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EDUCATION

Stony Brook University	Applied Mathematics & Statistics	Ph.D. 2006 Advisor C.M. Fortmann
Pusan National University (Korea Republic)	Department of Mathematics	M.S 2001 Advisor Y. H. Lee
Pusan National University (Korea Republic)	Department of Mathematics	B.S 1999

PROFESSIONAL EXPERIENCES

8/2018-	Assistant Professor Department of Mathematics at Howard University Washington, DC
7/2016 – 8/2018	Instructor of Mathematics in Radiology Radiology Department at Weill Cornell Medical College New York, NY
8/2014 – 6/2016	Research Associate in Radiology Radiology Department at Weill Cornell Medical College New York, NY
9/2012 – 7/2014	Visiting research scientist Department of Chemistry at Brookhaven National Laboratory Upton, NY
1/2012 – 7/2013	Senior Research Scientist Department of Materials Science at Stony Brook University Stony Brook, NY
8/2011 – 7/2013	Senior Mathematical Modeler Idalia Solar Technologies LLC New York, NY
9/2008–12/2011	Research Scientist Department of Materials Science, Stony Brook University Stony Brook, NY
9/2006 – 8/2008	Postdoctoral Research Scientist Department of Applied Mathematics and Statistics, Stony Brook University Stony Brook, NY

PUBLICATIONS & PATENTS

I. Research Papers

1. **Yeona Kang**, Sandra Milena Hurtado Rua, Ulrike W. Kaunzner, et al., **2020** Molecular Imaging and Biology (online appeared, Accepted May 2020)
2. Shani Waninger, Chris Berka, Stevanovic Karic, P. David Mozley, Claire Henchcliffe, **Yeona Kang**, Jacob Hesterman, Tommer Mangoubi, and Ajay Verma, **2020** Neurophysiological Biomarkers of Parkinson's Disease. Journal of Parkinson's Disease, 10 (2020) 471-480.
3. Eric Ngang Che, **Yeona Kang** and Abdul-Aziz Yakubu, **2019**. Risk Structured Model of Cholera Infections in Cameroon. Math Biosci, 320 108303.
4. **Yeona Kang** and Susan A Gauthier, **2019**. PET is necessary to make the next step forward in understanding MS pathophysiology – commentary. Multiple sclerosis journal, Feb 27 1-2.
5. Ulrike W Kaunzner, **Yeona Kang**, et al., **2018**. Quantitative susceptibility mapping identifies inflammation in a subset of chronic multiple sclerosis lesions, Brain, 142:133-145.
6. **Yeona Kang**, et al., **2018**. 18F-FPEB PET/CT Shows mGluR5 Upregulation in Parkinson's Disease, J Neuroimaging, 2018;00:1-7.
7. **Yeona Kang**, et al., **2018**. Comparison of two different methods of image analysis for the assessment of microglial activation in patients with multiple sclerosis using (R)-[N-methyl-carbon-11]PK11195, PLoS One. 13;8:e0201289.
8. **Yeona Kang**, et al., **2018**. (R)-[N-methyl-Carbon-11]PK11195: Non-Invasive Image Analysis Techniques Confirm Abnormal Microglial Activation in Patients with Parkinson's Disease, J Neuroimaging, 2018;00:1-10.
9. Francesca Zanderigo, **Yeona Kang**, et al., **2018**. [¹¹C]arachidonic acid incorporation measurement in human brain: optimization for clinical use, Synapse. 72(2):e22018.
10. Ulrike W. Kaunzner, **Yeona Kang** et al., **2017**. Reduction of PK11195 uptake observed in multiple sclerosis lesions after natalizumab initiation, Multiple Sclerosis and related Disorders. 15(2017): 27-33. (*Equal Contributing Author*)
11. Tracy Butler, et al., **2016**. Transient and chronic seizure-induced inflammation in human focal epilepsy, Epilepsia. 57; 9: e191-e194.
12. Young Jun Seo, **Yeona Kang** et al., **2014**. Development of blood-brain barrier permeable HDAC inhibitors and PET radiotracers for CNS applications, ACS Chemical Neuroscience. 16; 5(7): 588-596.
13. Sung Won Kim, Joanna S. Fowler, Philip Skolnick, **Yeona Kang**, et al., **2014**. Evidence that orally administered buspirone blocks D3 but not D2 receptors in the living non-human primate brain, The International Journal of Neuropsychopharmacology. 17; 8(20): 1257-1267.
14. Young Jun Seo, Lisa Muench, Alicia Reid, Jinzhu Chen, **Yeona Kang**, Jacob M. Hooker, Nora D. Volkow, Joanna S. Fowler, Sung Won Kim, **2013**. Radionuclide Labeling and Evaluation of Candidate Radioligands for PET Imaging of Histone Deacetylase in the Brain, Bioorganic & Medicinal Chemistry Letters. 23(24): 6700-6705.
15. **Yeona Kang** and C. M. Fortmann, **2013**. An Alternative Approach to Protein Folding, Biomed Research International. 2013: 583045.
16. Ping Lee, **Yeona Kang** and C.M Fortmann, **2011**. Crystal Particle Raman-Scattering and

