CURRICULUM VITAE

Elena Oancea, PhD

Brown University

Department of Molecular Pharmacology, Physiology and Biotechnology

171 Meeting St., Biomed Center 328, Providence, RI 02912

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1. EDUCATION

1994-1998 Ph.D. in Cell Biology in the laboratory of Dr. Tobias Meyer, Duke University

1989-1991 M.S. in Biophysics, University of Bucharest, Romania

1986-1989 B.S. in Physics, University of Bucharest, Romania

2. PROFESSIONAL APPOINTMENTS

07/ 2015 – present **Associate Professor of Medical Science**, Department of Molecular Pharmacology, Physiology and Biotechnology, Brown University

01/2008 – 06/2015 **Assistant Professor of Medical Science**, Department of Molecular Pharmacology, Physiology and Biotechnology, Brown University

11/2003 – 12/2007 **Instructor** in Cardiovascular Research, Children's Hospital, Harvard Medical School

10/1998 – 11/2003 **Postdoctoral Fellow** in the laboratory of Dr. David Clapham, Howard Hughes Medical Institute / Harvard Medical School

01/1993 – 08/1994 **Research Analyst**, Department of Cell Biology, Duke University

3. PUBLICATIONS

■ Refereed journal articles

1. Allbritton NL, Oancea E, Kuhn M, and Meyer T. 1994. Source of Nuclear Calcium Signals. **Proceedings of the National Academy of Sciences** 91: 12458-12462.
2. Oancea E. and Meyer T. 1996. Reversible Desensitization of Inositol Trisphosphate Induced Calcium Release Provides a Mechanism for Repetitive Calcium Spikes. **Journal of Biological Chemistry** 271:17253-17260.
3. Oancea E., Teruel MN, Quest A, and Meyer T. 1998. GFP-tagged Cysteine-rich Domains from Protein Kinase C as Fluorescent Indicators for Diacylglycerol Signaling in Living Cells. **Journal of Cell Biology** 140: 485-498.
4. Oancea E. and Meyer T. 1998. Protein Kinase C as a Molecular Machine for Decoding Calcium and Diacylglycerol Signals. **Cell** 95: 307-318.
5. Meyer T. and Oancea E. 2000. Studies of signal transduction events using chimeras to green fluorescent protein. **Methods in Enzymology** 327:500-513.
6. Oancea E, Bezzerides VJ, Greka A, and Clapham DE. 2003. Mechanism of Protein Kinase D1 Activation and Translocation. **Developmental Cell** 4:1-20.

7. Greka A, Navarro B, Oancea E, Duggan A, and Clapham DE. 2003. TRPC5 is a Regulator of Hippocampal Neurite Length and Growth Cone Morphology. **Nature Neuroscience** 6: 837-845.

8. Oancea E*, Wolfe, JT, and Clapham DE. 2006. Functional TRPM7 Channels Accumulate at the Plasma Membrane in Response to Fluid Flow. **Circulation Research** 98: 245-53.

   *corresponding author

   → *Highlighted in:*

   Gurney AM. 2006. Going with the flow: smooth muscle TRPM7 channels and the vascular response to blood flow. **Circulation Research**. 98:163-4.

9. Lambers TT, Mahieu F, Oancea E, Hoofd L, de Lange F, Mensenkamp AR, Voets T, Nilius B, Clapham DE, Hoenderop JG, and Bindels RJ. 2006. Calbindin-D28K Dynamically Controls TRPV5-mediated Ca^{2+} Transport. **EMBO Journa**l 25: 2978-88.

10. Lambers TT, Oancea E, de Groot T, Topala CN, Hoenderop JG, Bindels RJ. 2007. Extracellular pH Dynamically Controls Cell Surface Delivery of Functional TRPV5 Channels. **Molecular and Cellular Biology** 27: 1486-94.

11. Oancea E*, Vriens J, Brauchi S, Jun JJ, Splawski I, and Clapham DE. 2009. TRPM1 Forms Ion Channels Associated with Melanin Content in Melanocytes. **Science Signaling** 2(70):ra21.

