The 1st Respiratory Organoid Culture System and Innovative Applications of Respiratory Organoids

Principal Investigator: Professor Jie ZHOU

Technology

BiomOrgan Limited developed the 1st human respiratory organoid culture system, which enables the long-term expansion, biobanking, and generation of nasal, airway, and alveolar organoids with high efficiency and stability. BiomOrgan's respiratory organoids can accurately recapitulate the architecture, cellular composition, and functionality of the human respiratory tract to the physiological level. These organoids serve as robust and universal experimental models for diverse biomedical and translational applications, such as disease modeling, drug screening, and personalized medicine.

Stage of Development

- Products & Services: Ready-to-use Organoids; PulmoOrg® Respiratory Organoid Culture Kit

Intellectual Property

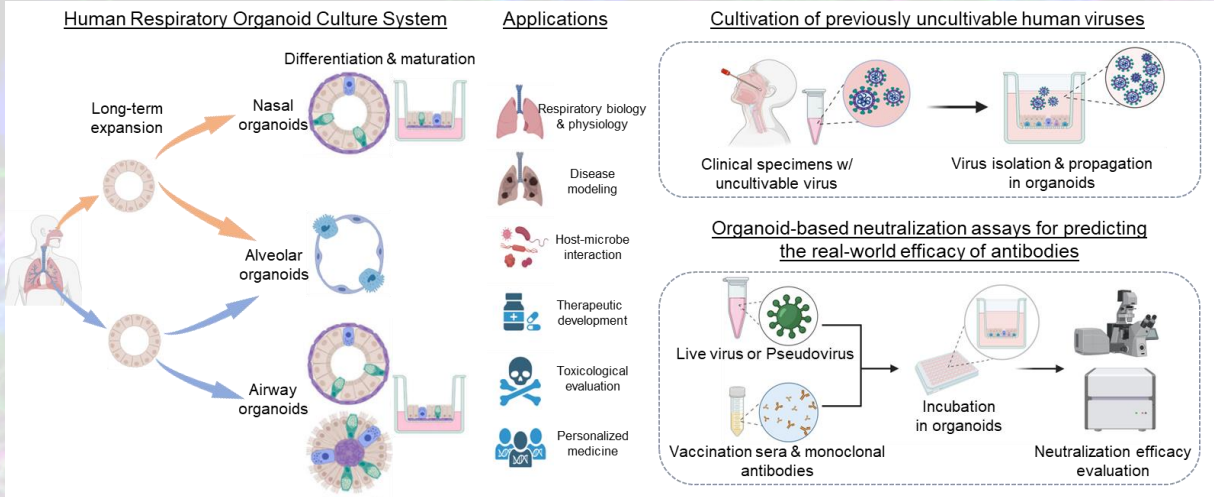
- Airway organoid (WO2019228516A1)
- Alveolar organoids (WO2023030158A1)
- Nasal organoids (WO2024008116A1)
- Culture uncultivable virus (63/551,522)

Opportunities

The U.S. FDA announced the acceptance of organoid-based testing to approve drugs for clinical trials without requiring drug testing in animals, highlighting the great potential of organoid technology.

Key Advantages

- Highly accessible & sustainable source for organoid derivation.
- High success rate (>95%) of organoid derivation.
- Long-term expansion & biobanking
- High physiological relevance to native tissues.



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