

Wang, Steven Sheng-Shih (王勝仕)

Professor

B.S. in Chemical Engineering
National Central University, 1991
M.S. in Chemical Engineering
National Taiwan University, 1993
Ph.D. in Chemical Engineering
Texas A&M University, 2002

Research and Professional Interests

Cellular and Protein Engineering
Nanotechnology meets Biotechnology
Protein Aggregation
Biochemical Engineering
Neuroscience

Journal Papers

1. C. K. Chang, **S. S.-S. Wang**, C. H. Lo, H. C. Hsiao, J. W. Wu, "Investigation of the early stages of human D-crystallin aggregation process", *J Biomol Struct Dyn* 35, 1042-1054, (2017) (SCI).
2. Y. H. Cheng, C. M. Lai, K. S. Lin, **S. S.-S. Wang***, "Effects of metal oxide nanoparticles on the structure and activity of lysozyme", *Colloid Surface B: Biointerfaces*, 151, 344-353, (2017) (SCI).
3. S. C. How, Y. F. Chen, P. L. Hsieh, **S. S.-S. Wang***, J. S. Jan, "Cell-targeted, dual reduction- and pH-responsive saccharide/lipoic acid-modified poly(L-lysine) and poly(acrylic acid) polyionic complex nanogels for drug delivery", *Colloid Surface B: Biointerfaces* 153, 244-252, (2017) (SCI).
4. L. W. Hsiao, Y. D. Lai, J. T. Lai, C. C. Hsu, N. Y. Wang, **S. S.-S. Wang**, J. S. Jan, "Cross-linked polypeptide-based gel particles by emulsion for efficient protein encapsulation", *Polymer* 115, 261-272, (2017) (SCI).
5. C. T. Kuo, Y. L. Chen, W. T. Hsu, S. C. How, Y. H. Cheng, S. S. Hsueh, H. S. Liu, T. H. Lin, J. W. Wu, **S. S.-S. Wang***, "Investigating the effects of erythrosine B on amyloid fibril formation derived from lysozyme", *Int J Biol Macromol* 98, 159-168, (2017) (SCI).
6. K. H. Chen, **S. S.-S. Wang**, P. L. Show, G. T. Lin and Y. K. Chang, "A rapid and efficient technique for direct extraction of C-phycocyanin from highly turbid *Spirulina platensis* algae using hydrophobic interaction chromatography in stirred fluidized bed", *Biochem Eng J* 140, 47-56, (2018) (SCI).
7. S. C. How, Y. H. Cheng, C. H. Lo, J. T. Lai, T. H. Lin, Z. Bednarikova, A. Antosova, Z. Gazova, J. W. Wu, **S. S.-S. Wang***, "Exploring the effects of methylene blue on amyloid fibrillogenesis of lysozyme", *Int J Biol Macromol* 119, 1059-1067, (2018) (SCI)
8. S. C. How, W. T. Hsu, C. P. Tseng, C. H. Lo, W. L. Chou, **S. S.-S. Wang***, "Brilliant blue R dye is capable of suppressing amyloid fibril formation of lysozyme", *J Biomol Struct Dyn* 36, 3420-3433, (2018) (SCI)
9. C. T. Li, S. C. How, M. E. Chen, C. H. Lo, M. C. Chun, C. K. Chang, W. A. Chen, J. W. Wu, **S. S.-S. Wang***, "Effects of glycation on human gamma D-crystallin proteins by different glycation-inducing agents", *Int J Biol Macromol* 118, 442-451, (2018) (SCI)
10. N. H. Lu, S. C. How, C. Y. Lin, S. L. Tsai, Z. Bednarikova, D. Fedunova, Z. Gazova, J. W. Wu, **S. S.-S. Wang**, "Examining the effects of dextran-based polymer-coated nanoparticles on amyloid fibrillogenesis of human insulin", *Colloid Surface B* 172, 674-

683, (2018) (SCI)

