Keun-Hang Susan Yang, Ph. D.

Professor, Computational Neurosciences/Biology and Biosciences Director, International Science Programs

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i. Professional Overview

Dr. Keun-Hang Susan Yang is Director of International Science Programs and Professor of Computational Neuroscience/Biology and Bioscience at Chapman University, where she teaches Foundations of Scientific Computation, Introduction to Application in Computational Science, and Computational Neuroscience. She holds a MS in Bioinformatics and a PhD in Computational Neuroscience/Biology from George Mason University and completed her post-doctoral fellowship in Computational Neuroscience at the Epilepsy Center, Department of Neurology, Johns Hopkins University School of Medicine (JHMI). After being in JHMI/JHU she spent several years at National Institute of Neurological Disorders (NINDS)/National Institutes of Health (NIH) to work on electrophysiology using animal models.

ii. Education

Ph.D. George Mason University

Fairfax, Virginia, USA

Computational Neuroscience/Biology

School of Computational Sciences

Doctor of Philosophy

M.S. **George Mason University**

Fairfax, Virginia, USA

Biology/Bioinformatics

Master of Science

M.Ed. Ewha Womans University

Seoul, Korea

Blochemistry/Chemistry Education

Masters of Education

B.S. Ewha Womans University

Seoul, Korea

Chemistry

Bachelor of Science

iii. Areas of Expertise

Computational and

Experimental

Biology/Neuroscience

Electrophysiology

f-MRI modeling

Bioinformatics

Oriental Medicine

iv. Institutional Affiliations

Schmid College of Science and Technology, Chapman University Professor of Computational Neuroscience/Biology and Bioscience Director of International Science Programs

College of Science, George Mason University

September 2008 to Current

January 2007 to August 2008 Associate Professor of Computational Neuroscience/Biology Director of International Science Collaborations

National Institute of Neurological DisordersDecemberand Stroke, National Institutes of Health2003 toResearch FellowDecemberDevelopmental Neurobiology Section2006

Department of Neurology, Johns HopkinsDecemberUniversity School of Medicine2000 toPost-Doctoral FellowNovemberComputational Neuroscience, Epilepsy Center2003

School of Computational Sciences, GeorgeAugustMason University2000 toResearch FellowNovemberComputational Neuroscience/Biology2000

School of Computational Sciences, GeorgeDecemberMason University1996 toResearch AssistantJuly 2000

Computational Neuroscience/Biology

Department of Biology, George MasonDecemberUniversity1995 toResearch AssistantDecemberBioinformatics1996

v. Teaching/Advising Experience

Schmid College of Science and Technology
Orange, CA

January 2014 to
Current

Professor, BIOL343

Computational Neuroscience Professor, BIOL145/PHYS 145

Introduction to Application in Computational

Science

Schmid College of Science and Technology
Orange, CA
September 2013 to
December 2013

Professor, PHYS 227

Foundations of Scientific Computation

Schmid College of Science and Technology

January 2012 to

Chapman University Orange, CA May 2012

Professor, CS 599-80 Computational Biology I & II

Chapman University January 2012 to May 2012

Orange, CA Advisor

Graduate Student in Computational Science

Schmid College of Science and Technology August 2011 to April 2012

Orange, CA Professor, PHYS 145

Introduction to Application in Computational

Science

Schmid College of Science and Technology, August 2009 to Chapman University August 2011

Orange, CA

Professor, BIOL 145 (1&2)

Introduction to Application in Computational

Science

Schmid College of Science and Technology, February 2009 to May 2009

Chapman University

Orange, CA

Professor, BIOL 145 (1)

Introduction to Application in Computational

Science

Schmid College of Science and Technology, September 2008 to December 2008

Chapman University

Orange, CA Co-Instructor

Frontiers of Science

College of Science, George Mason University January 2007 to

Associate Professor

Fairfax, VA Co-Instructor

Scientific Databases

vi. Academic Honors/Fellowships

Recognized by City of Los Angeles as a Conference Chair, Dare to Dream II: Shine and Fly Conference

(Appendix 18)

April 2017

August 2008

Appointed as Presidential Advisor as well as Ambassador of Ewha University in South Korea (Appendix 14)	January 2015
Korean-American Scientists and Engineers Association (KSEA) 2014 Outstanding Community Service Award Recognition of Outstanding Achievement (Appendix 13)	August 2014
Congressional Recognition by Congressman Ed Royce Serving as academic advisor as well as judge for high school Science, Technology, Engineering, and Mathematics (STEM) competition (Appendix 12)	May 2014
Orange County Korean Cultural Center Cultural Leadership Award Presented by Congresswoman Loretta Sanchez	October 2011
Orange County Korean Culture Center Cultural Center's Education Award	October 2011
Computational Neuroscience Annual Meeting Travel Award CNS*2003	July 2003
Computational Neuroscience Annual Meeting Travel Award CNS*2001	July 2001
Computational Neuroscience Annual Meeting Travel Award CNS*2000	July 2000
George Mason University Doctoral Completion Fellowship	May 2000 to July 2000
George Mason University Graduate Research Assistantship School of Computational Sciences	September 1995 to April 2000

vii. Professional Activities	
Editor of the Open Cybernetics and Systemics Journal, Reviews and Letters	2000-Current
Academic Mentor for high school Science, Technology, Engineering, and Mathematics (STEM) competition ran by Congressman Ed Royce	2016-2017

