

# Curriculum Vitae – WENJUN ZHANG

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## **PROFESSIONAL EXPERIENCE**

<b>Professor</b> , Dept. of Chemical and Biomolecular Engineering, UC Berkeley	<b>2022 to current</b>
<b>Associate Professor</b> , Dept. of Chemical and Biomolecular Engineering, UC Berkeley	<b>2018 to 2022</b>
<b>Biologist Faculty Sci/Engr</b> , Lawrence Berkeley National Laboratory	<b>2014 to current</b>
<b>Assistant Professor</b> , Dept. of Chemical and Biomolecular Engineering, UC Berkeley	<b>2011-2018</b>

## **EDUCATION**

<b>Research Fellow</b> , Harvard Medical School (adviser: Christopher T. Walsh)	<b>2009-2011</b>
<b>Ph.D., Chemical Engineering</b> , University of California, Los Angeles (adviser: Yi Tang)	<b>2004-2009</b>
<b>M.S., Biochemistry and Molecular Biology</b> , Nanjing University, China (adviser: Genxi Li)	<b>2002-2004</b>
<b>B.S., Biochemistry</b> , DII, Nanjing University, China	<b>1998-2002</b>

## **AWARDS AND HONORS**

Bakar Fellows Spark Award (2022)  
Blavatnik National Awards for Young Scientists Finalist (2021)  
Presidential Early Career Award for Scientists and Engineers (PECASE) (2019)  
Scialog Fellow, Research Corporation and the Gordon and Betty Moore Foundation (2018)  
American Cancer Society Research Scholar (2017)  
Chan Zuckerberg Biohub Investigator (2017)  
Alfred P. Sloan Research Fellow (2016)  
Paul Saltman Memorial Award in Bioinorganic Chemistry (2016)  
NIH Director's New Innovator Award (2015)  
Hellman Fellow (2015)  
F1000Prime Faculty (Chemical Biology, Small Molecule Chemistry section) (2015)  
The Charles R. Wilke Endowed Chair in Chemical Engineering, UC Berkeley (2014)  
Pew Scholar (2012)  
Outstanding Ph.D. Award, UCLA ChBME (2009)  
National Nell I. Mondy Fellowship, Graduate Women in Science (SDE/GWIS) (2008)  
Dissertation Year Fellowship, University of California, Los Angeles (2008)  
WIC Travel Grant Award, American Institute of Chemical Engineers (2007)  
Hewlett-Packard National Fellowship, Nanjing University, China (2004)  
BASF Fellowship, Nanjing University, China (2003)  
NJU "Outstanding Student" Award and People's Scholarship 1st Prize (1998-2002)

## **PEER REVIEWED PUBLICATIONS** (†: Corresponding Author)

1. Del Rio Flores, A., Narayanamoorthy, M., Cai, W., Zhai, R., Yang, S., Shen, Y., Seshadri, K., De Matias, K., Xue, Z., Zhang, W.† "Biosynthesis of Isonitrile Lipopeptide Metallophores from Pathogenic Mycobacteria" *Biochemistry* **2023**, 62, 3, 824–834.
2. Parker, S. T., Smith, A., Forse, A. C., Liao, W., Brown-Altwater, F., Siegelman, R. L., Kim, E. J., Zill, N. A., Zhang, W., Neaton, J. B., Reimer, J. A., Long, J. R. "Evaluation of the Stability of Diamine-Appended Mg<sub>2</sub>(dobpdc) Frameworks to Sulfur Dioxide" *JACS*, **2022**, 144, 19849-19860.
3. McClung, D. J., Du, Y., Antonich, D. J., Bonet, B., Zhang, W., Traxler, M. F. "Harnessing Rare Actinomycete Interactions and Intrinsic Antimicrobial Resistance Enables Discovery of an Unusual Metabolic Inhibitor" *mBio*. **2022**, DOI: <https://doi.org/10.1128/mbio.00393-22>.

4. Del Rio Flores, A., Kastner, D. W., Du, Y., Narayanamoorthy, M., Shen, Y., Cai, W., Vennelakanti, V., Zill, N. A., Dell, L. B., Zhai, R., Kulik, H. J.,<sup>†</sup> Zhang, W.<sup>†</sup> "Probing the Mechanism of Isonitrile Formation by a Non-Heme Iron(II)-Dependent Oxidase/Decarboxylase" *JACS*, **2022**, 144, 5893-5901. (Cover story)
5. Del Rio Flores, A., Barber, C. C., Narayanamoorthy, M., Gu, D., Shen, Y., Zhang, W.<sup>†</sup> "Biosynthesis of Isonitrile- and Alkyne-Containing Natural Products" *Annu. Rev. Chem. Biomol. Eng.* **2022**, 13.
6. Gu, D., Zhang, W.<sup>†</sup> "Engineered biosynthesis of alkyne-tagged polyketides" *Methods in Enzymology* **2022**, 665, 347-373.
7. Del Rio Flores, A., Twigg, F., Du, Y., Cai, W., Aguirre, D., Sato, M., Dror, M., Narayanamoorthy, M., Geng, J., Zill, N., Zhai, R., Zhang, W.<sup>†</sup> "Biosynthesis of Triacsin Featuring an *N*-hydroxytriazene Pharmacophore" *Nature Chem. Biol.* **2021**, 17, 1305-1313.
8. Li, Z., Sun, J., Du, Y., Pan, A., Zeng, L., Maboudian, R., Burne, R., Qian, P.,<sup>†</sup> Zhang, W.<sup>†</sup> "Mutanofactin promotes adhesion and biofilm formation of cariogenic *Streptococcus mutans*" *Nature Chem. Biol.* **2021**, 17, 576-584. (Highlighted in *Nature*)
9. Barber, C., Zhang, W.<sup>†</sup> "Small molecule natural products in human nasal/oral microbiota" *J. Ind. Microbiol. & Biot.* **2021**, <https://doi.org/10.1093/jimb/kuab010>.
10. Jonnalagadda, R., Del Rio Flores, A., Cai, W., Mehmood, R., Narayanamoorthy, M., Ren, C., Zaragoza, J.P.T., Kulik, H.J.,<sup>†</sup> Zhang, W.,<sup>†</sup> Drennan, C.L.<sup>†</sup> "Biochemical and crystallographic investigations into isonitrile formation by a non-heme iron-dependent oxidase/decarboxylase" *J. Biol. Chem.* **2021**, 296, 100231.
11. Li, J., Du, Y., Gu, D., Cai, W., Green, A., Ng, S., Leung, A., Del Rio Flores, A., Zhang, W.<sup>†</sup> "Discovery and biosynthesis of clostyrylpyrones from the obligate anaerobe *Clostridium roseum*" *Org. Lett.* **2020**, 22, 8204–8209.
12. Zou, L., Spanogiannopoulos, P., Pieper, L.M., Chien, H-C., Cai, W., Khuri, N., Pottel, J., Vora, B., Ni, Z., Tsakalozou, E., Zhang, W., Shoichet, B.K., Giacomini, K.M., Turnbaugh, P.J. "Bacterial metabolism rescues the inhibition of intestinal drug absorption by food and drug additives" *PNAS* **2020**, 117, 16009-16018.
13. Xu, P., Modavi, C., Demaree, B., Twigg, F., Liang, B., Sun, C., Zhang, W., Abate, A. "Microfluidic automated plasmid library enrichment for biosynthetic gene cluster discovery" *Nucleic Acids Res.* **2020**, 48, e48.
14. Skyrud, W., Del Rio Flores, A., Zhang, W.<sup>†</sup> "Biosynthesis of cyclohexylcarbonyl-CoA highlights a promiscuous shikimate-CoA synthetase and a FAD-dependent dehydratase" *ACS Catal.* **2020**, 10, 3360-3364.
15. Porterfield, W., Poenateetai, N., Zhang, W.<sup>†</sup> "Engineered Biosynthesis of Alkyne-tagged Polyketides by Type I PKSs" *iScience* **2020**, 23, 100938.
16. Li, J., Barber, C., Herman, N., Cai, W., Zafir, E., Du, Y., Zhu, X., Skyrud, W., Zhang, W.<sup>†</sup> "Investigation of secondary metabolism in the industrial butanol hyper-producer *Clostridium saccharoperbutylacetonicum* N1-4" *J. Ind. Microbiol. & Biot.* **2020**, 47, 319-328.
17. Huang, Y.,<sup>†</sup> Cai, W., Del Rio Flores, A., Twigg, F., Zhang, W.<sup>†</sup> "Facile discovery of isonitrile natural products via tetrazine based click reactions" *Anal. Chem.* **2020**, 92, 599-602.
18. Hu, Z., Zhang, W.<sup>†</sup> "Signaling Natural Products from Human Pathogenic Bacteria" *ACS Infect. Dis.* **2020**, 6, 25-33.
19. Zhang, B., Rajakovich, L., Cura, D., Blaesi, E., Mitchell, A., Tysoe, C., Zhu, X., Streit, B., Rui, Z., Zhang, W.,<sup>†</sup> Boal, A.,<sup>†</sup> Krebs, C.,<sup>†</sup> Bollinger, J. M.<sup>†</sup> "Substrate-triggered Formation of a Peroxo-Fe<sub>2</sub>(III/III) Intermediate during Fatty Acid Decarboxylation by UndA" *JACS*, **2019**, 141, 14510-14514.
20. Richards, J., Cai, W., Zill, N., Zhang, W., Ojha, A. "Adaptation of *Mycobacterium tuberculosis* to biofilm growth is genetically linked to drug tolerance" *Antimicrob. Agents Chemother.* **2019**, 63 (11) e01213-19; DOI: 10.1128/AAC.01213-19.

