

# Tiangang Liu

## List of Publications by Year in descending order

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74  
papers

3,401  
citations

136950

32  
h-index

149698

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g-index

79  
all docs

79  
docs citations

79  
times ranked

3494  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Lipid engineering combined with systematic metabolic engineering of <i>Saccharomyces cerevisiae</i> for high-yield production of lycopene. <i>Metabolic Engineering</i> , 2019, 52, 134-142.                                 | 7.0  | 251       |
| 2  | Quantitative analysis and engineering of fatty acid biosynthesis in <i>E. coli</i> . <i>Metabolic Engineering</i> , 2010, 12, 378-386.   | 7.0  | 198       |
| 3  | In vitro reconstitution of mevalonate pathway and targeted engineering of farnesene overproduction in <i>Escherichia coli</i> . <i>Biotechnology and Bioengineering</i> , 2014, 111, 1396-1405.                              | 3.3  | 182       |
| 4  | Nanopore Targeted Sequencing for the Accurate and Comprehensive Detection of SARS-CoV-2 and Other Respiratory Viruses. <i>Small</i> , 2020, 16, e2002169.  | 10.0 | 169       |
| 5  | Modular enzyme assembly for enhanced cascade biocatalysis and metabolic flux. <i>Nature Communications</i> , 2019, 10, 4248.   | 12.8 | 158       |
| 6  | In vitro reconstitution and steady-state analysis of the fatty acid synthase from <i>Escherichia coli</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 18643-18648. | 7.1  | 152       |
| 7  | Genetic Engineering of <i>Escherichia coli</i> for Biofuel Production. <i>Annual Review of Genetics</i> , 2010, 44, 53-69.   | 7.6  | 119       |
| 8  | <i>Streptomyces</i> species: Ideal chassis for natural product discovery and overproduction. <i>Metabolic Engineering</i> , 2018, 50, 74-84.   | 7.0  | 102       |
| 9  | Strategies for terpenoid overproduction and new terpenoid discovery. <i>Current Opinion in Biotechnology</i> , 2017, 48, 234-241.  | 6.6  | 99        |
| 10 | Metabolic engineering of fatty acyl-ACP reductase-dependent pathway to improve fatty alcohol production in <i>Escherichia coli</i> . <i>Metabolic Engineering</i> , 2014, 22, 10-21.   | 7.0  | 95        |
| 11 | Releasing the potential power of terpene synthases by a robust precursor supply platform. <i>Metabolic Engineering</i> , 2017, 42, 1-8.  | 7.0  | 93        |
| 12 | Overproduction of fatty acids in engineered <i>Saccharomyces cerevisiae</i> . <i>Biotechnology and Bioengineering</i> , 2014, 111, 1841-1852.  | 3.3  | 82        |
| 13 | Systematic Metabolic Engineering of <i>Saccharomyces cerevisiae</i> for Lycopene Overproduction. <i>Journal of Agricultural and Food Chemistry</i> , 2019, 67, 11148-11157.  | 5.2  | 79        |
| 14 | Discovery of non-squalene triterpenes. <i>Nature</i> , 2022, 606, 414-419.   | 27.8 | 71        |
| 15 | Heterologous Biosynthesis of Spinosad: An Omics-Guided Large Polyketide Synthase Gene Cluster Reconstitution in <i>Streptomyces</i> . <i>ACS Synthetic Biology</i> , 2017, 6, 995-1005.                                      | 3.8  | 70        |
| 16 | Engineering an iterative polyketide pathway in <i>Escherichia coli</i> results in single-form alkene and alkane overproduction. <i>Metabolic Engineering</i> , 2015, 28, 82-90.  | 7.0  | 68        |
| 17 | Targeted engineering and scale up of lycopene overproduction in <i>Escherichia coli</i> . <i>Process Biochemistry</i> , 2015, 50, 341-346.   | 3.7  | 67        |
| 18 | Synthetic Multienzyme Complexes, Catalytic Nanomachineries for Cascade Biosynthesis <i>In Vivo</i> . <i>ACS Nano</i> , 2019, 13, 9895-9906.  | 14.6 | 65        |

