content/full/29/3/182-a

40. Aishwarya K, Rachana K, and **Prakash ES.** Futile cycling in physiological control systems: a price paid for fine control. Advances in Physiology Education 2005; 29: 132-135.
http://advan.physiology.org/cgi/content/full/29/2/132

41. Prakash ES and Madanmohan. When the heart is stopped for good: hypotension–

bradycardia paradox revisited. Advances in Physiology Education 2005; 29: 15-20 http://advan.physiology.org/cgi/content/full/29/1/15

42. Prakash ES, Madanmohan, Sethuraman KR, and Narayan SK. Cardiovascular autonomic regulation in subjects with normal blood pressure, high normal blood pressure and recent onset hypertension. Clinical and Experimental Pharmacology and Physiology 2005; 32: 488-494. http://www.ncbi.nlm.nih.gov/pubmed/15854164

43. Prakash ES. "Aldosterone escape" or Refractory Hyperaldosteronism? MedScape General Medicine 2005. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1681639/

44. Ravisankar P, Madanmohan, Udupa K, and **Prakash ES**. Correlation between body mass index and blood pressure indices, handgrip strength, and handgrip endurance in healthy adolescents. Indian Journal of Physiology and Pharmacology 2005; 49: 455-461. http://www.ncbi.nlm.nih.gov/pubmed/16579400

45. Madanmohan, **Prakash ES,** and Bhavanani AB. Correlation between short-term heart rate variability indices and heart rate, blood pressure indices, pressor reactivity to isometric handgrip in healthy young male subjects. Indian Journal of Physiology and Pharmacology 2005; 49: 132-138. http://www.ncbi.nlm.nih.gov/pubmed/16170980

46. Prakash ES and Madanmohan. What causes the acute blood pressure elevation in stroke? Stroke 2005; 36: 2066. http://stroke.ahajournals.org/cgi/content/full/36/10/2066

47. Prakash ES, Madanmohan and Pal GK**.** What is the ultimate goal in neural regulation of cardiovascular function? Advances in Physiology Education 2004; 28: 100-101. http://advan.physiology.org/cgi/content/full/28/3/100

48. Madanmohan, Bhavanani AB, **Prakash ES,** Kamath MG, and Amudhan J. Effect of six weeks of shavasan training on spectral measures of short-term heart rate variability in young healthy volunteers. Indian Journal of Physiology and Pharmacology 2004; 48 (3): 370-373. http://www.ncbi.nlm.nih.gov/pubmed/15648413

49. Prakash ES, Madanmohan, Narayan SK, Prashanth U, Kamath MG, Udupa K, Sethuraman KR, Srinivasan S, and Kumar RA. Tilt table testing in the diagnostic evaluation of presyncope and syncope: a case-series report. Indian Journal of Physiology and Pharmacology 2004; 48 (2): 213-218. http://www.ncbi.nlm.nih.gov/pubmed/15521561

EDITORIALS:

1. Barsh GS, Copenhaver GP, **Prakash ES**, and Zarnescu DC. [Editorial] 2019 PLOS Genetics Research Prize: Fruit fly school – language and dialects for communicating a threat. *PLOS Genetics,* Sep 2019
https://journals.plos.org/plosgenetics/article?id=10.1371/journal.pgen.1008381

NON-PEER REVIEWED PUBLICATIONS:

1. (Book Chapter) Prakash ES. Problem-Solving Exercises in Physiology. In: *Handbook of Practical Physiology.* Madanmohan Trakroo and Lakshmi Jatiya (ed.), Paras Medical Books, India, 2019. ISBN : 9789386480484 **[Appended: Problem-Solving Exercises in Physiology]**

2. Prakash ES. Commentary on Claessen et al (2019): "Heart Rate Reserve in Fontan Patients: Chronotropic Incompetence or Hemodynamic Limitation? (PMID: 31041880)" Full free text at https://esprakash.wordpress.com/2019/05/21/commentary-on-claessen-et-al-2019-heart-rate-reserve-in-fontan-patients-chronotropic-incompetence-or-hemodynamic-limitation-pmid-31041880/

