

서성배 AKA Greg S. B. Suh

Professor
Department of Biological Sciences
Korean Advanced Institute of Science and Technology
Daejeon, South Korea

seongbaesuh@kaist.ac.kr



RESEARCH STATEMENT

I have been trained as a molecular geneticist and a neuroscientist who aims to understand innate behavior and underlying neural circuitry using two model organisms: fruit flies and mice. My laboratory has made significant contributions in understanding the function of glucose-sensing neurons in the brain. Glucose-sensing neurons were identified initially by electrophysiological recordings (*Oomura et al., 1964*), but the physiological function mediated by these neurons in animals were unclear until recently. My laboratory in NYU and currently in KAIST have been able to elucidate that: 1) the nutritional content of sugar, rather than its palatability, was detected by a discrete population of glucose-excited neurons (termed DH44 neurons in flies and CRF neurons in mice) that promote sugar consumption (*Kim et al., 2023; Dus et al., 2015; Dus et al., 2011*); 2) the function of the glucose-sensing DH44 neurons is modulated by hunger state through the inputs from peripheral organs (*Oh et al., 2021*); 3) a pair of glucose-excited neurons (termed CN neurons) regulate two key endocrine axes: insulin and glucagon (*Oh et al., 2019*). In addition to the work on glucose-sensing neurons, we recently discovered a population of gut cells that sense the deprivation of essential amino acids (*Kim & Kanai et al., 2021*). These are significant discoveries because it was previously believed that animal detect and recognize food sources only through taste receptors until my laboratory identified and characterized the taste-independent, internal sensors in the brain and gut that are critical for behavior and metabolism of animals.

EDUCATION

1988-1993

B.A., Molecular and Cellular Biology, University of California, Berkeley
Department of Molecular and Cellular Biology
Thesis: Biochemical analysis of efflux-mediated tetracycline resistance in *E. Coli*
Advisor: Hiroshi Nikaido

1994-2001

Ph.D., Genetics and Neural development, University of California, Los Angeles
Department of Biological Sciences
Thesis: Molecular genetic analyses of a connectivity mutant, *quo vadis* in *Drosophila*
Advisor: Larry Zipursky

2002-2007

Postdoctoral Scholar, Behavioral Neurobiology, California Institute of Technology
Division of Biology
Topic: Neural circuit dissection of innate behaviors
Advisors: David Anderson and Seymour Benzer

POSITIONS

1993-1994	Research Associate, Cancer Research Center of Hawaii
1994-2001	Graduate Student, University of California, Los Angeles
2002-2007	Postdoctoral Fellowship, California Institute of Technology
2008-2013	Assistant Professor, Skirball Institute, Cell Biology, NYU School of Medicine
2013- 2015	Associate Professor, Skirball Institute, Cell Biology, NYU School of Medicine
2011- 2020	Associated faculty of Center for Neural Science, NYU
2015- 2018	Associate Professor (with Tenure), Skirball Institute, Cell Biology, Neuroscience Institute, NYU School of Medicine
2018-	Adjunct Professor, NYU School of Medicine
2015- 2022	Associate Professor (with Tenure), Department of Biological Sciences, KAIST
2022-	Professor, Department of Biological Sciences, KAIST

HONORS AND AWARDS

2002- 2003	Caltech Divisional Fellowship
2003- 2005	National Research Service Award
2006- 2007	Howard Hughes Medical Institute Research Fellowship
2008- 2010	Alfred P. Sloan Foundation Fellow
2008- 2009	Whitehead Presidential Award
2009- 2011	Whitehall Foundation
2010- 2012	Klarman Family Foundation
2011- 2016	Irma T. Hirschl/ Monique Weill-Caulier Research Award
2015	Ajinomoto Prize – Young investigator in Gustation sponsored by Association of Chemoreception Sciences
2019	Top 10 KAIST Best Research Achievement

TRAINEES

Trainees present:

Jinhyung Lee (graduate student), BS- Postech
Gayoung Hwang (graduate student), BS- Kyungpook National University
Hyeyeon Bae (graduate student), BS- Ewha Womens University
Dongwoo Kim (graduate student), BS- KAIST
Kyungbum Cho (graduate student), BS- King's College, London, UK
Haeun Kang (graduate student), BS- Ewha Womens University

