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ORCID: 0000-0001-6237-0726 **ResearcherID:** H-8705-2014

RESEARCH INTERESTS

My research focuses on the natural and man-made stressors of social bees, exploring their communication, cognition, and health. A particular focus is the selective pressures that have shaped complex social communication in bees and their hornet predators. A major part of this work focuses on foraging and communication in honey bees and honey bee health.

EDUCATION

INSTITUTION & LOCATION	DEGREE RECEIVED	YEAR CONFERRED	FIELD OF STUDY
Cornell University Ithaca, New York	Doctor of Philosophy	1997	Neurobiology and Behavior
Harvard University Cambridge, Mass.	Bachelor of Art	1991	Organismic and Evolutionary Biology

EMPLOYMENT

2020-current	Associate Dean, School of Biological Sciences, University of California San Diego, La Jolla, CA
2017-current	Faculty Equity Advisor, School of Biological Sciences, University of California San Diego, La Jolla, CA
2014-2017	Chair, Section of Ecology, Behavior and Evolution, School of Biological Sciences, University of California San Diego, La Jolla, CA
2009-2014	Vice Chair, Department of Ecology, Behavior, and Evolution, School of Biological Sciences, University of California San Diego, La Jolla, CA
2009-current	Professor of Biology, Section of Ecology, Behavior and Evolution, School of Biological Sciences, University of California San Diego, La Jolla, CA
2007-2009	Associate Professor of Biology, Section of Ecology, Behavior and Evolution, School of Biological Sciences, University of California San Diego, La Jolla, CA
2001-2007	Assistant Professor of Biology, Section of Ecology, Behavior and Evolution, School of Biological Sciences, University of California San Diego, La Jolla, CA

- 2001-2003 Heiligenberg Chair of Neuroethology, University of California San Diego, La Jolla, California, USA
- 1998-2001 Harvard Junior Fellow, Harvard Society of Fellows, Organismic and Evolutionary Biology, Harvard University, Cambridge, MA 02138
- 1997-1998 NSF-NATO Postdoctoral Fellow, Department of Sociobiology and Behavioral Physiology, Universität Würzburg, Würzburg, Germany

HONORS

- 2021 UC San Diego Faculty Leadership Academy Scholar.
- 2020 Nominated for the Chinese Academy of Sciences International Cooperation Award
- 2017 Elected Fellow of the Royal Entomological Society, United Kingdom
- 2016-2019 Elected Treasurer, North American Section of the International Union for the Study of Social Insects
- 2016 Outstanding Service Recognition for providing accommodations to UCSD students with disabilities. La Jolla, California, USA
- 2012 UCSD Biological Sciences Student Association Excellence in Teaching Award, La Jolla, California, USA
- 2011 UCSD Panhellenic Council Outstanding Professor Award, La Jolla, California, USA
- 2011 San Diego Science Educator's Association Excellence in University Teaching Award, San Diego, California, USA
- 2009 Academic Senate Distinguished Teaching Award, University of California San Diego, La Jolla, California, USA
- 2008 Plenary speaker. 12th Insect Sound and Vibration Meeting. Alluring scents and sounds: stingless bee recruitment communication. Tours, France
- 2007 Faculty Mentor Award, University of California San Diego, La Jolla, California, USA
- 2005 Hellman Faculty Fellow, University of California San Diego, La Jolla, California, USA
- 2001-2003 Heiligenberg Chair of Neuroethology, University of California San Diego, La Jolla, California, USA
- 1998-2001 Harvard Junior Fellow, Harvard Society of Fellows, Organismic and Evolutionary Biology, Harvard University, Cambridge, MA, USA
- 1997-1998 NSF-NATO Postdoctoral Fellowship
- 1997-1998 Fulbright Fellowship: Universität Würzburg, Germany (declined for NSF-NATO)
- 1997 Hsien Wu and Daisy Yen Wu Scholarship Award, Cornell University, New York, USA
- 1992 Smithsonian Institution Short-term Fellow, Smithsonian Tropical Research Institute, Republic of Panama

- 1993 Sigma Xi research grant, Cornell University, New York, USA
- 1991-1996 Howard Hughes Predoctoral Fellowship, Cornell University, New York, USA
- 1991 Thomas Temple Hoopes Thesis Prize awarded for the best undergraduate theses, Harvard University, Cambridge, Massachusetts, USA
- 1991 Blumberg Creative Science Award, Harvard University, Cambridge, Massachusetts, USA
- 1991 Graduated *Magna Cum Laude* from Harvard University, awarded *Summa Cum Laude* for Bachelor's thesis, Cambridge, Massachusetts, USA
- 1990 Ford Foundation Research Grant, Harvard University, Cambridge, Massachusetts, USA
- 1989, 1990 John Harvard Scholarship, Harvard University, Cambridge, Massachusetts, USA

PEER-REVIEWED RESEARCH PAPERS

*undergraduate & †underrepresented coauthors who are not faculty

- (103) Dong S, Sun A, Tan K, and Nieh** JC (2022) Identification of giant hornet, *Vespa mandarinia*, queen sex pheromone components. *Current Biology*. 32(5): R211-R212
<https://doi.org/10.1016/j.cub.2022.01.065> (download) **Co-corresponding author and senior author.
- (102) James CC, Sánchez D, Cruz-López L, Nieh**, JC (2022) Fighting ability and the toxicity of raiding pheromone in an obligate kleptoparasite, the stingless bee *Lestrimelitta niitkib*. *Behavioral Ecology and Sociobiology*. 76:38.
<https://doi.org/10.1007/s00265-022-03129-1> (download) **Co-corresponding author and senior author.
- (101) Bell H, Hsiung* K, Pasberg P, Broccard FD, Nieh** JC (2021) Responsiveness to inhibitory signals changes as a function of colony size in honey bees (*Apis mellifera*). *Journal of the Royal Society Interface*. 18. 20210570. <https://doi.org/10.1098/rsif.2021.0570> (download) **Co-corresponding and senior author. PMID 34753311
- (100) Geffre A, Travis D, Kohn J, and Nieh** JC (2021). Preliminary analysis shows that feral and managed honey bees in southern California have similar levels of viral pathogens. *Journal of Apicultural Research*.
<https://doi.org/10.1080/00218839.2021.2001209> (download) **Senior author. PMID
- (99) Solórzano-Gordillo†, E.J., Nieh**, JC, Cruz-López L, Rojas J, and Sánchez D (2021) Gene flow from wild to managed colonies in the stingless bee *Scaptotrigona mexicana* and an update on its mating frequency. *Journal of Apicultural Science*. 65(2) 291-301. DOI: 10.2478/JAS-2021-0020 (download). **Co-author.
- (98) Wen X, Gongpan P, Meng Y, Nieh** JC, Yuan H, Tan K (2021) Functional characterization, antimicrobial effects, and potential antibacterial mechanisms of new mastoparan peptides from hornet venom (*Vespa ducalis*, *Vespa mandarinia*, and *Vespa affinis*). *Toxicon*. 200: 48-54. PMID 34237341
<https://doi.org/10.1016/j.toxicon.2021.07.001> (download) **Co-author.
- (97) Tosi S, Nieh** JC, Brandt A, Colli M, Fourrier J, Giffard H, Hernández-López J, Malagnini V, Williams GR, Simon-Delso N (2021) Long-term field-realistic exposure to a next-generation pesticide, flupyradifurone, impairs honey bee behaviour and survival. *Communications Biology*. 4: 805
<https://doi.org/10.1038/s42003-021-02336-2> (download) PMID 34183763 **Co-author.
- (96) Meng, Y., Mo, X., He, T., Wen, X., Nieh**, J.C., Yang, X., Tan, K., (2021) New bioactive peptides from the venom gland of social hornet *Vespa velutina*, *Toxicon*, <https://doi.org/10.1016/j.toxicon.2021.06.002>. (download) PMID 34129853 **Co-author.

- (95) Gu G, Meng Y, Tan K, Dong, S, and **Nieh**** JC (2021) Lethality of honey bee stings to heavily armored hornets. ***Biology***. 10: 484. <https://doi.org/10.3390/biology10060484> PMID: 34072577 ([download](#)) **Co-corresponding and senior author.
- (94) Gong Z, Dong S, Wang Y, Tan K, and **Nieh**** JC (2021) Floral tea polyphenols can improve honey bee memory retention and olfactory sensitivity. ***Journal of Insect Physiology***. 128: 104177. <https://doi.org/10.1016/j.jinsphys.2020.104177> PMID: 33279470 ([download](#)) **Co-corresponding author and senior author.
- (93) Dong S, Tan K, Nieh** JC (2020) Visual contagion in prey defense signals can enhance honest defense. *Journal of Animal Ecology*. 00:11-8. <http://dx.doi.org/10.1111/1365-2656.13390> PMID: 33216987 ([download](#)) **Co-corresponding author and senior author.**
- (92) Bell HC, Noelle Montgomery* C., Benavides*† JE, and **Nieh**** JC (2020) Effects of *Nosema ceranae* (*DISSOCIODIAPHLOPHASIDA*: Nosematidae) and flupyradifurone on olfactory learning in honey bees, *Apis mellifera* (HYMENOPTERA: Apidae). ***Insect Science***. 20(6) <https://doi.org/10.1093/jisesa/ieaa130>. PMID: 33232488 ([download](#)) **Senior author.
- (91) Wu YY, Pasberg P, Diao QY, **Nieh**** JC (2021) Flupyradifurone reduces nectar consumption and foraging but does not alter honey bee recruitment dancing. ***Ecotoxicology and Environmental Safety***. 207, 111268 PMID: 32916533 ([download](#)) **Co-corresponding author and senior author.
- (90) Ludicke JC, and **Nieh**** JC (2020) Thiamethoxam impairs honey bee visual learning, alters decision times, and increases abnormal behaviors. ***Ecotoxicology and Environmental Safety***. 193, 110367. PMID: 32113123 ([download](#)) **Senior author.
- (89) Hendriksma, H. P., Bain*, J.A., Nguyen*, N., and **Nieh**** JC. (2020) Nicotine does not reduce *Nosema ceranae* infection in honey bees. ***Insectes Sociaux***.67: 249-259. <https://doi.org/10.1007/s00040-020-00758-5>. ([download](#)) **Senior author.
- (88) Tong, L, **Nieh****, JC, Tosi, S. (2019) Combined nutritional stress and a new systemic pesticide (flupyradifurone, Sivanto®) reduce bee survival, food consumption, flight success, and thermoregulation. ***Chemosphere***. 237: 12448. <https://www.sciencedirect.com/science/article/pii/S0045653519316297?via%3Dihub> PMID 31356997([download](#)). **Co-author.
- (87) Bell HC, Benavides*† J, Montgomery* CM, Navratil* JRE, and **Nieh**** JC (2019) The novel butenolide pesticide flupyradifurone (Sivanto®) does not alter responsiveness to sucrose at either acute or chronic short-term field-realistic doses in the honey bee, *Apis mellifera*. ***Pest Management Science***. <https://doi.org/10.1002/ps.5554> PMID: 31309692 ([download](#)). **Senior author.
- (86) Hendriksma HP, Pachow CD*, and **Nieh**** JC (2019) Effects of essential amino acid supplementation to promote honey bee gland and muscle development in cages and colonies. ***Journal of Insect Physiology*** 117: 103906. <https://doi.org/10.1016/j.jinsphys.2019.103906> PMID: 31254521 ([download](#)). **Senior author
- (85) Gong Z., Tan K., and **Nieh**** J.C. (2019) Hornets possess long-lasting olfactory memories. ***Journal of Experimental Biology***. 222, jeb200881. doi:10.1242/jeb.200881 ([download](#)). PMID 31138638 **Co-corresponding author and senior author.
- (84) Tosi, S. and Nieh**, J.C. (2019) Lethal and sublethal synergistic effects of a new systemic pesticide, flupyradifurone (Sivanto®) on honey bees. ***Proceedings of the Royal Society B***. 286: 20190433. <http://dx.doi.org/10.1098/rspb.2019.0433> PMID 30966981. **Senior author.**
- (83) Rubanov, A., Russell, K., Rothman, J., **Nieh**** J, and McFrederick Q. (2019) Intensity of *Nosema ceranae* infection is associated with specific honey bee gut bacteria but not overall gut microbiome structure. ***Scientific Reports***. 9:3820. <https://doi.org/10.1038/s41598-019-40347-6> ([download](#)) PMID: 30846803. **Co-corresponding author.

- (82) Dong S., Tan K., Zhang Q., and **Nieh**** J.C. (2019) Playbacks of Asian honey bee stop signals demonstrate referential inhibitory communication. *Animal Behaviour*. 148: 29-37 ([download](#)). **Co-corresponding author and senior author.
- (81) Kheradmand, B., Cassano[†] J., Gray[†], S., and **Nieh****, J. C. (2018). Influence of visual targets and landmarks on honey bee foraging and waggle dancing. *Insect Science*. 00, 1–12, DOI 10.1111/1744-7917.12651. PMID: 30390389 ([download](#)). **Senior author
- (80) Gong, Z., Tan, K., and **Nieh**, J. C. (2018) First demonstration of olfactory learning and long term memory in honey bee queens. *The Journal of Experimental Biology*. 221:1-10. PMID: 29776994 ([download](#)).
- (79) Dong, S., Wen, P., Zhang, Q., Wang, Y., Cheng, Y., Tan, K., and **Nieh, J. C.** (2018) Olfactory eavesdropping of predator alarm pheromone by sympatric but not allopatric prey. *Animal Behaviour*. 141: 115-125. <https://doi.org/10.1016/j.anbehav.2018.05.013> ([download](#)).
- (78) Zhang, J., Wang, Z., Wen, P., Qu, Y., Tan, K., and **Nieh, J.C.** (2018) The reluctant visitor: a terpenoid in toxic nectar can reduce olfactory learning and memory in Asian honey bees. *Journal of Experimental Biology*. 221, doi:10.1242/jeb.168344. PMID: 29361585 ([download](#)).
- (77) Tan, K., Wang, C., Dong, S., Li, X., and **Nieh, J.C.** (2017) The pesticide flupyradifurone impairs olfactory learning in Asian honey bees (*Apis cerana*) exposed as larvae or as adults. *Scientific Reports* 7:17772: DOI:10.1038/s41598-017-18060-z. PMID: 29259229 ([download](#)).
- (76) **Tosi, S., Nieh, J. C., Sgolastra, F., Cabbri R., and Medrzycki, P. (2017) Neonicotinoid pesticides and nutritional stress synergistically reduce survival in honey bees. *Proceedings of the Royal Society B*. 284. 20171711. <http://dx.doi.org/10.1098/rspb.2017.1711>. PMID: 29263280 ([download](#)).**
- (75) Tosi, S. and **Nieh, J. C.** (2017) A common neonicotinoid pesticide, thiamethoxam, alters honey bee activity, motor functions, and phototaxis. *Scientific Reports*. 7: 15132, DOI:10.1038/s41598-017-15308-6. PMID: 29123189 ([download](#)).
- (74) BenVau, L. R., and **Nieh, J. C.** (2017) Larval honey bees infected with *Nosema ceranae* have increased vitellogenin titers as young adults. *Scientific Reports*. DOI:10.1038/s41598-017-14702-4. PMID: 29075036 ([download](#)).
- (73) Ping Wen, Ya-Nan Cheng, Shi-Hao Dong, Zheng-Wei Wang, Ken Tan, James C. **Nieh**. (2017) Sex pheromone of a globally invasive honey bee predator, the Asian eusocial hornet, *Vespa velutina*. *Scientific Reports*. DOI:10.1038/s41598-017-13509-7. PMID: 29021562 ([download](#)).
- (72) Ping Wen, Yanan Cheng, Yufeng Qu, Hongxia Zhang, Jianjun Li, Heather Bell, Ken Tan, and **Nieh, J.C.** (2017) Foragers of sympatric Asian honey bee species intercept competitor signals by avoiding benzyl acetate from *Apis cerana* alarm pheromone. *Scientific Reports*. DOI:10.1038/s41598-017-03806-6. PMID: 28751766 ([download](#)).
- (71) Lam*, C., Li., Y., Landgraf, T., and **Nieh, J.C.** (2017) Dancing attraction: followers of honey bee tremble and waggle dances exhibit similar behaviors. *Biology Open*. 6: 810-817, doi:10.1242/bio.025445. PMID: 28432104 ([download](#)).
- (70) Park, B. and **Nieh, J.C.** (2017) Seasonal trends in honey bee pollen foraging revealed through DNA barcoding of bee-collected pollen. *Insectes Sociaux*. 64(3): 425-437. DOI 10.1007/s00040-017-0565-8 ([download](#)).
- (69) Tosi, S., G. Burgio, and **Nieh, J.C.** (2017) A common neonicotinoid pesticide, thiamethoxam, impairs honey bee flight ability. *Scientific Reports*. DOI:10.1038/s41598-017-01361-8. PMID: 28446783 ([download](#)).
- (68) Huey, S., and **Nieh, J. C.** (2017) Foraging at a safe distance: crab spider effects on pollinators. *Ecological Entomology*. 43(4): 469-476. DOI: 10.1111/een.12406 ([download](#)).