    *corresponding author

    → *Highlighted in 2 articles:*

    Patel S, Docampo R. 2009. In with the TRP channels: intracellular functions for TRPM1 and TRPM2. **Science Signaling** 2009 Nov 3;2(95):pe69.

    Schmidt TM. 2009. Role of melastatin-related transient receptor potential channel TRPM1 in the retina: Clues from horses and mice. **Journal of Neuroscience** 2009 Sep 23; 29:11720-2.

12. Oancea E and Wicks NL. 2011. "TRPM1: New Trends for and Old TRP", Review. **Advances in Experimental Biology and Medicine** 704:135-45.

13. Wicks NL, Chan JW, Ciriello JM, Najera JA, and Oancea E. 2011. "UVA Phototransduction Drives Early Melanin Synthesis in Human Melanocytes" **Current Biology** 21, 1906–1911.

    →Chosen as one of the top 10 new research findings over the last 3 years at the 2012 Human Anatomy and Physiology (HAPS) Conference in Tulsa, OK.

14. Bruder JM, Pfeiffer ZA, Ciriello JM, Horrigan DM, Wicks NL, Flaherty B, and Oancea E. 2012. "Melanosomal Dynamics Assessed with a Live-Cell Fluorescent Melanosomal Marker". **PLOS ONE** volume 7: e43465.

    →*Featured in:*

    The documentary "Our Amazing Cells" produced by the **Japan Public Broadcasting Company** (NHK) - http://www.nhk.or.jp/co-pro/e/nhkprojects/cell/index.html

15. Bellono NW, Kammel LG, Zimmerman AL, and Oancea E. 2013. "Ultraviolet Light Phototransduction Activates TRPA1 in Human Melanocytes". **Proceedings of the National Academy of Sciences** 110: 2383-8.

    →*Highlighted in: **Faculty of 1000*** http://f1000.com/prime /717973069

16. Bellono NW and Oancea E. 2013. "UV Light Phototransduction Depolarizes Human Melanocytes". **Channels** Jun 13;7(4).

    →*Highlighted in:*

    Caterina, MJ. 2013. Boosting that tan with a bit of voltage. **Channels** Oct 10; 7(6).

17. Bellono NW, Najera JA, and Oancea E. 2014. UV Light Activates a Gαq/11-coupled Photo-transduction Pathway in Human Melanocytes. **Journal of General Physiology** 143: 203-14.

    →*Highlighted in:*

    Journal of General Physiology special issue on Sensory Transduction, Sept 2014

18. Bellono NW and Oancea E. 2014. Ion Transport in Pigmentation. Review. **Archives of Biochemistry and Biophysics** Dec;563C:35-41.
19. Haltaufderhyde KD and Oancea E. 2014. Genome-wide Transcriptome Analysis of Human Epidermal Melanocytes. **Genomics** Oct 30. pii: S0888-7543(14)00187-6.
20. Haltaufderhyde KD and Oancea E. 2014. Data Set for the Genome-wide Transcriptome Analysis of Human Epidermal Melanocytes. **Data in Brief** 1(2014)70–72.
21. Haltaufderhyde KD, Ozdeslik RN, Wicks NL, Najera JA, and Oancea E. 2014. Opsin Expression in Human Epidermal Skin. **Photochemistry and Photobiology** doi: 10.1111/php.12354.
22. Bellono NW, Escobar IE, Lefkovith AJ, Marks MS, and Oancea E. 2014. An intracellular ion channel essential for pigmentation. **eLife** http://dx.doi.org/10.7554/eLife.04543.
23. Bellono, N.W., Escobar, I.E., and Oancea E. 2016. A melanosomal two-pore sodium channel regulates pigmentation. **Scientific Reports** 6:26570, http://www.nature.com/articles/srep26570

    →*Highlighted in:*

    A. Patwardhan and C. Delevoye - Ions switch off darkness: role of TPC2 in melanosomes, **Pigment Cell and Melanoma Research** Sept 2017, 29:5, 498–499, DOI: 10.1111/pcmr.12510