11. K. Ulicna, Z. Bednarikova, W. T. Hsu, M. Holztragerova, J. W. Wu, S. Hamulakova, **S. S.-S. Wang***, Z. Gazova, “Lysozyme amyloid fibrillization in presence of tacrine/acridone-coumarin heterodimers”, *Colloid Surface B* 166, 108-118, (2018) (SCI)
12. **S. S.-S. Wang**, S. M. Yang, A. Hsin, Y. K. Chang, “Dye-Affinity Nanofibrous Membrane for Adsorption of Lysozyme: Preparation and Performance Evaluation”, *Food Technol Biotechnol* 56, 40-50, (2018) (SCI)
13. A. Antosova, Z. Bednarikova, M. Koneracka, I. Antal, V. Zavisova, M. Kubovcikova, J. W. Wu, **S. S.-S. Wang***, Z. Gazova, “Destroying activity of glycine coated magnetic nanoparticles on lysozyme, alpha-lactalbumin, insulin and alpha-crystallin amyloid fibrils”, *J Magn Magn Mater* 471, 169-176, (2019) (SCI)
14. Z. Bednarikova, J. Marek, E. Demjen, S. Dutz, M. M. Mocanu, J. W. Wu, **S. S.-S. Wang***, Z. Gazova, “Effect of nanoparticles coated with different modifications of dextran on lysozyme amyloid aggregation”, *J Magn Magn Mater* 473, 1-6, (2019) (SCI)
15. K. H. Chen, **S. S.-S. Wang**, P. L. Show, S. L. Hsu, Y. K. Chang, “Rapid and efficient recovery of C-phycoerythrin from highly turbid *Spirulina platensis* algae using stirred fluidized bed ion exchange chromatography”, *Sep Purif Technol* 209, 636-645, (2019) (SCI)
16. S. C. How, A. Hsin, G. Y. Chen, W. T. Hsu, S. M. Yang, W. L. Chou, S. H. Chou and **S. S.-S. Wang***, “Exploring the influence of brilliant blue G on amyloid fibril formation of lysozyme”, *Int J Biol Macromol* 138, 37-48, (2019) (SCI)
17. N. V. Mdlovu, Y. Chen, K. S. Lin, M. W. Hsu, **S. S.-S. Wang***, C. M. Wu, Y. S. Lin and K. Ohishi, “Multifunctional nanocarrier as a potential micro-RNA delivery vehicle for neuroblastoma treatment”, *J Taiwan Inst Chem E* 96, 526-537, (2019) (SCI)
18. N. V. Mdlovu, F. A. Mavuso, K. S. Lin, T. W. Chang, Y. Chen, **S. S.-S. Wang**, C. M. Wu, N. B. Mdlovu and Y. S. Lin, “Iron oxide-pluronic F127 polymer nanocomposites as carriers for a doxorubicin drug delivery system”, *Colloid Surface A* 562, 361-369, (2019) (SCI)
19. C. Y. Lin, T. H. Wang, S. C. How, Z. Bednarikova, D. Fedunova, Z. Gazova, J. W. Wu, and **S. S.-S. Wang***, “Investigating the effect of sugar-terminated nanoparticles on amyloid fibrillogenesis of β -lactoglobulin”, *Int J Biol Macromol*, 165, 291–307 (2020) (SCI)
20. J. H. Liou, Z. H. Wang, I. H. Chen, **S. S.-S. Wang**, S. C. How, and J. S. Jan, “Catalase immobilized in polypeptide/silica nanocomposites via emulsion and biomineralization with improved activities”, *Int J Biol Macromol*, 159, 931–940 (2020) (SCI).
21. Y. C. Wang, Y. R. Lai, J. W. Wu, **S. S.-S. Wang***, K. S. Lin, “Using palladium nanoparticle-decorated lysozyme amyloid fibrils to catalyze the reduction of methylene blue”, *J Taiwan Inst Chem E*, 118, 187-195 (2021) (SCI).
22. M. J. C. Espinoza, K. S. Lin, M. T. Weng, S. C. Kunene, **S. S.-S. Wang***, “In vitro studies of Pluronic F127 coated magnetic silica nanocarriers for drug delivery system targeting liver cancer”, *European Polymer Journal* 153, 110504 (2021) (SCI).
23. S. S. Hsueh, J. H. Lu, J. W. Wu, T. H. Lin, **S. S.-S. Wang***, “Protection of human γ D-crystallin protein from ultraviolet C-induced aggregation by ortho-vanillin”, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 261, 120023

(2021) (SCI).