- (67) Dong Shihao, Wen Ping, Xinyu Li, Tan Ken, and **Nieh, J.C.** (2017) Resisting majesty: *Apis cerana*, has lower antennal sensitivity and decreased attraction to queen mandibular pheromone than *Apis mellifera*. **Scientific Reports**. DOI: 10.1038/srep44640. PMID: 28294146 ([download](#)).
- (66) Ya-nan Cheng, Wen Ping, Shi-hao Dong, Ken Tan, **Nieh, J.C.** (2017) Poison and alarm: The Asian hornet *Vespa velutina* uses sting venom volatiles as an alarm pheromone. **Journal of Experimental Biology**. 220: 645-651. PMID: 27923877 ([download](#)).
- (65) Gong, Z, Wang, C., **Nieh, J.C.**, and Tan, K. (2016) Inhibiting DNA methylation alters olfactory learning extinction but not acquisition in *Apis cerana* and *Apis mellifera*. **Journal of Insect Physiology**. 90:43-49. PMID: 27262427 ([download](#)).
- (64) Wang, Z., Wen, P., Yufeng, Q., Dong, S., Li, J. Tan, K., and **Nieh, J.C.** (2016) Bees eavesdrop upon informative and persistent signal compounds in alarm pheromones. **Scientific Reports**. 6: 25693 EP. <http://dx.doi.org/10.1038/srep25693>. PMID: 27157595 ([download](#)).
- (63) Tan, K., Dong, S., Liu, X., Wang, C., Li, J., and Nieh J.C. (2016) Honey bee inhibitory signaling is tuned to threat severity and can act as a colony alarm signal. PLOS Biology. 14(3): e1002423-19. PMID: 27014876. Recommended by the Faculty of 1000 (Martin Giurfa Faculty of 1000 Recommendation) (download).**
- (62) Lecocq, A., Jensen, A.B., Kryger, P., and **Nieh, J.C.** (2016) Parasite infection accelerates age polyethism in young honey bees. **Scientific Reports**. 6: 11. doi:10.1038/srep22042. PMID: 26912310 ([download](#)).
- (61) Lau, P. and **Nieh J.C.** (2016) Salt preferences of honey bee water foragers. **Journal of Experimental Biology** 219: 790-796. PMID: 26823100 ([download](#)).
- (60) Zhang, E. and **Nieh, J.C.** (2015) A neonicotinoid, imidacloprid, impairs honey bee aversive learning of simulated predation. **Journal of Experimental Biology** 218 3199-3205 ([download](#)).
- (59) Jack-McCollough R.T. and **Nieh, J.C.** (2015) Honey bees tune excitatory and inhibitory recruitment signaling to resource value and predation risk. **Animal Behaviour**. 110: 9-17 ([download](#)).
- (58) Eiri, D., Endler, M., Suwannapong, G., and **Nieh, J.C.** (2015) *Nosema ceranae* can infect honey bee larvae and reduce subsequent adult longevity. **PLOS One**. DOI:10.1371/journal.pone.0126330. e0126330 ([download](#)).
- (57) Tan, K., Cheng, W., Dong, S., Liu, X., Wang, Y. and **Nieh, J. C.** (2015) A neonicotinoid impairs olfactory learning in Asian honey bees (*Apis cerana*) exposed as larvae or as adults. **Scientific Reports**. DOI:10.1038/srep10989. 5:10989 ([download](#)).
- (56) León, A[†], Arias-Castro, C., Rodríguez-Mendiola, A., Meza-Gordillo, R., Gutiérrez-Miceli, F. A., and **Nieh, J.C.** (2015) Colony foraging allocation is finely tuned to food distance and sweetness even close to a bee colony. **Entomologia Experimentalis et Applicata**. DOI: 10.1111/eea.12283 ([download](#)).
- (55) Li, J., Wang, Z., Tan, K., Qu, Y., and **Nieh J.C.** (2014) Effects of natural and synthetic alarm pheromone and individual pheromone components on foraging behavior of the giant Asian honey bee, *Apis dorsata*. **Journal of Experimental Biology**. 217:3512-3518 ([download](#)).
- (54) Li, J., Wang, Z., Qu, Y., and **Nieh J.C.** (2014) Giant Asian honey bees use olfactory eavesdropping to detect and avoid ant predators. **Animal Behaviour** 97:69-76 ([download](#)).
- (53) Tan, K., Chen, W., Dong, S., Liu, X., Wang, Y., and **Nieh. J.C.** (2014) Imidacloprid alters foraging and increases risky behavior in bees. **PLOS One** 9(7): e102725 ([download](#)).
- (52) Goodale, E., Kim*, E., Nabors*, A., Henrichon*, S., and **Nieh, J. C.** (2014). The innate responses of bumble bees to flower patterns: separating the nectar guide from the nectary changes bee movements and search time. **Naturwissenschaften**. DOI 10.1007/s00114-014-1188-9 ([download](#)).

- (51) Lichtenberg, E., Graff Zivin, J., Hrncir, M. and Nieh, J. C. (2014) Eavesdropping selects for conspicuous signals. *Current Biology*. 24(1): R598-599. DOI: <http://dx.doi.org/10.1016/j.cub.2014.05.062> (download).
- (50) Bray, A. and Nieh, J. C. (2014) Non-consumptive predator effects shape honey bee foraging and recruitment dancing. *PLOS One* 9(1) e87459 (download).
- (49) Tan, K., Hu, Z., Chen, W., Wang, Z., Wang, Y., and Nieh, J. C. (2013) Fearful foragers: honey bees tune colony and individual foraging to multi-predator presence and food quality. *PLOS One* 8(9): e75841 (download).
- (48) Hagbery, J. and Nieh, J. C. (2012) Individual lifetime pollen and nectar foraging preferences in bumble bees. *Naturwissenschaften*. 99:821-832 (download).
- (47) Goodale, E. and Nieh, J. C. (2012) Public use of olfactory information associated with predation in two species of social bees. *Animal Behaviour*. 84(4):919-924 (download).
- (46) Eckles, M., Roubik, D.W., and Nieh, J.C. (2012) A stingless bee can use visual odometry to estimate both height and distance. *Journal of Experimental Biology*. 215 (18):3155-3160 (download).
- (45) Eiri, D., and Nieh, J.C. (2012) A nicotinic acetylcholine receptor agonist affects honey bee sucrose responsiveness and decreases waggle dancing. *Journal of Experimental Biology*. 215:2022-2029 (download).
- (44) Nguyen, H., and Nieh, J. C. (2012) Colony and individual forager responses to food quality in the New World bumble bee, *Bombus occidentalis*. *Journal of Insect Behavior*. 25:60-69 (download).
- (43) Sánchez, D., Nieh, J. C., and Vandame, R. (2011) Visual and chemical cues provide redundant information in the multimodal recruitment system of the stingless bee *Scaptotrigona mexicana* (Apidae, Meliponini). *Insectes Sociaux*. 58:575-579 (download).
- (42) Lichtenberg, E.M., Turrati, I. C., Hrncir, M., and Nieh, J.C. (2011) Olfactory eavesdropping by two competing stingless bee species. *Behavioral Ecology and Sociobiology*. 65: 763-774 (download).
- (41) Sadler, N. and Nieh, J. C. (2011) Honey bee forager thoracic temperature is tuned to broad scale differences in recruitment motivation. *Journal of Experimental Biology*. 214: 469-475 (download).
- (40) Johnson, B.R.†, Nieh, J.C. (2010) Modeling the adaptive role of negative signaling in honey bee intraspecific competition. *Journal of Insect Behavior*. 23: 459-471 (download).
- (39) Ramírez†, S.R., Nieh, J. C., Quental†, T.B., Roubik, D.W., Imperatriz-Fonseca†, V.L., and Pierce, N.E. (2010) Molecular phylogeny of the stingless bee genus *Melipona* (Hymenoptera: Apidae) and the evolution of recruitment communication in eusocial Apidae. *Molecular Phylogenetics and Evolution*. 56: 519-525 (download).
- (38) Nieh, J. C. (2010) A negative feedback signal that is triggered by peril curbs honey bee recruitment. *Current Biology*. 20: 310-315 (download).
- (37) Lau, C.W. & Nieh, J.C. (2010) Honey bee stop signal production under overcrowded feeder conditions. *Apidologie*. 41: 87-95 (download).
- (36) Lichtenberg, E.M., Imperatriz-Fonseca†, V.L., and Nieh, J.C. (2010) Behavioral suites mediate group-level foraging dynamics in communities of tropical stingless bees. *Insectes Sociaux*. 57: 105-113 (download).
- (35) Hammer*, T.J., Hata*, C., & Nieh, J.C. (2009) Thermal learning in the honey bee, *Apis mellifera*. *Journal of Experimental Biology*. 212: 3928-3934 (download).
- (34) Sánchez†, D., Nieh, J.C., León†, A., & Vandame, R. (2009) Food recruitment information can spatially redirect employed stingless bee foragers. *Ethology*. 115: 1175-1181 (download).

- (33) Toda*, N., Song*, J., & Nieh, J.C. (2009) Bumble bees exhibit the memory spacing effect. *Naturwissenschaften*. 96: 1185-1191 ([download](#)).
- (32) Kuhn-Neto*†, B., Contrera†, F.A.L., Castro†, M.S., & Nieh, J.C. (2009) Long distance foraging and recruitment by a stingless bee, *Melipona mandacaia*. *Apidologie*. 40: 472-480 ([download](#)).
- (31) Lichtenberg, E.M., Hrnčir, M., & Nieh, J.C. (2009) A scientific note: Foragers deposit attractive scent marks in a stingless bee that does not communicate food location. *Apidologie*. 40: 1-2 ([download](#)).
- (30) Kitaoka, T.K. & Nieh, J.C. (2009) Bumble bee pollen foraging regulation: role of pollen quality, storage levels, and odor. *Behavioral Ecology and Sociobiology*. 63: 501-510 ([download](#)).
- (29) Renner, M.A. & Nieh, J.C. (2008) Bumble bee olfactory information flow and contact-based foraging activation. *Insectes Sociaux* 55: 417-424 ([download](#)).
- (28) Mapalad†, K. S., Leu*, D. & Nieh, J. C. (2008). Bumble bees heat up for high quality pollen. *Journal of Experimental Biology*, 211:2239-2242 ([download](#)).
- (27) Eckles M. A., Wilson E. E., Holway D. A., and Nieh, J. C. (2008) Yellowjackets (*Vespula pensylvanica*) thermoregulate in response to changes in protein concentration. *Naturwissenschaften*. 95: 787-792 ([download](#)).
- (26) Sánchez†, D., Nieh, J., and Vandame, R. (2008) Experience-based interpretation of visual and chemical information in *Scaptotrigona mexicana* (Apidae, Meliponini). *Animal Behavior* 76: 407-414 ([download](#)).
- (25) Contrera†, F. A. L. and J. C. Nieh (2007). Effect of forager-deposited odors on the intra-patch accuracy of recruitment in the stingless bees *Melipona panamica* and *Partamona peckolti* (Apidae, Meliponini). *Apidologie* 38:584-594 ([download](#)).
- (24) Contrera†, F. A. L. and J. C. Nieh (2007). The effect of ambient temperature on forager sound production and thoracic temperature in the stingless bee, *Melipona panamica*. *Behavioral Ecology and Sociobiology* 61:887-897 ([download](#)).
- (23) Nieh, J. C., León†, A., Cameron, S., and Vandame, R. (2006) Hot bumblebees at good food: thoracic temperature of feeding *Bombus wilmatiae* foragers is tuned to sucrose concentration. *Journal of Experimental Biology* 209: 4185-4192 ([download](#)).
- (22) Wilson ES, Holway D, Nieh JC (2006) Cold anesthesia decreases foraging recruitment in the New World bumblebee, *Bombus occidentalis*. *Journal of Apicultural Research* 45:169-172 ([download](#)).
- (21) Nieh, J. C. & Sánchez*†, D. (2005) Effect of food quality, distance, and height on thoracic temperature in the stingless bee, *Melipona panamica*. *Journal of Experimental Biology* 208:3933-3943 ([download](#)).
- (20) Saraiva, A. M., Nieh, J. C., Cartolano*† Jr., E. A. (2005) EthoLog: a tool for data acquisition in behavioral studies. **2005 EFITA/WCCA Joint Congress on Information Technology in Agriculture**. 1, 1-7 ([download](#)).
- (19) Contrera†, F. A. L., Imperatriz-Fonseca†, V. L., Nieh, J. C. (2005) Temporal and climatological influences on flight activity in *Trigona hyalinata* (Apidae, Meliponini). *Revista Tecnologia e Ambiente*. 10:35-43 ([download](#)).
- (18) Nieh, J. C., Kruizinga*, K., Contrera†, F. A. L., Barreto*†, L. S. & Imperatriz-Fonseca†, V. L. (2005) Effect of group size on the aggression strategy of an extirpating stingless bee, *Trigona spinipes*. *Insectes Sociaux*. 52, 1-8 ([download](#)).
- (17) Nieh, J. C., Contrera†, F. A. L., Yoon*, R. R., Barreto*†, L. S., & Imperatriz-Fonseca†, V. L. (2004) Polarized short odor-trail recruitment communication by a stingless bee, *Trigona spinipes*. *Behavioral Ecology and Sociobiology*, 56, 435-448 ([download](#)).
- (16) Nieh, J. C., Barreto*†, L. S., Contrera†, F. A. L. & Imperatriz-Fonseca†, V. L. (2004) Olfactory eavesdropping by a competitively foraging stingless bee, *Trigona spinipes*. *Proceedings of the*

Royal Society of London B, 271, 1633-1640 ([download](#)).

- (15) Sánchez[†], D., Nieh, J. C., Hénaut, Y., Cruz[†], L., & Vandame, R. (2004) High precision during food recruitment of experienced (reactivated) foragers in the stingless bee *Scaptotrigona mexicana* (Apidae, Meliponini). *Naturwissenschaften*, 91, 346-349 ([download](#)).
- (14) Nieh, J. C., Contrera[†], F. A. L. & Nogueira-Neto[†], P. (2003) Pulsed mass-recruitment by a stingless bee, *Trigona hyalinata*. *Proceedings of the Royal Society of London B*, 270, 2191-2196** ([download](#)).
- (13) Nieh, J. C., Contrera[†], F. A. L., Ramírez[†], S. & Imperatriz-Fonseca[†], V. L. (2003) Variation in the ability to communicate 3-D resource location by stingless bees from different habitats. *Animal Behaviour*, 66, 1129-1139 ([download](#)).
- (12) Nieh, J. C., Contrera[†], F. A. L., Rangel[†], J. & Imperatriz-Fonseca[†], V. L. (2003) Effect of food location and quality on recruitment sounds and success in two stingless bees, *Melipona mandacaia* and *Melipona bicolor*. *Behavioral Ecology and Sociobiology*, 55, 87-94 ([download](#)).
- (11) Nieh, J. C., Ramírez[†], S. & Nogueira-Neto[†], P. (2003) Multi-source odor-marking of food by a stingless bee, *Melipona mandacaia*. *Behavioral Ecology and Sociobiology*, 54, 578-586 ([download](#)).
- (10) Nieh, J. C. & Tautz, J. (2000) Behavior-locked signal analysis reveals weak 200-300 Hz comb vibrations during the honeybee waggle dance. *Journal of Experimental Biology*, 203, 1573-1579 ([download](#)).
- (9) Nieh, J. C., Tautz, J., Spaethe, J. & Bartareau, T. (2000) The communication of food location by a primitive stingless bee, *Trigona carbonaria*. *Zoology*, 102, 239-246 ([download](#)).
- (8) Nieh, J. C. & Roubik, D. W. (1998) Potential mechanisms for the communication of height and distance by a stingless bee, *Melipona panamica*. *Behavioral Ecology and Sociobiology*, 43, 387-399 ([download](#)).
- (7) Nieh, J. C. (1998) The food recruitment dance of the stingless bee, *Melipona panamica*. *Behavioral Ecology and Sociobiology*, 43, 133-145 ([download](#)).
- (6) Nieh, J. C. (1998) The honey bee shaking signal: function and design of a modulatory communication signal. *Behavioral Ecology and Sociobiology*, 42, 23-36 ([download](#)).
- (5) Nieh, J. C. (1998) The role of a scent beacon in the communication of food location in the stingless bee, *Melipona panamica*. *Behavioral Ecology and Sociobiology*, 43, 47-58 ([download](#)).
- (4) Nieh, J. C. & Roubik, D. W. (1995) A stingless bee (*Melipona panamica*) indicates food location without using a scent trail. *Behavioral Ecology and Sociobiology*, 37, 63-70 ([download](#)).
- (3) Nieh, J. C. (1993) The stop signal of honey bees: Reconsidering its message. *Behavioral Ecology and Sociobiology*, 33, 51-56 ([download](#)).
- (2) Runestad, J. A., Ruff, C. B., Nieh, J. C., Thorington, R. W., Jr. & Teaford, M. F. (1993) Radiographic estimation of long bone cross-sectional geometric properties. *American Journal of Physical Anthropology*, 90, 207-213 ([download](#)).
- (1) Allmon, W. D., Nieh, J. C. & Norris, R. D. (1990) Drilling and peeling of turreteline gastropods since the Late Cretaceous. *Palaeontology*, 33, 595-611 ([download](#)).