Jihyun Lee (postdoctoral fellow), PhD- Inha University
Seongju Lee (postdoctoral fellow), PhD- KAIST
Boram Kim (postdoctoral fellow), PhD- Seoul National University
Shinhye Kim (postdoctoral fellow), PhD- Sungkyunkwan University
Byungkwon Jung (postdoctoral fellow), PhD- University of Seoul
Dae-wook Yang (research professor), PhD- KAIST
Jonghoon Won (research professor), PhD- KAIST

Trainees past:

Monica Dus (postdoctoral fellow), Associate Professor (with tenure) at University of
Michigan, Ann Arbor

Minrong Ai (postdoctoral fellow), Senior Scientist at Eli Lilly, Inc
Alex Keene (postdoctoral fellow), Professor and Chair at Texas A&M University
Yangkyun Oh (postdoctoral fellow), Assistant Professor at Ewha Womens University
Anders Enjin (postdoctoral fellow), Instructor/ lab head at Lund University
Jin-Yong Park (postdoctoral fellow), Research Scientist at Janelia Research Center, HHMI
Soohong Min (research associate), Research Scientist at Novartis, Inc
Jineun Kim (graduate student), Postdoctoral fellow at Caltech
Wongyo Jung (undergraduate student), Graduate student at Caltech

OTHER SERVICES

Ad hoc reviewer for journals: Nature, Science, Neuron, Nature Neuroscience, Nature Communication, Plos Biology, Plos Genetics, Current Biology, Journal of Neuroscience, Genes, Brain & Behavior, Frontier in Neuroscience

Ad hoc Reviewer for a NIH study section (ZRG1 IFCN-B: Sensory Neuroscience): 2012-

Ad hoc Reviewer for a NIH study section (ZRG1 F02B-D: Sensory/Motor Neuroscience Fellowship): 2013-

Ad hoc Reviewer for a NIH study section (NTRC: Neurotransporters, Receptors, Channels, and Calcium Signaling): 2014- Current

Ad hoc Reviewer for a NIH Study section (ZRG1 VB-S: Vector Biology): 2015- Current

Ad hoc Reviewer for a NIH Study section (SCS: Somatosensory and Chemosensory Systems): 2015- Current

Ad hoc Reviewer for a NIH Study section (IOPD: Integrative Physiology of Obesity and Diabetes): 2017- Current

Ad hoc Reviewer for a NIH Study section (ZRG1 ETTN-D: Emerging Technologies in Neuroscience): 2017- Current

Confidential referee for the promotion of faculty members in other institutions-
Duke University, UT Southwestern, UT San Antonio, Mount Sinai
Medical School, and Seoul National University

SELECTED PUBLICATIONS

Suh, Greg S., Poeck, B., Chouard, T., Oron, E., Segal, D., Chamovitz, D. A., and Zipursky, S. L. (2002). Drosophila JAB1/CSN5 acts in photoreceptor cells to induce glial cells. *Neuron* 33, 35-46

Cope, G. A., **Suh, Greg S.**, Aravind, L., Schwarz, S. E., Zipursky, S. L., Koonin, E. V., and Deshaies, R. J. (2002). Role of predicted metalloprotease motif of Jab1/Csn5 in cleavage of Nedd8 from Cul1. *Science* 298, 608-611

Suh, Greg S., Wong, A. M., Hergarden, A. C., Wang, J. W., Simon, A. F., Benzer, S., Axel, R., and Anderson, D. J. (2004). A single population of olfactory sensory neurons mediates an innate avoidance behaviour in *Drosophila*. *Nature* 431, 854-859

Suh, Greg S., Ben-Tabou de Leon S., Tanimoto, H., Fiala A., Benzer S., and Anderson D. J. (2007). Light-activation of an innate avoidance response in *Drosophila*. *Current Biology* 17(10):905-8

Cayirlioglu P., Kadow I., Zhan X., Okamura K., **Suh, Greg S.**, Gunning D., Lai E.C., and Zipursky S.L. (2008). Hybrid neurons in a microRNA mutant are putative evolutionary intermediates in insect CO₂ sensory systems. *Science* 319 (5867): 1256-60

Keene A.C., Duboue E., McDonald D., Dus M., **Suh, Greg S.***, Waddell S.*, Blau J.* (2010). Clock and cycle limit starvation-induced sleep loss in *Drosophila*. *Current Biology* 20(13): 1209-15
* These authors contributed equally.