24. Crawford NG, Kelly DE, Hansen MEB, Beltrame MH, Fan S, Bowman SL, Jewett E, Ranciaro A, Thompson S, Lo Y, Pfeifer SP, Jensen JD, Campbell MC, Beggs W, Hormozdiari F, Mpoloka SW, Mokone GG, Nyambo T, Meskel DW, Belay G, Haut J; NISC Comparative Sequencing Program, Rothschild H, Zon L, Zhou Y, Kovacs MA, Xu M, Zhang T, Bishop K, Sinclair J, Rivas C, Elliot E, Choi J, Li SA, Hicks B, Burgess S, Abnet C, Watkins-Chow DE, Oceana E, Song YS, Eskin E, Brown KM, Marks MS, Loftus SK, Pavan WJ, Yeager M, Chanock S and Tishkoff SA, "Loci associated with skin pigmentation identified in African populations.", ***Science***. 2017 Nov 17;358(6365). pii: eaan8433. doi: 10.1126/science.aan8433.
25. Ozdeslik RN, Olinski LE, Trieu MM, Oprian DD, and Oancea E, "The human non-visual opsin OPN3 regulates pigmentation of epidermal melanocytes through interaction with MC1R", ***PNAS***, *in revision*.
26. Dumbuya H and Oancea E, "Crosstalk between calcium and mitochondrial ROS regulate the UVA-induced melanin response in human melanocytes", ***Science Signaling***, *in revision.*
27. Koroma D and Oancea E, "A melanosomal shRNA screen for organellar ion channels, transporters and receptors that regulate luminal pH", ***Methods in Signaling Transduction***, *in revision*.

■ Non-refereed journal articles

1. Meyer T, Oancea E, and Allbritton, NL. 1995. Nuclear Calcium Signals. **Ciba Foundation Symposium 188:** "Calcium Waves, gradients and oscillations. Wiley, Chichester". p: 252-266.

2. Oancea E and VanHook AM. 2009. Activity and expression of the TRPM1 cation channel in melanocytes. **Science Signaling** Podcast**:** 19 May 2009.
3. Oancea E. 2013. Invited Comment on "UVB radiation generates sunburn pain and affects skin by activating epidermal TRPV4 ion channels and triggering endothelin-1 signaling." by Moore et al., PNAS 2013. **Pain Research Forum**, Aug 27, 2013.

■ Abstracts

2009 **Biophysical Society Annual Meeting**, Boston, MA

"Novel TRPM1 isoforms Regulate Melanin Accumulation in Melanocytes"
Oancea E, Vriens J, Brauchi S, Jun J, & Clapham DE.

2010 **Frontier in Biosciences Summer Program**, Osaka University, Japan

"Opsin-Mediated Signaling in Human Skin"
Wicks NL, Chan JW, Ciriello JM, Najera JA, & Oancea E.

2011 **Biophysical Society Annual Meeting**, Baltimore, MD

"Ultraviolet Light Activates Rhodopsin in Human Melanocytes to Induce Calcium Release", Wicks NL, Chan JW, Ciriello JM, Najera JA, & Oancea E.

FASEB Research Conference: Biology and Chemistry of Vision, Carefree, AZ

"Evidence for an Ultraviolet Light-Activated Receptor in Human Melanocytes"
Wicks NL, Ciriello JM, & Oancea E.

"Ultraviolet Light Activates Opsin-like Receptors in Human Keratinocytes"
Najera JA, Wicks NL, Ciriello JM, & Oancea E.

2012 **FASEB Research Conference** "Calcium and Cell Function", Snowmass Village, CO

"TRPA1 is required for ultraviolet light phototransduction in human melanocytes"
Bellono NW, Kammel LG, Zimmerman AL, and Oancea E.

2013 **Biophysical Society Annual Meeting**, Philadelphia, PA

"Ultraviolet light phototransduction activates TRPA1 to mediate melanin synthesis in human melanocytes", Bellono NW, Kammel LG, Zimmerman AL, & Oancea E.

FASEB Research Conference: Biology and Chemistry of Vision, Steamboat Springs, CO

"Characterization of Opn3 (Encephalopsin) Expression and Localization in Human Epidermal Skin Cells", Ozdeslik RN & Oancea E.

