

Yuan Tan

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TOEFL: 106 (29 + 26 + 23 +28)

Education

Present Ph.D. Computational Biophysics

Fudan University, Shanghai, China

Courses: Biophysics, Medical Imaging Physics, PyTorch: From Beginner to Advanced.

June 2020 B.S. Physics

Fudan University, Shanghai, China

Courses: Matlab Programming, Python Programming, Probability Theory and Mathematical Statistics, Stochastic Processes and Time Series Analysis, Quantum Physics I & II.

Publications (corresponding author*, co-first author #)

1. **Yuan Tan**, Yujie Chen*, Xianshi Liu, Yiming Tang, Zenghui Lao, Guanghong Wei*.
Dissecting how ALS-associated D290V mutation enhances pathogenic aggregation of hnRNPA2₂₈₆₋₂₉₁ peptides: dynamics and conformational ensembles.
International Journal of Biological Macromolecules. 2023, 230: 123194 [IF:8.025, Q1]
2. **Yuan Tan**, Yiming Tang, Zenghui Lao, Guanghong Wei*.
Atomic insights into emulgel: the self-assembly of Fmoc-dipeptides at the O/W interface.
In preparation.
3. **Yuan Tan**, Xianshi Liu, Yujie Chen, Tong Pan, Yuying Liu, Yiming Tang, Guanghong Wei*.
Unravelling the molecular mechanism of RNA regulating phase separation of hnRNPA2 LCD through multiscale modelling.
In preparation.
4. Zenghui Lao#, Yiming Tang#, Xuewei Dong, **Yuan Tan**, Xuhua Li, Xianshi Liu, Le Li, Cong Guo, Guanghong Wei*.
Elucidating the Reversible and Irreversible Self-assembly Mechanisms of Low-Complexity Aromatic-Rich Kinked Peptides and Steric Zipper Peptides.
Nanoscale, 2024, in press
5. Yawei Yu, Qian Liu, Jiyuan Zeng, **Yuan Tan**, Guanghong Wei*.
Multiscale simulations reveal the driving forces of p53C phase separation facilitated by oncogenic mutations.
Chemical Science, under review
6. Yiming Tang, Zhongyuan Yang, Yifei Yao, Yun Zhou, **Yuan Tan**, Zichao Wang, Tong Pan, Rui Xiong, Junli

Sun, Guanghong Wei*.

Recent advances in protein conformation sampling by combining machine learning with molecular simulation.

Chinese Physics B, 2024, in press

7. Yujie Chen, Chendi Zhan, Xuhua Li, Tong Pan, Yifei Yao, Yuan Tan, Guanghong Wei*.

Five similar anthocyanidin molecules display distinct disruptive effects and mechanisms of action on A β 1-42 protofibril.

International Journal of Biological Macromolecules. 2024, 256: 128467

Awards

2023	KLA Scholarship, Fudan University
2023	Scientific Artificial Intelligence Competition: Predictive synthesis of metal-organic frame materials(Rank: 20/2117)
2023, 2022, 2021	Academic merit scholarships, Fudan University
2021	Outstanding student of Fudan University
2018, 2015, 2014	Third class of scholarship of Fudan University
2016	Second class of scholarship of Fudan University

Programming Skill

Matlab	Data Analysis, Bioinformatics Toolbox
Python	TensorFlow 2 + Keras, PyTorch, scikit-learn (sklearn), XGBoost, pandas
Visual Basic	Macro in Excel

Conference and Internship

Dec 2023	The 10th Academic Forum for Doctoral Students of the Five Universities Alliance, (Poster) Shanghai.
June 2023	The 3rd National Academic Symposium on Phase Separation and Phase Transition, Shanghai.
Sep 2021 - June 2022	Publicity Department Director of Graduate Student Union, Department of Physics, Fudan University
Apr - June 2016	Intern, Fixed Income and Foreign Exchange Department, Commerzbank AG, Shanghai
Summer 2016	Research assistant of Prof. Lao Lanjun, School of Management, Fudan University
Summer 2015	Research assistant of Prof. Lan Xiaohuan, School of Economics, Fudan University