REVIEWS & BOOK CHAPTERS (PEER-REVIEWED)

- Dong, Shihao, Tan, Ken, and **Nieh**, J.C. (in review) Social defenses of honey bees against their social predators. *Annual Review of Entomology*. All authors contributed equally.
- Zarate D, Travis D, Geffre A, Nieh JC, Kohn JR. (in review) Three decades of Africanized honey bees (AHB) in California. *California Agriculture*.
- (7) Rittschof CC and **Nieh**** JC. (2021) Honey robbing: could human alterations to the environment change a rare foraging tactic into a maladaptive behavior? *Current Opinion in Insect Science*. 45:84-90. <https://doi.org/10.1016/j.cois.2021.02.005> (download). **Senior author.
- (6) Kheradmand, B., and **Nieh****, J. C. (2019) The role of landscapes and landmarks in bee navigation: a review. *Insects*. 10, 342, doi:10.3390/insects10100342. PMID: 31614833 (download). **Senior author
- (5) Suwannapong, G., Benbow, M.E., and **Nieh**, J.C. (2011) Biology of Thai honey bees: natural history and threats. In: *Bees: Biology, Threats, and Colonies*. Editor: R. M. Florio, Nova Science Publishers, Inc., Hauppauge, New York, ISBN#: 978-1-61324-825-6, eBook, pp1-98 (download).
- (4) Goodale, E., Beauchamp, G., Magrath, R., **Nieh**, J.C. and Ruxton, G.D. (2010) Interspecific information transfer influences animal community structure. *Trends. Ecol. Evol.* 25(6):354-361 (download).
- (3) **Nieh**, J. C. (2009) Convergent evolution of food recruitment mechanisms in bees and wasps. In *Organization of Insect Societies: From Genome to Sociocomplexity*, eds. J. Gadau and J. H. Fewell. Cambridge, Massachusetts: Harvard University Press. 266-288 (download).
- (2) **Nieh**, J. C. (2004) Recruitment communication in stingless bees (Hymenoptera, Apidae, Meliponini). *Apidologie*, 35, 159-182 (download).
- (1) **Nieh**, J. C. (1999) Stingless-bee communication. *American Scientist*, 87, 428-435 (download).

BOOK REVIEWS & EDITORIALS (INVITED)

- (7) Nieh, J. C. (2014) Review: The spirit of the hive: the mechanisms of social evolution, by Robert E. Page, Jr. *Quarterly Review of Biology* 89 (4), 395. DOI: 10.1086/678637 (download).
- (6) Contrera, F. A. L., Couvillon, M. J., and **Nieh, J. C.** (2012) Editorial: Hymenopteran collective foraging and information transfer about resources 2012. *Psyche* (Volume 2012, Article ID 2739*5, 2 pages, doi: 10.1155/2012/273985 (download).
- (5) **Nieh**, J. C. (2012). Animal Behavior: the orphan rebellion. Dispatch. *Current Biology*: 22 (8) R280-281. (download).
- (4) **Nieh**, J. C. (2011) The evolution of honey bee communication: learning from Asian species. *Formosan Entomologist*. 31: 101-115 (download).
- (3) Contrera, F. A. L, Couvillon, M. J., and **Nieh**, J.C. (2011). Editorial: Hymenopteran group foraging and transfer of information about resources. *Psyche* Article ID 392075, 2 pages, doi:10.1155/2011/392075 (download).
- (2) Rasmussen, C., **Nieh, J. C.** and Biesmeijer, J. C. (2010). Editorial: Foraging biology of neglected bee pollinators. *Psyche*, Article ID 134028, 2 pages, doi:10.1155/2010/134028 (download).
- (1) **Nieh**, J. C. (2010) Review: Bumblebees: behavior, ecology, and conservation. *Second Edition*, by Dave Goulson. *Quarterly Review of Biology*, 85(3): 373 (download).

OTHER PUBLICATIONS

- (5) Fisher A, Berenbaum M, Crall J, DesJardins N, Glass J, Harrison J, Liao L-H, Muth F, **Nieh**** J, Nocelli R, Simon-Delso N, Siviter H, Tadei R, Traynor* K (2021) Reform pesticide regulations to protect pollinators. **Nature**. <https://doi.org/10.1038/d41586-021-01818-x> ([download](#)) PMID: 34230653 **Co-author as Supporting Signatory.
- (4) Zarate D., Geffre A., Kohn J., and **Nieh**** JC. (2021) Public Service Announcement: Defensive Honey Bees: What are they and how should you react to them? Prepared for the *San Diego County Honey Bee Protection Program* and the *California Master Beekeeper Program*. **Senior author.
- (3) Bell, H.C., Kietzman, P.M., and **Nieh*, JC.** (2018) The complex world of honey bee vibrational signaling: A response to Ramsey et al. (2017). DOI: 10.13140/RG.2.2.28012.82562/1. Published as comment in PLOS One (<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0171162>) to Ramsey, M., Bencsik, M., & Newton, M. I. (2017). Long-term trends in the honeybee 'whooping signal' revealed by automated detection. *PloS One*, 12(2), e0171162 ([download](#)). *Senior author.
- (2) Wade Robinson, **J., Nieh, J. C.** and Goodale, E. (2012) Testing honey bee avoidance of predators: teaching the scientific process through an engaging field experiment. *The American Biology Teacher* 74, 452-457 ([download](#)).
- (1) Wade Robinson J, **Nieh JC**, and Goodale E (2011) *Pollinators in Peril: A High School Curriculum*. In this document, the authors (a high school teacher at San Diego High Tech High, a UCSD faculty member, and a postdoctoral researcher) create a high school science curriculum that addresses three National Science Standards (Inquiry, Life Science, and Science in Personal and Social Perspectives) ([download](#)).

EDITORIAL SERVICE

2014-2020	Academic Editor, <i>PLOS ONE</i>
2012-2018	Editor, <i>Psyche</i>
2011-current	Editor, <i>Apidologie</i>
2012	Guest Editor, <i>Psyche</i> , special issue on "Hymenopteran Collective Foraging and Information Transfer about Resources 2."
2011	Guest Editor, <i>Psyche</i> , special issue on "Foraging biology of neglected bee pollinators."
2010	Lead Guest Editor, <i>Psyche</i> , special issue on "Hymenopteran group foraging and transfer of information about resources."

INVITED ACADEMIC & CONFERENCE TALKS

- July 2022 **Nieh, JC.** "The predatory dance: how honest signaling and co-evolution between bees and their hornet predators has shaped bee communication." Invited talk in the symposium "Selective pressures that have shaped the evolution of communication" at the **International Congress of Entomology 2021** in Helsinki, Finland. This talk was scheduled for 2020, deferred due to the pandemic, and then rescheduled for July 2022. I ultimately cancelled my talk because the Congress did not provide a remote option during a period of escalating tensions in Europe.
- (84) May 2022 **Nieh, JC.** Eavesdropping and signal evolution from the arms race between honey bees and their hornet predators. Seminar for the **Department of Entomology, UC Riverside**, Riverside, California, USA.

- (83) April 8, 2022 **Nieh, JC.** Communication as a weapon: honesty and co-evolutionary arms races between hornets and honey bees. Seminar for the **Social Insect Research Group at Arizona State University**. Tempe, Arizona, USA.
- (82) Feb 14, 2022 **Nieh, JC.** A balanced omega-3/6 fatty acid diet helps bees resist the effects of pesticides. **San Diego Beekeeping Society**. San Diego, CA.
- (81) Dec 4, 2021 **Nieh, JC.** “Detox: new strategies for treating bees exposed to pesticides.” **Bee Health Conference**, Riverside, California, USA.
- (80) Nov 18, 2021 **Nieh, JC.** Invited talk “Co-evolution and communication: honey bee defensive strategies against *Vespa velutina*” for the **Atlantic Positive International Congress on Asian Hornets**.
- (79) Nov 10, 2021 **Nieh, JC.** Invited talk “Dancing with the devil: co-evolution shapes honest communication between bees and their hornet predators” for the UCSD **Diversity and Science Lecture Series (DASL)**.
- (78) Nov 20, 2020 **Nieh JC, Tosi S, and Ludicke J.** “Sublethal effects of pesticides on honey bee behaviors”. **Entomological Society of America Annual Meeting**.
- (77) Oct 10, 2019 **Nieh JC. Perry Gilbert Lecture.** The role of information and decision-making in the evolution of predator and prey signaling between Asian honey bees and hornets. **Cornell University**, Ithaca, New York.
- (76) Sept 25, 2019 **Nieh JC.** Animal information warfare: how sophisticated communication may arise from the race to find an advantage in a deadly game between honey bees and their predators. **University of California, Davis**, Davis, California, USA.
- (75) April 2, 2019 **Nieh JC and Tosi, Simone.** Lethal and sublethal synergistic effects of a new systemic pesticide, flupyradifurone (Sivanto) on honey bees. **Pacific Branch of the Entomological Society of America Annual Meeting**. Invited symposium speaker: Recent trends in pollinator health and management. San Diego, California, USA.
- (74) Feb 29, 2019 **Nieh JC.** The war of nature: eavesdropping social bees and their predators. **Yunnan Agricultural University**
- (73) Feb 20, 2019 **Nieh JC.** A new hope for bee health: immune priming. **Chiang Mai University**, Thailand.
- (72) Nov 26, 2018 **Nieh JC.** Evolution of social insect communication: selective pressures imposed by eavesdropping social bees. **Texas A&M University**, College Station, Texas.
- (71) Nov 13, 2018 **Nieh JC.** Advances in activating honey bee immunity and exploring the microbiome of bees that are more resistant to *Nosema ceranae* infection. **California State Beekeepers Annual Convention 2018**. Valley Center, California.
- (70) Nov 9, 2018 **Nieh JC.** Building the pipeline to enhance PhD student diversity and inclusion at UCSD. Inclusive Science Series. **Michigan State University Kellogg Biological Station**.
- (69) Sept 16, 2018 **Nieh JC.** (2018) An elegant evolutionary bind: poison, alarm, and honey bee olfactory eavesdropping. **School of Biological Sciences Retreat**. Lake Arrowhead, California.
- (68) Aug 21, 2018 **Nieh JC.** Honey bee health: a new approach, immune priming, in an increasingly antibiotic-resistant world. **Beijing Bee Research Institute, Chinese Academy of Agricultural Sciences**, Beijing, China.
- (67) Aug 7, 2018 **Nieh JC.** (2018) The scent of poison: alarm, venom, and honey bee olfactory eavesdropping. **XVIII International Union for the Study of Social Insects (IUSSI) Congress**. (<http://www.iussi2018.com>). Guarujá, Brazil.
- (66) May 17, 2018 **Nieh JC.** Understanding and protecting honey bees. UC San Diego representative and speaker at the inaugural **Understanding and Protecting the Planet Summit**.
- (65) Jan 19, 2018 **Nieh JC.** CMG Symposium talk. The milkmaid strategy: Using immune priming to activate honey bee immunity against a common microsporidian pathogen. **University of California San Diego**, San Diego, California, USA.

- (64) Nov 20, 2017 **Nieh JC.** Seminar. The poison-scented pen: alarm, venom, and the evolution of olfactory eavesdropping in highly social bees. **University of California Santa Barbara**, Santa Barbara, California, USA.
- (63) Nov 2017 **Nieh JC.** The dose makes the poison: honest signaling and aggression in a robber stingless bee, *Lestrimelitta niitkib*. **Entomological Society of America 2017 Conference**. Denver, Colorado, USA.
- (62) Oct 23, 2017 **Nieh JC.** Seminar. Cries in the colony: Honey bee functionally referential communication of danger. **University of Arizona**, Tuscon, Arizona, USA.
- (61) July 2017 **Nieh JC.** Invited talk. Evolution of referential communication in honey bees: new insights. **Yunnan Agricultural Academy**, Menzhi, China.
- (60) July 6, 2017 **Nieh JC.** Invited talk. The dose is the poison: evolution of alarm communication in highly social bees. **Yunnan Agricultural University**, Kunming, Yunnan, China.
- (59) July 4, 2017 **Nieh JC.** Invited talk. Effects of xenobiotics on the behavior and cognition of honey bees. **Xishuangbanna Tropical Botanical Garden, Chinese Academy of Science**, Xishuangbanna, China.
- (58) Nov 28, 2016 **Nieh JC,** Invited talk. An elegant warning: encoding danger and context in the vibrational communication of Asian honey bees. **San Diego State University**, San Diego, California, USA
- (57) Nov 15, 2016 **Nieh JC,** Invited talk. Using immune priming to activate honey bee immunity against *Nosema ceranae* infection. **California State Beekeepers Association Annual Convention 2016**, San Diego, California, USA.
- (56) Nov 9, 2016 **Nieh JC,** Invited talk. Cries in the hive: Honey bee referential communication of danger. **University of British Columbia**, Vancouver, British Columbia, Canada.
- (55) Oct 17, 2016 **Nieh JC,** Invited talk. Cries in the hive: encoding danger and context in the referential communication of Asian honey bees. **University of Kentucky**, Lexington, Kentucky, USA.
- (54) Sept 30, 2016 **Nieh JC.** Invited talk. Effects of a new pesticide, flupyradifurone (Sivanto), on honey bee sucrose response thresholds and orientation. **International Congress of Entomology**, Orlando, Florida, USA.
- (53) Sept 24, 2016 **Nieh JC.** A honey bee inhibitory signal provides referential information about predator threat and can act as a colony alarm signal. **IUSSI NAS Breakout Meeting**, Orlando, Florida, USA (submitted talk)
- (52) Aug 8, 2015 **Nieh JC.** Honest signaling shapes alarm pheromone evolution. Seminar. **Northwest Polytechnic University**, Xian, Shaanxi, China.
- (51) Aug 2, 2015 **Nieh JC.** Selective pressures shaping the evolution of alarm pheromones. Seminar. **Xishuangbanna Tropical Botanical Garden, Chinese Academy of Science**, Xishuangbanna, China.
- (50) Nov 17, 2015 **Nieh JC.** Invited talk. Activating honey bee immunity against *Nosema ceranae* infection. **California State Beekeeper's Association Conference**, Sacramento, California.
- (49) Nov 13, 2015 **Nieh JC.** Invited talk. The dangerous, beautiful world of honey bee communication. **Pennsylvania Beekeeper's Annual Conference**, Pennsylvania State Beekeepers' Association, Lewisburg, Pennsylvania.
- (48) Sept 2015 **Nieh JC and Huang Z (2015)** Activating honey bee immunity with a larval vaccine against *Nosema ceranae*. **Entomological Society of America**, Minneapolis, Minnesota, USA. (submitted talk)
- (47) Sept 2015 **Nieh JC.** Invited talk. Inhibitory communication in animal collectives: emergent properties and new directions. Seminar. **Xishuangbanna Tropical Botanical Garden, Chinese Academy of Science**, Xishuangbanna, China.

- (46) Aug 2015 **Nieh** JC. Invited talk. Emergent effects of pesticides on honey bee behavior. Seminar. **Yunnan Agricultural University**, Kunming, Yunnan, China.
- (45) Aug 2015 Endler M, Huang Z, and **Nieh*** JC (2015) Activating honey bee immunity with a larval vaccine against *Nosema ceranae*. Entomological Society of America, Minneapolis, Minnesota, USA.
- (44) June 19, 2015 **Nieh** JC. Invited talk. Honey bee health: diseases and pesticides. Seminar at the **Center for Scientific Research and Higher Education**, Ensenada, Baja California, Mexico (CICESE).
- (43) May 14, 2015 **Nieh** JC. Invited talk. The effects of neonicotinoid pesticides on honey bee behavior. Seminar at **El Colegio de la Frontera Sur**, Tapachula, Chiapas, Mexico.
- (42) April 24, 2015 **Nieh** JC. Invited talk. Shaped by danger: How honey bee foraging and communication respond to predators and are shaped by eavesdropping and inhibitory signaling. Joint BEACON and Entomology Seminar. **Michigan State University**, Michigan, USA
- (41) Sept 26, 2014 **Nieh** JC, Invited talk. Honey bee inhibitory signaling: deciphering the stop signal. Seminar. **Yunnan Agricultural University**, Kunming, Yunnan, China.
- (40) Sept 23, 2014 **Nieh** JC. Invited talk. The emergent properties of superorganism signaling: inhibitory signals shape honey bee foraging in a changing and dangerous world. Seminar. **Xishuangbanna Tropical Botanical Garden, Chinese Academy of Science**, Xishuangbanna, China.
- (39) Sept 18, 2014 **Nieh** JC, Invited talk. Olfactory spies: stingless bees as information parasites. Seminar. **Yunnan Agricultural University**, Kunming, Yunnan, China.
- (38) Sept 25, 2013 **Nieh** JC, Invited talk. Hazards of pollination: the honey bee dance language tells us about foraging dangers, natural and man-made. Seminar. **Howard University**, Washington DC, USA.
- (37) May 6, 2013 **Nieh** JC, Invited talk. Risky business: effects of perils and pesticide on bee foraging communication. Seminar. **University of California Santa Barbara**, California, USA.
- (36) June 22, 2013 **Nieh** JC, Invited talk. Shaking up the hive: honey bees produce a special signal in response to danger. New Mexico Beekeeper's Association Mid-Year Conference, Albuquerque, New Mexico.
- (35) June 22, 2013 **Nieh** JC, Invited talk. Challenges to honey bee health: effects of a neonicotinoid pesticide and *Nosema ceranae* infection. New Mexico Beekeeper's Association Mid-Year Conference, Albuquerque, New Mexico.
- (34) Nov 15, 2012 **Nieh**, JC, Invited talk. *Nosema ceranae* infection in honey bees. California State Beekeepers Association Conference, Palm Springs, California.
- (33) Sept 26, 2012 **Nieh** JC, Invited talk. Bee eavesdropping on signals and cues: a complex and surprisingly sophisticated phenomenon. Seminar. **CSU Fullerton**, Los Angeles, California, USA.
- (32) May 2012 **Nieh** JC, Invited talk. Cries in the hive: a vibrational signal triggered by danger inhibits superorganism recruitment. Seminar. **University of California Davis**, Davis, California, USA.
- (31) November 2011 **Nieh** JC, Invited talk. Modulatory inhibitory communication in honey bees. 59th Annual Meeting of the Entomological Society of America, Reno, Nevada, USA.
- (30) October 2011 **Nieh** JC, Invited talk. Competition and predation trigger an inhibitory signal in honey bees. Seminar. **Cornell University**, Section of Neurobiology and Behavior, Ithaca, New

York, USA.

