

CURRICULUM VITAE
Ranmal Aloka Samarasinghe, M.D., Ph.D.

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Education and Employment

Bachelor's Degree and Post-Baccalaureate Training

BA (Economics and Biology), Swarthmore College, 1999-2003

Intramural Research Trainee, National Institutes of Health (NICHD), 2003-2005

Advanced Degrees

MD, University of Pittsburgh School of Medicine, 2005-2013

PhD (Neuroscience), University of Pittsburgh School of Medicine, 2017-2011

Post-doctoral researcher, University of Pittsburgh, January-May 2013

Specialty Training

Resident in Internal Medicine, University of Pittsburgh School of Medicine, 2013-2014

Resident in Neurology, University of California, Los Angeles, 2014-2017

Subspecialty Training

Post-doctoral research fellowship in the laboratory of Dr. Bennett Novitch, 2017-Present

Fellowship in clinical neurophysiology, 2017-2020

Licensure

California , #A133639, American Board of Psychiatry and Neurology certification, 2017.

American Board of Psychiatry and Neurology subspecialty in clinical neurophysiology, 2019

Professional Memberships

American Academy of Neurology, 2014-present

American Clinical Neurophysiology Society, 2017-present

American Epilepsy Society, 2018-present

Academic and Professional Honors

Kavalenko & Shreiner scholarship for academic achievement, Swarthmore College, 2000-2001

Graduated with High Honors in Economics and Biology, Swarthmore College, 2003

Student commencement speaker, Swarthmore College, 2003

NIMH Fellowship Program in Mental Health Research, University of Pittsburgh, 2007-2008

Dr. Harold L. Mitchell Prize in Neurology. Awarded to the graduating medical student with outstanding achievement and excellence in neurology, Pittsburgh, 2013

Bannister Award, fastest time to stroke intervention by a UCLA resident, 2016

The John-Louis Riehl Award for Outstanding Research as a UCLA Neurology Resident, 2017

American Clinical Neurophysiology Society Young Investigator Travel Award, Las Vegas, 2019

Jasper's Basic Mechanisms of the Epilepsies Conference, Travel Award, Yosemite, 2019

Park City Epilepsy Meeting Young Investigator Travel Award, Park City, 2019

Peer Reviewed Presentations

Posters

Samarasinghe, R., Taylor, P., Tamura, T., Ozato, K. IL-10 induction in Dendritic Cells Following Toll-like Receptor Stimulation. Abstract/Poster. International Society for Interferon and Cytokine Research, annual conference. San Juan, Puerto Rico, 2004.

Samarasinghe, R., Lewis, M., DeFranco D.B. Glucocorticoid effects on neural progenitor cell proliferation. Abstract/Poster, Annual National MD/PhD Student Meeting, July 2009, Keystone, CO.

Samarasinghe, R., Lewis, M., DeFranco, D.B. Glucocorticoid Regulation of Gap Junction Function in Neural Progenitor Cells. Abstract/Poster, Society for Neuroscience Annual Meeting, October 2009, Chicago, IL

- Samarasinghe, R.,** Lewis, M., DeFranco., DB. Rapid glucocorticoid receptor mediated inhibition of gap junction intercellular communication and its effects on neural progenitor cell proliferation. Abstract/Poster. Tenth Annual WPIC Research Day. June 3, 2010. Pittsburgh, PA.
- Samarasinghe, R.,** Lewis, M., DeFranco., DB. Transient, non-genomic action of the glucocorticoid receptor limits gap junction intercellular communication and neural progenitor cell proliferation. Abstract/Poster. Nuclear Receptors and Disease. Cold Spring Harbor Laboratories. September 2010. Cold Spring Harbor, NY.
- Samarasinghe, R.,** Lewis, M., DeFranco, D.B. Rapid effects of glucocorticoid receptor activation on gap junction regulation and cell proliferation in neural progenitor cells. Abstract/Poster, Society for Neuroscience Annual Meeting, November 2010, San Diego, CA.
- Samarasinghe, R.,** Volonte, D., Lewis, M., Romero G., DeFranco D. Glucocorticoid Receptors within Lipid Rafts Activate a MAPK-Dependent, Nongenomic Signaling Pathway To Limit Gap Junction Intercellular Communication and Proliferation in Neural Stem Cells. Abstract/Poster. ENDO 2011. June 2011, Boston, MA.
- Samarasinghe, R.,** Miranda, O., Mitchell, S., Ferando, I., Mody, I., Watanabe, M., Golshani, P., Lowry, W., Novitch., B. Utilizing patient-derived organoids to model neural network pathology in epilepsy . Abstract/Poster. ACNS Annual Meeting. Feb 2019, Las Vegas, NV.
- Samarasinghe, R.,** Miranda, O., Mitchell, S., Ferando, I., Mody, I., Watanabe, M., Golshani, P., Lowry, W., Novitch., B. Fusion brain organoids demonstrate complex neural network and oscillatory activities. Abstract/Poster. Jasper's Basic Mechanisms of the Epilepsies Meeting. March 2019, Yoesemite, CA.
- Samarasinghe, R.,** Miranda, O., Mitchell, S., Ferando, I., Mody, I., Kurdian, A., Parent, J., Watanabe, M., Buth, J., Golshani, P., Lowry, W., Novitch., B. Patient derived fusion brain organoids model neural network pathology in epilepsy. Abstract/Poster. Park City Epilepsy Meeting. October 2019, Park City, UT.

