

## Chen Baoyang

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### Education Background

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#### Sun Yat-sen University

Master of science, School of Life Science Average Score: 86.74/100

Sep 2022 - Now

Guangzhou, China

#### Huazhong Agriculture University

Bachelor of Agriculture, School of Fisheries GPA:3.70/4.00

Sep 2018 - Jun 2022

Wuhan, China

### Publications

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**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)

Chen A\*, **Chen B\***, Zhong J., Liao Z., He X., Lin S., Fang C., Li N., Zhao W., Niu J. (2024). Effects of lysophospholipid on growth performance, hepatopancreas health and intestinal microbiome of *Litopenaeus vannamei* in low-fishmeal diet. **Aquaculture nutrition**. (IF=3.0, in revision2)

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  $\alpha$  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

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- **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

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**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

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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