3. (Book) Prakash ES. Multiple-Choice Questions in Medical Physiology for Postgraduate Medical Entrance Examinations (*A*pprox. 140 pages; full text available at https://esprakash.files.wordpress.com/2014/12/mcqs-in-medical-physiology-2014-esp.pdf

4. Post-Publication Commentaries on F1000 Prime:

4.1 Aldosterone-renin ratio in the assessment of primary aldosteronism. Kumar B and Swee M JAMA. 2014 Jul 9; 312(2):184-5. **Prakash E:** F1000Prime Recommendation of [Kumar B and Swee M, JAMA 2014, 312(2):184-5]. In F1000Prime, 10 Jul 2014; DOI: 10.3410/f.718485709.793497028 F1000Prime.com/718485709#eval793497028

4.2 A Diagnosis of Dismobility-Giving Mobility Clinical Visibility: A Mobility Working Group Recommendation. **Prakash E:** F1000Prime Recommendation of [Cummings SR et al., JAMA 2014]. In F1000Prime, 01 May 2014; DOI: 10.3410/f.718365417.793494257. F1000Prime.com/718365417#eval793494257]

4.3 Endovascular procedures for the treatment of autonomic dysfunction. **Prakash E:** F1000Prime Recommendation of [Gibbons C et al., Clin Auton Res 2014, 24(1):1-2]. In F1000Prime, 12 Feb 2014; DOI: 10.3410/f.718270427.793490785. F1000Prime.com/718270427#eval793490785

4.4 Unaltered R-R interval variability and bradycardia in cyclists as compared with non-athletes. **Prakash E:** F1000Prime Recommendation of [Molina GE et al., Clin Auton Res 2013, 23(3):141-8]. In F1000Prime, 24 Jun 2013; DOI: 10.3410/f.718019202.793478483. F1000Prime.com/718019202#eval793478483

4.5 Is type 2 diabetes a category error? Gale EA. Lancet 2013 Jun 1; 381(9881):1956-7 **Prakash E:** F1000Prime Recommendation of [Gale EA, Lancet 2013, 381(9881):1956-7]. In F1000Prime, 14 Jun 2013; DOI: 10.3410/f.718018365.793477786. F1000Prime.com/718018365#eval793477786

4.6 Progression of Hyponatremia is Associated with Increased Cardiac Mortality in Patients Hospitalized for Acute Decompensated Heart Failure. [**Prakash E:** F1000Prime Recommendation

of [Konishi M et al., J Card Fail 2012, 18(8):620-5]. In F1000Prime, 31 Aug 2012; DOI: 10.3410/f.717953404.793458954. F1000Prime.com/717953404#eval793458954]

4.7 Rationale for continuous chest compression cardiopulmonary resuscitation. Ramaraj R, Ewy GA. Heart 2009 Dec; 95(24):1978-82 [**Prakash E:** F1000Prime Recommendation of [Ramaraj R and Ewy GA, Heart 2009, 95(24):1978-82]. In F1000Prime, 02 Dec 2009; DOI: 10.3410/f.1168402.630582. F1000Prime.com/1168402#eval630582]

4.8 Renal sympathetic-nerve ablation for uncontrolled hypertension. Schlaich MP, Sobotka PA, Krum H, Lambert E, Esler MD. N Engl J Med 2009 Aug 27; 361(9):932-4 [**Prakash E:** F1000Prime Recommendation of [Schlaich MP et al., N Engl J Med 2009, 361(9):932-4]. In F1000Prime, 19 Oct 2009; DOI: 10.3410/f.1164691.627316. F1000Prime.com/1164691#eval627316]