- (29) May 2011 **Nieh** JC, Invited talk. Recruitment communication and competition in the highly social bees (honey bees and stingless bees). National Taiwan University Symposium on Social Insects. Taipei, Taiwan.
- (28) 2011 **Nieh** JC and Goodale E (2011) Dangerous blossoms: how honey bees respond to signal and cues of competition and predation. Animal Behavior Society Meeting, Bloomington, Indiana USA.
- (27) 2010 **Nieh** JC, Activated by danger, a negative feedback signal counteracts the honey bee waggle dance. Entomological Society of America, San Diego, California, USA.
- (26) August 2010 **Nieh** JC, Invited talk. Triggered by peril: a negative feedback signal curbs collective action in a superorganism. International Union of Social Insect Scientists (IUSSI) XVI Congress, Symposium on "Communication and the integration of multiple information sources in colony organization", Copenhagen, Denmark.
- (25) May 7, 2010 **Nieh** JC, Invited talk. Dangerous blossoms: a honey bee negative feedback signal indicates peril. Seminar. **University of California Irvine**, Irvine, California, USA
- (24) Sept 28, 2009 **Nieh** JC, Invited talk. Perils of pollination: attacks trigger a honey bee negative feedback signal. Seminar. **University of California Riverside**, Riverside, California, USA
- (23) June 3, 2009 **Nieh** JC, Invited talk. Stingless bee recruitment communication. Seminar. **University of California Los Angeles**, Los Angeles, California, USA
- (22) Nov 29, 2008 **Nieh** JC, **Plenary speaker**. 12th Insect Sound and Vibration Meeting. Alluring scents and sounds: stingless bee recruitment communication. Tours, France.
- (21) Sept 22, 2008 **Nieh** JC, Invited talk. Recruitment communication in stingless bees. Seminar. **North Carolina State University**, Raleigh, North Carolina, USA
- (20) June 26, 2008 **Nieh** JC, Invited talk. Stingless bee competition and communication. Seminar. **EI Colegio de la Frontera Sur**, Tapachula, Chiapas, Mexico.
- (19) Dec 9, 2007 **Nieh** JC, Invited talk. Parallel evolution of referential communication in eusocial bees. Invited symposium speaker. Entomological Society of America 55th Annual Meeting. San Diego, California, USA
- (18) March 14, 2007 **Nieh** JC, Invited talk. The war of the flowers, espionage and evolution of referential communication. Seminar. **Harvard University**, Cambridge, Massachusetts, USA
- (17) October 27, 2006 **Nieh** JC, Invited talk. Evolution of recruitment communication in stingless bees. Seminar. **University of California Irvine**, Irvine, California, USA
- (16) February 19, 2005 **Nieh** JC and Sánchez D. Invited talk. Effect of sucrose concentration and food location on individual thermoregulation by a stingless bee, *Melipona panamica*. Southern California Animal Behaviorists 2005. University of California, Riverside, California, USA
- (15) Sept 6-10, 2004 **Nieh** JC, Contrera FAL, Barreto, LS, Imperatriz-Fonseca VL. Invited talk. Polarized short odor trail communication in a stingless bee, *Trigona spinipes*. Encontro Sobre Abelhas VI, Ribeirao Preto, São Paulo, Brasil
- (14) June 12-16, 2004 **Nieh** JC, Barreto LS, Contrera FAL, and Imperatriz-Fonseca VL. Invited talk. Olfactory eavesdropping in stingless bees. Animal Behavior Society XLI Meeting, Oaxaca, Mexico
- (13) Nov 6-8, 2003 **Nieh** JC, Contrera FAL, Rangel J, and Imperatriz-Fonseca V. Invited talk. Excitable ancestors and functionally referential communication: effect of food quality and location

on recruitment sounds and success in two stingless bees, *Melipona mandacaia* and *Melipona bicolor*. III Seminario Mesoamericano sobre Abejas sin Aguijón. Tapachula, Chiapas, Mexico

- (12) July 19-23, 2003 **Nieh** JC, Contrera FAL, Rangel J, and Imperatriz-Fonseca V. Excitable ancestors and the evolution of referential communication in highly social bees. Animal Behavior Society Meeting, Boise State University, Idaho
- (11) Nov. 5, 2002 **Nieh** JC. Invited talk. The war of the flowers: competition, espionage, and the evolution of bee language. Invited talk. Biological Basis of Behavior Group Meeting 2002. University of Minnesota, St. Paul, Minnesota, USA
- (10) Sept 4-7, 2002 **Nieh** JC, Contrera F, Ramírez, S., and Imperatriz-Fonseca V.L. Invited talk. Variation in height communication: testing three-dimensional location communication in the stingless bees, *Melipona mandacaia* and *Melipona bicolor*. Encontro Sobre Abelhas V, Ribeirao Preto, São Paulo, Brasil
- (9) July 15, 2002 **Nieh** JC. Invited talk. The art of war: blitzkrieg communication by a stingless bee, *Trigona hyalinata*. Animal Behavior Society Meeting, Bloomington, Indiana, USA
- (8) Sept 9, 2000 **Nieh** JC. Invited talk. The communication of 3-dimensional food location by a stingless bee, *Melipona panamica*. Encontro Sobre Abelhas, Ribeirao Preto, Sao Paulo, Brasil
- (7) Aug 26, 1998 **Nieh** JC. Invited talk. Multiple communication channels: examples from two eusocial bees. 5th International Congress of Neuroethology, University of California, San Diego, San Diego, California, USA
- (6) 1998 **Nieh** JC, The communication of height and distance by a stingless bee, *Melipona panamica*. 26th Göttingen Neurobiology Conference 1998, Göttingen, Germany.
- (5) Sept 15, 1996 **Nieh** JC. Invited talk. A stingless bee, *Melipona panamica*, may use sound pulses to communicate the distance and canopy height of a food source. 10th International Insect Sound and Vibration Meeting in Woods Hole, Massachusetts, USA
- (4) Aug 20, 1996 **Nieh** JC. Invited talk. The communication of three-dimensional food location by a stingless bee, *Melipona panamica*. Earl S. Tupper seminar series at the Smithsonian Tropical Research Institute in Panama City, Republic of Panama, USA
- (3) 1996 **Nieh** J. A stingless bee, *Melipona panamica*, may use sounds to communicate the location of a food source. 10th International Insect Sound and Vibration Meeting Abstracts. Woods Hole, Massachusetts.
- (2) May 20, 1995 **Nieh** JC. Invited talk. The role of pheromones in the food location communication system of *Melipona panamica*. Seminar. **University of Utrecht**, Netherlands
- (1) Aug 12, 1994 **Nieh** JC. Invited talk. A stingless bee (*Melipona panamica*) indicates food location without using a scent trail. 1994 International Union of Social Insect Scientists Conference, Paris, France.

CONFERENCE PRESENTATIONS

*undergraduate and †underrepresented coauthors who are not faculty

- (69) **Nieh, JC.** (2022) "Detox: new strategies for treating bees exposed to pesticides." **Bee Health Conference**, Riverside, California, USA.
- (68) **Nieh, JC** and Huang ZH (2022) Immune priming of honey bees protects against a major microsporidian pathogen. International Union for the Study of Social Insects (IUSSI) International Conference. San Diego, California, USA.

- (67) Broccard-Bell H, Hsiung K, Pasberg P, Broccard F, **Nieh** JC (2022) Responsiveness to inhibitory signaling changes as a function of colony size in Western honey bees (*Apis mellifera*). 9th Congress of Apidology — EurBee 9.
- (66) Mukogawa, B., **Nieh**, J. (2022) “Hygienic behavior of feral and managed honey bees (*Apis mellifera*) in response to parasitic mite (*Varroa destructor*)” American Bee Research Conference
- (65) Dong S, Tan K, **Nieh** JC (2021) Visual contagion in prey defense (anti-hornet) signals can enhance honest honey bee defense. **Entomological Society of America Annual Meeting**.
- (64) **Nieh**, JC. (2021) Invited talk “Co-evolution and communication: honey bee defensive strategies against *Vespa velutina*” for the **Atlantic Positive International Congress on Asian Hornets**.
- (63) **Nieh** JC, Tosi S, and Ludicke J. (2020) “Sublethal effects of pesticides on honey bee behaviors”. **Entomological Society of America Annual Meeting**.
- (62) **Nieh**, JC and Tosi, Simone. (2019) Lethal and sublethal synergistic effects of a new systemic pesticide, flupyradifurone (Sivanto) on honey bees. **Pacific Branch of the Entomological Society of America Annual Meeting**. Symposium speaker: Recent trends in pollinator health and management. San Diego, California, USA.
- (61) Tosi S, **Nieh** JC (2019) Lethal and sublethal synergistic effects of chemical mixture and pesticide-nutrition interactions on bees. **UIEIS (IUSSI section) Conference**. Avignon, France, August 28-30, 2019
- (60) Tosi S, **Nieh** JC (2019) Synergy and bee health: pesticides, nutrition, and behaviour. **Cognition and Evolution (CogEvo) Conference**. Rovereto, Italy, July 11-12, 2019
- (59) Tosi S, Ding Z, Jingxiao Z, **Nieh** JC (2017) The combined effect of *Nosema ceranae* and flupyradifurone on European honey bees. **Proceedings of the UCSD URC Conference**. San Diego, USA, April 23, 2017
- (58) Tosi S., **Nieh** JC, Brandt A., Colli M., Fourrier J., Giffard H., Hernández-López J., Williams G., Simon-Delso N. (2019) Effects of chronic long-term exposure to pesticides on honey bees: a ring test. **Proceedings of the COLOSS APITOX Task Force Workshop**, Bologna, Italy, March 27-28, 2017
- (57) Tosi, S and **Nieh** JC. (2019) The effects of novel and old pesticides on bee health: the role of synergism, season, and bee age. **AISASP XVII National Conference**. Florence, Italy, July 4-5, 2019.
- (56) Tosi S, **Nieh** JC, Brandt A, Colli M, Fourrier J, Giffard H, Hernández-López J, Malagnini V, Williams G, Simon-Delso N. (2019) "Multinational studies to refine pesticide risk assessment: long term chronic toxicity and bioaccumulation" **APITOX Conference**.
- (55) Tosi S, **Nieh** JC (2019) The importance of synergy for risk assessment: pesticides, nutrition, and behaviour. **SETAC (Society of Environmental Toxicology and Chemistry Europe) 29th Annual Meeting**. Helsinki, Finland, May 25-30, 2019.
- (54) Tosi, S and **Nieh** JC. (2019) Sublethal and lethal synergistic effects of a new systemic pesticide, flupyradifurone on honey bees (*Apis mellifera*). **Entomological Society of America Annual Meeting**, St. Louis, Missouri, USA.
- (53) Tosi, S and **Nieh**, J.C. (2019) The effects of a new systemic pesticide, flupyradifurone (Sivanto®) on honey bees: the role of synergism, season, and bee age. **46th Apimondia International Apicultural Congress**. Montreal, Canada.
- (52) Alexander S Neskovic, Andrey Rubanov, Longhong Li, Zachary Huang, and **Nieh**, JC (2019) Immune priming reduces *Nosema ceranae* infection in *Apis mellifera*. **American Bee Research Conference**, Tempe, Arizona, USA.
- (51) Tosi, S and **Nieh**, J.C. (2019) The importance of synergy for risk assessment: pesticides, nutrition, and behaviour. **SETAC Europe 29th Annual Meeting**. Helsinki, Finland.
- (50) Tosi S, **Nieh** JC (2018) Synergistic effects of stressors on bee health: pesticides, nutrition, and behaviour. **Proceedings of the 8th EURBEE Congress of Apidology**, Ghent, Belgium. September 18-20, 2018.

- (49) Tosi S, JC **Nieh** (2018) Common pesticides and nutritional stress: synergistic effects on honey bee survival, energy levels, food consumption. **Proceedings of the XVIII IUSI International Congress**, Guaruja, Brazil. August 4-10, 2018.
- (48) Bell H.C., Broccard F.D., Zhu* Y., Hsiung* K. and **Nieh** J.C. (2018). The beneficial role of noisy inhibitory signaling in collective behavior. Society for Neuroscience, **Neuroscience 2018**. San Diego, California, USA.
- (47) Tosi S, **Nieh** JC (2018) Synergy as future challenge for risk assessment: pesticides, nutrition, and behaviour. "Advancing risk assessment science - Environment" section of the **2018 EFSA Conference**: "Science, Food, Society". Parma, Italy, 18-21 September 2018.
- (46) Tosi S, **Nieh** JC, Brandt A, Colli M, Fourrier J, Giffard H, Hernández-López J, Malagnini V, Williams Simon-Delso N (2018) Modelling long term chronic toxicity after protocol validation through an international ring test. **Proceedings of the 14th COLOSS Conference, ApiTox Task Force**. Ghent, Belgium, September 16-17, 2018
- (45) Hsiung* K., Bell H, Su, K. F., Di Liberto*, J., and **Nieh** JC (2018) The effect of artificial stop signal playback on honey bee waggle dancing in the colony. **Southern California Animal Behavior Symposium**. UCLA, Los Angeles, California, USA.
- (44) Di Liberto* J, Tosi S, and **Nieh** JC (2018) Effects of a common neonicotinoid, clothianidin, on locomotion and phototaxis of solitary bees (*Osmia lignaria*, *Megachile rotundata*). **Southern California Animal Behavior Symposium**. UCLA, Los Angeles, California, USA.
- (43) Tosi S and **Nieh** JC (2018) Long-term chronic effects of a relatively new neurotoxic pesticide, flupyradifurone, on honey bees (*Apis mellifera*). **Southern California Animal Behavior Symposium**. UCLA, Los Angeles, California, USA.
- (42) Bell H and **Nieh** JC (2018) Beneficial noise in communication: can many wrongs make a right? **Southern California Animal Behavior Symposium**. UCLA, Los Angeles, California, USA.
- (41) **Nieh** JC (2017). The dose makes the poison: honest signaling and aggression in a robber stingless bee, *Lestrimelitta nitkib*. **Entomological Society of America 2017 Conference**. Denver, Colorado, USA.
- (40) Johnson E, Tosi S, **Nieh** J (2017) Effects of a common neonicotinoid pesticide on mason bee (*Osmia lignaria*) locomotion. **Proceedings of the SCCUR Conference**. California State Polytechnic University, Pomona, USA, November 18, 2017
- (39) Tosi S, and **Nieh** JC (2017) Effects of long-term chronic exposure to a relatively new neurotoxic pesticide, flupyradifurone, on honey bees. **Entomological Society of America**, Denver, Colorado.
- (38) Tosi S, and **Nieh** JC (2016) Toxicity of a new insecticide, flupyradifurone, on in-hive and forager honey bees across seasons. **International Congress of Entomology**, Orlando, Florida, USA.
- (37) **Nieh** JC, Kanellopoulou A, and Heather Bell (2016) Effects of a new pesticide, flupyradifurone (Sivanto), on honey bee sucrose response thresholds and orientation. **International Congress of Entomology**, Orlando, Florida, USA.
- (36) Ken Tan, Shihao Dong, Xinyu, Li, Xiwen Liu, Chao Wang, Jianjun Li and **Nieh** JC (2016) Honey bee inhibitory signaling can act as a colony alarm signal and is tuned to threat severity. **NAS-IUSI section meeting**, Orlando, Florida, USA.
- (35) Kheradmand B and **Nieh** JC (2016) The waggle dance: memory dynamics and the role of reward. **NAS-IUSI section meeting**, Orlando, Florida, USA.
- (34) **Nieh** JC and Huang Z (2015) Activating honey bee immunity with a larval vaccine against *Nosema ceranae*. **Entomological Society of America**, Minneapolis, Minnesota, USA.
- (33) Lecocq A, Bruun Jensen A, and **Nieh** JC (2015). The impact of *Nosema ceranae* on the behaviour of groups of honey bees. **PLEN PhD conference 2015**, Copenhagen, Denmark.