21. Li, Z., Li, J., Cai, W., Lai, J. Y. H., McKinnie, S. M. K., Zhang, W., Moore, B. S., Zhang, W.,<sup>†</sup> Qian, P.<sup>†</sup> "Macrocyclic colibactin induces DNA double-strand breaks via copper-mediated oxidative cleavage" *Nature Chem.* **2019**, 11, 880–889. (Cover story)
22. Seidel, J., Miao, Y., Porterfield, W., Cai, W., Zhu, X., Kim, S., Hu, F., Bhattarai-Kline, S., Min, W.,<sup>†</sup> Zhang, W.<sup>†</sup> "Structure-activity-distribution relationship study of anti-cancer antimycin-type depsipeptides" *Chem. Commun.* **2019**, 55, 9379-9382.
23. Twigg, F. F., Cai, W., Huang, W., Liu, J., Sato, M., Perez, T., Geng, J., Dror, M., Montanez, I., Tong, T., Lee, H., Zhang, W.<sup>†</sup> "Identifying the Biosynthetic Gene Cluster for Triacins with an N-hydroxytriazene Moiety" *ChemBioChem.* **2019**, 20, 1145-1149. (VIP, ChemBioTalents)
24. Li, J. S., Barber, C. C., Zhang, W.<sup>†</sup> "Natural products from anaerobes" *J. Ind. Microbiol. Biotechnol.* **2019**, 46, 375-383.
25. Harris, N., Born, D., Cai, W., Huang, Y., Martin, J., Khalaf, R., Drennan, C., Zhang, W.<sup>†</sup> "Isonitrile Formation by a Non-heme Iron(II)-dependent Oxidase/Decarboxylase" *Angew. Chem.* **2018**, 57, 9707-9710. (VIP)
26. Su, M., Zhu, X., Zhang, W.<sup>†</sup> "Probing the Acyl Carrier Protein-Enzyme Interactions within Terminal Alkyne Biosynthetic Machinery" *AIChE J.* **2018**, 64, 4255–4262. (Tribute to Founders: Jay Bailey. Biomolecular Engineering, Bioengineering, Biochemicals, Biofuels, and Food)
27. Skyrud, W., Liu, J., Thankachan, D., Cabrera, M., Seipke, R.,<sup>†</sup> Zhang, W.<sup>†</sup> "Biosynthesis of the 15-membered ring depsipeptide neoantimycin" *ACS Chem. Biol.* **2018**, 13(5), 1398-1406.
28. Zhu, X., Zhang, W.<sup>†</sup> "Terminal Alkyne Biosynthesis in Marine Microbes" *Methods in Enzymology: biosynthetic enzymes of marine natural products*, **2018**, 604, 89-112.
29. Cai, W., Zhang, W.<sup>†</sup> "Engineering modular polyketide synthases for production of biofuels and industrial chemicals" *Curr. Opin. Biotechnol.* **2018**, 50, 32-38.
30. Herman, N. A., Kim, S., Li, J. S., Cai, W., Koshino, H., Zhang, W.<sup>†</sup> "The industrial anaerobe *Clostridium acetobutylicum* uses polyketides to regulate cellular differentiation" *Nature Commun.* **2017**, 8, 1514.
31. Liu, J., Kaganjo, J., Zhang, W., Zeilstra-Ryalls, J. "Investigating the bifunctionality of cyclizing and "classical" 5-aminolevulinate synthases" *Protein Sci.* **2017**, 27, 402-410.
32. Harris, N. C., Sato, M., Herman, N. A., Twigg, F., Cai, W., Liu, J., Zhu, X., Downey, J., Khalaf, R., Martin, J., Koshino, H., Zhang, W.<sup>†</sup> "Biosynthesis of isonitrile lipopeptides by conserved non-ribosomal peptide synthetase gene clusters in *Actinobacteria*" *PNAS* **2017**, 114, 7025-7030.
33. Herman, N., Li, J., Bedi, R., Turchi, B., Liu, X., Miller, M., Zhang, W.<sup>†</sup> "Development of a high-efficiency transformation method and implementation of rational metabolic engineering for the industrial butanol hyper-producer *Clostridium saccharoperbutylacetonicum* strain N1-4" *Appl. Environ. Microb.* **2017**, 83, e02942-16.
34. Herman, N., Zhang, W.<sup>†</sup> "Enzymes for fatty acid-based hydrocarbon biosynthesis" *Curr. Opin. Chem. Biol.* **2016**, 35, 22-28.
35. Zhu, X., Shieh, P., Su, M., Bertozzi, C., Zhang, W.<sup>†</sup> "A fluorogenic screening platform enables directed evolution of an alkyne biosynthetic tool" *ChemComm.*, **2016**, 52, 11239-11242.
36. Liu, J., Zhu, X., Kim, S., Zhang, W.<sup>†</sup> "Antimycin-type depsipeptides: discovery, biosynthesis, chemical synthesis, and bioactivities" *Nat. Prod. Rep.* **2016**, 33, 1146-1165.
37. Zhang, W.,<sup>†</sup> Liu, J. "Recent advances in understanding and engineering polyketide synthesis" *F1000 Faculty Rev.* **2016**, 5.
38. Rui, Z., Zhang, W.<sup>†</sup> "Engineering biosynthesis of non-ribosomal peptides and polyketides by directed evolution" *Curr. Top. Med. Chem.* **2016**, 16, 1755-1762.
39. Rui, Z., Harris, N. C., Zhu, X., Huang, W., Zhang, W.<sup>†</sup> "Discovery of a family of desaturase-like enzymes for 1-alkene biosynthesis." *ACS Catal.* **2015**, 5, 7091-7094.
40. Huang, W., Kim, S., Liu, J., Zhang, W.<sup>†</sup> "Identification of the polyketide biosynthetic machinery for the indolizidine alkaloid cyclizidine." *Org. Lett.* **2015**, 17, 5344-5347.
41. Liu, J., Zhu, X., Zhang, W.<sup>†</sup> "Identifying the minimal enzymes required for biosynthesis of epoxyketone proteasome inhibitors." *ChemBioChem.* **2015**, 16, 2585-2589.

