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Education

2004 – 2008 Ph. D. in Neuroscience, Ohio State University
2001 – 2004 M. S. in Computer Engineering, Ohio State University
1995 – 1999 B. E. in Electrical and Electronics Engineering, Bangalore University, India

Research Training

2008 – Date Post-doctoral fellow
 Advisor:
 Dr. Ranu Jung, Co-director, Center for Adaptive Neural Systems,
 Associate Professor, Department of Bioengineering, Arizona State University

2004 – 2008 Graduate Research Associate
 Ph. D. Advisors:
 Dr. Joseph B Travers, Professor, Department of Oral Biology, Ohio State University
 Dr. David H Terman, Senior Director, Mathematical Biosciences Institute
 Professor, Department of Mathematics, Ohio State University

2002 – 2004 Graduate Research Assistant
 M. S. Thesis Advisor:
 Dr. Jogikal Jagadeesh, Associate Professor, Department of Electrical and Computer
 Engineering, Ohio State University

1998 – 1999 Undergraduate Research Assistant
 External Advisor (Undergraduate Thesis):
 Dr. C R L. Murthy, Chair, Department of Aerospace Engineering, Indian Institute of Science, India

Positions as Software Engineer

2003 – 2004 Graduate Research Associate, Department of Psychology, Ohio State University
2001 – 2003 Graduate Research Associate, Department of Oral Biology, Ohio State University
1999 – 2001 Programmer Analyst, Cognizant Technology Solutions, India

Honors and Awards

2008 Eli Lilly & Co. Travel Award Fellow, Society for Neuroscience (\$ 750)
2006 Taylor and Francis Award for Best Graduate Student Poster, Society for Math Biology (\$ 250)
2006 Edward J. Ray Travel Award for scholarship and service, Ohio State University (\$ 750)
1999 Certificate of Merit for Distinction, Bangalore University, India
1995 – 1999 Undergraduate Scholarship, Bangalore City Corporation, India
1993 – 1995 Scholarship from National Talent Search Exam, Central Education Board, India

Manuscripts in preparation

1. **S Venugopal**, JA Boulant & JB Travers, “Physiological and morphological characteristics of neurons in the intermediate zone of the medullary reticular formation”.

Published articles

1. J Nasse, DH Terman, **S Venugopal**, G Hermann, R Rogers & JB Travers, “Local circuit input to the medullary reticular formation from the rostral nucleus of the solitary tract”, *Am J Physiol Regul Integr Comp Physiol*. 2008 Nov; 295(5):R1391-408. PMID: 18716034

2. **S Venugopal**, JB Travers, DH Terman, “A computational model for motor pattern switching of taste-induced ingestion and rejection oromotor behaviors”, *J of Comput. Neurosci*. 2007 Apr; 22(2):223-38. PMID 17072755

3. **S Venugopal**, CR Castro-Pareja, O Dandekar, “An FPGA-based 3D image processor with median and convolution filters for real-time applications” *International Society for Optical Engineering 2005*, vol. 5671, pp. 174-182. ISBN 0-8194-5644-6

4. CR Castro-Pareja, JM Jagadeesh, **S Venugopal**, R Shekar, “FPGA-based 3D median filtering using word-parallel systolic arrays” *IEEE International Symposium on Circuits and Systems 2004*, vol. 5, Issue 23-26 May, pp. 996-1023. ISBN 0-7803-8251-X

Theses

2008 Role of inhibition and hyperpolarization-activated membrane properties in a lick/gape central pattern generator (Doctoral Thesis, Ohio State University, Document number: osu1218566830 (available online)).

2004 Real-time architecture for 3-dimensional image neighborhood pre-processing
Master’s Thesis, Ohio State University, OCLC 56191464

Professional Presentations (* Invited Talk)

2008

S Venugopal, DH Terman, J Boulant, JB Travers, “Role for I_h and I_A in altering the post-inhibitory responses in a lick/gape pattern generator”, *Society for Neuroscience*, Washington, DC

JB Travers, J Nasse, R Rogers, S Venugopal, DH Terman, “In vitro evidence of a computational model for switching between ingestion and rejection”, *Society for the Study of Ingestive Behavior*, Paris, France

* S Venugopal, “Neural mechanisms underlying a brainstem substrate guiding taste-induced rhythmic motor behaviors”, *Arizona State University*, Tempe, AZ

2007

S. Venugopal, D. Terman, J. Travers, “Neural Mechanisms Underlying Switching Between Taste-induced Ingestion and Rejection Oromotor Behaviors”, *Integrated Graduate Program Symposium*, Ohio State University.