- (32) Lau P and **Nieh** JC (2014) Drinking dirty water: salt ion preferences of honey bees (*Apis mellifera*) Entomology 2014 Conference, **Entomological Society of America**, Portland, Oregon, USA
- (31) Lichtenberg EM and **Nieh** JC (2014) Eavesdropping selects for conspicuous signals. **The XV Congress of the International Society for Behavioral Ecology**, New York, New York, USA
- (30) Tosi S and **Nieh** JC (2014) Sub-lethal effects of a neonicotinoid pesticide on honeybee flight performances. **International Union for the Study of Social Insects (IUSSI) International Congress**, Cairns Convention Centre, Queensland, Australia.
- (29) Eiri D, Suwannapong G, and **Nieh** JC (2014) *Nosema ceranae* can infect honey bee larvae and reduce subsequent adult longevity. American Bee Research Conference. San Antonio, Texas, USA.
- (28) **Nieh** JC and Endler M (2014) Feeding larval honey bees dead *Nosema* spores improves their ability to resist *Nosema* infection as adults. **14th Annual North American Pollinator Protection Campaign Conference**, Washington D. C., USA.
- (27) Eiri D, Suwannapong G, and **Nieh** JC (2012) *In vitro* *Nosema ceranae* infection on honey bee larvae results in infection as adults and higher mortality rate. **Entomological Society of America**, Knoxville, Tennessee, USA.
- (26) Lichtenberg EM and **Nieh** JC (2011) Cost-effective eavesdropping between competing bee species: empirical and theoretical support. **Ecological Society of America Annual Meeting**, Austin, Texas, USA.
- (25) Lichtenberg EM and **Nieh** JC (2011) Fight or flight? Conflict costs drive heterospecific eavesdropping by competing stingless bees. **Animal Behavior Society Meeting**, Bloomington, Indiana USA.
- (24) **Nieh** JC and Goodale E (2011) Dangerous blossoms: how honey bees respond to signal and cues of competition and predation. **Animal Behavior Society Meeting**, Bloomington, Indiana USA.
- (23) **Nieh** JC (2011) Modulatory inhibitory communication in honey bees. **59th Annual Meeting of the Entomological Society of America**, Reno, Nevada, USA.
- (22) **Nieh** JC (2010) Activated by danger, a negative feedback signal counteracts the honey bee waggle dance. **Entomological Society of America**, San Diego, California, USA.
- (21) Eiri D and **Nieh** JC (2010) Picky eater syndrome: the pesticide imidacloprid alters honey bee (*Apis mellifera*) sucrose response threshold and potentially, colony health. **Entomological Society of America**, San Diego, California, USA.
- (20) Eiri D and **Nieh** JC (2010) Picky eaters and poor navigators: the pesticide imidacloprid alters honey bee (*Apis mellifera*) sucrose response thresholds and search distance estimation. **10th Annual North American Pollinator Protection Campaign Conference**, Washington D.C., USA.
- (19) Lichtenberg EM and **Nieh** JC (2009) Risk-sensitive eavesdropping by stingless bees. **Animal Behavior Society Annual Meeting**, Pirenópolis, Brazil.
- (18) Lichtenberg EM and **Nieh** JC (2008) Olfactory eavesdropping mediates stingless bee foraging patterns. **Entomological Society of America Annual Meeting**, Reno, Nevada, USA.
- (17) **Nieh** JC (2008) Alluring scents and sounds: stingless bee recruitment communication. **12th Insect Sound and Vibration Meeting**. Tours, France.
- (16) Eckles MA and **Nieh** JC (2007) Distance measurement and canopy foraging in the stingless bee species, *Melipona panamica*. **Southern California Animal Behaviorists Meeting**. University of California Santa Barbara.
- (15) Lichtenberg EM and **Nieh** JC (2007) Stingless bee competition: dominance, aggression and coexistence in a Brazilian meliponine community. **Entomological Society of America Annual Meeting**, San Diego,

California, USA.

- (14) **Nieh JC (2007)** Parallel evolution of referential communication in eusocial bees. Invited symposium speaker. **Entomological Society of America 55th Annual Meeting**. San Diego, California, USA.
- (13) Contrera FA and **Nieh JC (2006)** Spatial precision of recruitment in the stingless bee *Melipona panamica* (Apidae, Meliponini). **California Animal Behavior Symposium**, University of California San Diego.
- (12) Eckles MA and **Nieh JC (2006)** Optic flow use in bumble bees (*Bombus impatiens*). **California Animal Behavior Symposium**, University of California San Diego.
- (11) **Nieh JC and Sánchez D. (2005)** Effect of sucrose concentration and food location on individual thermoregulation by a stingless bee, *Melipona panamica*. **Southern California Animal Behaviorists 2005**. University of California, Riverside, UCR Botanic Gardens.
- (10) **Nieh JC, Contrera FAL, Barreto, LS, Imperatriz-Fonseca VL (2004)** Polarized short odor trail communication in a stingless bee, *Trigona spinipes*. **Encontro Sobre Abelhas VI**, Ribeirao Preto, São Paulo, Brasil.
- (9) **Nieh JC, Barreto LS, Contrera FAL, and Imperatriz-Fonseca VL (2004)** Olfactory eavesdropping in stingless bees. **Animal Behavior Society XLI Meeting**, Oaxaca, Mexico.
- (8) **Nieh JC, Contrera FAL, Rangel J, and Imperatriz-Fonseca V. (2003)** Excitable ancestors and functionally referential communication: effect of food quality and location on recruitment sounds and success in two stingless bees, *Melipona mandacaia* and *Melipona bicolor*. **III Seminario Mesoamericano sobre Abejas sin Aguijón**. Tapachula, Chiapas, Mexico.
- (7) **Nieh JC, Contrera FAL, Rangel J, and Imperatriz-Fonseca V. (2003)** Excitable ancestors and the evolution of referential communication in highly social bees. **Animal Behavior Society XL Meeting**, Boise State University, Idaho.
- (6) **Nieh JC. (2002)** The art of war: blitzkrieg communication by a stingless bee, *Trigona hyalinata*. **Animal Behavior Society Meeting**, Bloomington, Indiana, United States.
- (5) **Nieh J, Contrera F, Ramírez, S., and Imperatriz-Fonseca V.L. (2002)** Variation in height communication: testing three-dimensional location communication in the stingless bees, *Melipona mandacaia* and *Melipona bicolor*. **Anais do Encontro Sobre Abelhas V**, Ribeirao Preto, Sao Paulo, Brasil.
- (4) **Nieh J (2000)** The communication of 3-dimensional food location by a stingless bee, *Melipona panamica*. **Anais do Encontro Sobre Abelhas V**, Ribeirao Preto, Sao Paulo, Brasil.
- (3) **Nieh J (1998)** Multiple communication channels: examples from two eusocial bees. **Fifth International Congress of Neuroethology Abstracts**.
- (2) **Nieh J (1998)** The communication of height and distance by a stingless bee, *Melipona panamica*. **Proceedings of the 26th Göttingen Neurobiology Conference 1998**, Vol 1. Eds. Norbert Elsner and Rüdiger Wehner. Georg Thieme Verlag. Stuttgart.
- (1) **Nieh J (1996)** A stingless bee, *Melipona panamica*, may use sounds to communicate the location of a food source. **10th International Insect Sound and Vibration Meeting Abstracts**. Woods Hole, Massachusetts.

TECHNICAL SERVICE TO ORGANIZATIONS & AGENCIES

- Nieh JC (2022)** Effects of flupyradifurone on honey bees. Presentation to Walmart Sustainability and Strategic Initiatives Group on their US Position on Pollinator Health. This group met with Bayer Inc to discuss a potential revision of their policy requesting live plant suppliers to label pollinator-friendly plants, including those treated with flupyradifurone. Contact: Anabella de Freeman, Senior Manager, Sustainability Strategic Initiatives Produce & ETS/TEO.

- Nieh JC (2022) Submitted a detailed letter and commentary with nine questions in response to the California Department of Pesticide Regulation's draft proposed pollinator regulations concerning the continued use of nitroguanidine neonicotinoid insecticides on **crops** in California.
- Nieh JC (2022) Worked with Earthjustice as coordinated by Jennifer Bryan-Goforth and Greg Loarie to assist in the preparation of comments on California Department of Pesticide Regulation's draft proposed pollinator regulations concerning the continued use of nitroguanidine neonicotinoid insecticides on **crops** in California.
- Nieh** JC (2022) Submitted technical advisory comments on the issue of imidacloprid contamination in **water** and its effects on pollinators to a public hearing of the California Department of Pesticide Regulation. Comments were submitted as part of the EarthJustice submission coordinated by Gregory C. Loarie.
- Nieh** JC, Tosi S, and Ludicke J (July 30, 2020) Lethal and sublethal effects of flupyradifurone (Sivanto™) & thiamethoxam on honey bees. Webinar for the Environmental Protection Agency, USA. EPA TTT (Terrestrial Biology Tech Team) committee (Effects of pesticides on birds, small mammals, and other wildlife).
- Nieh** JC (February 27, 2020) Participant in the Regional Climate Change Consortium Working Group to provide the California Department of Food and Agriculture with regional priorities for San Diego, Riverside and Imperial Counties. The group will consider on-farm strategies to increase farming resilience given climate change. Contact: Amber Pairis (Climate Science Alliance).
- Nieh** JC (October 2019). Providing recommendations for the City of Oceanside Beekeeping Ordinance. Contact: Stefanie Cervantes, Planner II, City of Oceanside, California.
- Nieh** JC (June 13, 2019) The effects of pesticides (insecticides and fungicides) on honey bees. Prepared testimony and presentation for the Environment Committee of the City of San Diego. Contact: Office of Councilmember Jennifer Campbell, City Hall, San Diego, California. *Cross referenced with Outreach & Synergistic Activities.*
- Nieh** JC and Tosi, S. (2019) Lethal and sublethal synergistic effects of a new systemic pesticide, flupyradifurone (Sivanto™) on honey bees. Webinar for the Environmental Protection Agency, USA. Contact: Ethan Harwood, Co-chair of the EPA TTT (Terrestrial Biology Tech Team) committee (Effects of pesticides on birds, small mammals, and other wildlife).
- Tosi S and **Nieh** JC (2018) Submitted formal feedback, based upon our publications, for two consultations of the Pest Management Regulatory Agency of Canada on the effects of the pesticides thiamethoxam and clothianidin on insects.
- Nieh** JC, Broccard-Bell, H., and Tosi, S. (2018) Effects of a new pesticide, flupyradifurone (Sivanto™) on honey bee learning, survival, synergy, flight ability, and thermoregulation. Webinar for the Environmental Protection Agency, USA.
- Nieh** JC (2017) Panelist and grant reviewer for the Foundation for Food and Agriculture Research (FFAR) for the Pollinator Health Special Initiative.
- Nieh** JC (2017) Submitted technical comments for the USA Environmental Protection Agency Neonicotinoid Risk Assessment (closing on July 24, 2017). Online submission of documents.
- Nieh** JC, Broccard-Bell, H., and Tosi, S. (2017) Effects of a new pesticide, flupyradifurone (Sivanto™) on honey bee survival, locomotion, learning, and flight. Webinar for the Environmental Protection Agency, USA.
- Nieh** JC, Tosi, S., and Broccard-Bell, H. (2016) The effects of flupyradifurone on honey bee survival, flight ability, locomotion, and sucrose response thresholds. Webinar for the Environmental Protection Agency, USA.
- Nieh** JC (2016) Advised the County of San Diego via University of California Cooperative Extension on a honey bee education and outreach program implemented as part of new regulations on safe beekeeping. Contact:

Jan Gonzales, UC Cooperative Extension, Farm and Home Advisor Office, County of San Diego.

- Nieh JC** (2014) Advised the County of San Diego as part of a California Environmental Quality Act (CEQA) study on the impact of changing backyard beekeeping ordinances. Contact: San Diego County Entomologist, Tracy Ellis.
- Nieh JC** (2014) Provided advice to the Encinitas City Council on how to limit the impact of city-applied neonicotinoids upon honey bees. Contacts: Jared Whitlock (*Encinitas Advocate*) and Tony Kranz (Encinitas City Council).
- Nieh JC** (2014) Advised Santa Barbara Beekeeping Association on the potential bee-impact of pesticides applied to citrus. Contact: Todd Bebb, Santa Barbara Beekeepers Association.
- Nieh JC** (2012) Provided written materials for a California State Legislature inquiry on the topic of the state regulation of neonicotinoid pesticides. Nieh was invited to testify at the legislative hearing, but unfortunately could not attend because of a scheduling conflict.
- Nieh JC** (2011) Advised the San Diego City Council on behalf of the San Diego Beekeeper's Association regarding the implementation of new safety regulations regarding keeping honey bee colonies in San Diego. This letter discussed safety issues relating to Africanized bees and recommended a change in the current regulations to allow urban beekeeping. Subsequently, in response to a wide range of considerations, regulations were altered to make urban beekeeping more feasible. Contact: Dan Geb, President of the San Diego Beekeeper's Association.

OUTREACH & SYNERGISTIC ACTIVITIES

- (136) May 21, 2022 **Nieh JC.** Honey bee health and promising potential treatments for bees exposed to pesticides. Talk given on World Bee Day at the Japanese Friendship Garden, San Diego, California.
- (135) May 2, 2022 **Nieh JC.** How can we help bees exposed to pesticides? Talk given to the Los Angeles Beekeepers Association. Los Angeles, California
- (134) Feb 14, 2022 **Nieh JC.** A balanced omega-3/6 fatty acid diet helps bees resist the effects of pesticides. Talk given to the San Diego Beekeeping Society. San Diego, California
- (133) March 2021 **Nieh JC.** Faculty speaker for the EBE Club Research Mixer, a meeting for students to learn how to find research experiences. La Jolla, California
- (132) June 2021 **Nieh JC.** Faculty Q&A participant for UCSD *Discoveries* magazine and its special issue on how the university enduring and excelled during the pandemic.
- (131) May 2021 **Nieh JC.** Meeting with Girl Scout Troop 6962 to talk about the importance of different kinds of bees and how we can help support these bees by creating sustainable habitats (native plant gardens) and bee hotels.
- (130) Winter 2021 **Nieh JC.** Advising Evan Froewiss, a senior at California State University of Long Beach on his senior research project examining bee health and declines.
- (129) March 7, 2021 **Nieh JC.** Can we help bees that have been exposed to pesticides? Talk given to the Long Beach Beekeeper's Association.
- (128) Feb 8, 2021 **Nieh JC.** The impacts of pesticides and xenobiotics on honey bees. Talk given to the San Diego Beekeeping Society.
- (127) July 13, 2020 **Nieh JC.** The importance of honeybee behavior: lethal and sublethal effects of two common pesticides. Talk given to the San Diego Beekeeping Society.
- (126) July 2019 **Nieh JC.** Met with tenth grade students (Soyoun Moon and Lakxshanna Raveendran.) at Commack High School in New York to discuss how the changing environment (air

pollution) negatively impacts honeybees and potential solutions. Suffolk County, New York.

- (125) May 31, 2019 **Nieh, JC.** Lecture for BIOM 272 and 274. Learning to recognize. Seminars in Genetics and Molecular Cell Biology. UCSD, La Jolla, California.
- (124) May 15, 2019 **Nieh JC.** The importance of bees and evolutionary-informed pathogen treatments. Talk given to the UCSD Student Sustainability Initiative. UCSD, La Jolla, California, USA.
- (123) May 2-10th 2019 **Nieh JC,** advisor for Korpos, Lisa. "The Community Bee Clinic" MFA thesis exhibition. The Community Bee Clinic is a radical veterinary practice and participatory multimedia installation where visitors can become emergency caregivers for dying honey bees. Through the performance of interspecies triage and use of speculative biomedical objects, participants are invited to engage with non-human bodies and ecologies in new ways and at new scales. Created in collaboration with the **Nieh** lab at UCSD. La Jolla, California, USA.
- (122) April 25, 2019 **Nieh JC.** Speaker for TEDx San Diego Mesa College. "Bees & us: an ancient and future symbiosis." San Diego, California ([Click here to watch the video](#)).
- (121) March 9, 2019 **Nieh JC.** Panel discussion on Marry Fleener's First Graphic Novel, *Billie the Bee*. San Diego Comic Fest, San Diego, California, USA.
- (120) Jan 16, 2019 **Nieh JC,** "The UCSD-Xavier Graduate Pathways Partnership." Recruitment presentation for the UCSD-Xavier program. Xavier University of Louisiana, New Orleans, Louisiana.
- (119) Oct 8, 2018 **Nieh JC,** "Pesticides and honey bees, a lethal mixture?", San Diego Beekeepers Association, San Diego, California.
- (118) Oct 4, 2018 **Nieh JC,** What's up with those bees? Bee health and a new hope. Vi Technology Group, La Jolla, California.
- (117) April 30, 2018 **Nieh JC,** The problem with pesticides. Lecture given to BILD 18: Human Impact on the Environment, UCSD La Jolla, California.
- (116) April 1, 2018 **Nieh JC,** "[How can we be less rude to bees](#)" Featured guest on the "Getting Curious" podcast with Jonathan Van Ness.
<http://labs.biology.ucsd.edu/nieh/press/GettingCuriousAboutBees.mp3>
- (115) April 14, 2018 **Nieh, JC,** Workshop Talk. Effects of neonicotinoids and flupyradifurone on bees. 36th National Pesticide Forum, *Supporting Biodiversity and Balanced Ecosystems*, Irvine, California.
- (114) April 14, 2018 **Nieh, JC,** Plenary Presentation. The problem with pesticides: emerging and old xenobiotics. 36th National Pesticide Forum, *Organic Neighborhoods: For healthy children, families, and ecology*, Irvine, California.
- (113) April 4, 2018 **Nieh, JC,** Lab tour for young refugees from Afghanistan and Iraq, organized with the International Rescue Committee of San Diego, UCSD, La Jolla, California.
- (112) Feb 28, 2018 **Nieh, JC,** interviewed and filmed for a San Diego State University student film project (filmmaker: Marguerite Davidson) on "[The Thing About Bees](#)". UCSD, La Jolla, California.
- (111) Feb 27, 2018 **Nieh JC,** Lab tour for the Society of Undergraduate Research and Outreach (SURO), a group that introduces under-represented high school students and undergraduates to research and science. UCSD, La Jolla, California.
- (110) Feb 8, 2018 **Nieh, JC,** Presentation: The poison-scented pen: alarm, venom, and the evolution of olfactory eavesdropping in highly social bees. Muir College Honors Seminar, UCSD, La Jolla, California.