Academic Judge for high school Science, Technology, Engineering, and Mathematics (STEM) competition ran by Congressman Ed Royce	2015-2016
Academic advisor as well as judge for high school Science, Technology, Engineering, and Mathematics (STEM) competition ran by Congressman Ed Royce	2014-2015
Presidential Advisor as well as Ambassador of Ewha University in South Korea (Appendix 14)	2015-2017
Vice President of Korean Women Scientists and Engineers (KWiSE)	2013-2015

viii. Professional Activities-Public Relations	
Channel Syum, national cable television in South Korea (Channel 625) Talk Concert, 'Look Inside and Create Your Reality' (Appendix 27)	June 2019
Educational Broadcasting System (EBS) human documentary in South Korea Prime documentary, 'Skills for Relaxing' http://www.mediaus.co.kr//news/articleView.html?idxno=154617	June 2019
The Korea Times, Daily Newspaper in Los Angeles The 29 th anniversary conference of Hanmi Family Counseling Center (HFCC) in Orange County (Appendix 26) http://www.koreatimes.com/article/20190506/1246078	May 2019
Korea Economic Newspaper and Jungang Ilbo, Daily Newspaper in South Korea (Appendix 25) http://news.hankyung.com/article/201808224558p	August 2018
Jungang Ilbo, Daily Newspaper in Los Angeles Hanmi Family Counseling Center (HFCC) (Appendix 24) http://www.koreadaily.com/news/read.asp?art_id=6179537	May 2018
Jungang Ilbo, Daily Newspaper in Los Angeles Korea University Alumni Association in Sothern California (KUAASC) (Appendix 23) http://www.koreadaily.com/news/read.asp?art_id=6174988	May 2018
Simin Ilbo, Daily Newspaper in South Korea	February 2018

Korean Academy Scientific Science Control Control Contro	ence and Technology (KAST)
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(Appendix 22)

http://m.siminilbo.co.kr/news/articleView.html?idxno=

555533&daum check=# enliple# enliple

The SUNDAY Journal USA

Moderator at Book Signing & Art Concert

(Appendix 21)

SUNDAY Times

Moderator at Book Concert

(Appendix 20)

http://www.sundaytimes.kr/bbs/board.php?bo table=B04&wr id=728

The Korea Times

Interviewed by Journalist Mr. PanKyum Kim

(Appendix 15)

http://www.koreatimes.com/article/20160511/987101

BBS TV and Newspaper in Seoul Korea

As moderator on Dialogue between Science and Religion at

Dongkuk University in Seoul, Korea (Appendices 16,17)

TV: http://news.bbsi.co.kr/news/articleView.html?idxno=723717

Newspaper: http://news.bbsi.co.kr/news/articleView.html?idxno=723583

The Press Release in Washington DC

On Royce Announces STEM Competition Judges

(Appendix 12)

The Korea Times

Interviewed by Journalist Mr. Moon

(Appendix 9)

http://www.koreatimes.com/article/758128

JungAng Daily Newspaper

Interviewed by Journalist Moonho Kim

(Appendix 7)

http://www.koreadaily.com/news/read.asp?art_id=1349798

Culture Magazine

Interviewed by Roberto Hernandes, chief editor, and article written

by PaulRogers, science writer

(Appendix 1)

http://ireadculture.com/2011/04/news/marijuana-chemotherapy/

Prescription Marijuana Without "Intoxicating" Effect in Research

Stage

Orange County Register

Interviewed by Pat Brennan, science and environment editor

(Appendix 2)

January 2017

November 2016

May 2016

January 2016

March 2014

October 2012

February 2012

April 2011

November 2010

http://sciencedude.ocregister.com/2010/11/17/medical-marijuana-without-the-high/114728/

The Korea Times

November 2010

Interviewed by JongHee Lee, journalist at The Korea Times

(Appendix 3)

http://dc.koreatimes.com/article/628325

NBC News by Josh Steiner

November 2010

http://www.nbclosangeles.com/news/health/Scientists-Aim-to-Make-Marijuana-Perscription-Drug-108736999.html



Prescription Marijuana Without "Intoxicating" Effect in Research Stage http://www.nbclosangeles.com/news/health/Scientists-Alm-to-Make-Marijuana-Perscription-Drug-108736999.html

Chapman Happenings March 2010
Interviewed by Dennis Arp, Public Relations Edit

http://www.nbclosangeles.com/news/health/Scientists-Aim-to-Make-Marijuana-Perscription-Drug-108736999.html

Interviewed by Dennis Arp, Public Relations Editor at Chapman February 2010
Happenings

(Appendix 4)

http://chapmannews.wordpress.com/2010/03/01/professors-research-sheds-new-light-on-medical-marijuana/

MDLinx Web Site September 2009

Featured as a top-ranked journal on the Infectious Disease portal (Appendix 5)

http://www.mdlinx.com/internalmdlinx/news-article.cfm/3051877

Orange Country Business Journal/OC Philanthropy September 2009

Advertising Supplement

(Appendix 6)

Asia Economy July 2009

Interviewed by Korean National Newspaper

Chosun Daily March 2009

Interviewed by Korean National Newspaper

AP, Yonhap Newspaper February 2009
Interviewed by Korean National Newspaper

The Korea Times December 2008

Interviewed by Korean National Newspaper

http://dc.koreatimes.com/article/497211

The Korea Times
Interviewed by Korean National Newspaper
http://ny.koreatimes.com/article/494556

August 2007

July 2007

Jungang Ilbo Interviewed by Korean National Newspaper

http://article.joinsmsn.com/news/article/article.asp?total_id=2795897

ix. Professional Activities/Services – International

Arranged signing MOU between CEESMO at Chapman and Center for Climate/Environment Change Prediction Research at Ewha University on research and student exchange collaborations

August 2019

Arranged a talk by Chapman faculty at Remote Sensing and GIS Center, Korea University

August 2019

Arranged signing MOU between Dr. Menas Kafatos and Chairman Zin-ick Son L'BESTE USA, INC. on 'New Paradigm, Meditation' (Appendix 28)

August 2019

Invited to the 9th International Symposium on Diagnosis of Environmental Health by Remote Sensing (DEHRS) and The Workshop of DEHRS on TheBelt & Road (WDEHRS on B&R) in Zhengzhou, China August 2019

Organized and participate as a moderator in Talk Concert 'Look Inside and Create Your Reality' at MIRAEIN Co. in Seoul Korea (Appendix 27)

June 2019

Assisted in filming a prime documentary, 'Skills for Relaxing" in January 2019, which was aired for 2 hours in June 2019 at Korean Educational Braodcasting System (EBS), South Korean educational television and radio network covering South Korean territory, and the only major South Korean radio and television network without a separate regional service

