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Small fish making a big difference: beloved star of environmental toxicology research in the current era

Key words: Zebrafish model; Environmental toxicant; Environmental toxicology

Research Summary

This review analyzes the advantages of zebrafish as a model organism from an interdisciplinary perspective, exploring its application potential in various fields such as environmental science, ecology, and biotechnology. Compared to other reviews, my article attempts to extend the application of the zebrafish model to a broader range of research areas, rather than just being confined to toxicology.

Graphic Abstract

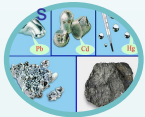
Hazard Materials



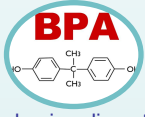
Organic pollution



Pesticide



Heavy metals



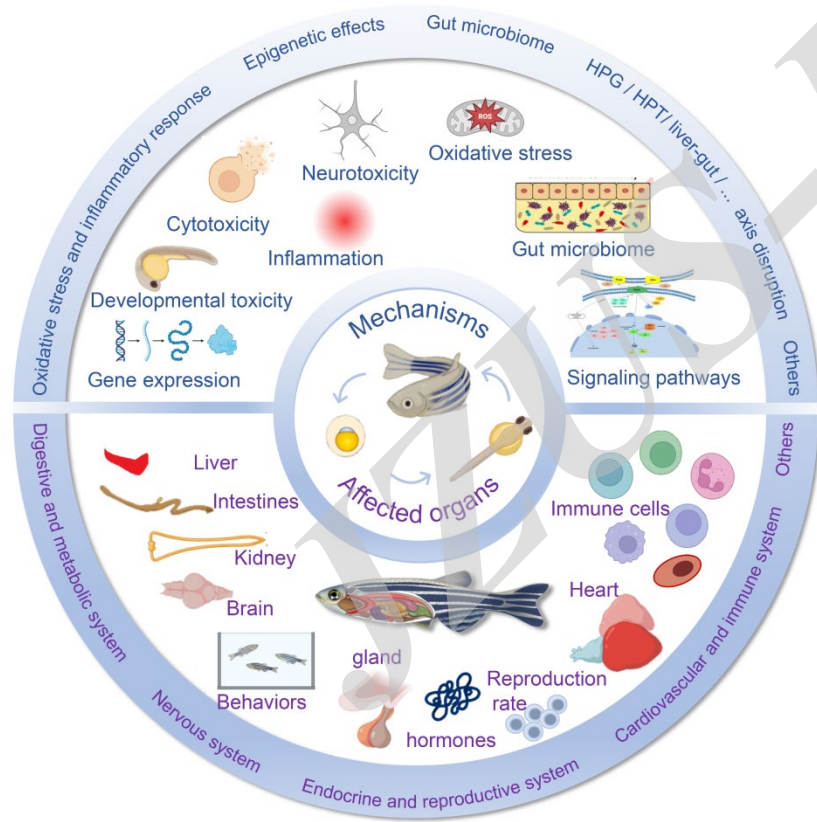
Endocrine disruptors



Pharmaceuticals and personal care products



Nanomaterial



Techniques and Methods in zebrafish models

Gene editing techniques

Real-time imaging

Behavioral analysis