Ai M., Min S., Grosjean Y., LeBlanc C., Bell R., Benton R., **Suh, Greg S.** (2010). Acid Sensing by the *Drosophila* Olfactory system. *Nature* 468: 691-5

Dus, M., Min, S., Keene, AC, Lee, G., **Suh, Greg S.** (2011). Taste-independent sensor that detects the caloric content of sugar in *Drosophila*. *PNAS* 108(28): 11644-9

Min, S.*, Ai, M.*, Shin, S., **Suh, Greg S.** (2013). Dedicated olfactory neurons mediating attraction behavior to ammonia and amines in *Drosophila*. *PNAS* 110(14):1321-9

Enjin A. & **Suh, Greg S.** (2013) Neural Mechanisms of Alarm Pheromone Signaling- Review. *Mol. Cells* 35(3):177-81

Ai M., Blais S., Park JY, Neubert T., **Suh, Greg S.** (2013) Ionotropic glutamate receptors, IR64a and IR8a, form a functional receptor complex in vivo to mediate odor detection in *Drosophila*. *The Journal of Neuroscience* 33(26):10741-10749

Dus, M., Ai M., **Suh, Greg S.** (2013) Taste-independent Nutrient Selection is mediated by a Brain-specific Sodium/solute cotransporter-like in *Drosophila*. *Nature Neuroscience* 16(5):526-8

Dus M., Lai J., Gunapala KM, Min S, Taylor TD, Hergarden AC, Geraud E., Joseph CM, **Suh Greg S.** (2015). Nutrient Sensor in the Brain directs the action of the Brain-Gut Axis in *Drosophila*. *Neuron* 87, 139-151

Ai M., Mills H., Kanai M., Lai J, Deng J, Schreiter ER, Looger LL, Neubert T., **Suh, Greg S.** (2015) Green-to-Red Photoconversion of GCaMP. *Plos One* 10(9):e0138127

Enjin A, Zaharieva EE, Frank DD, Mansourian S, **Suh Greg S**, Gallio M, Stensmyr MC. (2016) Humidity Sensing in *Drosophila*. *Current Biology* 26, 1352-1358

Park JY, Dus M, Kim S, Abu F, Kanai MI, Rudy B, **Suh, Greg S.** (2016) *Drosophila* SLC5A11 mediates hunger by regulating K⁺ channel activity. *Current Biology* 26, 1965-1974

Abu F, Wang JG, Oh YK, Deng J, Neubert TA, **Suh, Greg S.** (2018) Communicating the nutritional value of sugar in *Drosophila*. PNAS 115 (12):E2829-E2838

Kim J, Lee S, Fang Y, Bhat S, Shin A, Hashikawa K, Kim D, Sohn J, Lin D, **Suh, Greg S.** (2019) Rapid, biphasic CRF neuronal responses encode positive and negative valence. Nature Neuroscience 22, 576-586

Oh Y, Lai J, Mills H, Erdjument-Bromage H, Giammarinaro B, Saadipour K, Wang J, Park J, Abu F, Neubert TA, **Suh, Greg S.** (2019) A glucose-excited neuron pair regulates insulin and glucagon in *Drosophila*. Nature 574, 559-564.

Kim BS and **Suh, Greg S.** (2019) Signal Amplification in *Drosophila* Olfactory Receptor Neurons. Neuron 104(5):829-831.

Seung Yeon Lim*, Hyejin You*, Jinhyeong Lee*, Jaejin Le*, Yoojin Lee, Kyung-Ah Lee, Boram Kim, Ji-Hoon Lee, JiHyeon Jeong, Sooin Jang, Byoungsoo Kim, Hyungjun Choi, Gayoung Hwang, Min Sung Choi, Sung-Eun Yoon, Jae Young Kwon†, Won-Jae Lee†, Young-Joon Kim† and **Suh, Greg S.**† (2020) Identification and characterization of GAL4 drivers that mark distinct cell types and regions in the *Drosophila* adult gut. Journal of Neurogenetics Epub. * and †equally contributed.

Min S, Oh Y, Verma P, Whitehead SC, Yapici N, Van Vactor D, **Suh, Greg S** and Liberles S. (2021) Control of feeding by Piezo-mediated gut mechanosensation in *Drosophila*. Elife 10:e63049

Kim B#, Kanai MI#, Oh Y, Kyung M, Lee JH, **Suh, Greg S*** Lee WJ* (2021) Response of the *Drosophila* microbiome-gut-brain axis to amino acid deficit. Nature 593, 570-574. # and *equally contributed.