Meeting of PanAmerican Society for Pigment Cell Research, Madison, WI

"Molecular mechanism of a novel UVA phototransduction pathway in human skin"
Bellono NW, Najera JA, & Oancea E.

"A Comparative Transcriptomic Analysis of Lightly and Darkly Pigmented Human Epidermal Melanocytes", Haltaufderhyde KD & Oancea E.

Meeting of European Society for Pigment Cell Research, Lisbon, Portugal

"Ionic signaling in melanosomes"
Bellono NW, Haltaufderhyde KD, Marks MS, & Oancea E.

2014 **GORDON Research Conference** "Lysosomes and Exocytosis", Andover, NH

"Direct patch-clamp recording from lysosomes and lysosome-related organelles identifies a chloride channel required for pigmentation"
Bellono NW, Escobar IE, Marks MS, & Oancea E.

Annual Meeting of the Society of General Physiologists, Woods Hole, MA

"Ultraviolet light detection in human skin via a novel phototransduction pathway"
Bellono NW, Najera JA, & Oancea E.

"Opsin expression in human epidermal skin"
Ozdeslik RN, Haltaufderhyde KD, & Oancea E.

"Direct patch-clamp recording from lysosomes and lysosome-related organelles identifies a chloride channel required for pigmentation"
Bellono NW, Escobar IE, Marks MS, & Oancea E.

→ *Best Poster Award*

Annual Biomedical Research Conference for Minority Students, San Antonio, TX

"Genome-wide Transcriptome Analysis of Human Epidermal Melanocytes"
Haltaufderhyde KD & Oancea E.

"Identifying the Molecular Mechanisms of UVA-induced Oxidative Damage"
Dumbuya H & Oancea E.

2015 **Ford Foundation Fellowship Conference**, Washington, DC

"*UV light phototransduction is a reactive oxygen species-sensitive signaling cascade"*
Dumbuya H & Oancea E.

PanAmerican Society for Pigment Cell Research, Orange, CA

"*UVA phototransduction is a reactive oxygen species-sensitive signaling cascade"*
Dumbuya H & Oancea E.

2016 **FASEB Research Conference**: Calcium and Cell Function, Lisbon, Portugal

"Calcium and mitochondrial ROS mediate UVA phototransduction in human melanocytes"
Dumbuya H & Oancea E.

PanAmerican Society for Pigment Cell Research, Baltimore, MA

"Regulation of melanocortin-1 receptor via interaction with opsin3 in human epidermal melanocytes"
Ozdeslik RN, Olinski LE, & Oancea E.

SACNAS Regional Meeting, Boston, MA

"*UVA phototransduction is a reactive oxygen species-sensitive signaling cascade"*
Dumbuya H & Oancea E.

Ford Foundation Fellowship Conference, Washington, DC

"*Calcium and ROS mediate UVA phototransduction in human melanocytes"*
Dumbuya H & Oancea E.

2017 **The Society of General Physiologists Conference.** Woods Hole, MA.

"Opsin3-mediated regulation of skin pigmentation"
Olinski LE, Ozdeslik RN, Oancea E.

2018 **The Biology of Skin Conference,** Panamerican Society for Pigment Cell. Montagna, OR

"Melanin-dependent reactive oxygen species signaling in human epidermal melanocytes"
Hafez S and Oancea E

The Biology of Skin Conference, Panamerican Society for Pigment Cell. Montagna, OR

"An Intracellular Proton-chloride Transporter is a negative regulator of pigmentation"
Koroma D, Trotman JC, Oancea E

2019 **Keystone Symposium: Functional Neurocircuitry of Feeding and Feeding Disorders.** Banff, AB, Canada.

"The regulation of hypothalamic melanocortin receptors by the extraocular opsin3."
Olinski LE, Lin E, Ozdeslik RN, Haddad H, Oancea E.