Oral Presentations

- Samarasinghe, R.,** Lewis, M., DeFranco., DB. Inhibition of neural progenitor cell proliferation and gap junction intercellular communication occurs upon rapid and transient activation of the glucocorticoid receptor. Abstract/Oral Presentation. Pittsburgh Area Nuclear Receptor Club (PANRC) Conference. April 23, 2010. Pittsburgh, PA.
- Samarasinghe, R.,** Lewis, M., DeFranco., DB. Rapid effects of glucocorticoids on gap junction intercellular communication and cell proliferation in neural progenitors. Abstract/Oral Presentation (Invited talk). Department of Pharmacology and Chemical Biology Annual Retreat, 2010. July 9. 2010. Pittsburgh, PA.
- Samarasinghe, R.,** Lewis, M., DeFranco., DB. Membrane glucocorticoid receptor mediates non-genomic action of glucocorticoids on gap junction intercellular communication. Abstract/Oral Presentation. Great Lakes Nuclear Receptor Conference. October, 2010. University of Michigan, Ann Arbor, MI.

Research Grants and Fellowships Received

Current Grants

- | | | |
|---|---------------------------|---------------|
| AES 20192967 | Samarasinghe, Ranmal (PI) | 7/2019-6/2020 |
| Leveraging Human Brain Organoids for Therapeutics in Epilepsy | | |
| Goal: To develop a brain organoid based system for anti-seizure drug testing | | |
| UCLA Broad | Samarasinghe, Ranmal (PI) | 7/2019-6/2020 |
| Leveraging Human Fusion Brain Organoids to Model Ictogenesis | | |
| Goal: To epilepsy patient derived iPSCs to generate an organoid model of epilepsy | | |

Completed Grants

- | | | |
|--------------------------------|--------------------------|-------------|
| R255R25NS065723-08 -NIH | Carmichael, Stanley (PI) | 2017-6/2019 |
| T32GM008424-14-NIH | Defranco, Donald (PI) | 2009-2011 |

Professional Activities

Teaching/Lectures

2017 Fall UCLA medical student neurology casebook teaching
2018 Fall UCLA medical student neurology casebook teaching
2019-December UCLA Clinical Neurophysiology weekly conference presentation, “Brain organoids to model neural network dysfunction and epilepsy.”

Bibliography

Samarasinghe, R., Tailor, P., Tamura, T., Kaisho, T., Akira S., Ozato, K. Induction of an Anti-Inflammatory Cytokine, IL-10, in Dendritic Cells After Toll-like Receptor Signaling.

Journal of Interferon and Cytokine Research. 2006; 26: 893-900. PMID:17238832

Ho, Y*, **Samarasinghe, R.***, Knoch ME., Lewis M, Aizenman E, DeFranco DB. Selective inhibition of mitogen-activated protein kinase phosphatases by zinc accounts for extracellular signal-regulated kinase 1/2-dependent oxidative neuronal cell death. *Mol Pharmacol*. 2008 Oct; 74(4):1141-51. PMID: PMC2575064.

***Both authors contributed equally to this work and should be considered co-first authors**

Samarasinghe, R., Witchel, S., DeFranco, D. Cooperativity and Complementarity: Synergies in Non-Classical and Classical Glucocorticoid Signaling. *Cell Cycle*. 2011 Aug 1 (15):2819-27 PMID: PMC3419059.

Samarasinghe, R., Di Maio R., Volonte, D., Galbiati F., Lewis, M., Romero, G., DeFranco, D. Non-genomic glucocorticoid receptor action regulates gap junction intercellular communication and neural progenitor cell proliferation. *Proc Natl Acad Sci USA*. 2011 Sep 19. PMID: PMC3189065.

Samarasinghe, R., Kanuparthi, P., DeFranco, D., Di Maio, R. Transient Muscarinic and Glutamatergic Stimulation of Neural Stem Cells Trigger Acute and Persistent Changes in Differentiation. *Neurobiol of Dis*. 2014 Oct 70:252-61. PMID: PMC4152385.

Samarasinghe, R., Miranda, O., Mitchell, S., Ferando, I., Watanabe, M., Buth, J., Kurdian, I., Golshani, P., Parent, J., Lowry, W., Istvan, I., and Novitch, B. Identification of neural oscillations and epileptiform changes in human brain organoids. **In revision**, *Nature Neuroscience*.