

Sevgi ŞENGÜL



Contact Details



Üniversite Cad. No:2 07190
Döşemealtı / ANTALYA
Office:A1-69



0-544-440-2893



sevgi.sengul@antalya.edu.tr

Education

Florida State University

Biomathematics , PhD

2014, December

Department of Mathematics

Advisor: Richard Bertram & Joel Tabak

Florida State University

Biomathematics and Neuroscience, MSc.

2012, May

Department of Mathematics

Advisor: Richard Bertram & Joel Tabak

Western Kentucky University

Mathematics, MSc.

2010, May

Department of Mathematics

Advisor: Ferhan Atici

Izmir Institute of Technology

Mathematics, MSc.

2008, February

Department of Mathematics

Advisor: Ali Tabak

Dokuz Eylul University

Mathematics, College of Education, B.S. (with master degree)

2006, June

Department of Mathematics

Research Interests

Neuroscience : Computational Neuroscience, Ion channels, Calcium regulation, biophysics, electrophysiology
Mathematics: Mathematical Neuroscience, Dynamical systems analysis, Mathematical modeling, Biomathematics, Biostatistics, Mathematical & Computational biology, Applied mathematics, Ordinary and Partial Differential Equations, Mathematical and Statistical analysis, Bioinformatics

Publications

Sevgi Sengul (2014), Unveiling Mechanisms for Electrical Activity Patterns in Neurons and Pituitary Cells Using Mathematical Modeling and Analysis, *PhD Dissertation*

Peter Duncan, **Sevgi Sengul**, Joel Tabak, Peter Ruth, Richard Bertram, Mike Shipston (2014). Large conductance Ca^{2+} activates K^+ channels (BK) promote secretagogue-induced transition from spiking to bursting in murine anterior pituitary corticotrophs, *Journal of Physiology*

Sevgi Sengul, Rob Clewley, Richard Bertram, Joel Tabak (2014). Determining the contributions of two negative feedback processes in the Hodgkin-Huxley model, *Journal of Computational Neuroscience*

Sevgi Sengul (2010), Discrete Fractional Calculus and Its Applications to Tumor Growth, *Master's Thesis*

Ferhan M Atici, **Sevgi Sengul**, (2010). Modeling with Fractional Difference Equations, *Journal of Mathematical Analysis and Applications (The Top 10 downloaded papers published in 2010)*

Awards & Grants

Distinguished Teaching Assistant Award-*Florida State University, 2014*

Outstanding Graduate Student Award- *Western Kentucky University, 2009-2010*

Best of Conference, Graduate Papers in Physical Sciences- *The 40th Annual WKU Student Research Conference, February 27, 2010*

Summer Project Grant- *Western Kentucky University, 2009*

Dr. R Glenn Powers Scholarship- *Western Kentucky University, 2009*

Professional Service

Reviewer, Journal of Neural Transmission (2014-present)

Organizer, Java & Journal Club at FSU (2013-2014)

Member, Society for Neuroscience (2013-present)
Society for Mathematical Biology (2010-present)
American Mathematical Society (2012-present)
Pi Mu Epsilon (2009-present)

Scientific Presentations

Bursting in the Pituitary Corticotroph: The Role of Bk Ion Channels (2014)

Poster presentation in SIAM meeting in Life Sciences, Charlotte

The contributions of two negative feedback processes in the Hodgkin-Huxley model (2013)

Poster presentation in Society for Neuroscience, San Diego

Quantification of Negative Feedback Processes in Hodgkin-Huxley Model (2012)

Florida State University

Discrete Fractional Gompertzian Model for Tumor Growth (2009)

American Mathematical Society Fall 2009 Sectional Meeting, Baylor University

A Simple Discrete Fractional Variations Problem and an Example of Tumor Growth (2009)

Izmir University of Economics Symposium on Biomathematics and Ecology

Rheology and a Simple Model for Blood Flow (2007)

Dokuz Eylul University Medical School, Physiology Department

Teaching Experience

Teaching Assistant:

Florida State University	(2010 - 2014)
Courses: 1107- Practical Finite Math	2010 Fall
2480-BioCalculus (Solo)	2011/2012 Spring-2011 Fall
1114-Analytical Trigonometry	2011 Summer
1140-PreCalculus (Solo)	2012 Fall-2013 Fall
2313-Calculus with Analytic Geometry III(Solo)	2013 Spring/Fall,2014 Spring
3105-Applied Linear Algebra I (Solo)	2014 Summer

Western Kentucky University (2008 - 2010)

Courses: Calculus I,II and III, ODE (for the Carol Martin Gatton Academy of Mathematics and Science students) 2009 - 2010

Intermediate Algebra(Solo) 2008 - 2009

Computer Skills

-Expert in XPPAut, UNIX, LINUX Environments, LaTeX, MATLAB, Mathematica, Maple

-Experienced in Java and Python

Internships

Electrical Activity of The Heart: *Prof. Dr. Gregory Buzzard*
Purdue University, Mathematics Department (01/08-03/08)

Biophysics and Rheology: *Prof. Dr. Mustafa Fidan*
Dokuz Eylul University Medical School, Physiology Department (02/07-06/07)

References

Dr. Ferhan Atici,
Department of Mathematics,
Western Kentucky University
Telephone: 270-745-6229
Email: ferhan.atici@wku.edu

Dr. Richard Bertram,
Department of Mathematics & Program in Neuroscience,
Florida State University
Telephone: 850-644-7195
Email: bertram@math.fsu.edu

Dr. Steve Bellenot,
Department of Neuroscience,
Florida State University
Telephone: 850- 644-7405
Email: bellenot@math.fsu.edu

Dr. Penelope Kirby,
Department of Mathematics,
Florida State University
Telephone: 850- 644-4053
Email: pkirby@math.fsu.edu