

Amu Gubu

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EDUCATION

Peking University <i>Ph.D. Medicinal Chemistry</i>	Beijing, P.R. China August 2020
Peking University <i>M.S. Medicinal Chemistry</i>	Beijing, P.R. China July 2017
Nankai University <i>B.S. Pharmacy</i>	Tianjin, P.R. China July 2014

RESEARCH EXPERIENCE

CUHK-HKBU-Aptacure Laboratory Post Doc. & Senior scientist; Advisor: Zhang Ge • Drug discovery of aptamer	Hong Kong, P.R. China 2020.09 to present
Peking University Graduate Researcher; Advisor: Xinjing Tang • Synthesis and applications of circular oligodeoxynucleotides • Bioorthogonal metabolic DNA labelling • Controlled activation of siRNA • Photomodulation of sgRNA plasmid to achieve spatial and temporal control of CRISPR/Cas 9 gene editing	Beijing, P.R. China 2014.07-2020.08

PUBLICATION

- 1) **Gubu, A.**; Su, W.; Zhao, X.; Zhang, X.; Fan, X.; Wang, J.; Wang, Q.; Tang, X., Circular Antisense Oligonucleotides for Specific RNase-H-Mediated microRNA Inhibition with Reduced Off-Target Effects and Nonspecific Immunostimulation. *J. Med. Chem.* 2021, 64 (21), 16046-16055.
- 2) **Gubu, A.**; Wang, J.; Jin, H.; Tang, X., Synthesis and "DNA Interlocks" Formation of Small Circular Oligodeoxynucleotides. *ACS Appl. Mater. Interfaces* 2020, 12 (11), 12584-12590.
- 3) **Gubu, A.**; Li, L.; Ning, Y.; Zhang, X.; Lee, S.; Feng, M.; Li, Q.; Lei, X.; Jo, K.; Tang, X., Bioorthogonal Metabolic DNA Labelling using Vinyl Thioether-Modified Thymidine and o-Quinolinone Quinone Methide. *Chem. Eur. J.* 2018, 24 (22), 5895-5900.
- 4) Zhang, X.; **Gubu, A.**; Xu, J.; Yan, N.; Su, W.; Feng, D.; Wang, Q.; Tang, X., Tetrazine-Induced Bioorthogonal Activation of Vitamin E-Modified siRNA for Gene Silencing. *Molecules* 2022, 27 (14), 4377-4385. (Co-first author)
- 5) Chen, Z.; Luo, H.; **Gubu, A.**; Yu, S.; Zhang, H.; Dai, H.; Zhang, Y.; Zhang, B.; Ma, Y.; Lu, A.; Zhang, G., Chemically modified aptamers for improving binding affinity to the target proteins via enhanced non-covalent bonding. *Front. Cell Dev. Biol.* 2023, 11, 1091809. (Co-first author)
- 6) Zhang, L.; Liang, D.; Chen, C.; Wang, Y.; **Amu, G.**; Yang, J.; Yu, L.; Dmochowski, I. J.; Tang, X., Circular siRNAs for Reducing Off-Target Effects and Enhancing Long-Term Gene Silencing in Cells and Mice. *Mol. Ther. Nucleic Acids* 2018, 10, 237-244.
- 7) Zhang, X.; Wei, L.-H.; Wang, Y.; Xiao, Y.; Liu, J.; Zhang, W.; Yan, N.; **Amu, G.**; Tang, X.; Zhang, L.; Jia, G., Structural insights into FTO's catalytic mechanism for the demethylation of multiple RNA substrates. *Proc. Natl. Acad. Sci.* 2019, 116 (8), 2919.
- 8) Jin, Q.; **Gubu, A.**; Chen, X.; Tang, X., A Photochemical Avenue to Photoluminescent N-Dots and their Upconversion Cell Imaging. *Sci. Rep.* 2017, 7 (1), 1793.

CONFERENCE PRESENTATION

<i>Academic salon</i> Oral Presentation	Peking university, P.R. China
<i>Pharmaceutical innovation forum of Chemical Biology</i> Oral Presentation	Peking university, P.R. China
<i>RNAi China 2019</i> Poster Presentation	Kunshan, P.R. China
<i>Academic seminar co-hosted by Peking University, The University of Hong Kong, The Chinese University of Hong Kong and the Hong Kong Baptist University</i> Oral Presentation in English	Hong Kong, P.R. China

AWARDS

Excellent PhD graduate School of Pharmaceutical science, Peking university	May 2020
National scholarship School of Pharmaceutical science, Peking university	October 2019
Excellent scientific research award School of Pharmaceutical science, Peking university	October 2019
First-class academic scholarships School of Pharmaceutical science, Peking university	October 2017, October 2019
Second-class Bright Future awards School of Pharmaceutical science, Peking university	October 2018, October 2019
Siyuan scholarships School of Pharmacy, Nankai university	2010-2014 successively
Third-class scholarships School of Pharmacy, Nankai university	December 2013