24. S. C. How, T. H. Lin, C. C. Chang, **S. S.-S. Wang***, “Examining the effect of bovine serum albumin on the properties and drug release behavior of β -lactoglobulin-derived amyloid fibril-based hydrogels”, *Int J Biol Macromol*, 184, 79–91 (2021) (SCI).
25. A. Hsin, S. C. How, **S. S.-S. Wang***, C. W. Ooi, C. Y. Chiu, Y. K. Chang, “Kinetic and Thermodynamic Studies of Lysozyme Adsorption on Cibacron Blue F3GA Dye-Ligand Immobilized on Aminated Nanofiber Membrane”, *Membranes*, 11, 963 (2021) (SCI).
26. Y. S. Chen, C. W. Ooi, P. L. Show, B. C. Hoe, W. S. Chai, C. Y. Chiu, **S. S.-S. Wang***, Y. K. Chang, “Removal of Ionic Dyes by Nanofiber Membrane Functionalized with Chitosan and Egg White Proteins: Membrane Preparation and Adsorption Efficiency”, *Membranes* 12, 63 (2022) (SCI).
27. S. S. Hsueh, **S. S.-S. Wang**, S. H. Chen, C. L. Wang, J. W. Wu, T. H. Lin, “Insights to Human γ D-Crystallin Unfolding by NMR Spectroscopy and Molecular Dynamics Simulations”, *International Journal of Molecular Sciences* 23, 1591 (2022) (SCI).
28. R. Z. Huang, K. H. Chen, C. W. Ooi, B. C. Hoe, Y. R. Lai, M. Hsu, C. Y. Chiu, **S. S.-S. Wang***, Y. K. Chang, “Direct recovery of malate dehydrogenase from highly viscous yeast cell homogenate by a fluidized bed contactor equipped with an agitator”, *Biochemical Engineering Journal* 183, 108461 (2022) (SCI).
29. Y. R. Lai, J. T. Lai, **S. S.-S. Wang***, Y. C. Kuo, T. H. Lin, “Silver nanoparticle-deposited whey protein isolate amyloid fibrils as catalysts for the reduction of methylene blue”, *Int J Biol Macromol*, 213, 1098–1114 (2022) (SCI).
30. Y. R. Lai, T. H. Wang, S. C. How, K. S. Lin, W. L. Chou, **S. S.-S. Wang***, “Using Sugar-Derived Nanoparticles to Mitigate Amyloid Fibril Formation of Lysozyme”, *J Taiwan Inst Chem E*, 137, 104360 (2022) (SCI).
31. S. J. Jian, **S. S.-S. Wang**, C. W. Ooi, B. C. Hoe, Y. R. Lai, C. Y. Chiu, M. Hsu, K. H. Chen, Y. K. Chang, “Cellulose-based nanofiber membrane functionalized with dye affinity ligand for purification of malate dehydrogenase from *Saccharomyces cerevisiae*”, *Cellulose*, 29, 9251–9281 (2022) (SCI).
32. J. L. Hsu, **S. S.-S. Wang**, C. W. Ooi, X. E. C. Thew, Y. R. Lai, C. Y. Chiu, M. Hsu, K. H. Chen, Y. K. Chang, “Reactive Green 19 dye-ligand immobilized on the aminated nanofiber membranes for efficient adsorption of lysozyme: Process development and optimization in batch and flow systems”, *Food Chemistry*, 406, 135028 (2023) (SCI).
33. S. S. Dwitya, Y. H. Hsueh, **S. S.-S. Wang***, K. S. Lin, “Ultrafine nitrogen-doped graphene quantum dot structure and antibacterial activities against *Bacillus subtilis* 3610”, *Materials Chemistry and Physics*, 295, 127135 (2023) (SCI).
34. S. S. Lu, Y. R. Lai, L. H. Hsiao, H. Y. Huang, Y. H. Tsai, Y. Chen, **S. S.-S. Wang***, Y. C. Yeh, S. L. Tsai, “Effects of amino acid-functionalized silver nanoparticles on lysozyme amyloid fibrillogenesis”, *Colloids and Surfaces B: Biointerfaces*, 222, 113144 (2023) (SCI).
35. W. T. Lin, S. C. How, W. Z. Lin, F. H. Chen, W. C. Liao, I. C. Ma, **S. S.-S. Wang***, S. Y. Hou, “Using flow cytometry to develop a competitive assay for the detection of biotin”, *J Taiwan Inst Chem E*, 143, 104691 (2023) (SCI).
36. Y. R. Lai, **S. S.-S. Wang**, T. L. Hsu, S. H. Chou, S. C. How, T. H. Lin, “Application of