Oh Y, Lai JSY, Min S, Liberles SD, Ryoo HD and **Suh, Greg S.** (2021) Two independent signals from the periphery, glucose loads and piezo-mediated gut stretch, regulate the *Drosophila* nutrient sensor. Neuron 109: 1979-1999

Kim SK*, Tsao D, **Suh, Greg S*** and Miguel-Aliaga I* (2021) Discovering signaling mechanisms governing metabolism and metabolic diseases with *Drosophila*. Cell Metabolism 33:1279-1292 *equally contributed.

Suh, Greg S, Yu K, Kim YJ, Oh Y, Park J-J (2022) History of *Drosophila* Neurogenetic Research in South Korea. Journal of Neurogenetics Epub (as Korea Special Issue).

Kim J, Kim D-G, Jung W, and **Suh, Greg S** (2023) Evaluation of mouse behavioral responses to nutritive versus nonnutritive sugar using a deep learning-based 3D real-time pose estimation system. Journal of Neurogenetics Epub (as Korea Special Issue).

Kim B, Hwang G, Yoon SE, Kuang M, Wang JW, Kim YJ, **Suh, Greg S** (2024) Postprandial Sodium Sensor in the *Drosophila* Gut. Nature Metabolism 33(7): 1279-1292

Kim J*, Kim SH*, Jung W*, Kim YJ, Yoo DY, Hwang IK, Froemke R, Lee SH, Schwartz GJ, **Suh, Greg S** (2024) Encoding the Glucose Identity by Discrete Hypothalamic Neurons via the Gut-Brain axis. Manuscript accepted (in Neuron).

Hwang G*, Yang DW*, Kim HA, **Suh Greg S** Stress-induced preference for antioxidant by *Drosophila*. Manuscript in revision (in PNAS)

Kim B, Lee S, Won JH, Bae H, Kim D, Jung B, Kanai M, Oh YK, Lee WJ, **Suh Greg S** Complex interplay of hormonal, neuronal responses by gut-brain axis to a deficit in essential amino acids. Manuscript in revision (in Science)

PATENT APPLICATIONS

1. A Genetically Encoded Green-to-Red Photo-convertible Fluorescent Calcium Indicator: Greg Seong-Bae Suh and Minrong Ai, filed on January 30, 2014 by NYU School of Medicine (US patent)
2. Taste-independent Brain Nutrient Sensor: Greg Seong-Bae Suh and Monica Dus, filed on March 28, 2016 by NYU School of Medicine (US patent)
3. New platform methodology of drug screen using in vivo imaging technique of neuronal activity: Greg Seong-Bae Suh, Jineun Kim, Wongyo Jung, and Yujin Kim, filed on July 1, 2021 by KAIST (South Korea patent)

INVITED TALKS

Institutes/ Universities

1. SUNY, Downstate- March of 2010
2. KAIST (Korean Advanced Institute of Science and Technology)- June of 2010
3. CCNY- April of 2011
4. McGill University- October of 2011
5. University of Pittsburg- November of 2011
6. Scripps Florida- March of 2012
7. Seoul National University- August of 2012
8. National Institute of Health (NIGMS)- April of 2013
9. Riken Brain Institute, Tokyo- June of 2013
10. University of Tokyo- June of 2013
11. National Institute of Biological Sciences, Beijing- August of 2013
12. Chinese Academy of Sciences, IBP, Beijing- August of 2013
13. Institute of Neuroscience, Shanghai- April of 2014
14. Fudan University, Shanghai- August of 2014
15. UT Southwestern- September of 2014
16. Yale University- October of 2014
17. Cold Spring Harbor- November of 2014
18. Johns Hopkins University- March of 2015
19. National Institute of Health (NICHD)- March of 2015
20. University of Pennsylvania- June of 2015
21. Monell Chemical Senses- June of 2015
22. Rutgers University- October of 2015
23. Columbia University (Naomi Diabetes Center)- February of 2016
24. University of Texas, San Antonio- April of 2016
25. Yale University- September of 2016
26. Albert Einstein School of Medicine – November of 2016