42. Zhu, X., Su, M., Manickam, K., Zhang, W.<sup>†</sup> “Bacterial genome mining of enzymatic tools for alkyne biosynthesis” *ACS Chem. Biol.* **2015**, 10, 2785-2793.
43. Rui, Z., Huang, W., Xu, F., Han, M., Liu, X., Lin, S.,<sup>†</sup> Zhang, W.<sup>†</sup> “Sparsomycin biosynthesis highlights unusual module architecture and processing mechanism in non-ribosomal peptide synthetase” *ACS Chem. Biol.* **2015**, 10, 1765-1769.
44. Zhu, X., Zhang, W.<sup>†</sup> “Tagging polyketides/non-ribosomal peptides with a clickable functionality and applications” *Front. Chem.* **2015**, 3:11.
45. Zhu, X., Liu, J., Zhang, W.<sup>†</sup> “De novo biosynthesis of terminal alkyne-labeled natural products” *Nature Chem. Biol.* **2015**, 11, 115-120.
46. Liu, J., Zhu, X., Seipke, R., Zhang, W.<sup>†</sup> “Biosynthesis of antimycins with a reconstituted 3-formamidosalicylate pharmacophore in *Escherichia coli*” *ACS Synth. Biol.* **2015**, 4(5):559-565.
47. Rui, Z., Xin, Li., Zhu, X., Liu, J., Domigan, B., Barr, I., Cate, J., Zhang, W.<sup>†</sup> “Microbial biosynthesis of medium-chain 1-alkenes by a non-heme iron oxidase” *PNAS* **2014**, 111, 18237-18242.
48. Liu, J., Ng, T., Rui, Z., Ad, O., Zhang, W.<sup>†</sup> “Unusual acetylation-dependent reaction cascade in the biosynthesis of the pyrroloindole drug physostigmine” *Angew. Chem.* **2014**, 53, 136-139.
49. Sandy, M., Zhu, X., Rui, Z., Zhang, W.<sup>†</sup> “Characterization of AntB, a promiscuous acyltransferase involved in antimycin biosynthesis” *Org. Lett.* **2013**, 15, 3396-3399.
50. Rui, Z., Sandy, M., Jung, B., Zhang, W.<sup>†</sup> “Tandem enzymatic oxygenations in biosynthesis of epoxyquinone pharmacophore of manumycin-type metabolites” *Chem. Biol.* **2013**, 20, 879-887.
51. Sandy, M., Rui, Z., Gallagher, J., Zhang, W.<sup>†</sup> “Enzymatic synthesis of dilactone scaffold of antimycins” *ACS Chem. Biol.* **2012**, 7, 1956-1961.
52. Rui, Z., Ye, M., Wang, S., Fujikawa, K., Akerele, B., Aung, M., Floss, H., Zhang, W., Yu, T. “Insights into a divergent phenazine biosynthetic pathway governed by a plasmid-born esmeraldin gene cluster” *Chem. Biol.* **2012**, 19, 1116-1125.
53. Walsh, C. T.,<sup>†</sup> Zhang, W.<sup>†</sup> “Chemical logic and enzymatic machinery for biological assembly of peptidyl nucleoside antibiotics” *ACS Chem. Biol.* **2011**, 6, 1000-1007.
54. Ames, B. D., Lee, M. Y., Moody, C. L., Zhang, W., Tang, Y., Tsai, S. C. “Structural and biochemical characterization of Zhul aromatase/cyclase from the R1128 polyketide pathway” *Biochemistry* **2011**, 50, 8392-8406.
55. Zhang, W., Ntai, I., Kelleher, N. L., Walsh, C. T. “tRNA-dependent peptide bond formation by the transferase PacB in biosynthesis of the pacidamycin group of pentapeptidyl nucleoside antibiotics” *PNAS* **2011**, 108, 12249-12253.
56. Zhang, W., Ames, B. D., Walsh, C. T. “Identification of phenylalanine 3-hydroxylase for meta-tyrosine biosynthesis” *Biochemistry* **2011**, 50, 5401-5403.
57. Zhang, W., Ntai, I., Bolla, M. L., Malcolmson, S. J., Kahne, D., Kelleher, N. L., Walsh, C. T. “Nine enzymes are required for assembly of the pacidamycin group of peptidyl nucleoside antibiotics” *JACS* **2011**, 133, 5240-5243.
58. Qiao, K., Zhou, H., Xu, W., Zhang, W., Garg, N., Tang, Y. “A fungal nonribosomal peptide synthetase module that can synthesize thiopyrazines” *Org. Lett.* **2011**, 13, 1758-1761.
59. Zhang, W., Heemstra, J. R., Walsh, C. T., Imker, H. J. “Activation of the pacidamycin PacL adenylation domain by MbtH-like proteins” *Biochemistry* **2010**, 49, 9946-9947.
60. Zhang, W., Ostash, B., Walsh, C. T. “Identification of the biosynthetic gene cluster for the pacidamycin group of peptidyl nucleoside antibiotics” *PNAS* **2010**, 107, 16828-16833.
61. Zhang, W., Bolla, M. L., Kahne, D., Walsh, C. T. “A three enzyme pathway for 2-amino-3-hydroxycyclopent-2-enone formation and incorporation in natural product biosynthesis” *JACS* **2010**, 132, 6402-6411.
62. Yan, M., Du, J., Gu, Z., Liang, M., Hu, Y., Zhang, W., Priceman, S., Wu, L., Segura, T., Liu, Z., Tang, Y., Lu, Y. “A novel protein delivery platform based on single protein nanocapsules” *Nature Nanotech.* **2010**, 5, 48-53.