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|----|--|------|-----------|
| 19 | Identification of NanE as the Thioesterase for Polyether Chain Release in Nanchangmycin Biosynthesis. <i>Chemistry and Biology</i> , 2006, 13, 945-955.  | 6.0  | 58        |
| 20 | A Clade II $\Delta^8$ Fungal Chimeric Diterpene Synthase from <i>Colletotrichum gloeosporioides</i> Produces Dolastane (15),8-diene. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 15887-15890.   | 13.8 | 57        |
| 21 | Genome mining of astaxanthin biosynthetic genes from <i>Sphingomonas</i> sp. ATCC 55669 for heterologous overproduction in <i>Escherichia coli</i> . <i>Biotechnology Journal</i> , 2016, 11, 228-237.           | 3.5  | 56        |
| 22 | Rational synthetic pathway refactoring of natural products biosynthesis in actinobacteria. <i>Metabolic Engineering</i> , 2017, 39, 228-236.   | 7.0  | 56        |
| 23 | Metabolic engineering of <i>Escherichia coli</i> for production of fatty acid short-chain esters through combination of the fatty acid and 2-keto acid pathways. <i>Metabolic Engineering</i> , 2014, 22, 69-75. | 7.0  | 55        |
| 24 | Synthesis and biological evaluation of salinomycin triazole analogues as anticancer agents. <i>European Journal of Medicinal Chemistry</i> , 2017, 127, 900-908.   | 5.5  | 51        |
| 25 | Promising methods for detection of novel coronavirus SARS-CoV-2. <i>View</i> , 2020, 1, e4.  | 5.3  | 47        |
| 26 | Metabolic engineering of microbes for branched-chain biodiesel production with low-temperature property. <i>Biotechnology for Biofuels</i> , 2015, 8, 92.  | 6.2  | 45        |
| 27 | $3\beta$ -Hydroxysteroid dehydrogenase expressed by gut microbes degrades testosterone and is linked to depression in males. <i>Cell Host and Microbe</i> , 2022, 30, 329-339.e5.                                | 11.0 | 45        |
| 28 | Mechanism of Thioesterase-Catalyzed Chain Release in the Biosynthesis of the Polyether Antibiotic Nanchangmycin. <i>Chemistry and Biology</i> , 2008, 15, 449-458.   | 6.0  | 44        |
| 29 | Production of taxadiene by engineering of mevalonate pathway in <i>Escherichia coli</i> and endophytic fungus <i>Alternaria alternata</i> TPF6. <i>Biotechnology Journal</i> , 2017, 12, 1600697.                | 3.5  | 39        |
| 30 | Microbial production strategies and applications of lycopene and other terpenoids. <i>World Journal of Microbiology and Biotechnology</i> , 2016, 32, 15.  | 3.6  | 37        |
| 31 | <i>In Vitro</i> Reconstitution and Optimization of the Entire Pathway to Convert Glucose into Fatty Acid. <i>ACS Synthetic Biology</i> , 2017, 6, 701-709.   | 3.8  | 37        |
| 32 | Development of <i>Streptomyces</i> sp. FR-008 as an emerging chassis. <i>Synthetic and Systems Biotechnology</i> , 2016, 1, 207-214.   | 3.7  | 36        |
| 33 | Semisynthesis of Plant-Derived Englerin A Enabled by Microbe Engineering of Guaia-6,10(14)-diene as Building Block. <i>Journal of the American Chemical Society</i> , 2020, 142, 2760-2765.                      | 13.7 | 36        |
| 34 | Chapter 9 The Enzymology of Polyether Biosynthesis. <i>Methods in Enzymology</i> , 2009, 459, 187-214.   | 1.0  | 33        |
| 35 | A Cell-Free Platform Based on Nisin Biosynthesis for Discovering Novel Lanthipeptides and Guiding their Overproduction <i>In Vivo</i> . <i>Advanced Science</i> , 2020, 7, 2001616.                              | 11.2 | 33        |
| 36 | Efficient exploration of terpenoid biosynthetic gene clusters in filamentous fungi. <i>Nature Catalysis</i> , 2022, 5, 277-287.  | 34.4 | 33        |

