

Membrane Research

for Water, Energy, Environment & Pharmaceutical Sciences

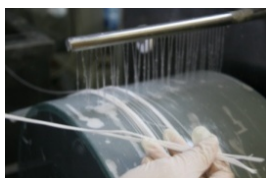
Vision To advance membrane technology for needs in energy, water and health sciences.

Mission

- Develop novel membrane materials and a broad spectrum of membrane technologies for energy, water production, and applications in environmental and health sciences.
- Support Singapore's strategic initiatives and industries in the above areas by developing patentable and marketable technologies and intellectual property.
- Establish an internationally recognized centre of excellence in membrane technology.

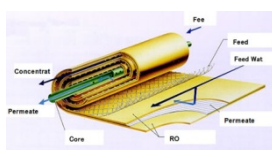
On-going Projects

Membrane Materials & Science



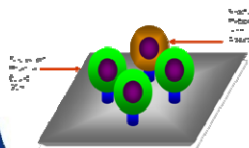
- Polymeric Membranes
- Ceramic Membranes
- Biomimetic Membranes
- Supported liquid membranes
- Membrane Formation
- Molecular engineering &

Water Production & Recycle



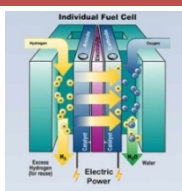
- Forward osmosis (FO)
- Desalination
- Membrane distillation (MD)
- Nanofiltration (NF)
- Ultrafiltration (UF)

Life Sciences



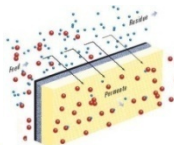
- Chiral separation
- Protein purification & separation
- Membrane chromatography
- Pharmaceutical separation & purification
- electrophoresis

Energy



- Fuel cells
- Biofuel pervaporation
- Hydrogen enrichment
- Natural gas sweetening

Greenhouse Gas Abatement



- CO₂ capture and sequestration

Awards and Achievement

Recipients	Award (2008)
Prof. Neal Chung Tai-Shung	Adjunct Chair Professors of Taiwan Chung Yuan Christian University (with Certificate)
Low Bee Ting	ICOM 2008 - Student Poster Award
Sina Bonyadi	ICOM 2008 Student Travel Award (US\$1,000)
Wang Kaiyu	Tan Kah Kee Young Inventors' Award (S\$1,000)
Jiang Lanying	Tan Kah Kee Young Inventors' Award (US\$800)
Natalia Widjojo	Travel award by NanoMemPro Organization, FORTH/ICE-HT, Patra, Greece (Euro 1,800)
Zhang Zewen (Mentor: Jiang Lanying)	Selected to represent NUS in the fourth Universitas 21 (U21) Undergraduate Research Conference (URC) hosted by NUS

Recipients	Award (2007)
Li Yi	Tan Kah Kee Young Inventors' Award – (S\$1,000)
Natalia Widjojo	NAMS 2007 Annual Meeting Student Travel Awards (USD1,000)
David Shaohua Zhang (Mentor: Natalia Widjojo):	Best Final Year Project Award, National University of Singapore (Kinokuniya book voucher-S\$75.00)