63. Zhang, W., Tang, Y. "In vitro Analysis of Type II PKS" *Methods in Enzymology: microbial natural product biosynthesis*, **2009**, 459, 367-393.
64. Gao, X., Xie, X., Pashkov, I., Sawaya, R. M., Laidmen, J., Zhang, W., Cacho, R., Yeates, T. O., Tang, Y. "Directed evolution and structural characterization of a simvastatin synthase" *Chem. Biol.* **2009**, 16, 1064-1074.
65. Wang, P.\*, Zhang, W.\*, Zhan, J., Tang, Y. "Identification of OxyE as an ancillary oxygenase during tetracycline biosynthesis" *ChemBioChem*, **2009**, 10, 1554-1550. (\*Equal contribution)
66. Zhang, W., Li, Y., Tang, Y. "Engineered biosynthesis of bacterial aromatic polyketides in *Escherichia coli*" *PNAS* **2008**, 105, 20683-20685.
67. Zhang, W., Watanabe, K., Cai, X., Jung, M. E., Tang, Y., Zhan, J. "Identifying the minimal enzymes required for anhydrotetracycline biosynthesis" *J. Am. Chem. Soc.* **2008**, 130, 6068-6069.
68. Ames, B., Korman, T., Zhang, W., Vu, T., Tang, Y., Tsai, S-C. "Crystal structure and functional analysis of tetracenomycin ARO/CYC: implication for cyclization specificity of aromatic polyketides" *PNAS* **2008**, 105, 5349-5354.
69. Zhang, W., Tang, Y. "Combinatorial biosynthesis of natural products" *J. Med. Chem.* **2008**, 51, 2629-2633.
70. Ma, S. M.\*, Zhan, J., Xie, X., Watanabe, K., Tang, Y., Zhang, W.\* "Redirecting the cyclization steps of fungal polyketide synthase" *J. Am. Chem. Soc.* **2007**, 130, 38-39. (\*Equal contribution)
71. Zhang, W., Wilke, B. I., Zhan, J., Watanabe, K., Boddy, C. N., Tang, Y. "A new mechanism for benzopyrone formation in aromatic polyketide biosynthesis" *J. Am. Chem. Soc.* **2007**, 129, 9304-9305.
72. Zhang, W., Watanabe, K., Wang, C. C. C., Tang, Y. "Investigation of early tailoring reactions in the oxytetracycline biosynthetic pathway" *J. Biol. Chem.* **2007**, 282, 25717-25725.
73. Ma, S. M., Zhan, J., Watanabe, K., Xie, X., Zhang, W., Wang, C. C. C., Tang, Y. "Enzymatic synthesis of aromatic polyketides using PKS4 from *Gibberella fujikuroi*" *JACS* **2007**, 129, 10642-10643.
74. Zhang, W., Watanabe, K., Wang, C. C. C., Tang, Y. "Heterologous biosynthesis of amidated polyketides with novel cyclization regioselectivity from oxytetracycline polyketide synthase" *J. Nat. Prod.* **2006**, 69, 1633-1636.
75. Zhang, W., Ames, B., Tsai, S-C., Tang, Y. "Engineered biosynthesis of a novel amidated polyketide, using the malonamyl-specific initiation module from the oxytetracycline polyketide synthase" *Appl. Environ. Microb.* **2006**, 72, 2573-2580.
76. Zhu, X., Zhang, W., Xiao, H., Huang, J., Li, G. "Electrochemical study of a hemin-DNA complex and its activity as a ligand binder" *Electrochim. Acta* **2008**, 53, 4407-4413.
77. Huang, Y., Zhang, W., Xiao, H., Li, G. "An electrochemical investigation of glucose oxidase at a US nanoparticles modified electrode" *Biosens. & Bioelectro.* **2005**, 21, 817-821.
78. Liu, X., Huang, Y., Zhang, W., Fan, G., Fan, C., Li, G. "Electrochemical investigation of redox thermodynamics of immobilized myoglobin: Ionic and ligation effects" *Langmuir* **2005**, 21, 375-378.
79. Zhang, W., Zhou, H., Li, G., Scheer, H. "An electrochemical study of hemoglobin in water-glycerol solutions" *Biophys. Chem.* **2004**, 111, 229-233.
80. Zhang, W., Huang, Y., Dai, H., Wang, X., Fan, C., Li, G. "Tuning the redox and enzymatic activity of glucose oxidase in layered organic films and its application in glucose biosensors" *Anal. Biochem.* **2004**, 329, 85-90.
81. Zhang, W., Li, G. "Third-generation biosensors based on the direct electron transfer of proteins" *Anal. Sci.* **2004**, 20, 603-609.
82. Liu, X., Zhang, W., Huang, Y., Li, G. "Enhanced electron-transfer reactivity of horseradish peroxidase in phosphatidylcholine films and its catalysis to nitric oxide" *J. Biotech.* **2004**, 108, 145-152.
83. Sun, Z., Ma, Z., Zhang, W., Wang, X., Fan, C., Li, G. "Electrochemical investigations of baicalin and DNA-baicalin interactions" *Anal. Bioanal. Chem.* **2004**, 379, 283-286.
84. Sun, Y., Liu, X., Fan, C., Zhang, W., Li, G. "Electrochemical investigation of the chloride effect on hemoglobin" *Bioelectrochemistry* **2004**, 64, 23-27.

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85. Zhang, W., Fan, C., Sun, Y., Li, G. "An electrochemical investigation of ligand-binding abilities of film-entrapped myoglobin" *Biochim. Biophys. Acta. Gen. Subj.* **2003**, 1623, 29-32.
86. Peng, W., Liu, X., Zhang, W., Li, G. "An electrochemical investigation of effect of ATP on hemoglobin" *Biophys. Chem.* **2003**, 106, 267-273.
87. Fan, C., Liu, J., Zhang, W., Suzuki, I., Li, G. "Enhanced electron-transfer reactivity of cytochrome b(5) by dimethylsulfoxide and N,N'-dimethylformamide" *Anal. Sci.* **2002**, 18, 1031-1033.

### **BOOK CHAPTERS**

1. Porterfield, W., Zhang, W. "Mutasythesis for Natural Product Bioengineering" In: *Comprehensive Natural Products III: Chemistry and Biology*. Eds Tadhg Begley and Ben Liu; Elsevier, **2020**.
2. Twigg, F., Skyrud, D., Li, J., Zhang, W. "Engineering Enzymes for Natural Product Biosynthesis and Diversification" In *Modern Biocatalysis: Advances Towards Synthetic Biological Systems*. eds G. Williams and M. Hall; Royal Society of Chemistry, **2018**.
3. Zhang, W., Ferreira, J. P., Tang, Y. "Regulation of Secondary Metabolism Biosynthesis" In: Smolke, C.D., ed. *The Metabolic Pathway Engineering Handbook: Tools and Applications*. CRC Press. **2009**.
4. Zhang, W., Tang, Y. "Engineering Starter Units in Aromatic Polyketides" In *ACS Volume Based on Polyketides: Biosynthesis, Biological Activity and Genetic Engineering*. eds S. R. Baerson; American Chemical Society, **2006**.

### **PATENTS**

1. Zhang, W., Rui, Z. "Biosynthesis of 1-undecene and related terminal olefins" US Patent US10,000,775, 2018.

### **SELECTED INVITED TALKS**

1. 4th International Conference on Natural Products Discovery and Development in the Genomic Era, San Diego, CA, January **2023**
2. Amine Biocatalysis 5.0, Groningen, The Netherlands, Nov **2022**
3. Department of Chemistry and Biochemistry, University of South Carolina, Columbia, SC, Oct **2022**
4. Bay Area Quantitative Biosciences Institute Chemical Biology Symposium, San Francisco, CA, Sep **2022**
5. Plenary Speaker, ASP Annual Meeting, American Society of Pharmacognosy, Charleston, SC, July **2022**
6. Keynote Speaker, Directing Biosynthesis VI, The Royal Society of Chemistry, Edinburgh, UK, June **2022**
7. Smith School of Chemical and Biomolecular Engineering, Cornell University, Ithaca, NY, April **2022** (virtual)
8. 2021-2022 Distinguished Women in Science (DWIS) seminars of the Chemistry department, Stanford University, Stanford, CA, February **2022**
9. Biosynthesis of Natural Products, Pacificchem, Honolulu, HI, December **2021** (online)
10. Chemical and Materials Engineering Department, San Jose State University, December **2021** (online)
11. 2021 AIChE Annual Meeting (15C Bioengineering Division), Boston, MA, November **2021**
12. E-seminar, EPFL, October **2021** (online)
13. 2021 Wutong Forum, The Chinese University of Hong Kong, Shenzhen, China, August **2021** (online)
14. 2021 SIMB Annual Meeting, Austin, TX, August **2021**
15. Keynote Speaker, Hong Kong Branch of Southern Marine Science and Engineering Guangdong Lab (Guangzhou) Online Seminar, July **2020**
16. 3rd International Conference on Natural Products Discovery and Development in the Genomic Era, San Diego, CA, January **2020**
17. Department of Chemistry, Texas A&M University, College Station, TX, October **2019**
18. 2019 SIMB Annual Meeting, Washington, DC, July **2019**