- Applications for Improved Solar Cell Performance, Appl. Phys. Lett. 99: 251109.
17. **Yeona Kang** and C. M. Fortmann, **2009**. Physical Markov model for protein structure prediction, Bioinformatics and Biomedicine, 356.
 18. **Yeona Kang** and C. M. Fortmann. **2007**. A structural basis for the Hodgkin and Huxley relation, Appl. Phys. Lett. 91: 223903.
 19. **Yeona Kang**, E. L. Jean, and C. M. Fortmann. **2006**. Einstein relations for energy coupled particle systems. Appl. Phys. Lett. 88: 112110.

III. Patents

1. C.M. Fortmann and **Yeona Kang**, A method for determining and predicting protein autonomous folding, *Approved October 2013*

IV. Conference Proceedings

1. Ping Lee, Som N. Dahal, Komal Magsi, **Yeona Kang** and Charles M. Fortmann, Raman-based Strategies for improved solar cell optics, 38th IEEE Photovoltaic Specialists Conference (PVSC) proceedings, pp. 2559-2562, **2012**
2. Ping Lee, Komal Magsi, **Yeona Kang** and Charles M. Fortmann, Optical layers and materials for next generation solar cells, MRS proceedings, vol. 1323, pp. mrs11-1323-c03-20, **2011**
3. Komal Magsi, Ping Lee, Jason Shank, **Yeona Kang** and Charles M. Fortmann, Exploring the limits of phosphor-based spectral management for photovoltaic applications, MRS Proceedings, vol. 1322, pp. mrs11-1322-b08-38, **2011**
4. Komal Magsi, Ping Lee, **Yeona Kang**, Soumya Bhattacharya and Charles M. Fortmann, Enhanced Chlorophyll A purification and dye sensitized solar cell performance, MRS proceedings, vol. 1390, pp. mrs11-1390-h13-36, **2011**

CONFERENCE PRESENTATIONS

1. Society of Nuclear Medicine and Molecular Imaging (SNMMI) Annual Meeting, Alteration of Blood Brain Barrier during Cuprizone-Induced Neuroinflammation using multi-tracers with PET: [^{68}Ga]EDTA, [^{11}C](R)PK11195, and [^{11}C]DPA713. (Philadelphia, PA 2018)
2. European Association of Nuclear Medicine (EANM), PET imaging of mGluR5 with [^{18}F]FPEB in Parkinson's disease. *Elected as a Hot Topics* (Vienna, Austria 2017)
3. European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS), The impact of CNS inflammation on the GABAergic system: A Multi-ligand PET study utilizing [^{11}C] Flumazenil and [^{11}C] PK11195. *Elected as a Hot Topics* (Paris, France 2017)
4. Society of Nuclear Medicine and Molecular Imaging (SNMMI) Annual Meeting, Dopamine transporter (DaT) imaging using [^{11}C]PE2i-PET in patients with Parkinson disease: Estimating test-retest variability based on image derived input functions (IDIFs). (San Diego, CA 2016)

5. American Academy of Neurology (AAN) 64th Annual Meeting, Very Long Term Clinical and Radiological Outcomes of Fetal Tissue Transplant for Parkinson's Disease. (Vancouver, Canada 2016)
6. Movement Disorder Society (MDS) 20th International Congress of Parkinson's Disease and Movement Disorders, Clinical and Neuroimaging Outcomes up to 18 Years after Fetal Tissue Transplant for Parkinson's Disease. (Berlin, Germany 2016)
7. Society of Nuclear Medicine and Molecular Imaging (SNMMI) Annual Meeting, Reproducibility of test-retest with [11C]-PK11195 using different input function approaches. *Elected as a Hot Topics* (Baltimore, MA 2015)
8. Brain2015, In vivo kinetic analysis for WM lesions in multiple sclerosis with [11C]-PK11195. (Vancouver, CA 2015)
9. American College of Neuropsychopharmacology (ACNP) Annual Meeting, Buspirone Blocks Dopamine D3 Receptors in the Non-Human Primate Brain When Administered Orally. *Elected as a Hot Topics* (FL, USA 2013)
10. NIMS Workshop Special Highlights on Mathematical Biology, Power of PET for Drug R&D in Neuroscience for Mathematical aspect. (DaeJeon, Korea 2013)
11. MRS 2012 Spring Meeting, Spectral management in solar cell applications. (CA, USA 2012)