27. Thomas Jefferson University – May of 2017
28. Princeton University – June of 2017
29. Nagoya University – August of 2017
30. Colorado State University – January of 2018
31. USC – March of 2018
32. Institute of Molecular and Cell Biology, A*STAR – May of 2018
33. Seoul National University – June of 2018
34. Aju Medical School – June of 2018
35. University of Pennsylvania, IDOM – October of 2018
36. Riken BSI, Tokyo – October of 2018
37. NICT, Kobe – October of 2018
38. Chungbuk National University – March of 2019
39. Chungnam National University – June of 2019
40. University of California, San Diego – July of 2019
41. Seoul National University School of Medicine – September of 2019
42. Mount Sinai School of Medicine – October of 2019
43. Stanford University – February of 2020
44. University of Hawaii – February of 2020
45. Institute of Biophysics, Beijing – April of 2020 (cancelled due to covid-19)
46. Beijing University – April of 2020 (cancelled due to covid-19)
47. DGIST – May of 2020 (online)
48. Soonchunyang Medical Center – September of 2020 (online)
49. KAIST GSMSE – September of 2020 (online)
50. Seoul National University School of Medicine – November of 2020 (online)
51. Ewha Womans University – November of 2020 (online)
52. Columbia University Naomi Berrie Diabetes Center – April of 2021 (online)
53. IBS – June of 2021
54. University of Hawaii – Sept of 2021 (online)
55. New York University School of Medicine – Sept of 2021
56. Monell Chemical Senses, University of Pennsylvania – Sept of 2021 (online)
57. Einstein-Mt. Sinai Joint Diabetes Center Conference – May of 2022 (online)
58. Sungkyunkwan University – May of 2022 (online)
59. Harbin Institute of Technology, Harbin, China – August of 2022 (online)
60. 동아의과대 학교 – October of 2022
61. 서울의과대 학교 – October of 2022 (online)
62. NYU Langone Medical Center, Institute of Systems Genetics (Host: Jeff Boeke), New York, USA – June of 2023
63. University of Hong Kong, School of Biological Sciences (Host: Billy Chow) – July of 2023
64. Peking University_Shenzhen campus (Host: Wenbiao Gan) – August of 2023
65. UT Southwestern medical center, Center for Hypothalamic Research (Host: Joel Elmquist) – October of 2023
66. Duke University, Department of Neuroscience and Internal medicine (Host: Diego Bohorquez) – November of 2023
67. Gwangju Institute of Science and Technology, School of Biological Sciences (Host: 남정식) – November of 2023
68. Hokkaido University, Department of Biological Sciences (Host: Nobuaki Tanaka) – January of 2024

69. 인하대학교 – April of 2024
70. Monash University, Melbourne, Australia (Host: Matt Pipers) – January of 2025
71. University of Queensland, Brisbane, Australia (Host: Barry Dickson) – January of 2025
72. University of Sydney, Australia (Host: Stephan Simpson) – February of 2025

Conferences

1. Gordon Conference, Newport – June of 2007
2. Klarman Scientific Meeting, Boston- April of 2011
3. CSHL Neurobiology of Drosophila, CSH- October of 2011
4. International Congress of Entomology- August of 2012
5. Janelia Conference: Sensory signaling in Model organism, Ashburn- April of 2013
6. Society for the Study of Ingestive Behavior (SSIB), New Orleans- July of 2013
7. Association for Chemoreception Sciences (AChemS), Bonita Spring- April of 2014
One of three keynote speakers for Presidential Symposium
8. International Symposium of Genetics, Shanghai- April of 2014
9. EMBO workshop (Neural Circuit), Crete – July of 2015
10. International Molecular Biology conference, Seoul – September of 2015
11. CSHL Neurobiology of Drosophila, CSH – October of 2015 (Organizing a workshop on Ingestive Behavior)
12. Janelia Conference: Central Complex IV: A New Hope to Understand a Multifaceted Brain Region, Ashburn, VA- March of 2016
13. Nutritional Homeostasis Workshop, University of Bonn, Germany, May of 2016
14. IBANGS (International Behavioral and Neural Genetics Society), Bar Harbor, May of 2016
15. International Symposium on Olfaction and Taste (ISOT), Yokohama – June of 2016 The keynote speaker for the symposium on Energy Homeostasis of Gut, Brain, Taste and Olfactory signals
16. FENS, Copenhagen – July of 2016
One of three keynote speakers for Neural Control of Nutritional Homeostasis
17. APDRC (Asian-Pacific Drosophila Research Conference), Osaka, Japan – May of 2017
18. KSBNS Annual Conference, Seoul, Korea – August of 2017
19. Frontiers in Diabetes Research, Columbia University, New York – November of 2017
20. Keystone Symposia (Organ Crosstalk in Obesity and NAFLD), Keystone, Colorado – January of 2018
21. Gastronauts Symposium on gut-brain matters, Singapore, Duke-NUS – May of 2018
22. Society for the Study of Ingestive Behavior (SSIB), Bonita Springs, Florida- July of 2018
23. Neural Developmental Symposium (Plenary Speaker) – June of 2019
24. UK-IBS Symposium, London, UK – August of 2019
25. ICOMES, Seoul, Korea – August of 2019.
26. Cold Spring Harbor Asia (Neurobiology of Behavior & Neuropsychiatric Disorder), Suzhou, China – September of 2019