## Curriculum Vitae – WENJUN ZHANG

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19. 2nd Synthetic Biology for Natural Products conference, Puerto Vallarta, Mexico, June **2019**
20. 2019 Microbiology Society Annual Conference, Belfast Waterfront, UK, April **2019**
21. 257th ACS National Meeting (Division of Chemical Biology), Orlando, FL, April, **2019**
22. The Center for Theoretical Biological Physics (CTBP), Rice University, Houston, TX, March, **2019**
23. BioTechnology Institute, University of Minnesota, Minneapolis, MN, November, **2018**
24. International Forum on Natural Products, Beijing, China, August **2018**
25. 2018 SIMB Annual Meeting, Chicago, IL, August **2018**
26. Biological Sciences Department, University at Buffalo, Buffalo, NY, May **2018**
27. Scripps Institution of Oceanography, UCSD, San Diego, CA, February **2018**
28. 2nd International Conference on Natural Products Discovery, Clearwater, FL, January **2018**
29. ICBE Asia 2018: International Conference on Biomolecular Engineering, Singapore, January **2018**
30. South China Sea Institute of Oceanology, CAS, Guangzhou, China, January **2018**
31. 2017 GRC on Natural Products & Bioactive Compounds, Andover, NH, July **2017**
32. 2017 Microbial and Plant Systems Modulated by Secondary Metabolites, DOE Joint Genome Institute, Walnut Creek, CA, July **2017**
33. 9th US-Japan Seminar on the Biosynthesis of Natural Products, Los Angeles, CA, June **2017**
34. Department of Chemical Engineering, MIT, Cambridge, MA, April **2017**
35. Department of Chemical Engineering, Stanford University, Stanford, CA, November **2016**
36. Department of Chemical Engineering, Caltech, Pasadena, CA, November **2016**
37. Department of Chemical and Biological Engineering, RPI, Troy, NY, September **2016**
38. Department of Chemical Engineering, Cornell University, Ithaca, NY, September **2016**
39. Metabolic Engineering and Green Manufacturing Symposium, Beijing, China, July **2016**
40. Sino-USA Chinese Collaborative Workshop - Opportunities and Challenges in Synthetic Biology (SUCC SynBio), Guangzhou, China, July **2016**
41. DuPont Industrial Biosciences, Palo Alto, CA, May **2016**
42. 251th ACS National Meeting (BIOT), San Diego, CA, March **2016**
43. DOE Joint Genome Institute, Walnut Creek, CA, January **2016**
44. 2016 Gordon Research Conference in Metals in Biology, Ventura, CA, January **2016**
45. Cenovus Energy, Calgary, AB, Canada, November **2015**
46. Department of Chemical and Biomolecular Engineering, UIUC, IL, October **2015**
47. REG Life Sciences, LLC, South San Francisco, CA, April **2015**
48. 249th ACS National Meeting (Division of Organic Chemistry), Denver, CO, March **2015**
49. Department of Biological and Agricultural Engineering, UC Davis, Davis, CA, February **2015**
50. 5th International Conference on Biomolecular Engineering (ICBE), Lost Pines, TX, January **2015**
51. 8th Singapore International Chemistry Conference (SICC-8), Singapore, December **2014**
52. Biochemical Engineering Seminar, A\*STAR, Singapore, December **2014**
53. Department of Chemical and Biomolecular Engineering, UCLA, Los Angeles, CA, November **2014**
54. Department of Molecular Biology & Biochemistry, UC Irvine, Irvine, CA, November **2014**
55. Shanghai Institute of Organic Chemistry, CAS, Shanghai, China, September **2014**
56. Shanghai Jiaotong University, Shanghai, China, September **2014**
57. 248th ACS National Meeting (BIOL, Lilly Award Symposium), San Francisco, CA, August **2014**
58. 2014 SIMB Annual Meeting, St. Louis, MO, July **2014**
59. 2014 Beckman Young Investigator Program Last Phase Presentation, Irvine, CA, June **2014**
60. 247th ACS National Meeting (BIOL), Dallas, TX, March **2014**
61. Kuang Yaming Honors School, Nanjing University, Nanjing, China, May **2012**

### **SELECTED INSTITUTIONAL ADMINISTRATIVE RESPONSIBILITIES**

#### **Department:**

2011-2012	Candidacy Review Committee
2012-present	Preliminary examination committee

## Curriculum Vitae – WENJUN ZHANG

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2012-2015	Graduate Admissions/Recruitment Committee
2015-2017	Organizing/hosting CBE departmental colloquia
2017-2018	Faculty Search Committee
2018-present	Director of Biomolecular Engineering (Oversee the bio-curriculum. Facilitate the launch of the new bioprocessing master program)

### **Campus:**

2014,2016	SURF Rose Hills Experience fellowship campus selection committee
2017-2018	Faculty Search Committee for the Department of Bioengineering
2018-2019	Faculty search committee for MSE department
2018-present	Faculty mentor for the Fiat Lux Scholarship program
2019-2020	Co-Director, Agilent Technologies/UC Berkeley Synthetic Biology Institute

### **(SBI)**

2020-present	Co-Director, Berkeley/Agilent Biodesign Program (ABP)
2020	QB3 director search committee
2020-2021	Graduate Council (GC) Committee on Fellowships and Graduate Scholarships
2021	NIH FIRST/TIES Committee
2021-present	Bakar Labs Selection and Recruitment Committee
2021-present	Technical Committee of BioMADE (a DoD-funded biomanufacturing institute)
2021-2023	Admissions, Enrollment, and Preparatory Education (AEPE) Committee
2021-2023	Science at Cal Advisory Committee

## **COURSE DEVELOPMENT**

Biomolecular Engineering (274), Biochemical Engineering (170A, 170B), Biochemical Engineering Lab (170L), Berkeley Lectures on Energy: Energy from Biomass (195A), Chemical Engineering Thermodynamics (141)

## **TECHNICAL AND PROFESSIONAL SOCIETY MEMBERSHIPS**

American Chemical Society (ACS), American Institute of Chemical Engineers (AIChE), Society for Industrial Microbiology and Biotechnology (SIMB), American Society for Microbiology (ASM), American Association for the Advancement of Science (AAAS), Graduate Women in Science (GWIS)

## **EXTERNAL PROFESSIONAL SERVICE**

### **Conference Organizing**

11/2013 Session Chair for "Biobased Fuels and Chemicals III" AIChE Annual Meeting  
07/2014 Session Convener for "Novel enzyme mechanisms in biosynthesis" in the topic of natural products, SIMB Annual Meeting  
11/2015 Session Chair for "Biocatalysis and Biosynthesis II: Biofuels and Commodity Chemicals Applications", AIChE Annual Meeting  
03/2016 Chair for the session "Engineering Natural Products Biosynthesis" of the BIOT Upstream Processes symposium at the 251st ACS National Meeting & Exposition  
11/2016 Session Chair for "Advances in Biocatalysis and Biosynthesis", AIChE Annual Meeting  
01/2017 Session chair for the session "Novel synthetic biology tools and applications" at the 7th International Conference on Biomolecular Engineering in San Diego  
01/2018 organizing committee for the 2018 International Conference on Biomolecular Engineering (ICBE Asia 2018)  
08/2018 Session Convener for "Natural Products from Unusual Microorganisms" in the topic of natural products, SIMB Annual Meeting



