Resume of Sen Liu

Basic Information

School :	School of Life Science and Health
Gender：	Male
Date of Birth：	1981
Title：	Professor
Education：	Ph.D
Tutor：	Ph.D, Master
E-mail:	senliu@hbut.edu.cn
Interest of research:	Protein structure and function, Protein design, Drug discovery, Aging and Cancer

Academic Background

April 2008 – Dec. 2010: Postdoc in Quantitative Biology, QB3, University of California, San Francisco, U.S.A.
Sept. 2002 – July 2007: Ph.D. (combined masters/doctorate program) in Physical Chemistry, Peking University, China; Graduated with honor
Sept. 1998 – July 2002: B.S. (undergraduate student) in Biotechnology, China Three Gorges University, China; Graduated with honor

Oversea visiting

Sept. 2014 – Aug. 2015: Visiting researcher, Department of Pharmacology & Chemical Biology, School of Medicine, University of Pittsburgh, U.S.A.
April 2008 – Dec. 2010: Postdoc in Quantitative Biology, QB3, University of California, San Francisco, U.S.A.

Enrollment Information

1. Enrollment Discipline: Biomedicine, Biological engineering, Fermentation engineering, Protein engineering, Pharmacy
2. Research direction: Protein structure and function, Protein design, Drug discovery, Aging and Cancer
3. Enrollment Year: 2023-2024

Representative Projects

1. Natural Science Foundation of Hubei Province (Creative Research Group), RMB 500,000, 2024-2027, Principal Investigator
2. National Science Foundation of China, No. 31971150, RMB 700,000, 2020-2023, Principal Investigator
3. National Science Foundation of China, No. 31670768, RMB 720,000, 2017-2020,

Principal Investigator
4. Natural Science Foundation of Hubei Province (Outstanding Young Investigator), No. 2019CFA069, RMB 200,000, 2019-2022, Principal Investigator
5. Wuhan Municipal Science and Technology Bureau of China, No. 2018060401011319, RMB 500,000, 2018-2020, Principal Investigator
6. Key Scientific Research Grant of Hubei Provincial Department of Education, No. D20161204, RMB 80,000, 2016-2017, Principal Investigator
7. National Science Foundation of China, No. 91330113, RMB 600,000, 2014-2016, co-Principal Investigator (40%)
8. Public Foundation of Beijing National Laboratory for Molecular Sciences, RMB 50,000, 2012-2014, Principal Investigator
9. National Science Foundation of China, No. 21103098, RMB 250,000, 2012-2014, Principal Investigator
10. Team Funding for Excellent Research Team, Hubei Province, No. T201203, RMB 200,000, 2012-2015, Co-Principal Investigator (20%)
11. Key Discipline Foundation of China Three Gorges University, No. 2011071001, RMB 1,500,000, 2011-2014, Principal Investigator
12. Chutian Scholar Start-up Foundation of China Three Gorges University, RMB 100,000, 2012-2015, Principal Investigator
13. Sub-project of the National High-tech R&D Program (863 Program) 2005AA235070, RMB 45,000, 2007-2008, Principal Investigator

Representative Articles

1. SCARdock: a web server and manually curated resource for discovering covalent ligands. Qi Song#, Lingyu Zeng#, Qiang Zheng, Sen Liu*. ACS Omega, 2023, 8(11): 10397-10402.
2. Obtaining protein foldability information from models of AlphaFold2 and RoseTTAFold. SenLiu#*, Kan Wu, Cheng Chen. Computational and Structural Biotechnology Journal, 2022, 20: 4481-4489.
3. Dual inhibition of ornithine decarboxylase and A1 adenosine receptor efficiently suppresses breast tumor cells. Hongyan Ma#, Qizhang Li, Jing Wang, Jing Pan, Zhengding Su, Sen Liu*. Frontiers in Oncology, 2021, 11: 636373.
4. Potential clinical drugs as covalent inhibitors of the priming proteases of the spike protein of SARS-CoV-2. Qizhang Li#, Zhiying Wang#, Qiang Zheng, Sen Liu*. Computational and Structural Biotechnology Journal, 2020, 18: 2200-2208.
5. The rational discovery of multipurpose inhibitors of the ornithine decarboxylase. Xiaoying Chai#, Jingqiong Zhan#, Jing Pan#, Mengxi He, Bo Li, Jing Wang, Hongyan Ma, Yanlin Wang, Sen Liu*. The FASEB Journal, 2020, 34(9): 10907-12921.
6. Potential covalent drugs targeting the main protease of the SARS-CoV-2 coronavirus. Sen Liu#*, Qiang Zheng, Zhiying Wang. Bioinformatics, 2020, 2020, 36(11): 3295-3298.
7. Repurposing clinical drugs as AdoMetDC inhibitors using the SCAR strategy.Yan Zhang#, Qiang Zheng#, Yin Zhou, Sen Liu*. Frontiers in Pharmacology, 2020, 11: 248.

8. Discovery of covalent ligands via noncovalent docking by dissecting covalent docking based on a “steric-clashes alleviating receptor (SCAR)” strategy. Yuanbao Ai#, Lingling Yu#, Xiao Tan#, Xiaoying Chai, Sen Liu*. Journal of Chemical Information and Modeling, 2016, 56(8): 1563-1575.
9. Discovery of Novel Inhibitors of Human S-Adenosylmethionine Decarboxylase Based on in silico High-throughput screening and a Non-radioactive Enzymatic Assay. Chenzeng Liao#, Yanlin Wang, Xiao Tan, Lidan Sun, Sen Liu*. Scientific Reports, 2015, 5: 10754.
10. Reliable cell cycle commitment in budding yeast is ensured by signal integration. Xili Liu#, Xin Wang#, Xiaojing Yang, Sen Liu, Lingli Jiang, Yimiao Qu, Lufeng Hu, Qi Ouyang, Chao Tang*. eLife, 2015, 4: e03977.
11. Control of Protein Signaling Using a Computationally Designed GTPase/GEF Orthogonal Pair. Gregory T. Kapp#, Sen Liu#, Derek T. Wong, Attila Reményi, Brian Yeh, Jack Taunton, Wendell A. Lim, and Tanja Kortemme*. Proc. Natl. Acad Sci USA, 2012, 109(14): 5277-5282.
12. Nonnatural protein–protein interaction-pair design by key residues grafting. Sen Liu#, Shiyong Liu#, Xiaolei Zhu, Huanhuan Liang, Aoneng Cao, Zhijie Chang, Luhua Lai*. Proc. Natl. Acad Sci USA 2007, 104(13): 5330-5335.