27. Cold Spring Harbor (Neurobiology of Drosophila), Cold Spring, New York – October of 2019
28. EMBL Symposium: Inter-Organ Communication in Physiology and Disease, Heidelberg, Germany, March of 2020 (cancelled due to covid-19)
29. The Annual Meeting of Korean Society for Brain and Neural Sciences, Songdo, South Korea – May of 2021
30. The Annual Meeting of Korean Society for Biochemistry and Molecular Biology, Busan, South Korea – May of 2021
31. The Annual Meeting of the Japan Neuroscience Society, Kobe, Japan – July of 2021 (online)
32. Korean Neuroendocrine Conference, Seoul, Korea – November of 2021
33. 2021 International and Chinese Drosophila Research Conference – November of 2021 (online)
34. Gastronauts – International conference for Gut-Brain Matters – February of 2022 (online)
35. Keystone Conference (Gut-Brain Axis), Banff, Canada – February of 2022 (online)
36. Korean Endocrine Society – April of 2022
37. IMPC-INFRAFRONTIER Seoul meeting – May of 2022
38. Korean Society for Microbiology and Biotechnology – June of 2022
39. The 51st Korean Drosophila Conference – July of 2022 (Keynote Speaker)
40. The Annual meeting of Korean Society for Molecular and Cellular Biology – September of 2022
41. The International Satellite Symposium of the 43rd Annual Meeting of the Japanese Society of Obesity, Okinawa, Japan – December of 2022
42. 대한 뇌신경과학회 항상성분과 학술대회, 강릉 – February of 2023 (Plenary Speaker)
43. Cell Symposia: “Neurometabolism in Health and Disease” A*STAR, Singapore – April of 2023
44. The 16th Annual Meeting of Chinese Neuroscience Society and the 2nd CJK International Meeting, Zhuhai, China – July of 2023
45. Asia-Oceania Conference on Obesity 2023, Hong Kong, August of 2023
46. The Japanese Association for the Study of Taste and Smell (JASTS) 2023 Annual conference, Tokyo, Japan – September of 2023 (Keynote speaker)
47. The 9th Asian Federation of Laboratory Animal Science Association, Jeju, South Korea – September of 2023 (Plenary speaker)
48. The 10th Federation of the Asian and Oceanian Physiological Societies, Daegu, South Korea – November of 2023
49. APDNC 3– Asian Pacific Drosophila Neurobiology Conference, Tokyo, Japan – February of 2024
50. Model Organism Symposium, Seoul Korea – April of 2024 (Plenary speaker)
51. The 88th Cold Spring Harbor Laboratory Symposium on Quantitative Biology-Brain Body Physiology, Cold Spring, New York – May of 2024
52. DESIRE (Diabetes and Insulin Resistance) Conference, Tokyo, Japan – July of 2024 (Plenary speaker)
53. MHRC Symposium, Buyeo – August of 2024

- 54. Janelia Conference: Sensory Biology of Ingestion, Asburn, VA - November of 2024
- 55. NYU ABU DHABI Symposium, Abu Dhabi, UAE – February of 2025
- 56. Hawaii Summit – “Neurometabolism, microbiome and beyond”, Honolulu, Hawaii (University of Hawaii) – November of 2025
- 57. XPLOER SYMPOSIUM, Shenzhen, China – December of 2025

Rev. 5/3/2025