## Curriculum Vitae – WENJUN ZHANG

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07/2019 Session Convener for "New Enzymology in Natural Product Biosynthesis" in the topic of natural products, SIMB Annual Meeting  
01/2020 International Program Committee and Session Convener for the 2020 3rd meeting of "Natural Products Discovery & Development in the Genomics Era"  
11/2020 Organizing committee for Bay Area Biotech sessions, AIChE Annual Meeting (canceled due to COVID)  
2020-2023 SIMB Natural Products Program Committee, SIMB Annual Meetings  
09/2021 International Program Committee for the 2023 4th meeting of "Natural Products Discovery & Development in the Genomics Era"

### Journal Editorial

01/2015 - 12/2015 Co-Guest Editor for Journal "*Current Topics in Medicinal Chemistry*"  
09/2015 - 12/2016 Co-Guest Editor for Journal "*Current Opinion in Chemical Biology*"  
12/2015 – present Editorial Board Member for the Journal "*Cell Chemical Biology*"  
11/2017 – present A member of the inaugural editorial board of "*iScience*"  
02/2018 - 02/2019 Co-Guest Editor for Journal "*Organic & Biomolecular Chemistry*"  
03/2018 – 12/2018 ACS Catalysis Early Career Advisory Board  
02/2019 – 12/2020 Co-Guest Editor for Journal "*iScience*" in collaboration with "*Trends in Biotechnology*"  
12/2019 – 12/2020 Co-Guest Editor for Journal "*The Journal of Industrial Microbiology and Biotechnology*" Special Issue on "Natural Product Discovery and Development in the Genomic Era"  
01/2022 – present ACS Catalysis Editorial Advisory Board

### Grant Review Panel

08/2011 NSF SBIR/STTR Phase I Renewable Fuels Panel  
01/2012 NSF SBIR/STTR Phase I Bio-based Chemicals Panel  
08/2013 NSF SBIR/STTR Phase I Biobased & Renewable Chemicals Panel  
03/2014 JGI Synthetic Biology CSP Review  
02/2016 NIH study section of Synthetic and Biological Chemistry B (SBCB)  
10/2016 NIH study section of Synthetic and Biological Chemistry B (SBCB)  
06/2017 NIH study section for SBIR and STTR grant applications in the broad area of Drug Discovery and Development (BCMB-10)  
03/2019 Semi-annual CSP DNA Synthesis Science Review panel  
06/2019 NIH study section for SBIR and STTR grant applications in the broad area of Drug Discovery and Development (BCMB-10)  
09/2019 NIH NCCIH the Natural Products NMR Open Data Exchange (NP-NODE; U24, ZAT1 AJT (11)) and Center for Natural Product Technology, Methodology, and Productivity Optimization (NP-TEMPO, U41, ZAT1 AJT (13))  
11/2019 NIH study section: IMST (10) Small Business: Biological Chemistry, Biophysics and Assay Development  
07/2020 NIH study section: IMST (10) Small Business: Biological Chemistry, Biophysics and Assay Development  
11/2020 JM(11) NCCIH Training and Education Review Panel  
02/2021 ZAT1 PS(02) NCCIH Training and Education Review Panel and ZAT1 PS(01) Pilot Projects Increasing the Impact of the NIH Centers for Advancing Research on Botanicals and Other Natural Products  
05/2021 DOE "Systems Biology of Bioenergy-Relevant Microbes to Enable Production of Next-Generation Biofuels and Bioproducts"  
11/2021 NIH study section for SBIR and STTR grant applications in the broad area of Drug Discovery and Development (BCMB-10)  
03/2022 NIH Study section for ESI MIRA (202205 ZRG1 BCMB B55)

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06/2022 ZAT1 PS(10) NCCIH Training and Education Review Panel  
11/2022 NIH study section of Drug Discovery and Mechanisms of Antimicrobial Resistance (DDR)

### Grant Proposals Review

03/2014 NSF Electronic Proposal Review for the Chemistry of Life Processes program in the Chemistry Division  
05/2014 UK Biotechnology and Biological Sciences Research Council  
06/2014 French National Research Agency (Biomedical innovation)  
08/2014 French Aix-Marseille excellence initiative A\*MIDEX  
03/2016 Kentucky Science and Engineering Foundation R&D Excellence Award  
03/2018 Sir Henry Dale Fellowship at Wellcome Trust, United Kingdom  
09/2018 Marsden Fund, Royal Society Te Apārangi, New Zealand  
09/2020 Cottrell Scholar Award (CSA), Research Corporation for Science Advancement (RCSA)  
05/2021 ARPA-E OPEN 2021 Concept Paper  
03/2022 NSF Electronic Proposal Review for CLP

### Peer Reviewer for Journals

*Science, Nature Chemical Biology, Nature Communications, Nature Microbiology, Nature Catalysis, PNAS, Journal of the American Chemical Society, Angewandte Chemie, eLife, Chemical Science, Nature Reviews Materials, Chemical Reviews, Accounts of Chemical Research, ACS Chemical Biology, ACS Catalysis, ACS Synthetic Biology, ACS Central Science, Natural Product Reports, Advanced Synthesis & Catalysis, Organic Letters, Chemistry & Biology, Scientific Reports, ChemComm, Microbial Cell Factories, Bioresource Technology, ChemBioChem, Metabolic Engineering, Applied and Environmental Microbiology, PLOS Biology, Critical Reviews In Biochemistry & Molecular Biology, mSystems, BBA-Proteins and Proteomics, Medicinal Chemistry Communications, Applied Biochemistry and Biotechnology, Biochemical Engineering Journal, Chemical Engineering Science, Journal of Natural Products, Journal of Antibiotics, Current Opinion in Systems Biology, AIChE Journal, Current Microbiology, Marine Biotechnology, International Journal of Molecular Sciences, Journal of Biotechnology, Natural Product Research, Recent Patents on CNS Drug Discovery*

## **RESEARCH SUPPORT**

### **Ongoing**

2022-2025 Bakar Fellows Program Spark Award, *Molecular Interaction Detector In Vivo: A Platform for Natural Product Drug Candidate and Target Discovery*. PI: Wenjun Zhang. Total: \$225,000.

07/01/2020 - 06/30/2024 NIH/NIGMS (1R01GM136758), *Biosynthesis of Unusual Bio-Orthogonal Functionalities in Natural Products*. PI: Wenjun Zhang. Total: \$1,495,196.

### **Completed**

09/21/2020 - 08/31/2022 NIH/NCCIH (4DP2AT009148-02), *In situ Natural Product Labeling and Applications*. PI: Wenjun Zhang. Total: \$477,000.

03/06/2020 – 12/31/2022 Hong Kong University of Science and Technology (047952), *New Bioactive Diterpenoid Production via Marine Microbial Factories*. PI: Wenjun Zhang. Total: \$154,435.

01/01/2020 – 12/31/2021 Agilent Technologies (048594), *High-Throughput FRET Measurements to Accelerate Drug Development*. PI: Wenjun Zhang. Total: \$98,000.