- (109) Nov 1, 2017 **Nieh** JC: Moderator for student and postdoc research presentation panel (Understanding and Protecting the Planet, FISP), UCSD, La Jolla, California.
- (108) Aug 7, 2017 **Nieh** JC: Dancing with the bees: how I fell into step with research, UCSD STARS seminar, La Jolla, California.
- (107) April, 2017 **Nieh** JC: Advising high school students for the School of Science, Connections, and Technology in San Diego on honey bee health. Students are working on a project called "Colony Collapse Disorder" and developing a website on this issue as well as presenting this information in a street fair.
- (106) April 18, 2017 **Nieh** JC, Honey bee health: challenges and hope. Public science lecture for The Bishop's School, La Jolla, California.
- (105) April 12, 2017 **Nieh** JC, The public puzzle of honey bee health. Lecture given to BILD 18: Human Impact on the Environment, UCSD La Jolla, California.
- (104) April 5, 2017 **Nieh** JC, Honey bee health: food and hope. Torrey Pines Rotary Club, La Jolla, California.
- (103) Feb 28, 2017 **Nieh** JC, Honestly dangerous: poison and alarm signals in highly social bees. Miramar Community College, San Diego, California.
- (102) Feb 14, 2017 **Nieh** JC, Honey bees: health and food. Rotary Club, La Jolla, California
- (101b) Feb 6, 2017 **Nieh** JC, Individual Development Plan poster session moderator for the inaugural EPIC Bootcamp for Postdoctoral Fellows at UCSD.
- (101a) Jan 24, 2017 **Nieh** JC, Honesty is sometimes best: the evolution of alarm communication in bees. Osher Lifelong Learning Institute at UCSD, La Jolla, California.
- (100) Nov 17, 2016 Taking part in the film documentary, "Low White Sky," which explores sustainable city planning. The **Nieh** lab was filmed for its work on honey bee health and bee aggression as part of the story on how honey bee pollination services fit into sustainability.
- (99) Nov 15, 2016 Working with the American Institute of Physics online news service, Inside Science, to appear in video stories about honey bee communication, health, and how the **Nieh** lab is studying these issues.
- (98) Nov 4, 2016 **Nieh** JC, advising and meeting with students from Hedenkamp Elementary School, Chula Vista on their entry for the Lego League Challenge.
- (97) Oct 31, 2016 **Nieh**, JC, Presentation: The language of bees: sophisticated warning signals. Muir College Honors Seminar, UCSD, La Jolla, California.
- (96) Oct 2016 **Nieh** JC. SACNAS Poster Judge, Conversations with Scientists participant, and UCSD School of Biological Sciences representative.
- (95) Oct 2016 **Nieh** JC, advising and meeting with Super Smash Bro-Bots students from Valinda School of Academics to work on a smartphone app that will help advise people on how to deal with honey bee swarms or honey bees in their homes.
- (94) Sept & Oct 2016 **Nieh** JC, advising and meeting with Robostars students (3rd to 7th grade) from local San Diego schools for the First Lego League Challenge. The Robostars finished 4th in the Southern California competition.
- (93) July 11, 2016 **Nieh**, JC, Presentation: *Honey bee health: What's up with pesticides and bee diseases?* San Diego Beekeeper's Association, Balboa Park, Casa del Prado, Room 101.
- (92) June 24, 2016 **Nieh**, JC, Presentation: *Following the bee path: the strange and remarkable world of bee communication*. START (Summer Transfer Ahead Research Training) Program.
- (91) June 9, 2016 **Nieh**, JC, Presentation: *Cries in the hive: How honey bee foraging and communication respond to predators and are shaped by eavesdropping and inhibitory signaling*.

Achievement Awards for College Scientists (ARCS) Foundation.

- (90) June 8, 2016 **Nieh, JC**, Presentation: Honey bee health: food, life, and love. University of San Diego, University of the Third Age, Community Outreach.
- (89) May 14, 2016 **Nieh, JC**, Presentation: *The conundrum of modern agriculture: the next generation of pesticides*. No bees, no food campaign by Environment America, environmental advocacy organization.
- (88) July 11, 2016 **Nieh, JC**, Presentation on honey bee health and declines to the San Diego Beekeeping Association: *Honey bee health: what's up with pesticides and bee diseases?*
- (87) April 9, 2016 **Nieh, JC**, UCSD Triton Days lab tour.
- (86) Feb 25, 2016 **Nieh, JC**, Presentation on honey bee health and declines to the UCSD Pre-Veterinary Student Association.
- (85) Nov 16, 2015 **Nieh JC**, Head Judge, ESA graduate poster competition, section 17, Biology and Physiology, Entomological Society of America Conference, Minneapolis, Minnesota.
- (84) Oct 5, 2015 **Nieh JC**, Healing honey bees: how basic research can translate into practical solutions. Muir College Honors Seminar, UCSD, La Jolla, California.
- (83) June 3 2015 **Nieh JC**, UC San Diego study offers insight into bee colony collapse. KPBS Midday Edition interview with Maureen Cavanaugh & KPBS Evening Edition interview with Peggy Pico. San Diego, California.
- (82) Summer 2015 **Nieh JC**, Trained and provided research opportunities for three Brazilian students as part of the Brazil Scientific Mobility Program of the Brazilian Government, administered by the Institute of International Education (IIE).
- (81) April 17 2015 **Nieh JC**, The bee challenge: honey bee health in a modern world. Presentation on honey bee health in sponsorship with Golden Coast Mead and Whole Foods. San Diego, California.
- (80) April 6, 2015 **Nieh JC**, The importance of honey bees. Presentation and lab tour for Triton Day at UCSD.
- (79) March 23, 2015 **Nieh JC**, The mysterious language of honey bees. Presentation for "Night of Honey" by the Cartier Foundation, Paris, France.
- (78) Dec 17, 2014 Joined the HOBOS (HoneyBee Online Studies) network to provide greater access to teaching exercises that teach the scientific method and the importance of honey bees. HOBOS complements the Teaching Bee (see below) set up by the **Nieh** lab.
- (77) Nov 4, 2014 Tosi, S and **Nieh JC**. Effects of a neonicotinoid pesticide on honey bee flight performances. Orange County Beekeeper's Association, Orange County, California.
- (76) Nov 4, 2014 **Nieh JC**. Boosting honey bee immunity against *Nosema ceranae* infection. Orange County Beekeeper's Association, Orange County, California.
- (75) Summer 2014 **Nieh JC**: Trained and provided research opportunities for one Brazilian students as part of the Brazil Scientific Mobility Program of the Brazilian Government, administered by the Institute of International Education (IIE).
- (74) June 14, 2014 **Nieh JC**, What's up with those bees? San Diego County Fair, Del Mar, California
- (73) April 29, 2014 **Nieh JC**, The conundrum of honey bee health. Osher Lifelong Learning Institute at UCSD, La Jolla, California

- (72) April 15, 2014 **Nieh** JC, Ramona Stars 4H Beekeeping Tour (high school students and adults) of the research conducted by the Nieh lab on honey bee health and foraging, UCSD, La Jolla, California.
- (71) April 4, 2014 **Nieh** JC, The fascinating world of honey bee biology. Presentation to the Black Student Union Overnight Program, UCSD, La Jolla, California
- (70) March 19, 2014 **Nieh** JC, Honey bee health: learning about infection. La Jolla Country Club, La Jolla, California.
- (69) March 1, 2014 **Nieh** JC, Dining with professionals event, UCSD Society of Asian Scientist and Engineers, UCSD, La Jolla, California.
- (68) March 1, 2014 **Nieh** JC, The science behind saving the bees. San Diego Science Educator's Association 23rd Annual Conference, Grossmont College, San Diego, California.
- (67) Oct 14, 2013 **Nieh** JC, Dancing with the bees: how I fell into step with research, Muir College Seminars, UCSD, La Jolla, California.
- (66) Oct 2, 2013 **Nieh** JC. SACNAS Poster Judge and UCSD School of Biological Sciences representative.
- (65) Oct 1, 2013 **Nieh** JC, Risky business: effects of neonicotinoid pesticides on bee behavior. Orange County Beekeepers Association, Orange County, California.
- (64) May 31, 2013 **Nieh** JC, panelist for discussion following movie screening of "More than Honey" by Markus Imhoof, by the Santa Barbara Beekeeping Association, Santa Barbara, California.
- (63) May 23, 2013 **Nieh** JC, Effects of neonicotinoid pesticides on honey bees. Beekeepers Association of Southern California, La Mirada, California.
- (62) May 7, 2013 **Nieh** JC, Effects of *Nosema cerana* infection on honey bee larvae. Orange County Beekeeper's Association, Orange County, California.
- (61) April 12, 2013 **Nieh** JC, Hosting students from the CSULA Louis Stokes Alliance for Minority Participation Program for a lab tour and presentation highlighting research on honey bee health, La Jolla, California.
- (60) April 6, 2013 **Nieh** JC, Talk on "Things students learn at UCSD" for Triton Day at UCSD, a day in which high school students and their families to learn about UCSD, La Jolla, California.
- (59) April 6, 2013 **Nieh** JC, Lab tour for Triton Day high school students and demonstration of research on bumble bee foraging, La Jolla, California.
- (58) March 24, 2013 **Nieh** JC, Lecture and presentation on honey bee biology, diseases, and health as part of the UCSD Alumni Association and the San Diego Science and Engineering Fair at Wild Willow Farm and Education Center, San Diego, California.
- (57) February 2013 **Nieh** JC, Meetings with artist, Hermione Spriggs, to discuss honey bee alarm pheromones and how they could be used in tattoos that would change color upon detecting isopentyl acetate, a major component in honey bee sting alarm pheromone. This information was subsequently used as part of an art installation (<https://festooning.wordpress.com/2013/03/14/telling-the-bees-wheres-your-honey-sunday-317-808-gallery-6pm/>).
- (56) Jan 17, 2013 **Nieh** JC, Public lecture on honey bee diseases "What's up with those bees? Honey bee declines and disease" for the San Diego Science Educators Association, San Diego, California.
- (55) June 23, 2012 **Nieh** JC, Organized and participated in public talks for San Diego Pollinator week. "Essential pollinators: learn about native bees and honey bees." Balboa Park, Casa Del Prado, San Diego, California

- (54) June 6, 2012 **Nieh** JC, Judge for Biology Research Showcase, posters presenting the research of undergraduates and BS/MS students in the School of Biological Sciences and the Salk Institute, UCSD, La Jolla, California.
- (53) May 14, 2012 **Nieh** JC, Senior faculty participant, NSF CAREER information session for Biology faculty. UCSD, La Jolla, California.
- (52) April 12, 2012 **Nieh** JC, Rancho Santa Fe Garden Club: "The great bee die-off: a crisis of colony health and contamination" Rancho Santa Fe, California.
- (51) April 7, 2012 **Nieh** JC, "The things students learn at UC San Diego," presentation to prospective students and their parents at Charting the Course: College Planning for Future Tritons. UCSD, La Jolla, California.
- (50) Feb 27, 2012 **Nieh** JC, UCSD International House, "Mysterious bee maladies?" Presentation as part of an event exploring the importance of honey bees. The Great Hall, iHouse, La Jolla, California.
- (49) Feb 6, 2012 **Nieh** JC, Fleet Science Center Senior Mondays, "What's up with those bees?" Fleet Science Center, Balboa Park, San Diego, California.
- (48) Jan 16, 2012 **Nieh** JC, San Diego Beekeeping Society Presentation, "Effects of pesticides and pathogens on honey bee health. Casa de Balboa, San Diego, California.
- (47) Oct 22, 2011 **Nieh** JC, Idyllwild Garden Club Talk, "What's up with those bees?" Caine Learning Centre, Idyllwild, California.
- (46) Aug-Nov 2011 **Nieh** JC, Worked with High Tech High students, teacher Jesse Wade-Robinson, and postdoctoral fellow, Eben Goodale to develop science curriculum based on honey bee foraging and bee ecology.
- (45) July-Aug 2011 **Nieh** JC, Mentored two Latino high school students through the Harvey Mudd Upward Bound Program at UCSD and two additional students from San Diego area high schools.
- (44) May 3, 2011 **Nieh** JC, Perspectives on Science Lecture, Nazarene University, "The secret lives of bees." Lecture designed for science teachers and the general public.
- (43) April 19, 2011 **Nieh** JC, Educational talk given to UCSD library employee staff (UCSD Biomedical Library Lunchtime Seminar Series): "The decline and fall of bees: pollinators in peril."
- (42) April 16, 2011 **Nieh** JC, Panel member in the Food Justice Forum for the UCSD Green Open House.
- (41) March 10, 2011 **Nieh** JC, Rotary Club Speaker, outreach talk about honey bee health, La Jolla, CA
- (40) Feb 11, 2011 **Nieh** JC, Outreach talk to high school teachers and students participating in a program, "Sensible Smells" designed to teach the scientific method through practical examples, in a variety of fields, focused on olfaction.
- (39) Jan 24, 2011 **Nieh** JC, Outreach and enrichment talk followed by laboratory demonstration given to UCSD Academic Personnel Services on the importance of bees as pollinators, their general biology, and threats they face.
- (38) Dec 10, 2010 **Nieh** JC, San Diego Horticultural Society speaker, outreach talk on honey bee biology and Colony Collapse Disorder.
- (37) Oct 28, 2010 **Nieh** JC, Outreach talk on honey bees given to the Village Garden Club, La Jolla, CA.
- (36) Oct 13, 2010 **Nieh** JC, Outreach talk given to the San Diego Social Services League (The hidden lives and language of bees).
- (35) Oct 9, 2010 **Nieh** JC, Outreach talk on local bees ("Those amazing bees: the secret lives of honey bees") given to the Torrey Pines Docent Society, La Jolla, CA.
- (34) Oct 7, 2010 **Nieh** JC, Muir College Honors Seminar talk (The hidden lives and language of bees).
- (33) Sept 30, 2010 **Nieh** JC, Attended and recruited for the UCSD School of Biological Sciences at the SACNAS underrepresented and minority student conference.

- (32) July-Aug 2010 **Nieh** JC, Mentored two Latino high school students through the Harvey Mudd Upward Bound Program at UCSD.
- (31) July 26, 2010 **Nieh** JC, Educational outreach through public radio (KPBS) interview, "UCSD Scientists Researching Vanishing Honey Bees" with Ed Joyce (<http://www.kpbs.org/news/2010/jul/26/ucsd-scientists-researching-vanishing-honey-bees/>).
- (30) July 13, 2010 **Nieh** JC, Educational outreach through public radio (KPBS) interview on "Living with Africanized Bees in San Diego" with Tom Fudge (<http://www.kpbs.org/news/2010/jul/13/living-africanized-bees-san-diego/>).
- (29) May 25, 2010 **Nieh** JC, Served as a moderator at the annual UCSD Faculty Mentor Program Symposium.
- (28) 2010-2011 **Nieh** JC, Working with the **BioBridge** program at UCSD that teaches science to underprivileged high school students. Specifically, helped with a kit designed to teach students about the differences in the morphology and size bee pollinators and how this relates to the environments in which they are found.
- (27) May 5, 2010 **Nieh** JC, Warren College Faculty Speaker Series presentation to undergraduates: "The lives of bees: a journey into the superorganism."
- (26) April 29, 2010 **Nieh** JC, Interviewed by campus Triton television for their program, "Office Hours," that allows students to learn more about UCSD faculty, what and why they teach, and what they research.
- (25) April 27, 2010 **Nieh** JC, Present talk on "Perils and hidden language of honey bees" to the Osher Lifelong Learning Institute at UCSD, an outreach group that works closely with the campus senior community.
- (24) April 24, 2010 **Nieh** JC, Served as a research session moderator for the 23rd Annual UCSD Undergraduate Research Conference.
- (23) April 10, 2010 **Nieh** JC, Minority student outreach. Organized the 2010 ORBS conference. Theme: expanding research opportunities: the future. UCSD, La Jolla, CA.
- (22) Nov. 7, 2009 **Nieh** JC, Scientific outreach. Helped to present the lab's research to the Young Black Scholars event organized by the School of Biological Sciences.
- (21) June 27, 2009 **Nieh** JC, Scientific outreach. Presentation on the "Secret lives of honeybees" for the San Diego Beekeepers Meetup Group, UCSD, La Jolla, CA.
- (20) March 24, 2009 **Nieh** JC, Scientific outreach. Presentation on the "Secret life of honeybees" for the San Diego Master Gardener's Association, Balboa Park, San Diego, CA.
- (19) Jan 22, 2009 **Nieh** JC, Scientific outreach. Talk given as part of the "Nature Matters" series at the San Diego Natural History Museum. "Life and death among the flowers: the perils and secret language of bees". Balboa Park, San Diego, CA
- (18) Jan 20, 2009 **Nieh** JC, Outreach. Featured guest on the local public radio show, "These Days" (KPBS) to discuss research on bee communication, eavesdropping, and the importance of native pollinators.
- (17) July 11, 2008 **Nieh** JC, Scientific outreach. Presentation on "Evolution of communication in neotropical pollinators" to the annual UCSD Latin American Journalists Science Training, UCSD, Institute of the Americas, La Jolla, CA.
- (16) April 18, 2008 **Nieh** JC, Outreach. Appeared on Episode 1712, "Cut flowers" of the Home and Garden Television (HGTV) network show "Gardening by the Yard" to explain the importance of honey bees as pollinators, aspects of their basic biology, and discuss the recent concern over declines in honeybee populations.
- (15) Jan 15, 2008 **Nieh** JC, Scientific outreach. Presentation of laboratory research activities to the High School Research Education Program of Los Angeles Children's Hospital.