Invited lectures

1998 EMBO Workshop: Calcium Signals in the Cell Nucleus Strasbourg, France
"Decoding calcium and diacylglycerol signals by a molecular switch for protein kinase C"

1999 ASBMB Symposia: Protein Kinase C and Cell Function, Lake Tahoe, CA
"PKC as a molecular machine for decoding calcium and diacylglycerol signals"

2004 Molecular Oncology Research Institute at Tufts University, Boston, MA
"Protein Kinase D as a memory molecule for G-protein signals"

2006 Cell and Molecular Biology of TRP Channels Conference, University of Bath, UK
"Functional TrpM7 channels accumulate at the plasma membrane in response to flow"

2007 Brown University, MPPB Department, Providence, RI
"TRPM7 ion channel senses fluid flow in blood vessels"

2008 Rhode Island Hospital, Pulmonary Medicine, Providence, RI
"Investigation of TRP channels by Total Internal Reflection Microscopy"

2009 Wistar Cancer Institute, University of Pennsylvania, Philadelphia, PA
"TRPM1 as a potential melanoma target"

Ion Channel Meeting: TRP channels in health and disease, Stockholm, Sweden
"TRPM1 in black and white"

Brown University Neuroscience Seminar, Providence, RI
"TRP channels in melanocytes"

Massachusetts General Hospital/Harvard University, Boston, MA
"TRPM1 in melanoma and pigmentation"

Brown University Cardiovascular Research Center Seminar Series, Providence, RI
"TIRF-ing and TRP-ing"

Brown University, MCB Department Seminar Series, Providence, RI
"TRPM1 ion channels mediate melanin accumulation in in melanocytes"

2010 ARVO 2010 Annual Meeting, Fort Lauderdale, FL
Minisymposia: TRP-channel Function and Their Role in Vision
"The TRPM family of TRP channels"

2011 Simon Fraser University, Vancouver, Canada
"Ultraviolet light signal transduction in melanocytes"

University of British Columbia, Vancouver, Canada
"Opsin mediated UV light phototransduction in human skin"

FASEB Research Conference: Biology and Chemistry of Vision, Carefree, AZ
"Rhodopsin mediates UV signal transduction in human skin"

Brown University Neuroscience Retreat, Providence, RI
"Ultraviolet light phototransduction in human skin"

2012 Ion Channels Symposium, Harvard University, Boston, MA
"TRP channels in human skin"

UV-radiation Induced Disease – roles of UVA and UVB, Stockholm, Sweden
"UVA signal transduction in melanocytes"

FASEB Research Conference: Calcium and Cell Function, Snowmass Village, CO
"UV-induced calcium signaling in human melanocytes"

Yale University, New Haven, CT
"Can skin see in UV?"

2013 Brandeis University, Waltham, MA
"Ultraviolet light signal transduction in human skin"

Harvard University and Children's Hospital, Boston, MA
"Ultraviolet light signal transduction in human skin"

University of Pennsylvania, Philadelphia, PA
"Ultraviolet light signal transduction in human skin"

FASEB Research Conference: Biology and Chemistry of Vision, Steamboat Springs, CO
"Molecular mechanism of a novel UVA phototransduction pathway in human skin"

PanAmerican Society for Pigment Cell Research Meeting, Madison, WI
"Molecular mechanism of a novel UVA phototransduction pathway in human skin"

Vision of Children 8th International Symposium, San Diego, CA
"Ionic transport in melanosomes"

2014 FASEB Research Conference "Calcium and Cell Function", Nassau, Bahamas
"TRPA1 channels mediate the response of human melanocytes to UVA and UVB radiation"

Annual Meeting and Symposium of the Society of General Physiologists, Woods Hole, MA
"Ultraviolet light detection in human skin via a novel phototransduction pathway"

2015 Symposium in Biophysics and Neurobiology "From Single Molecules to Complex Multicellular Organisms", Valdivia, Chile
"A novel intracellular anion channel critical for pigmentation"

Rhode Island Hospital, Department of Dermatology

"Ion Channels involved in skin pigmentation"

FASEB Ion Channel Regulation Conference, Big Sky, MT

"An intracellular anion channel critical for pigmentation"

European Society for Pigment Cell Research Meeting, Edinburgh, UK

"Ion Channels involved in pigmentation"

2016 Third European Days of Albinism, Milan, Italy

"Melanosomal ion channels critical for pigmentation"

University of Iowa Carver College of Medicine, Iowa City, IA

"Intracellular Ion Channels that Regulate Pigmentation"