## Curriculum Vitae – WENJUN ZHANG

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11/01/2018 - 11/30/2019 Quadriga Biosciences, Inc. (046077), *Engineered Biosynthesis of Brasilicardin and Related Analogs*. PI: Wenjun Zhang. Total: \$69,878.

07/01/2017 - 12/31/2022 American Cancer Society (130381-RSG-17-013-01-CDD), *Antimycin-Type Anti-Cancer Drug Development: Go Beyond Natural Evolution*. PI: Wenjun Zhang. Total: \$792,000.

04/2017 - 06/2018 Chau Hoi Shuen Foundation Women in Science Program New Research Grant. *Discovery of Novel Bioactive Natural Products from Streptomyces albus*. PI: Wenjun Zhang. Total: \$50,000.

03/01/2017 – 02/28/2022 Chan Zuckerberg Biohub Investigator Award. PI: Wenjun Zhang. Total: \$750,000.

09/15/2016 - 09/14/2020 Alfred P. Sloan Foundation (FG-2016-6355). *Sloan Research Fellowship for Wenjun Zhang*. PI: Wenjun Zhang. Total: \$55,000.

03/11/2016 - 07/31/2019 GlaxoSmithKline (3000029436), *Discovery and Characterization of Enzyme Libraries for the Demonstration and Optimization of Pathways to GSK Chemical Intermediate and Targets of Interest*. PI: Wenjun Zhang and Others. Total: \$1,810,954. Funding Awarded to Zhang: \$497,592.

09/30/2015 - 06/30/2020 NIH/NCCIH (DP2AT009148), *In situ Natural Product Labeling and Applications*. PI: Wenjun Zhang. Total: \$2,360,010.

05/2015 – 06/2016 Hellman Foundation, *Biosynthesis of Tagged Natural Products and Their Applications*. PI: Wenjun Zhang. Total: \$40,000.

01/2014 - 05/2017 Energy Biosciences Institute, *Improving Clostridial Fermentation Performance by Signaling Molecules*. PI: Wenjun Zhang. Total: \$723,000.

07/2013 - 06/2014 UC CRCC Cancer Research Coordinating Committee, *Engineered Biosynthesis of Antimycin-Type Anticancer Drugs*. PI: Wenjun Zhang. Total: \$55,000.

08/01/2012 - 07/31/2017 Pew Charitable Trusts (00002922), *Unveiling Hidden Signaling Molecules in Pathogenic Bacteria*. PI: Wenjun Zhang. Total: \$240,000.

07/2011 - 05/2017 Energy Biosciences Institute, *Microbial Production of 1-Undecene and Related Fuel-like Molecules*. PI: Wenjun Zhang. Total: \$1,016,000.

### **POSTDOCTORAL MENTORING**

07/2011 - 05/2015 Zhe Rui (Senior Scientist at Codexis)

10/2011 - 05/2013 Moriah Sandy (Quantitative Metabolite Analysis Center (QMAC) Director at UCSF)

06/2013 - 05/2016 Wei Huang (Assistant Professor at Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences)

08/2014 - 07/2015 Michio Sato (Assistant Professor at University of Shizuoka, Japan)

11/2014 - 10/2016 Seong-Jong Kim (Research Chemist, US Department of Agriculture (USDA) Agricultural Research Service (ARS) Natural Products Utilization)

11/2016 – 09/2020 Wenlong Cai (Scientist at Zymergen)

## Curriculum Vitae – WENJUN ZHANG

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07/2017 – 12/2019 William Porterfield (Scientist at Forna BioSolutions)  
09/2017 – 09/2019 Yaobing Huang (Associate Professor at North China Electric Power University, China)  
04/2018 – 01/2020 Juan Wang (Lecturer, Beijing University of Chinese Medicine, China)  
05/2019 – 06/2021 Zhijuan Hu (Assistant researcher, Westlake University, China)  
07/2019 – 05/2022 Yongle Du (Scientist at Amgen)  
03/2021 – present Rui Zhai  
10/2021 – present Kaimin Jia  
08/2022 – present Haoran Pang  
01/2023 – present Yoo-Sung Ko

### **GRADUATE STUDENT MENTORING**

2011 - 2013 Bonnie Domigan (MS, Chemical Engineering, Senior Process Development Engineer at Vedanta Biosciences)  
2011 - 2016 Joyce Liu (PhD, Bioengineering, Scientist at Codexis)  
2012 - 2017 Xuejun Zhu (PhD, Chemical Engineering, Assistant Professor at Texas A&M)  
2012 - 2017 Nicolaus Herman (PhD, Chemical Engineering, Senior Scientist at Geltor)  
2014 - 2019 Michael Su (PhD, Chemical Engineering, Bioanalytical Chemist at Hongene Biotech)  
2014 - 2019 Nick Harris (PhD, Microbiology, Co-Founder of Berkeley Yeast)  
2015 – 2020 David Will Skyrud (PhD, Chemistry, Scientist at Arzeda)  
2015 - 2020 Jeremy Seidel (PhD, Chemical Engineering, Scientist at Cana Technology )  
2015 - 2020 Frederick Twigg (PhD, Chemical Engineering, Senior Scientist at Boehringer Ingelheim)  
2015 - 2020 Jeffrey Li (PhD, Chemical Engineering, Scientist at C16 Biosciences)  
2017 – 2022 Nick Zill (PhD, Chemical Engineering, Senior Scientist at Merck)  
2017 – 2022 Colin Barber (PhD, Microbiology, Boston Consulting Group)  
2017 – 2019 Zhongrui Li (MS, Chemical Engineering, PhD candidate at Scripps)  
2018 - present Antonio Del Rio Flores (PhD candidate, Chemical Engineering)  
2019 - present Di Gu (PhD candidate, Chemistry)  
2021 – present McKenna Loop (PhD candidate, Chemical Engineering)  
2021 – present Dunya Al Marzooqi (PhD candidate, Chemical Engineering)  
2023 – present Justin Baerwald (PhD candidate, Chemical Engineering, Co-advised with Jay Keasling, Ph.D.)

### **VISITING SCHOLAR MENTORING**

06/2012 - 05/2013 Liang (Jack) Zhang  
09/2015 - 12/2016 Ella Zafrir (Senior Research Scientist at Gilead Sciences)  
03/2016 - 10/2017 Juan Zhang (Associate Professor, Shanghai University)  
04/2016 - 03/2017 Junying Ma (Associate Professor, South China Sea Institute of Oceanology, Chinese Academy of Sciences)  
11/2019 – 12/2020 Chaoxiang Ren (PhD candidate at Chengdu University of Traditional Chinese Medicine, China)

### **UNDERGRADUATE STUDENT MENTORING**

01/2022 - present Jenna Kira (Chemical Engineering)  
01/2023 – present Nicholas Do (Chemical Engineering)  
08/2022 – present Kyle De Matias (Chemical Engineering)  
08/2022 – present Kaushik Seshadri (Chemical Engineering)  
06/2022 – present Lina Wang (Chemical Biology)