Amyloid-Based Hybrid Membranes in Drug Delivery”, *Polymers*, 15, 1444 (2023) (SCI).

Conference Papers

1. S. S. Hsueh, **S. S.-S. Wang**, T. H. Lin, J. W. Wu, “ Exploring the Structural Stability of Human Gamma-D Crystallin Proteins Using the Residual Dipolar Couplings Technique Combined with Chemical Unfolding,” 2017 BEST Conference & International Symposium on Biotechnology and Bioengineering, Yunlin, Taiwan, June 2017.
2. W. T. Hsu, A. H., J. W. Wu, **S. S.-S. Wang**, “Exploring the Inhibitory Activity of Brilliant Blue G Toward the Formation of Amyloid Fibrils Derived from Lysozyme,” 2017 BEST Conference & International Symposium on Biotechnology and Bioengineering, Yunlin, Taiwan, June 2017.
3. S. C. How, **S. S.-S. Wang**, “Exploit Amyloid-Based Materials as a new drug delivery system,” The 23 Symposium of Young Asian Biological Engineer’s Community (YABEC 2017), Xi’an, China, October 2017.
4. S. S. Hsueh, **S. S.-S. Wang**, T. H. Lin, J. W. Wu “Using the Residual Dipolar Couplings Technique Combined with Chemical Unfolding to Probe for the Structural Stability of Human Gamma-D Crystallin Associated with Cataract,” The 23 Symposium of Young Asian Biological Engineer’s Community (YABEC 2017), Xi’an, China, October 2017.
5. W. T. Hsu, A. Hsin, J. W. Wu, **S. S.-S. Wang**, “Investigating the Suppressing Effects of Brilliant Blue G on Amyloid Fibrillogenesis of Lysozyme,” The 64th Annual Meeting of the Taiwan Institute of Chemical Engineers, Taipei, Taiwan, November 2017.
6. C. Y. Lin¹, N. H. Lu, Z. Gazova, **S. S.-S. Wang**, “Inhibiting Amyloid Fibrillation by Magnetite Nanoparticles,” The 64th Annual Meeting of the Taiwan Institute of Chemical Engineers, Taipei, Taiwan, November 2017.
7. H. M. Hsiao, S. Y. Shen, Y. H. Cheng, **S. S.-S. Wang**, “Developing an Amyloid Fibril-Based Hybrid Biomaterials for Drug Delivery,” The 64th Annual Meeting of the Taiwan Institute of Chemical Engineers, Taipei, Taiwan, November 2017.
8. J. H. Lu, **S. S.-S. Wang**, J. W. Wu, “Seeking the Inhibitory Molecules Toward the Ultraviolet C-Induced Aggregation of Human γ D-Crystallin Protein”, 2018 BEST Conference & International Symposium on Biotechnology and Bioengineering, Taipei, Taiwan, June 2018.
9. C. Y. Lin, N. H. Lu, S. C. How, Z. Gazova, J. W. Wu, **S. S.-S. Wang**, “Examining the Influence of Surface-Modified Nanoparticles on Amyloid Fibril Formation of Human Insulin”, 2018 BEST Conference & International Symposium on Biotechnology and Bioengineering, Taipei, Taiwan, June 2018.
10. S. M. Yang, Y. C. Lan, S. C. How, J. W. Wu, **S. S.-S. Wang**, “Methylene Blue and Brilliant Blue G Exhibit Different Effects on Amyloid Fibrillogenesis of Human Insulin”, The 24nd Young Asian Biological Engineers’ Community (YABEC 2018), Taipei, Taiwan, November 2018.
11. S. S. Hsueh, Y. C. Lan, S. C. How, J. W. Wu, **S. S.-S. Wang**, “Methylene Blue is Able to Mitigate Amyloid Fibril Formation of Insulin”, The 14th Asian Congress on Biotechnology (ACB 2019), Taipei, Taiwan, July 2019.