4.9 Enhanced cardiac sympathetic afferent reflex involved in sympathetic overactivity in renovascular hypertensive rats. Zhu GQ, Xu Y, Zhou LM, Li YH, Fan LM, Wang W, Gao XY, Chen Q. Exp Physiol 2009 Jul; 94(7):785-94. [**Prakash E**: F1000Prime Recommendation of [Zhu GQ et al., Exp Physiol 2009, 94(7):785-94]. In F1000Prime, 06 Jul 2009; DOI: 10.3410/f.1161539.623088. F1000Prime.com/1161539#eval623088]

4.10 The partial pressure of resting end-tidal carbon dioxide predicts major cardiac events in patients with systolic heart failure. Arena R, Myers J, Abella J, Pinkstaff S ... Peberdy MA, Bensimhon D, Chase P, Guazzi M. Am Heart J 2008 Nov; 156(5): 982-8 [**Prakash E:** F1000Prime Recommendation of [Arena R et al., Am Heart J 2008, 156(5):982-8]. In F1000Prime, 17 Apr 2009; DOI: 10.3410/f.1158876.620128. F1000Prime.com/1158876#eval620128]

4.11 What a headache: rare neuroendocrine indication for cardiopulmonary bypass for severe left ventricular dysfunction and shock. Newton JD, Munir S, Bhindi R, Ormerod O. Circ Heart Fail 2008 Jul; 1(2):143-5 **Prakash E:** F1000Prime Recommendation of [Newton JD et al., Circ Heart Fail 2008, 1(2):143-5]. In F1000Prime, 07 Aug 2008; DOI: 10.3410/f.1118867.574965. F1000Prime.com/1118867#eval574965

4.12 Direct left atrial pressure monitoring in ambulatory heart failure patients: initial experience with a new permanent implantable device. Ritzema J, Melton IC, Richards AM, Crozier IG ... Eigler N, Krum H, Abraham WT, Troughton RW. Circulation 2007 Dec 18; 116(25):2952-9 [**Prakash E:** F1000Prime Recommendation of [Ritzema J et al., Circulation 2007, 116(25):2952-9]. In F1000Prime, 11 Dec 2007; DOI: 10.3410/f.1098208.554213. F1000Prime.com/1098208#eval55421

5. Other Post-Publication Comments:

5.1 Prakash ES. Preventing recurrences of vasovagal syncope: Will an implantable arterial baroreflex deactivating system work? *British Medical Journal* 10 February 2007**;** available online at http://www.bmj.com/rapid-response/2011/11/01/preventing-recurrences-vasovagal-syncope-will-implantable-arterial-baroref

5.2 Prakash ES. *Response to:* "Effect of simulated altitude (normobaric hypoxia) on cardiorespiratory parameters and circulating endothelial precursors in healthy subjects" by Ciulla MM et al. my response is available online at Respiratory Research 2007 http://respiratory-research.com/content/8/1/58/comments

INVITED LECTURES / PRESENTATIONS / COURSES / WORKSHOPS (EXTRAMURAL)

1. **Prakash ES.** Regulation of tissue blood flow. Mahatma Gandhi Medical College and Research Institute, Puducherry, India; August 2014.

2. **Prakash ES.** Pathogenesis and pathophysiology of neurally mediated syncope; role of head-up tilt table testing in the evaluation of unexplained syncope. Mahatma Gandhi Medical College and Research Institute, Puducherry, India; May 2013.

3. **Prakash ES.** Revision Course in Physiology for interns and MBBS graduates preparing for postgraduate medical entrance examinations in India. Positive Postgraduate Medical Entrance Exam Training Center for Doctors, Chennai, India; June 2013, Aug 2014.

4. **Prakash ES.** Cardiac sympathovagal balance revisited. Joint meeting of the Society for Neuroscience (Bangalore Chapter) & Association of Physiologists and Pharmacologists of India (Bangalore Chapter), National Institute of Mental Health & Neurosciences, Bangalore, India; June 2012.

5. **Prakash ES.** Physiologic foundations and research and clinical applications of heart rate variability, in a CME & Workshop on Heart Rate Variability at Mahatma Gandhi Medical College and Research Institute, Puducherry, India; June 2012.