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08/2022 – present Bailey Daymo (Chemical Engineering)  
10/2022 – present Kiki Wang (Chemistry)  
10/2021 - present Siyue Yang (Chemical Biology)  
08/2021 - present Dennis Xue (Chemical Engineering)  
05/2021 – present Yuanbo Shen (Chemical Biology; 2021 CoC Summer Research Fellow)  
06/2022 – 01/2023 Eloise Liu (Chemical Engineering)  
06/2022 – 01/2023 Yuxin Xie (Chemical Biology)  
08/2021 – 05/2022 Breanna Yang (Chemical Engineering)  
08/2021 – 01/2023 Ashley Maritato (Chemical Engineering)  
08/2021 – 05/2022 Luisa B. Dell (Chemical Engineering; 2022 MIT Summer Research Program)  
08/2019 – 05/2022 Maanasa Narayanamoorthy (Chemical Biology; 2020, 2021 CoC Summer Research Fellow, PhD student at Northwestern University)  
08/2021 – 05/2021 Julie Kim (Chemical Biology)x  
07/2019 – 03/2020 Trinity Ho (Chemical Engineering; Lab Assistant)  
06/2019 - 12/2019 Yuan Wu (Nanjing University Chemistry; ZhengGang Fellow)  
06/2019 - 08/2019 Daniel Aguirre, New Mexico State University Chemical Engineering; Amgen Scholar)  
06/2019 – 03/2020 Joyce Guo (Chemical Engineering)  
03/2019 - 06/2019 Jeeyoung Park (Chemical Biology)  
03/2019 – 03/2020 Jonathan Su (Chemical Engineering)  
01/2019 - 03/2020 Grace Li (Chemical Engineering)  
01/2019 – 03/2020 Julie Kong (Chemical Engineering)  
09/2018 – 12/2019 Nannalin Poenateetai (Chemical Biology)  
08/2018 – 03/2020 Samantha Marinkovich (Chemical Engineering; Process engineer at Amyris)  
07/2018 - 09/2018 Di Gu (Nanjing University Chemistry; ZhengGang Fellow)  
05/2018 - 03/2020 Rohin Devanathan (Chemical Engineering, Honors Thesis; PhD student at Northwestern)  
05/2018 - 12/2018 Ismael Montanez (Chemical Biology)  
02/2018 - 06/2018 Xin (Ted) Gao (Nanjing University; ZhangGang Fellow; PhD student at Columbia)  
01/2018 - 03/2020 Moriel Dror (Chemical Engineering, Honors Thesis)  
01/2018 - 03/2020 Richard Law (Chemical Engineering, Honors Thesis)  
01/2018 - 05/2019 Li Cao (Chemical Engineering; PhD student at Princeton with NSF GRFP)  
01/2018 - 01/2019 Sarah Lee (Chemical Biology; Research Associate at Lygos)  
01/2018 - 12/2018 Allison Green (Chemical Engineering; PhD student at UT Austin)  
12/2017 - 07/2018 Patrick Negulescu (Chemical Engineering)  
09/2017 - 05/2019 Samuel Ng (Chemical Engineering)  
08/2017 – 05/2019 Joy Geng (PMB; Honor's Thesis Advisor; DDS at the UCSF School of Dentistry)  
05/2017 – 08/2017 Brianna Lax (University of Michigan Chemical Engineering; Amgen Scholar)  
05/2017 – 05/2018 Tynan Perez (Chemical Biology; Cooke Foundation's Summer Internship Fellow; Senior Thesis Advisor; Head of Chemical Sciences at Mekonos)  
05/2017 - 12/2018 Santi Battarai-Kline (Chemical Biology; Senior Thesis Advisor; Research Associate/Lab Manager at Gladstone Institute)  
03/2017 – 12/2018 Alex Leung (Materials Science/Bioengineering)  
02/2017 – 01/2019 Tate Tong (Chemical Engineering)  
01/2017 – 05/2018 Maria Cabrera (Molecular and Cell Biology; SMART; Honor's Thesis Advisor; Research Technician at Caltech)  
01/2017 – 05/2017 Theodore Sun (Chemical Engineering)  
08/2016 – 12/2017 Keqin (Katherine) Zhou (Chemical Engineering; COC Summer Research Fellow; MS student at UPenn)



## Curriculum Vitae – WENJUN ZHANG

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01/2016 – 05/2018 Ryan Khalaf (Chemical Biology; MD student at the Case Western Reserve School of Medicine)  
01/2016 – 05/2018 Joelle Martin (Chemical Biology; COC Summer Research Fellow; Pharmaceutical Development Internship at Genentech)  
04/2016 - 05/2017 Amy Li (Chemical Engineering)  
08/2016 - 05/2017 Frank Gao (Chemistry)  
06/2016 - 05/2017 Jordan Downey (Chemical Engineering BS 2017; Bioprocess Manufacturing Technician at Genentech)  
10/2015 - 05/2017 Emily Sun (Chemical Engineering; PhD student at UC Santa Barbara)  
01/2015 - 01/2016 Kadhivel Manickam (Bioengineering; Software Engineer at Allevi)  
06/2015 - 12/2015 Dylan Mendonca (Chemical Engineering; Research Associate at JUUL Labs)  
05/2015 - 08/2015 Vinh Tran (Chemical Engineering; PhD student at UIUC)  
10/2014 - 05/2016 Phoebe Yeh (Chemical Engineering BS 2016; Amyris)  
08/2013 - 08/2015 Ripika Bedi (Chemical Biology BS 2015; SMART; Medical student at Touro University College of Osteopathic Medicine)  
05/2014 - 10/2014 Yongsheng Li (Chemical Engineering & Computer Science)  
06/2014 - 08/2014 Haedyn Christie (UCSC; BERET 2013)  
06/2014 - 08/2014 Joel Sanchez (UC Riverside Chemical Engineering; Amgen Scholar; PhD student at Stanford University)  
09/2013 - 05/2014 Jin Soo Chung (Chemical Engineering BS; Samsung BioLogics)  
09/2013 - 05/2014 Rajandeep Brayana (Chemical Engineering)  
07/2013 - 05/2014 Wenyan Bao (Chemistry)  
09/2012 - 05/2014 Tai Lun Ng (Chemistry & Bioengineering BS 2014; SURF/ROSEHILL Fellow; PhD student at Harvard University)  
11/2012 - 09/2013 Esther Kemper (Chemical Biology BS 2015; PhD student at Scripps Research Institute)  
01/2013 - 06/2013 Emil Olsson (Chemical Engineering Exchange student 2013; Haldor Topsoe A/S)  
06/2012 - 12/2012 Ziyang Feng (Chemical Biology BS 2012; MS student at Columbia University)  
06/2012 - 12/2012 Zihao (Peter) Yan (Chemical Engineering BS 2014; MS student at University of Pittsburgh)  
07/2011 - 12/2012 Tiffany Hwang (Chemical Engineering BS 2013; USC School of Pharmacy)  
07/2011 - 08/2012 Brian Jung (Chemical Engineering BS 2012; Fluor)  
06/2012 - 08/2012 Shyh-Herng (James) Lo (TTE-REU 2012)  
01/2012 - 05/2012 Himani Nadgauda (Chemical Engineering BS 2013; University of Illinois at Chicago)  
09/2011 - 05/2012 Vincent Yeh (Chemical Engineering BS 2013; Stryker Neurovascular)  
09/2011 - 12/2011 Scott Ahn (Chemical Engineering BS 2012; Fluor)

### **SELECTED OUTREACH ACTIVITIES**

Mentored community college student from Transfer-to-Excellence (TTE) Summer Research Program, teacher pairs consisting of a veteran teacher and a UC undergraduate from the BERET (Berkeley Engineering Research Experiences for Teachers) program, high school students from the Summer Youth Intensive Program (SYIP), undergraduates from the Amgen Scholars Program; Bioengineering High School Competition (BioEHSC) faculty judge, etc.