January and June 2019

http://www.mediaus.co.kr//news/articleView.html?idxno=154617

Assisted and participated in the 29th anniversary conference of Hanmi Family Counseling Center (HFCC) in Orange County (Appendix 26) http://www.koreatimes.com/article/20190506/1246078

May 2019

Arranged to visit Chungnam National University in Daejeon, South Korea	January 2019
Assisted in signing MOU between CEESMO at Chapman and Center for Applications of Spatial Information Technologies in Public Health at Institute of Remote Sensing and Digital Earth (RADI) under the Chinese Academy of Sciences (CAS) in China on research collaborations.	December 2018
Assisted in signing MOU between CESSMO at Chapman and Department of Geo-Environment Sciences at Gongju National University in South Korea on international collaborations and Korean government funding	August 2018
Assisted in organizing a special lecture/concert by Chapman faculty with musicians at QUERENCIA in Seoul Korea (Appendix 25)	August 2018
Invited as a speaker to SYMI Symposium organized by former prime minister of Greece, George Papandreou, in Rhodes, Greece	July 2018
Assisted and participated as presenter in the 28 th anniversary conference of Hanmi Family Counseling Center (HFCC) in Orange County (Appendix 24)	May 2018
Assisted in hosting a lecture by Chapman Faculty at Korea University Alumni Association in Sothern California (KUAASC) (Appendix 23)	May 2018
Assisted in organizing an award ceremony and speech by Chapman faculty at Korea Press Center hosted by Korean Academy Science and Technology (KAST) in Seoul Korea (Appendix 22)	Feb 2018
Invited as a speaker to SYMI Symposium organized by former prime minister of Greece, George Papandreou, in Crete, Greece	July 2017
Organized and hosted a young leadership conference called 'Dare to Dream II: Shine and Fly' with 5 well recognized speakers and 350 high school students, college students, and young professionals in Los Angeles area (Appendix 19)	April 2017
Hosted New York Times Bestseller 'You are the Universe; Living the Living Presence' book sinning events in Seoul as well as Los Angeles with a few hundred people as a master of ceremony (Appendix 20) http://www.sundaytimes.kr/bbs/board.php?bo table=B04≀ id=728	January 2017 (LA) November 2016 (Seoul)
Appointed as mentor for high school Science, Technology, Engineering, and Mathematics (STEM) competition ran by Congressman Ed Royce	August 2016
Served as judge for high school Science, Technology, Engineering, and Mathematics (STEM) competition ran by Congressman Ed Royce	May 2016

Arranged signing of MOU between Center of Excellence in Earth Systems Modeling and Observations (CEESMO) at Chapman University and Center for Space and Remote Sensing Research at National Central University (NCU) in Taiwan	January 2016
Arranged signing of MOU between Center of Excellence in Earth Systems Modeling and Observations (CEESMO) at Chapman University and the Academia Sinica (Chinese Academy) in Taiwan	January 2016
Hosted a special lecture on "Dialogue between Quantum Mechanics and Korean Art" by Professors Menas Kafatos and Byungmo Jung in Seoul Korea	January 2016
Hosted workshop as moderator on Dialogue between Science and Religion at Dongkuk University in Seoul, Korea (Appendices 16, 17) Appointed as Presidential Advisor as well as Ambassador of Ewha University in South Korea (Appendix 14)	January 2016
Served as academic advisor as well as judge for high school Science, Technology, Engineering, and Mathematics (STEM) competition ran by Congressman Ed Royce (Appendix 12)	May 2014
Assisted scholarship programs for undergraduate students at Regional Hispanic Chamber of Commerce & Regional Hispanic Institute Assisted the Ballet Messiah at Wilshire Ebell Theater in LA sponsored by Ewha Womans University Alumni Association (Appendix 11)	April 2013
Organized a special lecture, "Science, Healing, and Self" by keynote speakers, Drs. Deepak Chopra and Menas Kafatos, and moderator Susan Yang at Kyung Hee University in Seoul Korea http://amsrc.khu.ac.kr/r/bbs/board.php?bo_table=bbs1≀_id=85	March 2013
Hosted Gala dinner with a special lecture by Deepak Chopra and Menas Kafatos at Chosen Westin Hotel in Seoul Korea	March 2013
Organized a conference, "Frontiers of Applied Science & Engineering" at Chapman University (Appendix 9)	October 2012
Hosted visit of formal president of Sokang University & Catholic bishop, Dr. Hantaek Lee, in South Korea to Chapman University	July 2012
Invited as keynote speaker to Korea University Alumni Association (KUAA) seminar in LA, USA	July 2012
Hosted visit of formal minister of agriculture and president of Korea Racing Authority, Dr. Taepyung Chang, in South Korea to Chapman University	May 2012
Invited as keynote speaker to Korean Women's International Network (KOWIN)	May 2012

seminar in LA, USA

Co-hosted a conference, "JOURNEY THROUGH COLLEGE & BEYOND Choosing the right major And Finding a dream job" at Chapman (Appendix 8)	April 2012
Hosted visit of Tae-Joo Park, President of Korea Environment Institute (KEI) to Chapman	August 2010
Invited as keynote speaker to Korean Women's International Network (KOWIN) conference in Busan, South Korea	August 2010
Hosted visit of Bae-Yong Lee, President, Ewha University, and Ewha university delegation to Chapman	July 2010
Hosted visit of Ki-Su Lee, President, Korea University, and Korea university delegation to Chapman. Arranged signing of MOU on the student exchange program between President of Korea University, and Chancellor, Chapman University	May 2010
Assisted in international conference, "Beyond Copenhagen", at Chapman	April 2010
Hosted visit of Yeul Choi, President of Korea Green Foundation to Chapman	March 2010
Assisted Korea University visit and lectures, several graduate students from Korea University and Ewha University attended training	February 2010
Participate and assisted in the International Winter School, Ewha University, in Pyungchang, Korea; gave lecture and seminar at the school	January 2010
Assisted in the participation of Chapman delegation to the International Conference on Climate Change (COP 15), Copenhagen	December 2009
Assisted in the participation of Chapman delegation to the International Conference on Climate Change Adaptation Strategies	December 2009
for the Asia and Pacific Region at Korea Adaptation Center for Climate Change in Korea Environment Institute	September 2009
Invited to Korean Women's International Network (KOWIN) conference in Incheon, South Korea	July 2009
Signed MOU between Laboratory of Computational Biology and Cognitive Neuroscience Laboratory at Korea University	July 2009
Assisted Korea University visit and lectures by Chapman faculty, H. El-Alaskary and M. Kafatos, and research collaboration meetings	July 2009