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|----|--|------|-----------|
| 37 | Structure-guided reshaping of the acyl binding pocket of $\epsilon$ -TesA thioesterase enhances octanoic acid production in <i>E. coli</i> . <i>Metabolic Engineering</i> , 2020, 61, 24-32.   | 7.0  | 31        |
| 38 | Strategies for Enhancing the Yield of the Potent Insecticide Spinosad in Actinomycetes. <i>Biotechnology Journal</i> , 2019, 14, e1700769.   | 3.5  | 30        |
| 39 | Metabolic Engineering-Based Rapid Characterization of a Sesquiterpene Cyclase and the Skeletons of Fusariumdiene and Fusagramineol from <i>Fusarium graminearum</i> . <i>Organic Letters</i> , 2018, 20, 1626-1629.  | 4.6  | 27        |
| 40 | Qualitative analysis of chemical components in Lianhua Qingwen capsule by HPLC-Q Exactive-Orbitrap-MS coupled with GC-MS. <i>Journal of Pharmaceutical Analysis</i> , 2021, 11, 709-716.   | 5.3  | 24        |
| 41 | Systematic identification of <i>Ocimum sanctum</i> sesquiterpenoid synthases and ( $\alpha^7$ )-eremophilene overproduction in engineered yeast. <i>Metabolic Engineering</i> , 2022, 69, 122-133.   | 7.0  | 24        |
| 42 | Production of acrylic acid and propionic acid by constructing a portion of the 3-hydroxypropionate/4-hydroxybutyrate cycle from <i>Metallosphaera sedula</i> in <i>Escherichia coli</i> . <i>Journal of Industrial Microbiology and Biotechnology</i> , 2016, 43, 1659-1670. | 3.0  | 23        |
| 43 | Systematic mining of fungal chimeric terpene synthases using an efficient precursor-providing yeast chassis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .   | 7.1  | 23        |
| 44 | Enhancing the efficiency of cell-free protein synthesis system by systematic titration of transcription and translation components. <i>Biochemical Engineering Journal</i> , 2018, 138, 47-53.   | 3.6  | 22        |
| 45 | Discovery of the cryptic function of terpene cyclases as aromatic prenyltransferases. <i>Nature Communications</i> , 2020, 11, 3958.   | 12.8 | 22        |
| 46 | Coupling cell growth and biochemical pathway induction in <i>Saccharomyces cerevisiae</i> for production of (+)-valencene and its chemical conversion to (+)-nootkatone. <i>Metabolic Engineering</i> , 2022, 72, 107-115.   | 7.0  | 22        |
| 47 | A Balancing Act for Taxol Precursor Pathways in <i>E. coli</i> . <i>Science</i> , 2010, 330, 44-45.  | 12.6 | 17        |
| 48 | In vitro reconstitution guide for targeted synthetic metabolism of chemicals, nutraceuticals and drug precursors. <i>Synthetic and Systems Biotechnology</i> , 2016, 1, 25-33.   | 3.7  | 15        |
| 49 | Eine chimäre pilzliche Diterpensynthase der Klade II aus <i>Colletotrichum gloeosporioides</i> produziert Dolastan (15), 8-dien. <i>Angewandte Chemie</i> , 2018, 130, 16113-16117.  | 2.0  | 15        |
| 50 | Harnessing in vitro platforms for natural product research: in vitro driven rational engineering and mining (iDREAM). <i>Current Opinion in Biotechnology</i> , 2021, 69, 1-9.   | 6.6  | 15        |
| 51 | Comparative studies of glycolytic pathways and channeling under <i>in vitro</i> and <i>in vivo</i> modes. <i>AIChE Journal</i> , 2019, 65, 483-490.  | 3.6  | 14        |
| 52 | Genome mining in <i>Trichoderma viride</i> J1-030: discovery and identification of novel sesquiterpene synthase and its products. <i>Beilstein Journal of Organic Chemistry</i> , 2019, 15, 2052-2058.   | 2.2  | 13        |
| 53 | A Family of Related Fungal and Bacterial Diene and Sesterterpenes: Studies on Fusaterpenol and Variediene. <i>ChemBioChem</i> , 2020, 21, 486-491.   | 2.6  | 13        |
| 54 | Changes in phospholipid metabolism in exosomes of hormone-sensitive and hormone-resistant prostate cancer cells. <i>Journal of Cancer</i> , 2021, 12, 2893-2902.   | 2.5  | 13        |

