E-SENSE
Innovation & Technology
溢生創新科技

Enable comprehensive health screening and monitoring for vital organs in communities and homes

Principal Investigator: Professor Desmond Yat-Hin YAP

Technology

E-SENSE Innovation & Technology revolutionizes healthcare with its proprietary multimodal medical screening and monitoring platform using *Electrical Impedance Tomography (EIT)*. Traditional biomedical imaging is expensive, bulky, slow, and requires trained operators, making it impractical for primary healthcare. E-SENSE's affordable EIT system features advanced micro-electronics, state-of-the-art image reconstruction, processing pipelines, and AI-enabled feature extraction. This technology enables **high-throughput community screening for vital organ health** (brain, heart, lungs, liver, kidneys) with clinical standard readouts.

Opportunities

E-SENSE's platform, combining clinical and home units, enables affordable, high-throughput screening and monitoring of vital organ health, enhancing accessibility and early disease detection.

Stage of Development

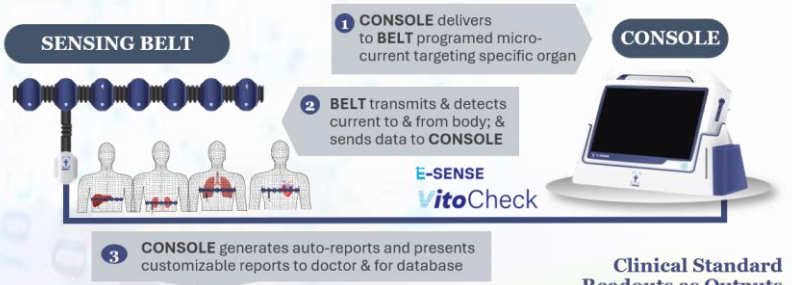
Transitioning from clinical studies to product registration.

E-SENSE Website 溢生網站

E-SENSE Video 溢生介紹短片

Key Advantages

- **User-Centric Operation**
  Good safety profile
  Requires little medical background to operate
- **Clinical Standard Readout**
  Multiple vital organs application
  Supports precision medicine and early disease detection
- **Environmental Versatility**
  Plug-and-play
  Convenient for small clinics and home
- **Longitudinal & Personalized Patient-level Analysis**
  Software built for frequent data collection with integrated patient disease management system



Clinical Standard Readouts as Outputs

	EF (*ejection fraction*)
	FEV1 (*Forced Expiration Volume*), **FVC** (*Forced Vital Capacity*), **FEV1/FVC Ratio**
	CAP (*Controlled Attenuation Parameter*)
	eGFR (*estimated Glomerular Filtration Rate*)

HKU Med
LKS Faculty of Medicine
Technology Transfer Unit
香港大學李嘉誠醫學院技術轉移部
: infottu@hku.hk