Assisted in the participation of Chapman delegation to the International Seminar\Conference on Desertification and Dust Storms at Korea University	July 2009
Hosted visit of Ki-Su Lee, President, Korea University, and Korea University delegation to Chapman Arranged MOU between President of Ewha Womans' University, and President, Chapman University	July 2009 June 2009
Hosted a special lecture on acupuncture and moxibustion Schmid College of Science at Chapman University	March 2009
Arranged signing of MOU between Chancellor of Chapman University and President of Korea University	December 2008
Coordinated the second Internship programs for Korea University at GMU	March 2008
Created the first Internship programs for Korea University at GMU	March 2007
Coordinated GMU faculty to teach in summer at Korea University	July 2006
Arranged signing of MOUs between presidents of GMU and Korea, and Seoul National Universities and KAIST in South Korea	January 2006

x. Refereed Papers and Refereed Proceedings

- El Nebrisi EG, Prytkova T, Lorke DE, Howarth L, Alzaabi AH, Yang KH, Howarth FC, and Oz M (2020) Capsaicin Is a Negative Allosteric Modulator of the 5-HT3 Receptor. Frontiers in Pharmacy Vol 11 doi: 10.3389/fphar.2020.01274 https://www.frontiersin.org/articles/10.3389/fphar.2020.01274/full
- Alzaabia AH, Howartha L, Nebrisia EE, Syeda N, Yang KH, Howarthc FC, Oz M (2019) Capsaicin inhibits the function of α7-nicotinic acetylcholine receptors expressed in Xenopus oocytes and rat hippocampal neurons. *European Journal of Pharmacology* 857:172411.
- 3. Nebrisi EE, Al Kury LT, **Yang_KH**, Jayaprakash P, Howarth FC, Kabbani N, Oz_M. (2018) Curcumin potentiates the function of human α₇-nicotinic acetylcholine receptors expressed in SH-EP1 cells. *Neurochem. Int.* 114:80-84.
- El Nebrisi EG, Bagdas D, Toma W, Al Samri H, Brodzik A, Alkhlaif Y, Yang_KH, Howarth FC, Damaj IM, Oz M (2018) Curcumin Acts as a Positive Allosteric Modulator of α7-Nicotinic Acetylcholine Receptors and Reverses Nociception in Mouse Models of Inflammatory Pain. *J. Pharmacol. Exp. Ther.* 365(1):190-200.

- 5. Yang, K-H S, Kafatos, M.C. (2018) Geometroneurodynamics and Neuroscience. *Cosmos and History: The Journal of Natural and Social Philosophy*, vol. 14, no. 2.
- 6. Kafatos, M.C., Yang, K-H S (2018) The Participating Mind in the Quantum Universe, *Cosmos and History: The Journal of Natural and Social Philosophy* 14(1): 40-55.
- 7. Oz M, El Nebrisi EG, **Yang KH**, Howarth FC, Al Kury LT. (2017) Cellular and Molecular Targets of Menthol Actions. *Front Pharmacol*. 8:472.
- Sultan A, Yang KH, Isaev D, Nebrisi EE, Syed N, Khan N, Howarth CF, Sadek B, Oz M. (2017) Thujone inhibits the function of α7-nicotinic acetylcholine receptors and impairs nicotine-induced memory enhancement in one-trial passive avoidance paradigm. *Toxicology* 1;384:23-32.
- Gaber E Nebrisi E, Bagdas D, Toma W, Brodzik A, Alkhlaif Y, Yang KH, Howarth CF, Damaj MI, Oz M. (2017) Curcumin acts as a positive allosteric modulator of α7-nicotinic acetylcholine receptors and reverses nociception in mouse models of inflammatory and neuropathic pain. Submitted to *Eur J Pharmacol*.
- 10. El Nebrisi E, **Yang KH**, Howarth F, Kabbani N, Oz M, Curcumin potentiates the function of human α7-nicotinic acetylcholine receptors expressed in SH-EP1 cells. In Preparation.
- Lozon Y, Sultan A, Lansdell SJ, Prytkova T, Sadek B, Yang KH, Howarth FC, Millar NS, Oz M. (2016) Inhibition of Human α7 Nicotinic Acetylcholine Receptors by Cyclic Monoterpene Carveol. *Eur J Pharmacol*. 776: 44-51.
- 12. Kafatos M, **Yang KH** (2016) The Quantum Universe: the Philosophical Foundations and Oriental Medicine. *Integrative Medicine Research, Elsevier* 5:237-243
- 13. Nurulain S, Prytkova T, Sultan AM, levglevskyi O, Lorke D, **Yang KH**, Petroianu G, Howarth FC, Kabbani N, Oz M. (2015) Inhibitory actions of bisabolol on α7-nicotinic acetylcholine receptors. *Neuroscience*, 306: 91-99.
- 14. Murat Oz, Yosra Lozon, Ahmed Sultan, **Keun-Hang Susan Yang**, Sehamuddin Galadari (2015) Effects of Monoterpenes in Ion Channels of Excitable Cells, *Pharmacology and Therapeutics*, 152:83-97.
- 15. Ali RM, Al Kury LT, **Yang KH**, Qureshi A, Rajesh M, Galadari S, Shuba YM, Howarth FC, Oz M. (2015) Effects of cannabidiol on contractions and calcium signaling in rat ventricular myocytes. *Cell Calcium*. 57: 290-299.
- 16. Sadek B, Khanian SS, Ashoor A, Prytkova T, Ghattas MA, Atatreh N, Nurulain SM, **Yang KH**, Howarth FC, Oz M. (2015) Effects of antihistamines on the function of human α7-nicotinic acetylcholine receptors. *Eur J Pharmacol*. 746:308-316.
- 17. Andreas Schilbach, Tatiana Prytkova, **Keun-Hang Yang** (2015), The Effect of Δ9-Tetrahydrocannabinol, Cannabidiol, Menthol and Propofol on 5-Hydroxytryptamine Type 3 Receptors—A Computational Approach, Computational Neuroscience Meeting, *CNS*15* (Suppl.).