12. S. S. Hsueh, **S. S.-S. Wang**, T. H. Lin, J. W. Wu, "Utilizing the Residual Dipolar Couplings Technique Combined with Chemical Unfolding to Examine the Structural Stability of Crystallin Proteins", The 18th Asian Pacific Confederation of Chemical Engineering Congress (APCCHE 2019), Sapporo, Japan, September 2019.
13. S. C. How, C. A. Dai, **S. S.-S. Wang**, "Preparation and Investigation of the Cold-Set Hydrogels Derived from β -Lactoglobulin/Bovine Serum Albumin Nanofibrils for Drug Delivery Systems", The 66th Annual Meeting of the Taiwan Institute of Chemical Engineers, November 2019.
14. **S. S.-S. Wang**, C. Y. Lin, J. W. Wu, "Effects of Sugar-Terminated Nanoparticles on Amyloid Fibril Formation of β -Lactoglobulin", The 25th Symposium of Young Asian Biological Engineers' Community (YABEC 2019), Seoul, Korea, November 2019.
15. Y. R. Lai, S. H. Chen, **S. S.-S. Wang**, "Application of Amyloid Fibril-Based Hybrid Materials: Exploring the Catalytic Performance of Metal Nanoparticle-Deposited Whey Protein Isolate Amyloid Fibrils", The 67th Annual Meeting of the Taiwan Institute of Chemical Engineers, Hsinchu city, Taiwan, November 2020
16. Y. C. Wang, J. W. Wu, **S.S.-S. Wang**, "Application of the Palladium Nanoparticle-Decorated Lysozyme Amyloid Fibrils for Catalytic Reduction of Methylene Blue Dye", The 38th Taiwan Symposium on Catalysis and Reaction Engineering, Taipei, Taiwan, July 2020.
17. W. H. Hsu, **S. S.-S. Wang**, "Glutathione-Sensitive Doxorubicin-Coupled Glycated Bovine Serum Albumin Nanoparticles as Targeted Drug Delivery Carriers: Synthesis, Characterization and in vitro Biological Properties of the Conjugates", The 67th Annual Meeting of the Taiwan Institute of Chemical Engineers, Hsinchu, Twain, October 2020.
18. **S. S.-S. Wang**, "The Dark Side and the Bright Side of Amyloids Applying chemical engineering tools to unravel the mystery of disease mechanism, its prevention, and the amyloid fibrils' potential", The 67th Annual Meeting of the Taiwan Institute of Chemical Engineers, Hsinchu, Twain, October 2020.
19. Y. R. Lai, J. W. Wu, **S. S.-S. Wang**, "Application of Amyloid Fibril-Based Hybrid Materials: Exploring the Catalytic Performance of Silver Nanoparticle-Deposited Whey Protein Isolate Amyloid Fibrils", The 67th Annual Meeting of the Taiwan Institute of Chemical Engineers, Hsinchu, Twain, October 2020.
20. C. Y. Lin, Y. R. Lai, T. H. Wang, **S. S.-S. Wang**, "Inhibitory Effects of the Sugar-Based Osmolyte-Terminated Nanoparticles on Amyloid Fibril Formation of Proteins", 2021 BEST Conference & International Symposium on Biotechnology and Bioengineering, Taichung, Taiwan, September 2021.
21. Y. R. Lai, **S. S.-S. Wang**, "Surface Modification of the Electrode Using Silver Nanoparticle-Decorated Whey Protein Isolate Amyloid Fibrils for Electrochemical Detection of p-Nitrophenol", 2021 BEST Conference & International Symposium on Biotechnology and Bioengineering, Taichung, Taiwan, September 2021.
22. J. W. Wu, S. S. Hsueh, S. H. Chen, **S. S.-S. Wang**, T. H. Lin, "Understanding the Early Stages of Cataract Formation on the Protein Level –Perspective from the Human γ D crystallin", The 26nd Young Asian Biological Engineers' Community (YABEC 2021), Kobe, Japan, November 2021.

