

**Cite this as:** Xiang-rong ZHU, Hui WANG, Jian SUN, Bao YANG, Xue-wu DUAN, Yue-ming JIANG, 2019. Pericarp and seed of litchi and longan fruits: constituent, extraction, bioactive activity, and potential utilization. *Journal of Zhejiang University-Science B (Biomedicine & Biotechnology)*, 20(6):503-512.  
<https://doi.org/10.1631/jzus.B1900161>

# **Pericarp and seed of litchi and longan fruits: constituent, extraction, bioactive activity, and potential utilization**

**Key words:** Bioactive compound, Extraction, Litchi, Longan, Pharmacological activity, Utilization

# ***Research Summary***

**This review mainly focused on the current advances in the extraction, processing, identification, and biological and pharmacological activities of constituents from litchi and longan by-products.**

- **Phytochemical composition**
- **Extraction and processing**
- **Pharmacological activities**
- **Potential applications**



# *Innovation points*

- **Introduction of the major biological constituents.**

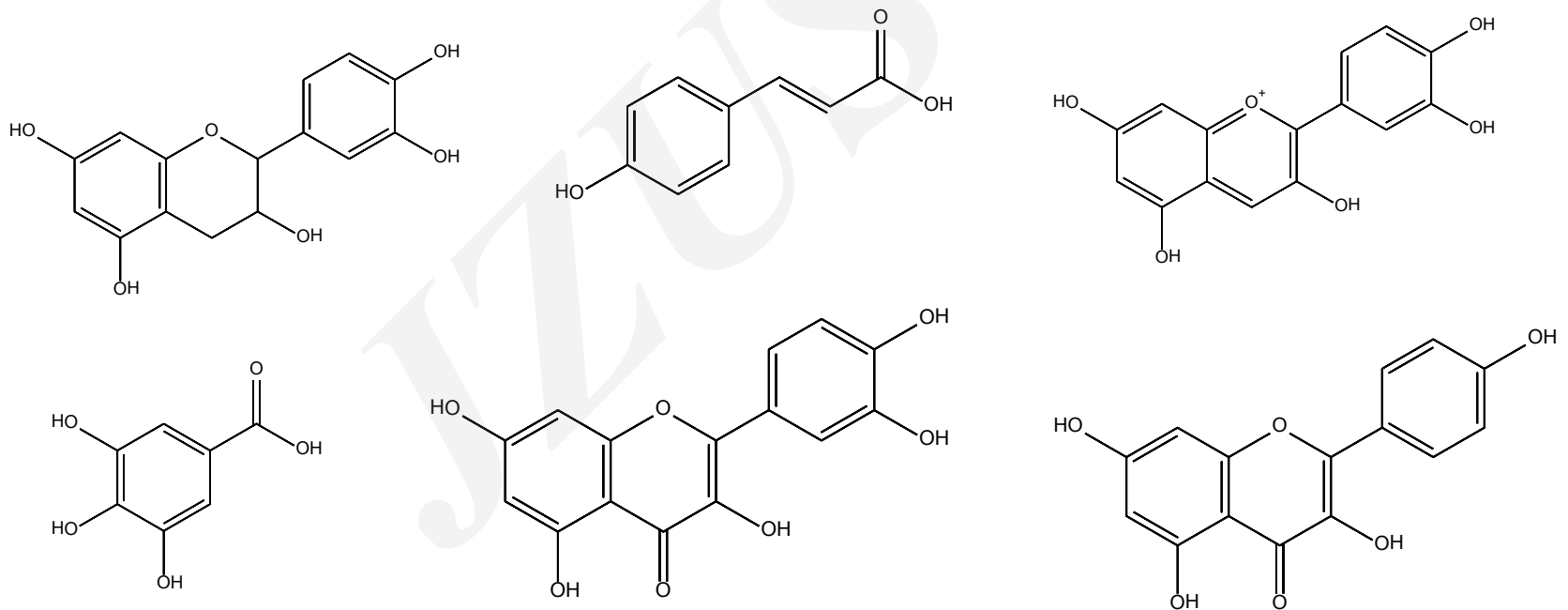


Figure 4

# ***Innovation points***

- **Summary** of the pharmacological activities.
  - **Antioxidant activity**
  - **Anti-inflammatory activity**
  - **Anti-cancer activity**
  - **Immunomodulatory activity**
  
- **Emphasis** of the potential utilization.
  - **Food additives**
  - **Cosmetic**
  - **Drug agents**