Johns Hopkins University School of Medicine, Baltimore, MD

"Ions Turn off the Dark in Melanocytes"

BIBS (Brown University) Chalk Talk Series

"An Opsin in the dark"

2017 Gordon Research Conference "Organellar Channels and Transportes", Mount Snow, VT

"Intracellular ion channels regulating pigmentation"

L'Oreal USA, Newark, NJ

"Molecular mechanisms mediating pigmentation in melanocytes"

2018 NIH National Eye Institute, Bethesda, MA

"Ion channels critical for eye and skin pigmentation"

Wright State University School of Medicine, OH

"Ion channels critical with function in pigmentation"

FASEB Conference "Calcium and Cell Function", Lake Tahoe, CA

"UVA signaling in human melanocytes"

Gordon Research Conference "Ion Channels", Mount Holyoke, MA

"Ion channels critical for pigmentation"

Tenth World Symposium on Ocular Albinism, San Diego, CA

"Molecular mechanism of OCA2 and OCA4 depigmentation"

4. RESEARCH GRANTS

- **current grants**

NIH – NIAMS **R01** 1R01AR066318 (PI: **Oancea E.**) 09/2013 – 08/2018 $1,630,204
"Ion Channel and Calcium Signaling in Ultraviolet Light Transduction in Human Skin"

NIH – NIAMS **R01** 1R01AR071382 (MPI: **Oancea E.**) 06/2018 – 05/2023 $1,834,841
"Mechanisms regulating ion transport across the melanosomal membrane in health and disease"

NIH-NIGMS **T32** 5T32GM077995-08 (PI: **Oancea E.**) 07/2016 – 06/2021

"Predoctoral Training Program in Trans-Disciplinary Pharmacological Sciences"

Trainer on:

NIH – NIGMS (PI: **Oancea E.**)
Predoctoral Training Program in Trans-Disciplinary Pharmacological Sciences

NIH – NIGMS (PI: Mowry K.; Trainer: **Oancea E.**)
Predoctoral Training in Molecular and Cell Biology and Biochemistry

NIH – NIMH (PI: Lipscombe D.; Trainer: **Oancea E.**)
Predoctoral Training in Neuroscience

- **completed grants**

Grant Resubmission Award (Brown University) (PI: **Oancea E.**) 01/2017 – 12/2017 $15,000

Ford Fellowship for Hawasatu Dumbuya (Mentor: **Oancea E.**) 09/2015 – 08/2018 $72,000

Dean's Award (Brown University) (co-PI: **Oancea E.**) 06/2015 – 05/2016 $100,000
"New Mechanism of Chemoresistance of Leukemic Stem Cells"

Salomon Award, Brown University (PI: **Oancea E.**) 02/2013 – 02/2014 $15,000
"Investigating the Function of a Novel Ultraviolet Pathway in Mice with Humanized Skin"

NSF – DGE-1058262 Fellowship for Chavez N (Mentor: **Oancea E.**) 06/2012 – 08/2013 $45,000

NIH-INBRE Pilot Project (PI: **Oancea E.**) 11/2012 – 05/2013 $25,000
"The Molecular Mechanism of Ultraviolet Phototransduction in Human Melanocytes"

COBRE Center for Cancer Signaling Networks (PI: Atwood, W.) 04/2011 – 03/2012 $10,000
"Novel UV receptors in human skin"

NSF ADVANCE Career Development Award (**PI: Oancea E**.) 03/2010-02/2011 $15,000
"Using transgenic mice to study UV-phototransduction in skin"

NSF ADVANCE Travel Grant (PI: **Oancea E.**) 09/2009 – 10/2009 $ 1,000
"TRPM1 in black and white" presentation at Ion Channel Meeting, Stockholm, Sweden

Medical Research Grant, Rhode Island Foundation (PI: **Oancea E.**) 03/2009 – 02/2010 $15,000
"The role of TrpM1 ion channel in skin pigmentation"

Maren Research Award (PI: **Oancea E.**) 09/2008 – 08/2009 $25,000
"TIRF analysis of the TrpM1 ion channel and the molecular mechanisms mediating pigmentation"