- 18. Al Kury LT, Voitychuk OI, Ali RM, Galadari S, **Yang KH**, Howarth FC, Shuba YM, Oz M. (2014) Effects of endogenous cannabinoid anandamide on excitation-contraction coupling in rat ventricular myocytes. *Cell Calcium*. 55:104-118.
- 19. Al Kury LT, **Yang KH,** Thayyullathil FT, Rajesh M, Ali RM, Shuba YM, Howarth FC, Galadari S, Oz M. (2014) Effects of endogenous cannabinoid anandamide on cardiac Na+/Ca2+ exchanger. *Cell Calcium*. 55: 231-237.
- 20. Al Kury LT, Voitychuk OI, Yang, KH, Thayyullathil FT, Doroshenko P, Ramez AM, Shuba YM, Galadari S, Howarth FC, Oz M (2014), Effects of the endogenous cannabinoid anandamide on voltage-dependent sodium and calcium channels in rat ventricular myocytes, *Br J Pharmacol*. 2014 Jul;171(14):3485-98. doi: 10.1111/bph.12734.
- 21. Al Kury LT, **Yang KH**, Thayyullathil FT, Rajesh M, Ali RM, Shuba YM, Howarth FC, Galadari S, Oz M (2014), Effects of endogenous cannabinoid anandamide on cardiac Na⁺/Ca²⁺ exchanger, *Cell Calcium*. 2014 May;55(5):231-7. doi: 10.1016/j.ceca.2014.02.017. Epub 2014 Mar 11.
- 22. Oz M, Al Kury L, **Yang KH**, Mahgoub M, Galadari S (2014), Cellular approaches to the interaction between cannabinoid receptor ligands and nicotinic acetylcholine receptors, *Eur J Pharmacol.* 2014 May 15;731:100-5. doi: 10.1016/j.ejphar.2014.03.010. Epub 2014 Mar 16.
- 23. Al Kury LT, Voitychuk OI, Ali RM, Galadari S, **Yang KH**, Howarth FC, Shuba YM, Oz M (2014), Effects of endogenous cannabinoid anandamide on excitation-contraction coupling in rat ventricular myocytes, *Cell Calcium*. 2014 Feb;55(2):104-18. doi: 10.1016/j.ceca.2013.12.005. Epub 2014 Jan 5.
- 24. Bassem Sadek, Seyedeh Soha Khanian, Abrar Ashoor, Tatiana Prytkova, Mohammad A. Ghattas, Noor Atatreh, Syed M. Nurulain, **Keun-Hang Susan Yang**, Frank Christopher Howarth, Murat Oz (2014), Effects of antihistamines on the function of human alpha7-nicotinic acetylcholine receptors, *submitted to Eur. J. Pharmacol.*
- 25. Mohamed Mahgoub, **Keun-Hang Yang**, Abrar Ashoor, Nadine Kabbani, Lina Al Kury, Bassem Sadek, Christopher Howarth, Sehamuddin Galadari, Murat Oz (2013), Effects of cannabidiol on the function of & α 7-nicotinic acetylcholine receptors, *Journal of Pharmacology and Experimental Therapeutic*, 2013 Nov 15;720(1-3):310-9. doi: 10.1016/j.ejphar.2013.10.011. Epub 2013 Oct 18.
- 26. Abrar Ashoor, Jacob Nordman, Daniel Veltri, Keun-Hang Yang, Yaroslav Shuba, Lina Al Kury, Bassem Sadek, Frank C Howarth, Amarda Shehu, Nadine Department of Molecular Neuroscience-GMU Kabbani, and Murat Oz (2013), Menthol Inhibits 5-HT3 Receptor-Mediated Currents, Journal of Pharmacology and Experimental Therapeutic, doi:10.1124/jpet.113.203976.
- 27. Jacob C. Nordman; Daniel Veltri; **Keun-Hang Yang**; Lina Al Kury; Yaroslav Shuba; Mohamed Mahgoub; Frank C. Howarth; Bassem Sadek; Amarda Shehu; Nadine Kabbani; Murat Oz (2013), Menthol binding and inhibition of α7-nicotinic acetylcholine receptors, **PLOS ONE**, 2013 Jul 23;8(7):e67674. doi: 10.1371/journal.pone.0067674.