6. **Prakash ES.** Analysis of RR interval variability from RR interval tachograms. *Ibid.* Role: Principal Resource Faculty – Workshop development and presentation. Invited by Professor Madanmohan.

7. **Prakash ES.** Cardiovascular autonomic function testing. CARE Hospital, Hyderabad, India; Jan 2005. Invited by Dr. C. Narasimhan, Cardiologist.

8. **Prakash ES.** Heart rate variability: what a cardiologist needs to know. CARE Hospital, Hyderabad, India; Jan 2005. Invited by Dr. C Narasimhan, Cardiologist.

9. **Prakash ES.** Revision Courses in Physiology for interns and MBBS graduates preparing for postgraduate medical entrance examinations in India. Sai Supreme Postgraduate Medical Entrance Exam Training Center for Doctors (SPEED), Chennai, India (2002-2007). By necessity, these were intense, lengthy weekend sessions; class size increased from about 100 in 2002 to nearly 1000 in 2007.

CONFERENCE PRESENTATIONS:

(Note: In the interest of brevity, Conference Presentations that have resulted in a publication, and listed under Peer-Reviewed Publications above are omitted from the list below).

1. E.S.Prakash. Using viva-voce to examine cognitive processes underlying responses to multiple-choice items to reclassify borderline scores in high-stakes in-house summative assessments. 40th Conference of The Generalists in Medical Education, Phoenix, Arizona, Nov 2019. [Oral Presentation]

2. **Prakash ES.** Open-ended questions for Readiness Assessment and Application Activities in Team-Based Learning. Team-Based Learning Collaborative Meeting, Tampa, Florida, March 2019. **[Poster]**

3. Angle SM, **Prakash ES,** Murray SD, Garner RE, Malan TP. A Data-Driven Model for Predicting Unimpeded Progress: Practical Application of Statistical Analyses for Medical School Admissions. Annual Meeting of the Association of American Medical Colleges, Southern Group on Educational Affairs in Austin, Texas, April 2016. **[Poster]**

4. **Prakash ES.** The sum of low-frequency and high-frequency RR interval spectral powers is a more valid index of cardiac sympathovagal balance than the ratio of low-frequency to high-frequency spectral powers. [Poster] In: Satellite Meeting on Invasive and Noninvasive Studies of the Autonomic Nervous System; 6th Congress of the International Society of Autonomic Neuroscience, Sydney; September 2009. **[Poster]**

5. **Prakash ES.** A general medical teacher: a missing link in undergraduate medical education? [Poster Presentation] In: The 4th Congress of the Asian Medical Education Association, Chulalongkorn University, Bangkok, Thailand; Oct 2007. **[Poster]**

6. **Prakash ES,** Madanmohan Trakroo, Pavithran Purushothaman, Ravindra Pattanashetty. Short-term heart rate variability indices during supine rest and early phase of head-up tilt predict test outcome in females with unexplained syncope but not in males. In: Experimental Biology 2006, San Francisco. **[Poster].** Abstract at: http://www.fasebj.org/cgi/content/meeting_abstract/20/5/A1425-a

7. Krishna R, Purushothaman P, Madanmohan, and **Prakash ES.** Are there changes in vasoconstrictor reserve during the course of prolonged 70 degrees head-up tilt in young healthy female subjects? **[Platform Presentation]** In: 51st Annual Conference of the Association of Physiologists and Pharmacologists of India, 2005, Pondicherry, India. Abstract in: *Indian J Physiol Pharmacol* 2005; Dec (Suppl.), p. 58.

8. Ravindra PN, Madanmohan, **Prakash ES** and Pavithran P. Effect of pranayam and relaxation

training on the frequency of benign ventricular ectopics in two patients with palpitations. Abstract in: *Indian J Physiol Pharmacol* 2004; 48 (5): 174.