23. Y. R. Lai, **S. S.-S. Wang**, “Evaluation of the catalytic performance of the silver nanoparticle-deposited whey protein isolate amyloid fibrils“, The 26nd Young Asian Biological Engineers’ Community (YABEC 2021), Kobe, Japan, November 2021
24. Y. R. Lai, J. W. Wu, **S. S.-S. Wang**, “Examining the Mechanism and Performance of Silver Nanoparticle-Deposited Whey Protein Isolate Amyloid Fibrils for Catalytic Reduction of Methylene Blue“, 2022 BEST Conference & International Symposium on Biotechnology and Bioengineering, Taoyuan, Taiwan, June 2022.
25. S. S. Lu, Y. R. Lai, **S. S.-S. Wang**, “Inhibition Amyloid Fibril Formation of Lysozyme by Amino Acid-Modified Silver Nanoparticles“, 2022 BEST Conference & International Symposium on Biotechnology and Bioengineering, Taoyuan, Taiwan, June 2022.
26. J. L. Tu, Y. R. Lai, **S. S.-S. Wang**, “Development of Amyloid Fibril-Based Aerogels for Oil-Water Separation“, The 69th Annual Meeting of the Taiwan Institute of Chemical Engineers, Taipei, Twain, December 2022.
27. X. X. Hou, Y. R. Lai, **S. S.-S. Wang**, “Preparation of Amyloid Fibril/Carboxymethyl Cellulose Hybrid Membranes for the Removal of Chromium (VI)“, The 69th Annual Meeting of the Taiwan Institute of Chemical Engineers, Taipei, Twain, December 2022.
28. Y. R. Lai, **S. S.-S. Wang**, “Development of Silver Nanoparticle-Decorated Whey Protein Isolate Amyloid Fibrils Composite Materials for Electrochemical Sensing“, The 69th Annual Meeting of the Taiwan Institute of Chemical Engineers, Taipei, Twain, December 2022.
29. C. Y. Chang, **S. S.-S. Wang**, J. W. Wu, “The effects of components in ophthalmic eyedrops on the aggregation of in-vitro TGFBIp peptides“, The 69th Annual Meeting of the Taiwan Institute of Chemical Engineers, Taipei, Twain, December 2022.

Honors and Others

1. 2015 生物技術暨生化工程國際研討會, Organizing Committee
2. 指導楊斯閔、陳宜琳、陳郁涵、戴承葦、張牧月同學與博士研究生侯素君同學獲 2015 生物技術暨生化工程國際研討會 ”Best Oral Presentation Award”
3. 指導碩士研究生陳仁偉與張智凱同學獲 2015 生物技術暨生化工程國際研討會 ”Outstanding Oral Presentation Award”
4. YABEC (Symposium of Young Asian Biochemical Engineers' Community), Taiwan regional delegate (台灣區負責人), 2015-2018
5. Asian Federation of Biotechnology (AFOB), Executive Board Committee Member, 2015 – 2018.
6. Asian Federation of Biotechnology (AFOB), Advisory Board Member, 2019 – now
7. 2015 化工年會生化與生醫工程組 Invited Speaker