- Al Mansouri AS, Al Mansouri AS, Lorke DE, Nurulain SM, Ashor A, Yang Keun-Hang, Petroianu G, Isaev D, Oz M (2012), Methylene Blue Inhibits the Function of 7-Nicotinic Acetylcholine Receptors, CNS Neurolo Disord Drug Targets, 2012 Apr 4. [Epub ahead of print]
- 29. Murat Oz, Omar M. A. El-Agnaf, Dietrich E. Lorke, **Yang Keun-Hang**, Georg Petroianu, Abdu Adem (2012), On the Interaction of -Amyloid Peptides and 7-Nicotinic Acetylcholine Receptors in Alzheimer Disease, **Current Alzheimer Research**, 2013 Jul;10(6):618-30.
- 30. Abrar Ashoor, Dietrich E. Lorke, Syed M. Nurulain, Lina Al Kury, Georg Petroianu, **Yang Keun-Hang**, and Oz M (2011), "Effects of Phenothiazine Class Antipsychotics on the Funtion of alpha7-Nocptomoc Acetylcholine Receptors", *European Journal of Pharmacology*, 673 (Issues 1-3):25-32.
- 31. **Yang Keun-Hang**, D. Isaev, M. Morales, G. Petroianu, S. Galadari, Oz M. (2010), "The Effect of 9-tetrahydrocannabinol on 5-HT3 Receptors Depends on the Current Density", *Neuroscience*, 171:41-49.
- 32. Yang Keun-Hang, Sehamuddin Galadari, Marisela Morales, Toni S. Shippenberg, and Oz Murat (2010), "The Nonpsychoactive Cannabinoid Cannabidiol Inhibits Human 5-HT3 Receptor-Mediated Currents in Xenopus Oocytes", *Journal of Pharmacology and Experimental Therapeutic*, 333:547-554.
- 33. Prasad Anuup. K., **Yang Keun-Hang**, El-Askary Hesham. Menas., Kafatos M (2009) "Melting of major Glaciers in the western Himalayas: evidence of climatic changes from long term MSU derived tropospheric temperature trend (1979 2008)", *Ann. Geophys.*
- 34. Oz Murat, **Yang Keun-Hang**, Renaud Leo P, O'Donovan Michael J. (2007) Cholecystokinin B type receptors mediate a G protein-dependent depolarizing action of cholecystokinin (CCK-8s) on rodent neonatal spinal ventral horn neurons. *Journal of Neurophysiology*, 98(3):1108-14.
- 35. Oz Murat, **Yang Keun-Hang**, Dinc M, Shippenberg TS. (2007) The Endogenous Cannabinoid Anandamide inhibits cromakalim-activated K+ currents in follicle-enclosed xenopus oocytes. *Journal of Pharmacology and Experimental Therapeutics*, 323(2):547-54.
- 36. Yang Keun-Hang, Franaszczuk Piotr J., and Bergey Gregory K. (2005) Inhibition Modifies the Effects of Slow Calcium-Activated Potassium Channels on Epileptiform Activity in a Neuronal Network Model. Epub 2004 Dec 21. *Biological Cybernetics*, 92:71-81.
- 37. Oz Murat, **Yang Keun-Hang**, O'Donovan Michael J., Renaud Leo P (2005). Presynaptic Angiotensin II AT1 Receptors Enhance Inhibitory and Excitatory Synaptic Neurotransmission to Motoneurons and other Ventral Horn Neurons in Neonatal Rat Spinal Cord. *Journal of Neurophysiology*, 94:1405-1412.

- 38. **Yang Keun-Hang**, Franaszczuk Piotr J., and Bergey Gregory K. (2003) The Influences of Somatic and Dendritic Inhibition on the Patterns of Bursting in a Neuronal Circuit Model. *Biological Cybernetics*, 89:242-253.
- 39. Yang Keun-Hang, Franaszczuk Piotr J., and Bergey Gregory K. (2003) Changing Slow Calcium-Activated Potassium Current Kinetics Influence Bursting Activity in a Model of Pyramidal Neurons. 44 (Suppl.9):194, *American Epilepsy Society Annual Meeting*, AES*2003(Suppl.).
- 40. Yang Keun-Hang, Franaszczuk Piotr J., and Bergey Gregory K. (2003) The Influence of Slow Calcium-Activated Potassium Channels on Epileptiform Activity in a Neuronal Model of Pyramidal Cells. Computational Neuroscience Meeting, CNS*03 (Suppl.).
- 41. **Yang Keun-Hang**, Franaszczuk Piotr J., and Bergey Gregory K. (2002) The influence of Synaptic Connectivity on the Pattern of Bursting Behavior in Model Pyramidal Cells. *Neurocomputing*, 44-46:233-242.
- 42. **Yang Keun-Hang**, Franaszczuk Piotr J., and Bergey Gregory K. (2002) The Influences of GABAA and GABAB Inhibition in Bursting Activity in a Model of Pyramidal Cells. Epilepsia 43 (Suppl.7):149, *American Epilepsy Society Annual Meeting*, AES*2002(Suppl.).
- 43. **Yang Keun-Hang**, Franaszczuk Piotr J., and Bergey Gregory K. (2002)The Effect of Changes in the Inhibitory Interneuron Connectivity on the Pattern of Bursting Behavior in a Pyramidal Cell Model. **Computational Neuroscience Meeting**, CNS*02 (Suppl.).
- 44. **Yang Keun-Hang**, Jeanette Hellgren Kotaleski, and Blackwell K.T. (2001) The Role of Protein Kinase C in the Biochemical Pathways in Classical Conditioning. *Neurocomputing*, 38-40:79-85.
- 45. **Yang Keun-Hang**, Franaszczuk Piotr J., and Bergey Gregory K. (2001) Synaptic Connections on the Patterns of Bursting in A Neuronal Circuit Model. Epilepsia, 42 (supplement 7): 38, *American Epilepsy Society Annual Meeting*, AES*2001(Suppl.).
- 46. **Yang Keun-Hang**, Franaszczuk Piotr J., and Bergey Gregory K. (2001) The Influence of Synaptic Connectivity on the Pattern of Bursting Behavior in Model Pyramidal Cells. *Computational Neuroscience Meeting*, CNS*2001(Suppl.).
- 47. **Yang Keun-Hang**, Blackwell K.T. (2000) Analog Pattern Matching in a Dendritic Spine Model Based on Phosphorylation of Potassium Channels. *Network:* Computation in Neural System, 11:281-297.

Refereed Book Chapters

Menas C Kafatos, Heajung Lee, and Keun-Hang Yang (2014) The Non-Local Universe is the Conscious Universe, Essays on Spacetime, Evolution and Well-Being in *The Mysteries of Consciousness*.

Jafri M.Saleet., Yang Keun-Hang (2003) Chapter 3. Modeling Neuronal Calcium Dynamics, *In Computational Neuroscience*, pp 75-96.

Conference Proceedings

Blackwell K.T., **Yang Keun-Hang** (1998) Analog pattern matching in a model of dendritic spines. Proceedings of ICONIP'98- Kitakyushu, Japan.