- (14) Sept 2007 **Nieh** JC, Met with U.S. members of Congress to reinforce the importance of sustaining and increasing funding for basic science infrastructure.
- (13) 2007 **Nieh** JC, Led an Expanding Your Horizons Workshop for junior high school and high school students at UCSD. The workshop used materials developed through the Teaching Bee website to teach students about the ecological role of honey bees and their role as an invasive New World species.
- (12) 2006 **Nieh** JC, Hosted the annual California Animal Behavior Symposium at the University of California San Diego.
- (11) 2005-2006 **Nieh** JC, Public school teacher outreach and curriculum development. (a) Working with Walter Solomon, sixth grade teacher at the Preuss School, on an inquiry project studying the efficacy of web science teaching through videos and interactive media. (b) Developing specific web-based content for sixth graders at the Preuss School to correspond with San Diego and California state standards on teaching evolutionary and the scientific method.
- (10) 2005-current **Nieh** JC, Scientific outreach. Developed the "Teaching Bee" website on the ecology and behavior of native pollinators with exercises designed for students and teachers ranging from elementary school through college. Concepts taught include the scientific method and specifics about the role of bees as pollinators and elementary statistics. The mission of this site is to improve international awareness of native pollinators.
- (9) 2005-2008 **Nieh** JC, Local outreach. Sponsoring undergraduate interns working at Hubbs-Seaworld Research Institute through the Academic Internship Program at UCSD.
- (8) April 2, 2005 **Nieh** JC, *War of the flowers: competition and aggression in stingless bees*. Workshop presented at the Expanding Your Horizons San Diego conference for female junior high school and high school students interested in math, science, and technology. Topic: role of pollinators and bee competition in tropical ecosystems. Presentation focused on teaching exploration through the scientific method.
- (7) Oct. 16, 2004 **Nieh** JC, Organized first ORBS (Opportunities for Research in the Behavioral Sciences) Symposium. Theme: Strengths, resources, and needs in San Diego. Conference attended by students, teachers, and faculty from three universities, two community colleges, two high schools, and five minority education programs in San Diego
- (6) 2003-2004 **Nieh** JC, Collaboration with scientists at the University of São Paulo Polytechnic institute to develop Etholog software for use by field research and Brazilian and American students interested in the collecting computerized observations of animal behavior. Software presented at the Encontro Sobre Abejas Conference in Ribeirao Preto, Brazil.
- (5) 2002-2004 **Nieh** JC, Mentor for Preuss High School student science fair projects.
- (4) April 2002 **Nieh** JC, Outreach service as a judge and on alumni panel to the Junior Science and Humanities Symposium.
- (3) 2002-current **Nieh** JC, Development of programs to allow minority students from K-12 (Preuss School) and students from 2-year colleges serving underrepresented groups in the sciences (ORBS: Opportunities for Research in the Behavioral Sciences) to gain research experience in the field of Animal Behavior.
- (2) 2001-2002 **Nieh** JC, Participation as mentor and panelist in the UCSD McNair Program, encouraging minority undergraduate research leading to graduate studies.
- (1) 2000-2004 **Nieh** JC, Technology transfer (acoustic and video recording technology and techniques) with Brazilian and Mexican colleagues, including the development of protocols simplifying and integrating computerized video and sound analysis of animal behavior.

GRADUATE AND POSTDOCTORAL ADVISORS

Graduate advisors:

Gilbert, Cole: Section of Neurobiology & Behavior, Cornell University

Hoy, Ron: Section of Neurobiology & Behavior, Cornell University

Reeve, Hudson Kern: Section of Neurobiology & Behavior, Cornell University
Seeley, Tom: Section of Neurobiology & Behavior, Cornell University

Postdoctoral sponsors:

Pierce, Naomi: Department of Organismic & Evolutionary Biology, Harvard University
Tautz, Juergen: Lehrstuhl für Vergleichende Physiologie, Universität Würzburg

MANUSCRIPTS REVIEWED FOR

Animal Behaviour
Animal Cognition
Apidologie
Behavioral Ecology
Behavioral Ecology and Sociobiology
Biology Letters
BMC Biology
Canadian Journal of Zoology
Communications Biology
Current Biology
Ecological Entomology
Ecology Letters
Environmental Science & Technology
Ethology
Frontiers in Ecology and Evolution
Insect Science
Insects
Insectes Sociaux
International Journal of Parasitology: Parasites and Wildlife
Journal of Apicultural Research
Journal of Asia-Pacific Entomology
Journal of Chemical Ecology
Journal of Comparative Physiology A
Journal of Experimental Biology
Journal of Insect Behavior
Journal of Insect Science
Journal of the Kansas Entomological Society
Journal of the Royal Society Interface
Journal of Visualized Experiments
Nature Communications
Nature Ecology & Evolution
Naturwissenschaften
Oecologia
Pest Management Science
Plant Biology
PLOS Biology
PLOS Computational Biology
PLOS One
Proceedings of the Royal Society of London, Series B
Proceedings of the National Academy of Sciences United States of America
Psyche
Royal Society Open Science
Sociobiology
Science
Scientia Agricola
Scientific Reports
The American Naturalist

BOOKS REVIEWED FOR

Oxford University Press
Quarterly Review of Biology
Prentice Hall
Sinauer Associates
W. W. Norton & Company

GRANTS REVIEWED FOR

NIFA/National Institute of Food Production and Sustainability, USA
Australian Research Council
Biotechnology and Biological Sciences Research Council (BBSRC), United Kingdom
National Science Center of Poland
National Science Foundation, USA
Austrian National Science Foundation
Animal Behavior Society
Sigma Xi
UC MEXUS-CONACYT
US Department of Agriculture
U. S. Civilian Research & Development Foundation

**LETTERS PROVIDED FOR MAJOR CAREER REVIEWS
OF SENIOR RESEARCHERS AND FACULTY**

2020	Two letters
2018	One letter
2016	Two letters

PROFESSIONAL SOCIETIES & ORGANIZATIONS

2022-current	Pollinator Stewardship Council (Scientific Advisory Panel member) https://www.pollinatorstewardship.org
2017-current	Royal Entomological Society (Elected member)
2019-current	American Association for the Advancement of Science (AAAS)
2014-current	COLOSS (Prevention of honey bee Colony LOSSes) honey bee research organization.
2013-current	International Union for the Study of Social Insects (IUSSI)
2008-2020	Sigma Xi
2007-current	Entomological Society of America
2004-2005	Animal Behavior Society, Latin American Affairs Committee
2002-2003	Animal Behavior Society, Public Affairs Committee
2002-2005, 2011	Animal Behavior Society, General Member
1999-2001	Harvard Society of Fellows, Junior Fellow

TEACHING*Undergraduate Courses*

2021 Spring	BILD 87 First-Year Student Seminar Program: Art and Science of Communication for Pre-Med/Pre-Health (or Verbal Communication for Pre-Med/Pre-Health). Nieh is the instructor of record for a course taught by Melissa Hoon.
2018	Evolution and Human Nature (PSYC 141): guest lecturer for course introduction: Evolutionary Psychology.
2002-current	Animal Behavior and Communication (BIEB 166), sole instructor
2003-2013	Animal Communication Lab (BIEB 167), sole instructor
2014 Winter	Saving the bees: the science behind bee declines and what you can do about it (BILD 87)
2013 Spring	Saving the bees: the science behind bee declines and what you can do about it (BILD 87)
2001-current	Independent Research (BISP 199), instructor of one section

Graduate Courses

2020 Fall	Topics in Community and Population Ecology (BGGN 204), guest lecturer
2019 Fall	Topics in Community and Population Ecology (BGGN 204), guest lecturer
2018 Fall	Topics in Community and Population Ecology (BGGN 204), guest lecturer
2017 Fall	Topics in Community and Population Ecology (BGGN 204), guest lecturer
2016 Fall	Topics in Community and Population Ecology (BGGN 204), sole instructor
2015 Winter	Topics in Community and Population Ecology (BGGN 204), sole instructor
2012 Fall	Topics in Community and Population Ecology (BGGN 204), sole instructor
2008 Spring	Research Discussion Group in Advanced Evolutionary Biology (BGRD 220), sole instructor
2008 Winter	Research Discussion Group in Molecular and Cell Biology (BGRD 216), instructor of one section
2008 Winter	Apprentice Teaching (BGGN 500), instructor of one section
2007-current	Research Discussion Group in Behavioral Ecology (BGRD 221), sole instructor
2003-current	Advanced Experimental Methods in Biology (BGGN 271), sole instructor
2003-current	Research Conference (BGGN 297), co-taught
2003-current	Thesis Research in Biology (BGGN 299), sole instructor

MENTORSHIP†*underrepresented researcher**Staff Research Associate*

2016-2018	Harmen Hendriksma: Currently Researcher at the Institute of Bee Protection, Federal Research Institute for Cultivated Plants, Braunschweig, Germany
2013-2014	Heather Bell: Currently a research manager at NOD Apiary products, Ontario, Canada

Postdoctoral fellows

2015-2019	Simone Tosi, Currently tenure track Assistant Professor at the University of Turin.
2014-2019	Heather Bell: Currently a research manager at NOD Apiary products.
2010-2012	Eben Goodale: currently (2018) Professor, College of Forestry, Guangxi University, Nanning, China
2005-2006	Felipe A. L. Contrera †: currently (2018) Professor, Federal University of Pará, Institute of Biological Sciences, Belém, Brazil.
2008-2009	Brian Johnson †: currently (2018) Associate Professor, University of California Davis, Department of Entomology and Nematology

Doctoral students

2022-current	Jo-Hsien Yu (committee member, UCSD)
2021-current	Kavitha Kannan (committee member, University of Konstanz)
2020-current	Ashley Kim, primary advisor
2020-current	Eric Snyder (committee member, UCSD)
2018-current	Dillon Travis† (committee member, UCSD)
2019-current	Morgan Ziegenhorn (committee member, UCSD)
2019-current	Dan Metz (Ph.D. committee member, UCSD)
2018-2021	Amy Geffre, primary advisor
2017-current	Daniella Zarate† (committee member, UCSD)
2016-2019	Kathrine Cameron,
2016-2022	Erik de Jesús Solórzano Gordillo† (Ph.D. committee member, El Colegio de la Frontera Sur)
2016-2018	Regina Guazzo† (Ph.D. committee member, UCSD)
2014-2021	Jess Gambel (Ph.D. committee member, UCSD)
2014-2019	Bahram Kheramand, primary advisor
2014	Parry Kietzman, University of California Riverside (Ph.D. committee member)
2014	Antoine Lecocq, University of Copenhagen, (visiting PhD student): currently (2018) Postdoctoral Fellow, University of Copenhagen, Department of Plant and Environmental Sciences, Copenhagen, Denmark.
2013	Simone Tosi, University of Bologna (visiting PhD student)
2013	James Makinson, University of Sydney (external examiner)
2011-2012	Karlina Merkins, SIO, UCSD (Ph.D. committee member)
2010-2013	Katherine LeVan, EBE, UCSD (Ph.D. committee member)
2010-2017	James Hung, EBE, UCSD (Ph.D. committee member)
2005-2012	(2) Megan Eckles, EBE, UCSD, primary advisor: currently (2018) Asst. Prof., Southwestern College, School of Mathematics, Science, and Engineering, San Diego, California.

- 2005-2011** (1) **Elinor Lichtenberg, EBE, UCSD, primary advisor:** currently (2018) Postdoctoral Fellow, Department of Integrative Biology, The University of Texas at Austin, Austin, Texas.
- 2007-2010 Sarah Leonhardt, Lehrstuhl für Vergleichende Physiologie, Universität Würzburg, committee member
- 2004-2009 Erin Wilson, EBE, UCSD (Ph.D. committee member)
- 2004-2006 *Daniel Sánchez[†] (Ph.D. committee member, El Colegio de la Frontera Sur)*

Masters students

- 2021-current** (28) **Kevin Kubo**
- 2021-current** (27) **Brandon Mukogawa, primary advisor**
- 2020-2021** (26) **Paul Loduca, primary advisor**
- 2020-current Edward Chen (committee member, UCSD)
- 2020-current Jane (Jiayuan) Murphy (committee member, UCSD)
- 2019-current Gloria Brattich (committee member, UCSD)
- 2018-2020** (25) **Edmund Lau, primary advisory**
- 2018-2020** (24) **Joshua Ludicke[†] (Latino), primary advisor**
- 2018-2019 Lisa Korpos (M.F.A. committee member, UCSD)
- 2018-2020 Jessica Sportelli, committee member
- 2017-2018 Jessica Davids, committee member
- 2017-2018 Tanner Howard, committee member
- 2017-2018 Jeremy Warner, committee member
- 2016-2017 Jennifer Kingston, committee member
- 2016-2017 Belinda Hui, committee member
- 2016-2017** (23) **Andrey Rubanov, primary advisor**
- 2016-2017** (22) **Linda Tong, primary advisor**
- 2015** **Alex Neskovic, primary advisor**
- 2014-2016** (21) **Lindsay Goldsaich, primary advisor**
- 2016** (20) **Jennifer Hayward, primary advisor**
- 2013-2016** (19) **Chase James, primary advisor**
- 2015** (18) **Aggelina Kanellopoulous, primary advisor**
- 2014 Jasmine Buccowich, committee member
- 2012-2014 Justin Scioli, committee member
- 2012-2014 Amanda Schochet, committee member
- 2012-2014 Kelleen L. Inglett, committee member
- 2012-2014** (17) **Erica Zhang, primary advisor**
- 2012-2014** (16) **Matt Endler, primary advisor**
- 2011-2013 Scott Gressard, committee member
- 2011-2013** (15) **Spencer Huey, primary advisor**
- 2011-2013** (14) **Allison Bray, primary advisor**
- 2011-2013** (13) **Lee BenVau, primary advisor**
- 2011 Lauren Ashley Miller, committee member
- 2010-2012** (12) **Tyler-Jack McCollough, primary advisor**
- 2010-2012** (11) **Brian Park, primary advisor**
- 2010** (10) **Eduard Deneke, primary advisor**
- 2009-2011** (9) **Daren Eiri, primary advisor**
- 2009-2011** (8) **Jessica Hagbery, primary advisor**
- 2006-2009** (7) **Daniel Su, UCSD, primary advisor**
- 2006-2008** (6) **Traci Kitaoka, primary advisor**
- 2005-2007** (5) **Michelle Renner, primary advisor**
- 2005-2007** (4) **Constantine Lau, primary advisor**
- 2004-2006** (3) **Katherine Mapalad[†], primary advisor**
- 2003-2005** (2) **Nik Sadler, UCSD, primary advisor**
- 2003-2005** (1) **Hien Nguyen, primary advisor**
- 2006-2008 Eri Suzuki, EBE, UCSD, committee member
- 2005-2007 Crystal Grover, EBE, UCSD, committee member
- 2004-2006 Alison Cook, EBE, UCSD, committee member
- 2004-2005 Stephanie Glenn, EBE, UCSD, committee member

2002-2004 Jennifer Zee, EBE, UCSD, committee member
 2001-2002 Melissa Newman, EBE, UCSD, committee member
 2001-2002 Lee, Andrea, EBE, UCSD, committee member
 2001-2002 Taylor, Nicolle, EBE, UCSD, committee member

Academic Internship Program (UCSD)

2016 Keira Wortman
 (not recorded prior to 2016)

Environmental Systems Internship Program (UCSD)

(not recorded prior to 2014)

2015 Olivia Koziel
 2014 Elliott Beltran
 2014 Hannah Tunnell

Nieh lab diversity metrics. Data on Under-represented Minority (URM) students is from 2000-current.

