



# QIUYANG CHEN

Researcher

PhD student - VUB (IVTD)-since October 2024

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## PROFILE

PhD student

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## EDUCATION

**Vrije Universiteit Brussel**

PhD Pharmaceutical Sciences – 2028

**Sichuan Agricultural University**

Master in Animal Genetics Breeding  
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## PROJECT OUTLINE

### Investigation of the role of adipose tissue-derived non-coding RNAs in the development and resolution of steatotic liver diseases

MASLD encompasses an entire spectrum of fatty liver diseases ranging from simple steatosis to MASH. Whereas simple steatosis is mostly clinically asymptomatic, it can progress to MASH. The underlying mechanisms that drive the progression of simple steatosis to MASH are not fully understood. Therefore, the overall aim is to elucidate novel factors that play a role in MASH development and by extension identify new pharmacological targets.

MASH, being the hepatic manifestation of the metabolic syndrome, is a multifactorial disease, involving factors released by activated non-parenchymal hepatic cells, or originating from other organs, including the gut and adipose tissue. For this reason, in this project the adipose tissue (AT)-liver axis is the prime research focus for the identification of novel mechanisms involved in the progression of MASH as well as potential new pharmacological therapies.

We hypothesize that changes in the profile of AT-derived exosomal small non-coding RNAs, specially microRNAs, may contribute to the onset of MASH and that this AT-liver crosstalk may represent a novel anti-MASH therapeutic target.

## PEER-REVIEW ARTICLE (2023–2024)

1. **Chen Q.** Shen L, Liao T, Qiu Y, Lei Y, Wang X, Chen L, Zhao Y, Niu L, Wang Y, Zhang S, Zhu L, Gan M. A Novel tRNA-Derived Fragment, tR<sup>GlnCTG</sup>, Regulates Angiogenesis by Targeting Antxr1 mRNA. *Int J Mol Sci.* 2023 Sep 26;24(19):14552. doi: 10.3390/ijms241914552. PMID: 37833999; PMCID: PMC10572189. (IFS : 5.6)
2. Shen L, Liao T, **Chen Q.** Lei Y, Wang L, Gu H, Qiu Y, Zheng T, Yang Y, Wei C, Chen L, Zhao Y, Niu L, Zhang S, Zhu Y, Li M, Wang J, Li X, Gan M, Zhu L. tRNA-derived small RNA, 5'tiRNA-Gly-CCC, promotes skeletal muscle regeneration through the inflammatory response. *J Cachexia Sarcopenia Muscle.* 2023 Apr;14(2):1033-1045. doi: 10.1002/jcsm.13187. Epub 2023 Feb 8. PMID: 36755335; PMCID: PMC10067481. (IFS : 12.063)
3. Qiu Y, Gan M, Wang X, Liao T, **Chen Q.** Lei Y, Chen L, Wang J, Zhao Y, Niu L, Wang Y, Zhang S, Zhu L, Shen L. The global perspective on peroxisome proliferator-activated receptor  $\gamma$  (PPAR $\gamma$ ) in ectopic fat deposition: A review. *Int J Biol Macromol.* 2023 Sep 22;253(Pt 5):127042. doi: 10.1016/j.ijbiomac.2023.127042. Epub ahead of print. PMID: 37742894. (IFS : 8.2)
4. Liao T, Gan M, Qiu Y, Lei Y, **Chen Q.** Wang X, Yang Y, Chen L, Zhao Y, Niu L, Wang Y, Zhang S, Zhu L, Shen L. miRNAs derived from cobra venom exosomes contribute to the cobra envenomation. *J Nanobiotechnology.* 2023 Sep 30;21(1):356. doi: 10.1186/s12951-023-02131-7. PMID: 37777744; PMCID: PMC10544165. (IFS : 10.2)
5. **Qiuyang Chen,** Kangping Zhu, Yi Luo, Linyuan Shen, Ton Zhu & Maiyan Gan. (2023). Rapid isolation, culture and induced differentiation of porcine primary skeletal muscle satellite cells. *Chinese Journal of Animal Husbandry* (08), 118-123. doi:10.19556/j.0258-7033.20230615-08. (In Chinese)