S. Venugopal, D. Terman, J. Travers, “Prolonged inhibition can underlie motor pattern switching in a central pattern generator – A mathematical modeling study”, *Research Day*, College of Medicine and Public Health, Ohio State University.

S. Venugopal, D. Terman, J. Travers, “Neural Mechanisms Underlying Oromotor Behaviors For Taste Discrimination”, *Research Day*, College of Dentistry, Ohio State University.

2006

S Venugopal, DH Terman, JB Travers, “A computational model for a central pattern generator driving taste-induced ingestion and rejection oromotor behaviors”, *Society for Neuroscience*, Atlanta, GA.

JI Broussard, S Venugopal, M Sarter, B Givens, “Cholinergic modulation of posterior parietal neuronal activity associated with the detection of signals in attentional task-performing rats.” *Society for Neuroscience*, Atlanta, GA.

S Venugopal, JB Travers, D Terman, “A computational model for motor pattern switching between taste-induced ingestion and rejection oromotor behaviors”, Society for Industrial and Applied Mathematics and Society for Mathematical Biology Life Sciences Conference, Raleigh, NC.

S Venugopal, J B Travers, DH Terman, “A computational model for motor pattern switching in a central pattern generator”, Conference on Mathematical Neuroscience, Andorra, Spain.

2005

LM Pyter, GQ Butcher, EE Congdon, MR Detloff, KF Ghai, S Venugopal, JC Bresnahan, MS Beattie, “Mapping neuroscience at the Ohio State University: graphic representations of program and individual scientific breadth and depth in association with the Carnegie Initiative on the Doctorate (CID)”, Society for Neuroscience, Washington, DC.

GQ Butcher, MR Detloff, K Ghai, EL Hoschouer, LM Pyter, S Venugopal, GA Bishop, “Neuroscience Education: Urban and Rural Outreach (NEURO)”, Society for Neuroscience, Washington, DC.

* S Venugopal, “A model for Central Pattern Generator Driving Taste-Induced Ingestion and Rejection Oromotor Behaviors”, Mathematical Biosciences Institute, Ohio State University.

S Venugopal, CR Castro-Pareja, O Dandekar, “An FPGA-based 3D image processor with median and convolution filters for real-time applications” International Society for Optical Engineering.

LM Pyter, GQ Butcher, EE Congdon, MR Detloff, KF Ghai, S Venugopal, JC Bresnahan, MS Beattie, “Mapping neuroscience at the Ohio State University: graphic representations of program and individual scientific breadth and depth in association with the Carnegie Initiative on the Doctorate (CID)”, Carnegie Initiative on the Doctorate: The Big Ten Conference, Urbana, IL.

2004

S. Venugopal, K. Y. Yick, R. Yamada, Y. Fu, “Spike Time Dependent Plasticity”, Summer Workshop on Cell Processes 2004, Mathematical Biosciences Institute, Ohio State University.

CR Castro-Pareja, JM Jagadeesh, S Venugopal, R Shekar, “FPGA-based 3D median filtering using word-parallel systolic arrays” IEEE International Symposium on Circuits and Systems.

Teaching & Mentoring Experience

2007 – 2008 Undergraduate Research Mentor (1 student)

2005 Graduate Teaching Assistant
Course: Structural and Functional Neuroanatomy
Department of Neuroscience, Ohio State University

Service & Outreach

2009 Poster Judge for State Science Fair Competition in Arizona
2008 Mentor for Brain Bee competition
2007 Brain Awareness Week Exhibit Volunteer at COSI Museum
2006 Served as a committee member to enhance the visibility of the Neuroscience graduate program at Ohio State University
2005 Representative for Carnegie Initiative on the Doctorate (CID) Big Ten conference Conference
Representative for Carnegie Initiative on the Doctorate (CID) Convening at SfN 2005
Poster Judge for State Science Fair Competition in Ohio
Brain Awareness Week Exhibit Volunteer at COSI Museum
Member of K-12 education outreach, “Neuroscience Education: Urban and Rural Outreach (NEURO)”

Professional Memberships

Society for Neuroscience (SfN)