9. Krishna R, Krishnamurthy A, **Prakash ES,** and Madanmohan. On the possible physiologic significance of spontaneous low frequency blood pressure oscillations. **[Platform Presentation]** In: 50th Annual Conference of the Association of Physiologists and Pharmacologists of India, 2004, Bangalore, India. Abstract in: Indian J Physiol Pharmacol 2004; 48 (5): 93

10. **Prakash ES,** Madanmohan and Kamath MG. Effect of mental arithmetic on heart rate variability in healthy adult males. **[Platform Presentation]** In: Annual Conference of Association of Physiologists and Pharmacologists of India, Pondicherry Chapter, Pondicherry; April 2003.

11. **Prakash ES,** Madanmohan and Ganesh Kamath M. Blood pressure and heart rate response to mental arithmetic: A useful bedside test of autonomic reactivity as well as cardiovascular regulation; Ibid. **[Platform Presentation]**

12. **Prakash ES** and Madanmohan. Correlation between heart rate, blood pressure and spectral indices of heart rate variability in subjects with established hypertension and borderline hypertension. In: XVth Annual Conference of the Physiological Society of India, Bijapur, India; December 2003. **[Platform Presentation]**

13. **Prakash ES,** Kamath MG, and Madanmohan. Effect of 15 degrees acute head-down tilt on blood pressure, heart rate and heart rate variability in healthy police trainees and untrained subjects. *Ibid.* **[Platform Presentation]**

14. **Prakash ES,** Lalithambiga R, and Madanmohan. Oscillometric method versus auscultatory method in the determination of arterial blood pressure. [**Platform Presentation]** *Ibid.*

PRESENTATIONS IN INTRAMURAL MEETINGS/CONFERENCES:

1. **Prakash ES.** Applying the Theoretical Foundations of Programmatic Assessment to a Preclerkship Curriculum in the MD Program. Mercer University School of Medicine and Pharmacy Research Conference, Macon, GA, USA; May 2019.

2. **Prakash ES.** Brown adipose tissue. To flog or not to flog? In: *AIMST University Faculty of Medicine Academic Program*, Kedah, Malaysia; 2010.

3. **Prakash ES.** Resource Person for a simulation on tension pneumothorax. In: *Human Patient Simulator Network Conference*, AIMST University, Kedah, Malaysia; 2008.

4. **Prakash ES.** Physiologic Basis of Pulmonary Function Tests. In: *CME on Respiratory Diseases*, AIMST University, Kedah, Malaysia; July 2007.

PROFESSIONAL SOCIETY MEMBERSHIPS:

- The American Physiological Society (since 2004)

- Association of Physiologists and Pharmacologists of India (since 2002)
- American Heart Association (2004 - 2007)
- International Association of Medical Science Educators (Nov 2018 - date)
- Team-Based Learning Collaborative (2018 - date)
- The Generalists in Medical Education (Jul 2019-date)

HONORS AND AWARDS:

1. Inducted to *Alpha Omega Alpha* (AOA) Honor Medical Society March 2020

2. Recognition as Outstanding Basic Science Faculty, Macon Campus by Mercer University School of Medicine M.D. Class of 2016 (Macon Campus)

3. Professor R.C.Shukla Oration Award
Awarded by: Association of Physiologists and Pharmacologists of India
Awarded to: E.S.Prakash for the best research paper in cardiovascular physiology in 2005.
Citation: Prakash ES, Madanmohan, Sethuraman KR, and Narayan SK. Cardiovascular autonomic regulation in subjects with normal blood pressure, high normal blood pressure and recent-onset hypertension. Clinical and Experimental Pharmacology and Physiology 32: 488-494, 2005. http://www.ncbi.nlm.nih.gov/pubmed/15854164

SERVICE:

Medical School Committee Service:

At Mercer University School of Medicine

Committee	Dates
Member, Search Committee: Director of Faculty Affairs, COL	Feb 2020 - present
Member, LCME Self-study: Education Program Subcommittee	Aug 2019 - present
Member, Columbus Campus Medical Educator Search Committee	Jul 2019 - present
Member, MUSM Website Audit Committee	Jul 2019 - Dec 2019
Member, Curriculum and Instruction Committee	Jul 2017 - present
Member, Year 1 & 2 Program Committee (*aka.* Block Chairs Comm.)	Jan 2016 - present
Member, Medical School (MD Program) Admissions Committee	July 2012 - Jul 2017
Member, Year 1 & 2 Curriculum Review Task Force	Dec 2013 - Jun 2014
Member, MUSM Diversity Task Force	May 2012 - Dec 2015
Member, Longitudinal Course Committee	Jan 2012 - Dec 2014
Discipline Heads Subcommittee	July 2012 - Jun 2016
Chair, Physiology Faculty Search Committee	2012
Member, Task Force for Developing MDE Question Challenge Policy	2012
Member, Physiology Faculty Search Committee	2011

At AIMST University Faculty of Medicine:

Committee	*Dates*

Curriculum Committee	2008 - 2011
Examination Committees, *various*	2008 - 2011
Faculty of Medicine Research and Ethics Committee	2009 - 2011

Mentoring/Advising:

- **Pre-Clinical Faculty Advisor for the *Gamma House* (12 MS1; Aug 2019-present)**
- ***Class of 2017:*** 3 students
- ***Class of 2016****:* 3 students
- ***Class of 2015:*** 3 students

Service on Editorial Boards or as ad-hoc peer reviewer:

1. Founder, editor and publisher of Medical Physiology Online (ISSN 1985-4811), a peer reviewed, open access online only journal; http://www.medicalphysiologyonline.org (2008-2012; ceased publication in July 2012).

2. **Editorial Board Member, F1000 Research, Section: Cardiovascular Disorders, Jul 2012 - Jun 2015.**

3. Invited Peer Reviewer of Manuscripts for:

- Advances in Physiology Education
- American Journal of Physiology – Heart and Circulatory Physiology
- American Journal of Physiology – Regulatory, Integrative & Comparative Physiology
- Clinical and Experimental Hypertension
- Clinical and Experimental Pharmacology and Physiology
- Heart
- Indian Journal of Pharmacology
- International Journal of Cardiology
- Journal of Applied Physiology
- Journal of the American College of Cardiology
- Medical Education
- Medical Education Online
- Physiological Reports
- Postgraduate Medical Journal
- The American Journal of Cardiology

3.1 Manuscripts peer-reviewed from Jan 2011 – date are listed below by journal:

Journal	**No. of Manuscripts Reviewed**
Advances in Physiology Education	4
American Journal of Physiology: Heart & Circulatory Physiology	4
American Journal of Physiology: Regul. Integ. & Comp. Physiol.	1
Clinical and Experimental Hypertension	2
International Journal of Cardiology	4

Journal	No. of Manuscripts Reviewed
Journal of American College of Cardiology	3
Journal of Applied Physiology	3
Medical Education	1
Physiological Reports	1
The American Journal of Cardiology	6

Other Professional Service:

1. **Contributing Member,** Team-Based Learning Collaborative 2020 Conference Program Committee (June 2019 – Feb 2020)

2. **Contributing Member,** Team-Based Learning Collaborative, Education Development Committee (Apr 2019 – present)

3. **Invited Reviewer for Conference Proposals for** *The Generalists in Medical Education Conference*, 2019, Phoenix, Arizona. Reviewed 3 proposals in May 2019.

4. **Examinership:** External Examiner in 2011 for a PhD Thesis submitted to D.Y.Patil Vidyapeeth University, Pune, India. *Title of Thesis:* Study of Autonomic Nerve Functions and Electrophysiological Parameters of Peripheral Nerves in Type 2 Diabetic Males.

5. Developed, organized and conducted an intercollegiate quiz on diabetes for senior medical students. In: *Seminar on Diabetes,* AIMST University, Malaysia; November 2007.

5. Member, Organizing Committee of the 51st Annual Conference of the Association of Physiologists and Pharmacologists of India, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry, India, 2005; and reviewer for abstracts submitted to this conference.

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