Published Abstracts

Luke Howarth, Eslam El Nebrisi, Syed Nurulain, **Yang KeunHang**, Frank Howarth, Murat Oz (2016), Effect of Capsaicin on Human alpha7-Nicotinic Acetylcholine Receptors, European Pharmacology Society meeting

Yang Keun-Hang, Syed M. Nurulain, Frank C. Howart, Murat Oz (2015), CURCUMIN POTENTIATES HUMAN α7-NICOTINIC ACETYLCHOLINE RECEPTORS, SFN*2015(Suppl.)

Andreas Schilbach, Tatiana Prytkova, **Yang Keun-Hang** (2015), The effect of $\Delta 9$ -tetrahydrocannabinol, Cannabidiol, Menthol and Propofol on 5-Hydroxytryptamine type 3 Receptors—A Computational Approach, CNS 2015

Yang Keun-Hang, Syed M. Nurulain, Frank C. Howart, Murat Oz (2014), APIGENIN POTENTIATES HUMAN α 7-NICOTINIC ACETYLCHOLINE RECEPTORS, SFN*2014(Suppl.)

Yang Keun-Hang, D. Lorke, A. Ashoor, S. M. Nurulain, C. F. Howarth, N. Kabbani, M. Oz (2013), Menthol inhibition of human serotonin type 3 receptors expressed in xenopus oocytes, SFN*2013(Suppl.)

Yang Keun-Hang, M. MAHGOUP, A. ASHOOR, C. F. HOWARTH, S. GALADARI, M. OZ (2012), Effects of cannabidiol on human 7-nicotinic acetylcholine receptors, SFN*2012(Suppl.)

Yang Keun-Hang, Isaev D. S., Galadari S., Oz M. (2010), The endogenous cannabinoid anandamide inhibits the function of human serotonin transporter, SFN*2010(Suppl.)

Isaev D.S., Mansouri A.A., Lorke D., **Yang Keun-Hang**, Hasan M., Petroianu G., Oz M. (2010), Demethylated derivatives of methylene blue inhibit the function of human 7-nicotinic acetylcholine receptors, SFN*2010(Suppl.)

Isaeva O., Ashour A., **Yang Keun-Hang**, Nurulain S., Petroianu G., Hasan M., Oz M. (2010), Phenothiazine class antipsychotics inhibit the function of the human a7-nicotinic acetylcholine receptor, SFN*2010(Suppl.)

Yang Keun-Hang, Isaev D., El-Agnaf O, Shippenberg T.S., Baumann M, Oz M. (2009), Cathinone Inhibits Dopamine Transporter Function and Cell Surface Expression, SFN*2009(Suppl.)

Yang Keun-Hang, Oz Murat Dinc M, Shippenberg T.S. (2007) The endogenous cannabinoid anandamide inhibits cromakalim activated K+ currents in follicle-enclosed xenopus oocytes. SFN*2007(Suppl.).

Yang Keun-Hang, Shneider N., O'Donovan M. J. (2006), Role of Muscle Spindle-Derived NT3 and ErbB2 in Monosynaptic Connections to Motoneurons in the Neonatal Mouse Spinal Cord. Society for Neuroscience Meeting, SFN*2006(Suppl.).

Yang Keun-Hang, Morales M., Renaud L.P., O'Donovan M. J., and Oz M. (2005), The Effects of Cholecystokinin (CCK) on Ventral Neurons in the Spinal Cord of the Neonatal Rat and Mouse. Society for Neuroscience Meeting, SFN*2005(Suppl.).

Jafri M.-S., Brown K, and **Yang Keun-Hang** (2005), The Influence of calcium Dynamics on the Stimulus Frequency Dependence of Slow AHP current in Nodose Neurons: A Modeling Study. Society for Neuroscience Meeting, SFN*2005(Suppl.).

Yang Keun-Hang, Morales M., Renaud L.P., O'Donovan M. J., and Oz M. (2004), The Effects of Angiotensin on Ventral Neurons in the Spinal Cord of the Neonatal Rat and Mouse. Society for Neuroscience Meeting, SFN*2004(Suppl.).

Yang Keun-Hang, Franaszczuk Piotr J., and Bergey Gregory K. (2002) A Neuronal Model for Repetitive Bursting Activity: Effects of Changing Inhibitory Connectivity. J. Neurosci (Suppl.).

Yang Keun-Hang, Jeanette Hellgren Kotaleski, and Blackwell K.T. (2000), The Role of PKC in Temporal Specificity of Classical Conditioning of Purkinje Cells. J. Neurosci (Suppl.).

Yang Keun-Hang, Blackwell K.T. (1999), Role of a Potassium Current in the Regulation of Calcium Spikes in Cerebellar Purkinje Cells. J. Neurosci (Suppl.) 25: 914.

Yang Keun-Hang, Blackwell K.T. (1998), Analog pattern matching in a dendritic spine model with voltage dependent calcium channels. J. Neurosci (Suppl.) 24: 1911.

Yang Keun-Hang, Blackwell K.T. (1997), Analog pattern recognition in a dendritic spine model with calcium dynamics. J. Neurosci (Suppl.) 23: 78.

xi. Invited Lectures

Invited talk at department Human Machine Bio at Ewha University in South Korea on "Computer Models of the Brain" August 2019

Invited talk at Kyunghee University in South

August 2019

Korea on my recent paper, 'Curcumin potentiates the function of human α_7 -nicotinic acetylcholine receptors expressed in SH-EP1 cells' Invited seminar at Foundation for Research and July 2019 Technology-Hellas (FORTH) and the University of Crete in Heraklion Crete in Greece Invited to Symi Symposium 2019 in Crete, July 2019 Greece for panel discussions November 2018 Invited talk at international student mixer in conjunction with International Education Week, Sponsored by Center for Global Education and the Chapman Diversity Project at Chapman University Invited lecture at College of Korean Medicine, August 2018 Kyung Hee University in Seoul Korea on "Curcumin Acts as a Positive Allosteric Modulator of α7-Nicotinic Acetylcholine Receptors and Reverses Nociception in Mouse Models of Inflammatory Pain" Invited as a speaker on "Health and Technology" July 2018 at SYMI Symposium organized by former prime minister of Greece, George Papandreou, in Rhodes, Greece Invited lecture at College of Korean Medicine, February 2018 Kyung Hee University in Seoul Korea on "Cellular and Molecular Targets of Menthol Actions" Invited workshop as moderator on "Dialogue July 2017 between Science and Religion" at Sungawon, Buddist monk university, in Suwon, South Korea Invited talk at Symi Symposium organized by July 2017 former prime minister of Greece, George Papandreor, on "Cyber Challenges-Al" Invited lecture at Korea Institute of Oriental August 2016 Medicine, in Daejun, Korea on "Inhibitory Actions of Bisabolol on α7-Nicotinic Acetylcholine Receptors" Invited talk at EMBO Workshop, Dendrites 2016, June 2016 in Heraklion. Greece on "The Effect of Δ9tetrahydrocannabinol, Cannabidiol, Menthol, and

