Chen Baoyang

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Education Background

Sun Yat-sen University **Sep 2022 - Now**
Master of science, School of Life Science Average Score: 86.74/100 Guangzhou, China

Huazhong Agriculture University **Sep 2018 - Jun 2022**
Bachelor of Agriculture, School of Fisheries GPA:3.70/4.00 Wuhan, China

Publications

Chen B., Pu H., Chen Y., Chen A., Li Y., Zhang P., Hou X., Feng L., Tan B., Niu J. (2024). Comparison effects of *Haematococcus pluvialis* on growth performance, hepatopancreatic transcriptome and resistance to ammonia-nitrogen stress of the Pacific white shrimp (*Litopenaeus vannamei*). **Animal nutrition**. (IF=6.1, in revision)

Chen B., Zhong J., Dong A., Chen X., Chen M., Yao R., Chen Y., Chen A., Zhao W., Niu J. (2024). Responses in growth performance, antioxidant capacity, hepatopancreas morphology, and non-specific immune function after functional protein peptide replace fishmeal in the Pacific white shrimp (*Litopenaeus vannamei*). **Aquaculture nutrition**. (IF=3.0, under review)

He, X., **Chen, B**., Chen, Y., Chen, A., Lin, S., Guo, Y., Liao, Z., Cui, X., & Niu, J. (2024). Astaxanthin regulates high-carbohydrate diet-induced oxidative stress, inflammation and apoptosis in an organ-specific manner in largemouth bass (*Micropterus salmoides*). **Aquaculture**, 741400. (IF=3.9) https://doi.org/10.1016/j.aquaculture.2024.741400

Song, Z., Jiao, C., **Chen, B**., Xu, W., Wang, M., Zou, J., Xu, W., Xu, Z., & Wang, Q. (2021). Dietary *Acanthopanax senticosus* extracts modulated the inflammatory and apoptotic responses of yellow catfish to protect against *Edwardsiella ictaluri* infection. **Aquaculture Research**, 52, 5078-5092. https://doi.org/10.1111/are.15379

Chen Y., Zhong J., Chen X., Li X., Pu H., **Chen B**., Guo Y., Chen A., Li W., Hu P., Zhu X., Zhao W., Niu J. (2024). Dietary astaxanthin alleviates negative changes of flesh quality, long chain unsaturated fatty acids content and muscle growth on rainbow trout (*Oncorhynchus mykiss*) induced by black soldier fly oil via mammalian target of rapamycin and AMP-activated protein kinase α pathway: Evidence of transcripts and proteomics. **Animal nutrition**. (IF=6.1) https://doi.org/10.1016/j.aninu.2024.07.005

Zhao, W., Guo, Y., Yao, R., Chen, A., **Chen, B**., & Niu, J. (2023). Protein Requirements of *Oncorhynchus mykiss* Cultured in the Convection-Water Cages by Evaluating Growth, Body Composition and Liver Health. **Foods**, 12. (IF=3.8) https://doi.org/10.3390/foods12010175

Zhao, W., Yao, R., Wei, H., Guo, Y., Chen, A., **Chen, B**., & Jin-Niu (2023). Astaxanthin, bile acid and chlorogenic acid attenuated the negative effects of high-fat diet on the growth, lipid deposition, and liver health of *Oncorhynchus mykiss*. **Aquaculture**, 739255. (IF=3.9) https://doi.org/10.1016/j.aquaculture.2023.739255

Skills

- **Animal experiment skills:** Animal husbandry, Sampling
- **Wet lab skills**: Extracting RNA/DNA, Real-time PCR, Western Blot, Separation and

culture of cells, Flow Cytometry, Library Construction

- **Software skills**: Prism, Image J, AI, R studio
- **Languages:** Mandarin（Native）, English（Conversant）

Research Experience

State Key Laboratory of Biocontrol, Sun Yat-Sen University | Guangzhou, China
Postgraduate student in Professor Jin Niu's Lab

Project title*: Experiment on the effect of functional protein peptides replacing fish meal on the growth and hepatopancreas health of *Litopenaeus vannamei **May 2023 - Apr 2024**
Principle Investigator

- Analyzed intestinal 16s sequencing microbiome data
- Observe the electron microscope sections of the intestinal tract
- Completed and draft manuscript for publication

Project title*: Explore the influence of gradient addition of *Haematococcus pluvialis* in feed on the nutritional physiology of *Litopenaeus vannamei **May 2023 - now**
Principle Investigator

- Analyze the transcriptome of animal livers
- Examine the protein expression of the mTOR signaling pathway
- Detect cell apoptosis and observe the tissue structure
- Completed and draft manuscript for publication

College of Fisheries, Huazhong Agriculture University | Wuhan, China
Undergraduate student in Professor Jin Niu's Lab

Project title*: Study on the regulatory effects of *Aanthopanax Senticosus* on the growth, immune function and disease resistance of *Pelteobagrus Fulvidraco **Mar. 2020 - Jun. 2022**
Principle Investigator

- Observe the pathological structure changes of animal tissues
- Detect the content levels of related proteins in the JAK-STAT signaling pathway
- Isolate and culture animal white blood cells
- Submit the project report and complete the project

Honors and Sponsorships

The Fifth China Undergraduate Life Sciences Contest Second Prize	2020
Sun Yat-Sen University First Prize Scholarship	2022 and 2024
The "Liao Xianghua, Lin Ding" Scholarship	2022