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|----|---|------|-----------|
| 55 | Revolution of vitamin E production by starting from microbial fermented farnesene to isophytol. <i>Innovation(China)</i> , 2022, 3, 100228.   | 9.1  | 13        |
| 56 | Auxiliary Module Promotes the Synthesis of Carboxysomes in <i>E. coli</i> to Achieve High-Efficiency CO <sub>2</sub> Assimilation. <i>ACS Synthetic Biology</i> , 2021, 10, 707-715.  | 3.8  | 12        |
| 57 | Aglycone Polyether Nanchangmycin and Its Homologues Exhibit Apoptotic and Antiproliferative Activities against Cancer Stem Cells. <i>ACS Pharmacology and Translational Science</i> , 2018, 1, 84-95.   | 4.9  | 10        |
| 58 | Absolute quantification of proteins in the fatty acid biosynthetic pathway using protein standard absolute quantification. <i>Synthetic and Systems Biotechnology</i> , 2016, 1, 150-157.   | 3.7  | 9         |
| 59 | Sesquiterpenoids Produced by Combining Two Sesquiterpene Cyclases with Promiscuous Myxobacterial CYP260B1. <i>ChemBioChem</i> , 2019, 20, 677-682.  | 2.6  | 9         |
| 60 | Genomics-driven discovery of the biosynthetic gene cluster of maduramicin and its overproduction in <i>Actinomadura</i> sp. J1-007. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2020, 47, 275-285.                                      | 3.0  | 9         |
| 61 | Increasing the heterologous production of spinosad in <i>Streptomyces albus</i> J1074 by regulating biosynthesis of its polyketide skeleton. <i>Synthetic and Systems Biotechnology</i> , 2021, 6, 292-301.   | 3.7  | 8         |
| 62 | Evaluation of 3-hydroxypropionate biosynthesis in vitro by partial introduction of the 3-hydroxypropionate/4-hydroxybutyrate cycle from <i>Metallosphaera sedula</i> . <i>Journal of Industrial Microbiology and Biotechnology</i> , 2016, 43, 1313-1321. | 3.0  | 7         |
| 63 | In Vivo Platforms for Terpenoid Overproduction and the Generation of Chemical Diversity. <i>Methods in Enzymology</i> , 2018, 608, 97-129.  | 1.0  | 7         |
| 64 | Rapid Profiling of Chemical Constituents in Qingfei Paidu Granules Using High Performance Liquid Chromatography Coupled with Q Exactive Mass Spectrometry. <i>Chromatographia</i> , 2021, 84, 1035-1048.  | 1.3  | 6         |
| 65 | Marker-Free System Using Ribosomal Promoters Enhanced Xylose/Glucose Isomerase Production in <i>Streptomyces rubiginosus</i> . <i>Biotechnology Journal</i> , 2019, 14, e1900114.   | 3.5  | 5         |
| 66 | Overproduction of gentamicin B in industrial strain <i>Micromonospora echinospora</i> CCTCC M 2018898 by cloning of the missing genes <i>genR</i> and <i>genS</i> . <i>Metabolic Engineering Communications</i> , 2019, 9, e00096.                        | 3.6  | 5         |
| 67 | Solar-Driven Overproduction of Biofuels in Microorganisms. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .   | 13.8 | 5         |
| 68 | Recent advances in the elucidation of enzymatic function in natural product biosynthesis. <i>F1000Research</i> , 2015, 4, 1399.   | 1.6  | 3         |
| 69 | Self-Assembled Enzymatic Nanowires with a Dry and Wet Interface Improve the Catalytic Performance of Januvia Transaminase in Organic Solvents. <i>ACS Catalysis</i> , 2022, 12, 372-382.  | 11.2 | 3         |
| 70 | The concordance between the evolutionary trend and the clinical manifestation of the two SARS-CoV-2 variants. <i>National Science Review</i> , 2021, 8, nwab073.  | 9.5  | 2         |
| 71 | Evaluation and optimization of analytical procedure and sample preparation for polar <i>Streptomyces albus</i> J1074 metabolome profiling. <i>Synthetic and Systems Biotechnology</i> , 2022, 7, 949-957.   | 3.7  | 2         |
| 72 | Editorial overview: Pharmaceutical biotechnology. <i>Current Opinion in Biotechnology</i> , 2017, 48, 258-259.  | 6.6  | 1         |

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|----|--|-----|-----------|
| 73 | Modification of Éâ€polyâ€Lâ€lysine in vivo to reduce selfâ€toxicity and enhance antibiotic overproduction. AICHE Journal, 2018, 64, 4187-4192. | 3.6 | 1         |
| 74 | Solarâ€driven Overproduction of Biofuels inÂMicroorganisms. Angewandte Chemie, 0, , .  | 2.0 | 0         |