8. 指導鍾旻芝(研究生)、曾佳平(大學部專題生)、郭俊廷(大學部專題生)、許燉命(大學部專題生)、鄭瑀鴻(研究學者)·參加"2016 生物技術暨生化工程國際研討會"·獲得英文口頭論文發表競賽優勝
9. 2016 化工年會生化與生醫工程組學術委員會委員
10. 2016 化工年會生化與生醫工程組, Session Chair
11. 指導博士研究生侯素君參加 "2016 化工年會"獲得海報論文發表競賽佳作
12. 2017 BEST Conference and International Symposium on Biotechnology and Bioengineering, Organizing Advisory Committee
13. 指導徐瑋澤同學參加 "2017 生物技術暨生化工程國際研討會"獲得英文口頭論文發表競賽優勝
14. 擔任 2017 化工年會生化與生醫工程組學術委員會委員 (Academic Committee)
15. 指導徐瑋澤同學參加"2017 化工年會"獲得英文口頭論文發表競賽優勝
16. 指導徐瑋澤同學參加2017明志科技大學綠色生物程序工程論壇與生化工程技術研發中心成果發表會獲得 3 Minute Thesis Competition 英文口頭論文發表競賽第二名及海報論文發表競賽第一名
17. "Biotechnology and Bioprocess Engineering" Journal, Editorial Advisory Board Member. 2018–2020.
18. 2018 BEST Conference and International Symposium on Biotechnology and Bioengineering, Advisory Committee
19. 2018 BEST Conference and International Symposium on Biotechnology and Bioengineering, Session Chair of Keynote Speech IV
20. 主辦第 24 屆亞太青年生化工程國際研討會 (The 24th Symposium of Young Asian Biological Engineers' Community (YABEC 2018)), 擔任大會主席 (Chairman)
21. 指導楊斯閔同學獲第 24 屆亞太青年生化工程國際研討會(YABEC 2018)大會"YABEC 2018 The Best Poster Award"獎項
22. 擔任第十四屆亞洲生物技術大會 (The 14th Asian Congress on Biotechnology, ACB 2019), Scientific Committee Member
23. 榮獲亞洲生物技術聯盟 (Asian Federation of Biotechnology) (2019 年) 年度傑出貢獻獎 (Excellent Service Award)

24. "Biotechnology and Bioprocess Engineering" Journal, Editorial Advisory Board Member, 2018.1- 2019.12
25. 擔任 2020 TwIChE 台灣化學工程學會 67 週年年會" 生化及生醫工程組" Invited speaker
26. 擔任 2021 TwIChE 台灣化學工程學會 68 週年年會"學術論壇—生化及生醫工程組" Session Chair
27. 指導大四盧欣同學榮獲 12th Green Sustainable Biotechnology Symposium (2022 綠色永續生物科技研討會) 3MT (3 Min) 英文口頭論文發表競賽優勝 (First place)
28. 指導博士生賴宥任同學參加 "2022 BEST Conference & International Symposium on Biotechnology and Bioengineering"獲得 Best Oral Presentation Award
29. 指導博士生賴宥任同學參加 "The 69th Annual Meeting of the Taiwan Institute of Chemical Engineers "獲得 Best Oral Presentation Award
30. 指導碩士生涂家齡同學參加 "The 69th Annual Meeting of the Taiwan Institute of Chemical Engineers "獲得 Honorable Mention Award
31. 台灣生物技術與生化工程學會(BEST), 國際事務委員會委員, 2019 – 2022
32. 台灣生物技術與生化工程學會(BEST), 常務理事, 2019 – 2022
33. 台灣生物技術與生化工程學會(BEST), 理事, 2022 – now
34. 2023 BEST (Biotechnology and Biochemical Engineering Society of Taiwan) joint YABEC (Young Asian Biological Engineers' Community), Organizing Committee.
35. 2023 BEST (Biotechnology and Biochemical Engineering Society of Taiwan) joint YABEC (Young Asian Biological Engineers' Community), Scientific Committee.
36. "International Journal of Biological Macromolecule (IF = 8.025)" Journal Editor, 2020.3–now