	No. students	No. female	First Gen.*	No. Latino	No. Pacific Islander	No. African American	No. Native American	Total URM	% Total URM
Total	415	237	11	50	3	5	1	59	
Average per year	18.9	10.8	2.8	2.8	1.0	1.0	1.0	2.7	14.2%

COMMITTEE SERVICE

2022 Search committee member, Search for the next Associate Vice Chancellor of Equity, Diversity, and Inclusion

2020-current *Ex Officio* member of the School of Biological Sciences Diversity Committee

2020-current Associate Dean, School of Biological Sciences

2020-current *Ex Officio* member of the Council of Chairs Committee

2020-current Member of the Eureka Scholarship Selection Committee

2017-current Faculty Equity Advisor, School of Biological Sciences

2010-current Member of the School of Biological Sciences Biology Field Station Committee

2020-2022 Co-organizer and member of the Biological Sciences Pandemic Career Support Committee, which helps staff, students and faculty with caregiving needs.

2019-2020 Chair, Neuroethology Search committee (joint search between the EBE and Neurobiology Sections)

2019-2021 UCSD EBE Award Committee coordinator. Coordinates awarding of EBE graduate student grants (EBE graduate travel grant, EBE undergraduate award, Messier award, and Wills award).

2019-2020 Member of the Divisional of Biological Sciences Graduate Committee

2018 Faculty Fund Manager for the Green Initiative development of Roger's Community Garden, Revelle College, UCSD.

2018 Member of Excellence Review for Unit 18 Lecturer, Keefe Reuther.

2017-2018 Member of the Graduate Curriculum Review Committee

2017 Member of Amylin Endowed Chair in Lifesciences Education and Research Candidate Selection and Review Committee.

2017 Chair of the Gordon H. Sato Endowed Junior Faculty Fellowship in Biological Sciences Search Committee, School of Biological Sciences

2017 Chair of the Search Advisory Committee for the Dean of Undergraduate Education

2017-2018 Member of the School of Biological Sciences Graduate Committee

2017-2018 Member of the Academic Senate Graduate Council

2017 School of Biological Sciences Advisor to oSTEM (Out in Science, Technology, Engineering, and Mathematics).

2016-2017 UCSD Chancellor's Advisory Committee on Gender Identity and Sexual Orientation Issues

(CAC GISOI)

2016-2018	Academic Senate Representative for Muir College, Alternate
2016-2017	School of Biological Sciences Excellence Search, <i>ex officio</i> committee member
2015-2016	Chair of the Frontiers of Innovation Scholars Program for Postdocs Review Panel.
2015-2016	Member of the Faculty Climate Action Committee
2014-current	Affiliated Faculty Member, Human Development Program, UCSD
2014-2017	Chair of the Department of Ecology, Behavior, and Evolution, UCSD.
2013-2014	Chair of the Academic Senate Undergraduate Council
2013-2014	Member of the Senate Council
2013-2014	Member of the Academic Senate Administration Council
2013-2014	Member of the Academic Senate Educational Policy and Courses Committee,
2013-2014	Member of the Program Review Committee, Academic Affairs
2013-2014	Member of the Enrollment Planning Committee, Academic Affairs
2013-2014	Member of the Physics Requirement Working Group for the Biological Sciences
2013	Member of the Ecology, Behavior, & Evolution Faculty Search Committee
2013	Chair of UCEAP Monteverde, Costa Rica Program Review Committee
2012-2017	Member of the Faculty Assistance and Bridge Committee, Div. of Bio. Sciences
2012-2018	Member of the Dean's Advisory Committee, Div. of Bio. Sciences
2012-2018	Chair of UC San Diego's LGBT Resource Center Advisory Board
2012-2014	Member of the Web Advisory Committee, Div. of Bio. Sciences
2011-2012	Member of the LGBT Resource Center Advisory Board
2012-2013	Vice Chair of the Academic Senate Undergraduate Council Committee
2011-2012	Member of the Academic Senate Undergraduate Council Committee
2010-2011	Member of Senate-Administration Task Force on Non-resident Enrollment
2009-2014	Vice Chair , Department of Ecology, Behavior, and Evolution, Div. of Bio. Sciences
2008-2014	School of Biological Sciences Diversity Committee
2009-2010	Academic Senate, Committee on Distinguished Teaching
2009-2012	School of Biological Sciences Divisional Retreat Committee
2007-2008	Biology Undergraduate Honors Thesis Advisor
2006-2008	Computer Committee, School of Biological Sciences
2002-2013	CAPE (Class and Professor Evaluations) Faculty Advisory Committee
2001-2009	Costa Rican UC Education Abroad Tropical Biology Program
2002-2003	School of Biological Sciences Graduate Admission Committee
2001-2001	School of Biological Sciences Graduate Recruitment Committee

UCSD NON-COMMITTEE SERVICE

2021	Member of the Core Team that submitted an NSF Research Traineeship Training Grant proposal, "Evolution, Development, Genomics & Ecology (EDGE): Training to predict the phenotype." This grant unites faculty and students from multiple programs across the UC San Diego and has a strong focus on changing academic culture by promoting transdisciplinary collaboration, broadening participation, and creating a network of workforce partners in industry, nonprofit and government agencies.
2021	Co-organizer of the NASA Space Station Undergraduate Encounter with astronaut, Dr. Kate Rubins.
2020	Participant and reviewer for the UCSD Biobib/CV Vendor Review program.
2020	UCSD faculty lead on the Sea to Sky Project to address climate change, currently in the Development phase.
2020	Coordinating the Biology effort to develop a collaboration with the Rady School focused developing a curriculum and/or a degree program for undergraduates and BSMS students interested in a business degree or certification. The focus is on students interested in BioTech and BioPharma. In 2021, the goal shifted to providing funding to facilitate graduate students (BSMS and PhD) taking the Rady MicroMBA Program.

- 2020 Member of the BioSci Community Center Workgroup, whose goal is to build a center that connects BioSci students and alumni and meets their diverse needs and educational and career goals.
- Spring 2020 Remote Spring Quarter Diary. Creating eight videos documenting a faculty member's life during the COVID19 Pandemic.
- Spring 2020 Building the BioSciEd Canvas website for Biology instructors to share resources about how to navigate fully online learning, build Canvas websites, and deal with multiple issues and opportunities, including Zoom security and video recordings.
- Spring 2020 Serving as a member of the Biology Questions Network (BioQ), a group of faculty charged to help instructors successfully make the transition to fully online learning. The main tasks were responding to faculty emails and calls and responsibility for support and troubleshooting.

SERVICE OUTSIDE UCSD

- 2022-current Member of the International Union for the Study of Social Insects North American Section Investment Advisory Board. USA.
- 2022 Rangel J, **Nieh** JC, Geffre A, Vargo E, Ellis JT. Organizers. The high cost of communal living: Evolution and mechanisms of social immunity in eusocial insects. Accepted Symposium for the 2022 International Union for the Study of Social Insects Conference in San Diego, California, USA.
- 2020-2022 Member of the Executive Committee for organizing the 2022 International Union for the Study of Social Insects Conference in San Diego, California, USA.
- 2020 Panelist and grant reviewer for the USDA NIFA Panel on Pollinator Health
- 2020 Primary organizer and host for the Southern California Animal Behaviour Symposium at UCSD
- 2019 Local representative and co-organizer of the winning bid to host the 2022 International Union for Social Insect Scientists International Conference in San Diego, California.
- 2019 Contributed to preparing and writing the BioSci Accountability Report.
- 2018 Panelist and grant reviewer for the UC MEXUS-CONACYT postdoctoral fellowship and collaborative grant competition. UC Riverside, Riverside, California.
- 2017 Panelist and grant reviewer for the Foundation for Food and Agriculture Research (FFAR) for the Pollinator Health Special Initiative.

ADDITIONAL CONTRIBUTIONS TO EQUITY, DIVERSITY, AND INCLUSION

- 2022 **Nieh** JC, assist in reviewing the applicants for the Eureka! Edwards-Yeckel Scholars Program to fund the summer research of UCSD students who have faced obstacles in conducting research.
- 2022 **Nieh** JC. Co-organizer of the DEI Panel for the BioSci Co-op program.
- 2021 **Nieh** JC. TRELS (Triton Research and Experiential Learning Scholars) advisor to two students (Leslie Cho and Anngely Leeds).
- 2021 **Nieh** JC and Chisholm A. Assist in the review and selection of candidates for the New England Biolabs Postdoctoral Fellowship, which supports candidates who have made or have the potential to make significant contributions to diversity.
- 2021 Prepared and wrote the 2021 BioSci Accountability Report.

- 2021 **Nieh** JC and Jenny H. Co-organizers of the Asian American Pacific Islander (AAPI) Affinity Group meeting for the School of Biological Sciences. This group was created in response to concerns about increasing violence and racism against AAPI individuals and was developed to begin a dialogue and increase the sense of community among AAPI faculty, staff, and students.
- May 25, 2021 **Nieh** JC and Jenny H. Panelists for UCSD School of Biological Sciences Connections event. Organized by the Diversity Committee, Connections allows the BioSci community to meet and engage with diverse speakers to learn about their stories.
- 2021 **Nieh** JC, Lead Organizer for the School of Biological Sciences for the UCSD FIRST Program NIH grant application, a new initiative for cluster hires of 12 diverse faculty across campus in the areas of cancer, cardiovascular diseases, immunology and infectious diseases, and neurosciences. The overarching goal of the NIH FIRST initiative is to enhance faculty diversity and to implement and sustain cultures of inclusive excellence across UCSD. The UCSD FIRST Program will cultivate institutional culture change by: 1) enhancing recruitment, retention and success of underrepresented (UR) faculty through immersion in formal structured programs proven to enhance UR faculty retention, success, and inclusivity at UCSD and 2) implementing these programs in 5 UCSD campus units with NIH funding including the School of Public Health, School of Biological Sciences, Division of Physical Sciences, School of Engineering and the Scripps Institute of Oceanography.
- 2021 **Nieh** JC, Speaker for Diversity in STEM Discussion for the Biological Sciences Students Association (BSSA).
- 2020 **Nieh** JC. Lead organizer for the BioSci URM Grants Workshop to give faculty information about grant opportunities and to find shared resources. This event brought together successfully funded faculty and those seeking funding with NSF Program Officers and created a shared Google Drive folder of resources.
- 2020 **Nieh** JC, Faculty Advisor for the UCSD-National City Restorative Education About Plants (REAP) Led by PhD students (Sahana Kuthyar, Ashley Kim, Ugbad Farah, and Sarah Ardell) and Beto Vasquez from CREATE working with National City contact, Janice Luna Reynoso. This is a community gardening program targeted at youth and adults that addresses food insecurity and food justice within the National City community in San Diego. National City is comprised of low-income, food insecure individuals and families primarily from Mexican and Filipino heritages. The goals are to improve access to food and revitalize existing community farm plots by 1) virtually guiding elementary school children through planting seedlings and 2) facilitating roundtable discussions with adults to influence local policy on soil remediation in the gardens. The overarching goal of this project is to positively impact the social determinants of health and advocate for food justice in National City. The focus is on underrepresented communities who experience high health disparities due to living in a disadvantaged neighborhood. This project will generate scientific engagement with the public during a time when access to hands-on science is low.
- 2020 **Nieh** JC, proposed an additional track for the Eureka! Edwards-Yeckel Scholars Program to fund the summer research of UCSD students who have faced obstacles in conducting research. Assist in reviewing applicants for this award. Donor funding of \$155,000 obtained.
- 2020 **Nieh** JC, Lead Organizer of the School of Biological Sciences Young Investigators Seminar Series.
- Oct 13, 2020 **Nieh** JC, Guest lecturer (Equity, Diversity and Inclusion: How do we get there?) for graduate students in BGGN 200.

CURRICULUM VITAE

James C. Nieh
May 17, 2022

- Oct 8, 2020 **Nieh** JC, Co-organizer and Discussion Co-moderator of online screening of "Picture a Scientist", which documents and explores the struggles and triumphs of women seeking equity in science.
- 2020-current **Nieh** JC, organizing and writing the School of Biological Sciences Quarterly Equity, Diversity, and Inclusion Newsletter.
- 2020 **Nieh** JC, working group member to develop a process for an equity study to check for differences in CAP outcomes arising from gender, race, or both.
- Oct 2020 **Nieh** JC, organizing and co-moderating an EDI presentation and Discussion for community members who signed the Biology Graduate Students Anti-Racism Petition.
- Oct 1, 2020 **Nieh** JC, obtaining funds from Campus EDI for "A deep conversation with Jon Beckwith: A history of scientific and social activism and the teaching of social issues in biology".
- Spring 2020 **Nieh** JC, working to create the Our Voices website with videos from members of the Biology Community with suggestions on how to develop creative new approaches to break the destructive cycles of racism, intolerance, and bias.
- 2020 **Nieh** JC, reorganizing (with help with the Diversity Committee, particularly Jose Pruneda-Paz) the School of Biological Sciences Diversity Website. Help included repopulating the Diversity Calendar and making this more prominent, streamlining and eliminating redundancy, creating a new interest and idea form that provides a permanent record and notifies the Diversity Committee when new submissions are made.
- Sept 2020 **Nieh** JC, organizing and co-moderating the EDI Conversations event at the Biology Retreat to help connect faculty, staff, and students with multiple EDI activities and resources. This will be an annual event.
- June 25, 2020 **Nieh** JC, Lead Organizer for a Wellness Meeting for BioSci: Staying resilient and connected in times of crisis.
- 2020 **Nieh** JC, helping the BUMMP program (Prof. Sonya Neal): assisting with obtaining and allocating funds, serving as a mentor for two students, providing supporting letter for a funding request from the Graduate Division.
- 2020 **Nieh** JC, Faculty Mentor for designing the Virtual San Diego Science Fair (with EBE PhD student, Sahana Kuthyar) and working to obtain funding from ResearchAmerica!
- 2020 **Nieh** JC, Senior career mentor for NSF Postdoctoral Research Fellowship in Biology Track 1 (Broadening participation of groups underrepresented in biology) applicant, Elizabeth Tapanes.
- 2020 **Nieh** JC, Senior career mentor for two UC Presidential Postdoctoral Fellowship Program applicants (Bianca Brown and Elizabeth Tapanes).
- 2020 **Nieh** JC, IdeaWave lead campaign manager for the Building the School of Biological Sciences Plan for Inclusive Excellence. This includes responsibility for creating and maintaining the accountability document that lists all 38 Ideas and the Division's progress on these Ideas.
- 2019 **Nieh** JC, Faculty representative for the School of Biological Sciences at the SACNAS National Diversity in STEM Conference.
- 2019-current **Nieh** JC, Faculty Advocate for the PATHways to STEM Enhanced Access and Mentorship (PATHS) Program. Providing mentorship; laboratory research opportunities; and/or other engagement commitments with PATHS Scholars to help build the next generation of URM student STEM leaders. UCSD, La Jolla, California.

- Jan 16, 2019 **Nieh** JC, "The UCSD-Xavier Graduate Pathways Partnership." Recruitment presentation for the UCSD-Xavier program. Xavier University of Louisiana, New Orleans, Louisiana.
- 2018-2020 **Nieh** JC, reviewer for undergraduate applications for the Triton Research and Experiential Learning Scholars (TRELS) scholarships for Marshall College, UCSD, La Jolla, CA, USA.
- Nov 9, 2018 **Nieh** JC. Building the pipeline to enhance PhD student diversity and inclusion at UCSD. Inclusive Science Series. Invited talk. Michigan State University Kellogg Biological Station.
- 2017 Reviewer of Equity, Diversity, and Inclusion Innovation grants for UCSD.
- 2017-current Diversity Reviewer of PhD student applicants for the School of Biological Sciences, UCSD.
- 2017-current Faculty Equity Advisor for the School of Biological Sciences, UCSD.
- 2017-2020 Principal coordinator and grant PI for the University of California Historically Black Colleges and Universities Initiative UCSD/Xavier University of Louisiana Graduate Pathways Partnership.
- April 22, 2017 Co-organizer, UC Mexus/UCSD workshop. The goal of this conference was the build stronger cross-border collaborative ties with Mexican colleagues that work at institutions in Baja California, Mexico.
- April 11, 2017 Panelist/participant in the LGBT Resource Center Intergenerational Dialogue, Spring Quarter.
- 2017 EDI Innovation Grant Award Recipient, UCSD.
- 2017-current Member of the UCSD Faculty of Color Network, mentor of junior faculty.
- 2017-current School of Biological Sciences Advisor to oSTEM (Out in Science, Technology, Engineering, and Mathematics).
- 2016-2017 UCSD Chancellor's Advisory Committee on Gender Identity and Sexual Orientation Issues (CAC GISOI)
- Oct 13-15, 2016 Nieh JC, judge and UCSD School of Biological Sciences representative at SACNAS conference, Long Beach, California.
- Feb 24, 2015 Nieh JC, Honey bee health and foraging: research opportunities for students. Presentation given to visiting faculty from Xavier University, a historically black university (HBCU).
- April 20, 2015 LGBTQ Inter-Generational Dialogue and Panel Member, Muir College. The goal of the panel was to foster greater dialogue between UCSD undergraduates and LGBTQ faculty.
- Oct 4-6, 2013 Nieh JC, judge and UCSD School of Biological Sciences representative at SACNAS conference, San Antonio, Texas.
- 2012-2015 Chair of UC San Diego's LGBT Resource Center Advisory Board
- March 1, 2012 Served as a panelist on the QuEST Career Panel (Queer Engineers, Scientists, and Technical Professionals) at an event to answer questions about the experiences and recommendations of LGBTQ professionals and faculty for LGBTQ students and postdocs.
- 2011-2012 Member of the LGBT Resource Center Advisory Board