NIH-INBRE Pilot Project (PI: **Oancea E.**) 08/2008 – 07/2009 $30,000
"The dynamic cellular localization of TRPM1"

5. SERVICE

- **to the Department/University**

Ph.D. Thesis Committees:

- Chyna Grey (MCB), Advisor: Dr. Al Ayala

Concentration Advisor: 3 students

University and Biomed Committees:

- MPP Graduate Program Steering Committee
- MPPB Seminar Organizing Committee
- Diversity Advisory Board (DAB)
- Poster judge for BIBS Research Day
- Reviewer for BIBS Robin Neustein Awards
- Biology Academic Awards Committee
- UTRA Review and Selection Committee
- Graduate Council Member and Course Proposal Review Team

■ **to the profession**

Ph.D. Thesis Committee for **Erin Devine**, Department of Biochemistry, Brandeis University.

Faculty mentor to **Larissa Paterson**, Assistant Professor, Biology Department, Rhode Island College for RI-INBRE Early Career Development Award

Reviewer for: Science Signaling, Journal of Cell Science, Journal of Cell Biology, Journal of General Physiology, Biophysical Journal, Journal of Physiology, PLOS One, Brain Research, Cell Calcium, Journal of Neurophysiology, BMC Cell Biology, Experimental Dermatology, Journal of General Physiology, Cell Biology and Toxicology, Frontiers in Membrane Physiology and Membrane Biophysics, Journal of Investigative Dermatology.

Editing of Signal Transduction chapters in "Molecular and Cellular Physiology of Neurons", Second Edition by Gordon L. Fain, Margery J. Fain, and Thomas O'Dell

Session Chair at FASEB Research Conference: Biology and Chemistry of Vision, Steamboat Springs, CO

Scientific Peer-Review Committees

- NTRC Study Section, **NIH**, R01 and R21 reviewer – permanent member
- ACTS Study Section, **NIH**, R01 and R21 reviewer – ad-hoc reviewer
- MOSSD-82, **NIH**, R15 reviewer – ad-hoc reviewer
- Research Foundation Flanders (FWO) – ad-hoc reviewer
- Innovational Research, The Netherlands Org. for Scientific Research (NWO) – ad-hoc reviewer
- PRELUDIUM funding mechanism, National Science Center of Poland– ad-hoc reviewer
- The Israel Science Foundation (ISF) – ad-hoc reviewer

■ **to the community**

2010: Organizer of Frenchtown Elementary School Science Fair, East Greenwich, RI
2012: Science lecture on Xenopus development at Eldredge Elementary School, East Greenwich, RI
2015: Lecture on the chemistry of wet and dry ice at Eldredge Elementary School, East Greenwich, RI
2016: Introduction to Cell Biology lecture at East Greenwich High School

6. ACADEMIC HONORS, FELLOWSHIPS, HONORARY SOCIETIES

1994 – 1996 Duke Family pre-doctoral award
1996 – 1998 Member of Society for Cell Biology
2000 – 2003 NIH Individual National Research Service Award
2004 – 2005 "Kaplan" fellowship for cardiovascular research
2009 – 2010 Medical Research Award
2008 – 2009 Maren Foundation Award
2008 – 2009 NIH RI-INBRE Pilot Project Award
2009 NSF ADVANCE Travel Award
2017 Dean's Award for Excellence in Graduate and Postdoctoral Teaching and Mentoring

2008 – present Member of Biophysical Society

2013 – present Member of Society of General Physiologists

2015 – present Member of European Society for Pigment Cell Research

7. TEACHING

2008 – present: Trainer, Graduate Program in Molecular Pharmacology and Physiology
2008 – present: Trainer, Graduate Program in Neuroscience
2009 – present: Trainer, Graduate Program in Molecular Biology Cell Biology and Biochemistry

2018:

BIOL1110 Topics in Signal Transduction (Instructor: **E. Oancea**)

Enrollment (capped at 20) - 12

BIOL 1100, Cell Physiology and Biophysics (Instructors: A. Zimmerman and D. Horrigan)

One lecture on "Light-activated signal transduction in human skin"