Propofol on 5-Hydroxytryptamine Type 3 Receptors—A Computational Approach"

Invited workshop as moderator on "Dialogue between Science and Religion" at Dongkuk University in Seoul, Korea (Appendices 16, 17)	January 2016
Invited special lecture as moderator on "Dialogue between Quantum Mechanics and Korean Art" by Professors Menas Kafatos and Byungmo Jung in Seoul, Korea	January 2016
Invited lecture at School of Oriental Medicine, Kyung Hee University in Seoul, Korea on "CURCUMIN POTENTIATES HUMAN alpha 7- NICOTINIC ACETYLCHOLINE RECEPTORS"	July 2015
Invited lecture at Neuroscience School of Advanced Studies, Italy on "Computational and Experimental Approaches in Neuroscience"	May 2015
Invited lecture at School of Oriental Medicine, Kyung Hee University in Seoul, Korea on "Function of 5-Hydroxytryptamine type 3 Receptors-A Computational Approach"	July 2014
Invited lecture at Multiple Sclerosis Discussion Workshops in Athens Greece	July 2014
Invited lecture at School of Oriental Medicine, Kyung Hee University Seoul Korea on "Effect of Cannabidiol on Human alpha7-Nicotinic Accetylcholine Receptors"	January 2014
Invited lecture at UKC 2013 conference, Toward Harmonies World with Science, Technology, and Entrepreneurship	August 2013
Invited lecture at School of Oriental Medicine, Kyung Hee University Seoul Korea	July 2013
Invited Lecture, Integrative Approaches to Neurological Disorders" at School of Medicine, Ewha Womans University Seoul Korea	July 2013
Invited as Keynote speaker at SUNY Korea (Appendix10)	November 2012
Panelist at Korean Science Engineering Association Annual	September 2012

Conference (KSEA 2012)

Korea University Alumni Association in LA	August 2012
Keynote speaker along with consulate general of South Korea at the special lectures organized by Korean Women's International Network	June 2012
Keynote speaker at the symposium, Korean- American Women in Science and Engineering in San Diego	June 2012
Co-hosted and invited lecture at a conference "JOURNEY THROUGH COLLEGE & BEYONDChoosing the right major And	May 2012
Finding a dream job" at Chapman Cognitive Neuroscience Laboratory, College of Liberal Arts, Korea University, Seoul, Korea	May2012
DESE/CCCPR center, Ewha Womans University Seoul, Korea	May 2012
Title: "Linkage among Computational Sciences, earth and Environmental Sciences, Health and Life Sciences, and Economic Sciences: An Example at Chapman University"	April 2011
Co-organizer and keynote speaker at 2nd International Winter Scholl and Workshop on Climate/Environmental Change, Ewha Womans University Seoul, Korea	February 2011
Graduate School of Journalism & Mass Communication, Korea University, Seoul, Korea	November 2010
Invited keynote speaker, Korean Women's International Network (KOWIN) conference, Pusan, Korea	September 2010
Cognitive Neuroscience Laboratory, College of Liberal Arts, Korea University, Seoul, Korea Cognitive Neuroscience Laboratory, College of Liberal Arts, Korea University, Seoul, Korea	September 2010
Cognitive Neuroscience Laboratory, College of Liberal Arts, Korea University, Seoul, Korea	September 2009
School of Life Sciences and Biotechnology, Korea University, Seoul, Korea	August 2009

School of Life Sciences and Biotechnology, Korea University, Seoul, Korea	December 2008
Korea Research Institute of Bioscience and Biotechnology	December 2007
Korean-American Women in science and engineering-NIH	August 2007
Dep. of Computational Biology and Bioinformatics, George Mason University	July 2007
National Institute of Neurological Disorders and Stroke, NIH	December 2006
Division of Life Science, School of Life Sciences, Korea University, Seoul, Korea	September 2005
Korea Advanced Institute of Science and	April 2005
Technology, Seoul, Korea Division of Life Science, School of Life Sciences, Korea University, Seoul, Korea	August 2004
School of Computational Sciences, George Mason University	August 2004
Division of Life Science, School of Life Sciences, Korea University, Seoul, Korea	March 2004
National Institute of Neurological Disorders and Stroke, NIH	October 2003
Blanchette Rockefeller Neurosciences Institute, Johns Hopkins University	March 2003
Institute of Biomedical Sciences, Hanyang	August 2002
University, Seoul, Korea Korea Advanced Institute of Science and	July 2002
Technology, Seoul, Korea School of Computational Sciences, George Mason University	
Department of Biomedical Engineering, School of Medicine Seoul National University, Seoul, Korea	May 2002
Department of Computer Engineering, School of Medicine, Seoul National University Seoul, Korea	December 2001
Department of Physics, College of Natural Sciences, Chungbuk National	December 2001

University Chungju, Korea.

Frontiers in Mathematical and Computational December 2001 Biology Conference 2001

University Texas at Dallas

Department of Biology, Seoul National University, July 2001

Seoul, Korea

Department of Biomedical Research, Korean December 2000

National Institute of Health

Seoul, Korea

College of Medicine, Ewha Womans University, February 2000

Seoul, Korea

Department of Biology, College of Natural January 1999

Sciences, Ewha Womans University Seoul,

Korea

[&]quot;Appendix Available Upon Request"