A new paradigm of healthy ageing beyond centenarian

Principal Investigator: Prof. Anskar Yu Hung LEUNG

Technology

- Genome editing to induce CHIP mutations
- Zebrafish models of fatty liver, atherosclerosis and heart failure
- Transgenic reporter zebrafish lines to visualize the disease processes

Stage of Development

- Study the role of CHIP mutations in atherosclerosis, heart failure and liver diseases.
- Identify potential drugs targeting CHIP-related diseases
- Successful drugs to be validated in clinical trials and patented for commercialization.

Advantages of zebrafish

- Amenable to genetic & drug manipulation.
- Direct visualization of disease processes.
- Disease models available for drug screening.
- High cost and space effectiveness.

Opportunities

- Metabolic disorders are highly prevalent, but effective treatment is limited.
- The correlation between CHIP and metabolic disorders has been revealed, but the underlying mechanisms are not well understood.
- Novel applications of approved drugs or new compounds may provide innovative strategies to alleviate metabolic disorders.

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