Independent Studies

BIOL1950 Gloria Nashed, Erica Lin

BIOL2960 Donald Koroma, Lauren Olinski, Salwa Hafez, Jessica Scales, Hala Haddad

Ph.D. Thesis Advisor: Donald Koroma
Lauren Olinski
Salwa Hafez
Jessica Scales
Hala Haddad

Honors Thesis Advisor: Erica Lin (Applied Math and Biology)

Laboratory Members:

Current:

- Graduate students: Donald Koroma (MPP)
  Lauren Olinski (MCB)
  Salwa Hafez (MPP)
  Jessica Scales (MPP)
  Hala Haddad (Neuroscience)
- Research Assistant: Joshaya Trotman (Brown' 18)
- Undergraduate students: Erica Lin (PLME, 2019)
  Brooke Spencer (2019)
  Gloria Nashed (2020)

Alumni:

Postdoctoral fellows:

- Jan Bruder, Ph.D. (2008 – 2010), currently Research Associate at Max Planck Institute, Germany
- Diana Horrigan, Ph.D. (2008 – 2009), currently Senior Lecturer at Brown University
- Rana Ozdeslik, Ph.D. (2017 – 2018), currently Postdoctoral Fellow at Univ. of Utrecht, Netherlands

Graduate students:

- Nadine Wicks, Ph.D. — MPP Graduate Student 09/2008 – 02/2012
  NSRC Fellowship 2010 – 2012
  Currently Faculty at Simon Frasier University, Vancouver, BC, Canada
- Natalie Chavez, M.S. — MCB graduate student 05/2011 – 07/2012
  NSF and DOD (declined) fellowships
  Transferred to Stanford University in Aug 2012
- Julia Najera, Ph.D. — Neuroscience graduate student 06/2009 – 12/2012
  NIH-NIAMS graduate fellowship 2009-2012,
  Currently postdoctoral fellow at UCSD, CA
- Kirk Haltaufderhyde — MPP Graduate Student 09/2011 – 02/2015
  NSF Felloship 2012 – 2015
  Postdoctoral Fellow at RI Hospital
  Currently postdoctoral research fellow at URI, Providence, RI
- Nicholas Bellono — MPP Graduate Student 09/2011 – 02/2015
  NSF Fellowship 2012 – 2015
  2015 Joukowsky Award for best PhD Thesis at Brown University
  Currently Assistant Professor at Harvard University, Cambridge, MA
- Rana Ozdeslik — MPP Graduate Student 09/2013 – 05/2017
  Suna Kirak Foundation Fellowship2013 – 2017
  Currently Postdoctoral Fellow at University of Utrecht, Netherlands
- Hawasatu Dumbuya — MPP Graduate Student 09/2013 – 12/2017
  Ford Fellowship 2014 – 2017
  Currently Principal Scientist at L'Oreal USA, NJ

Undergraduate students:

- Benjamin Flaherty – 05/2008-05/2009; graduate student at Yale University
- Jason Chan (PLME) 09/2008 – 09/2010; UTRA 2009, Honors Thesis 2010, "Elizabeth Leduc" prize for Cell Biology
- Matthew Balatbat – 01/2009 – 01/2011; UTRA 2009, 2010
- Subha Subramanian – 01/2009 – 05/2011; UTRA 2010
- Mangaladevi Patil (PLME) 09/2010 – 09/2012; UTRA 2010, SRA 2011, Honors Thesis 2012
- Johathan Cirriello 09/2010 – 08/2012; UTRA 2012
- Tae Hwan Koh 05/2011 – 12/2011
- Laura Kammel 09/2010 – 06/2012; UTRA 2011; Honors Thesis 2012
- Conor Grogan 01/2012 – 05/2013
- Benjamin Moon 02/2013 – 05/2014
- Adam Kopp – 09/2013 – 09/2014; UTRA 2013
- Sarah Pierce – 09/2012 – 06/2015
- Margaret Dusko – 09/2014 – 05/2015, UTRA 2014, Honors Thesis 2015
- Renee Edelman –09/2015 – 12/2016; UTRA 2016
- Jessica Eskander – 09/2016 – 05/2017
- Adriano Taglietti – 04/2016 – 05/2017; UTRA 2017