

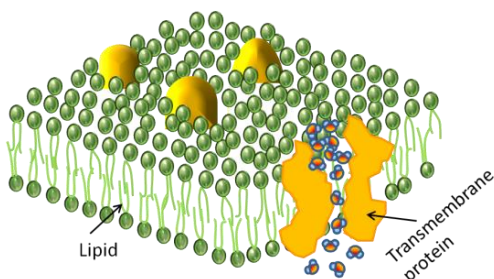
## Conference on Advanced Chemical and Membrane Technology – Growth Opportunities in Life Science & Pharmaceuticals, Water Reuse & Desalination and Energy Applications

Tuesday 13 April – Wednesday 14 April 2010, National University of Singapore

This two-day conference is co-organized by *Singapore-MIT Alliance*, *Singapore National Institute of Chemistry*, *NUS Membrane Consortium* and *Department of Chemical & Biomolecular Engineering, National University of Singapore*. Development and innovation in chemical and membrane technologies for applications in life science & pharmaceuticals, water reuse & desalination and energy will be showcased in the conference by the international experts in the respective academic fields. In addition, this event provides a great opportunity for collaboration and networking among researchers.

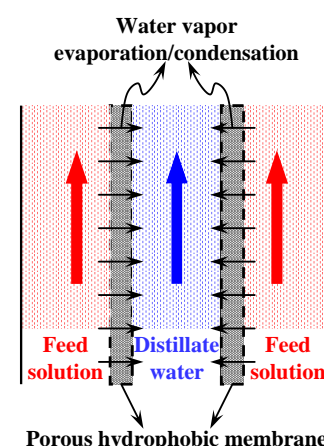
### Day 1: Life Science & Pharmaceuticals Date: 13 April 2010 Venue: Engineering Auditorium

- 09:00 **Registration**
- 09:20 **Introduction and Welcome** by *Dr. L. CHAN*, Chief Executive Officer, NUS Enterprise
- 09:30 **Plenary Talk - High Performance Ultrafiltration Membranes: New Approaches and New Opportunities in Bioprocessing**  
*Prof. Andrew L. ZYDNEY* (Chief Editor, *Journal of Membrane Science*), Dept Head and Walter L. Robb Chair, Dept of Chemical Engineering, Pennsylvania State University
- 10:20 **Preparation of Cell-Specific Scaffolds for Bone Regeneration by Peptide Grafting**  
*Prof. D.-M. WANG*, Dept of Chemical Engineering, National Taiwan University
- 10:50 **Morning Break**
- 11:10 **Total Separation of Proteins using Molecularly Imprinted Materials: Surface Imprinted Cellulose Acetate Membranes**  
*Prof. Y. W. TONG*, Dept of Chemical and Biomolecular Engineering, NUS
- 11:40 **Droplet Microfluidics for Chemical Synthesis and Separation**  
*Prof. Saif A. KHAN*, Dept of Chemical and Biomolecular Engineering, NUS
- 12:10 **Surface Modification of Materials and the Applications for Life Science**  
*Prof. M.-J. WANG*, Dept of Chemical Engineering, National Taiwan University of Science and Technology
- 12:40 **The Facile Development of Functionalized Membrane for the Enantioresolution of Pharmaceuticals**  
*Dr. Y. XIAO*, Dept of Chemical and Biomolecular Engineering, NUS
- 13:10 **Lunch**



### Day 1: Water Reuse & Desalination Date: 13 April 2010 Venue: Engineering Auditorium

- 14:30 **Functionalized Membranes for Bio- and Water Related Applications**  
*Prof. D. BHATTACHARYYA*, Dept of Chemical and Materials Engineering, University of Kentucky
- 15:00 **Innovative Cleaning Technique for Reverse Osmosis Fouling Control**  
*Dr. J. J. QIN*, Public Utilities Board (PUB), Singapore
- 15:30 **NUS Membrane Consortium-Industry Engagement and Partnership**  
*Dr. M. S. Peter KEW* (Associate Director), Industry Liaison Office, NUS Enterprise
- 16:00 **Final Discussion**



**Day 2: Energy, Biofuel & Carbon Dioxide Capture**

**Date: 14 April 2010**

**Venue: Auditorium (Prince George's Park Residences )**

- 09:00 **Registration**
- 09:20 **Introduction and Welcome**
- 09:30 **Environmental Catalysis - Oxidation & Degradation of Phenol in Aqueous System**  
*Prof. T. S. Andy HOR, Dept of Chemistry, NUS*
- 10:00 **Membrane Formation-Control and Design of Membrane Structure**  
*Prof. H. MATSUYAMA (Editorial board member, Journal of Membrane Science), Dept of Chemical Science and Engineering, University of Kobe*
- 10:30 **Polymer/Ceramic Composite Pervaporation Membrane**  
*Prof. W. Q. JIN (Editorial board member, Journal of Membrane Science), Nanjing University of Technology*
- 11:00 **Morning Break**
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- 11:20 **Fabrication and Application of Novel High Surface Area Inorganic Membranes for Biomass Conversion to Fuels**  
*Dr. W. LIU, Pacific Northwest National Laboratory, USA*
- 11:50 **Enzymatic Preparation of Biodiesel: Improving Biodiesel Properties and Utilizing Cheap Resources**  
*Prof Z. LI, Dept of Chemical and Biomolecular Engineering, NUS*
- 12:20 **Lunch**

**Day 2: Energy, Biofuel & Carbon Dioxide Capture**

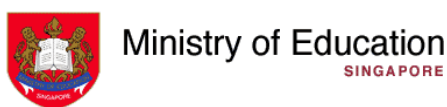
**Date: 14 April 2010**

**Venue: Auditorium (Prince George's Park Residences )**

- 13:30 **Introduction to Chemical Hydrides as Hydrogen Storage Materials**  
*Prof. B.-H. CHEN, Dept of Chemical Engineering, National Cheng Kung University*
- 14:00 **Hollow Fiber Membrane Formation**  
*Dr. N. PENG, Dept of Chemical and Biomolecular Engineering, NUS*
- 14:30 **Polymeric Membranes for Hydrogen and Natural Gas Purifications**  
*Ms. B. T. LOW, Dept of Chemical and Biomolecular Engineering, NUS*
- 15:00 **Plenary Talk - Thermally Rearranged Polymer Membranes for CO<sub>2</sub> capture**  
*Prof. Y. M. LEE (Editor, Journal of Membrane Science), Dept of Chemical Engineering and Energy Engineering, Hanyang University*
- 15:50 **Closing**

Registration Fees	
Students	\$20.00 for 2-day
Research Staff	\$70.00 for 2-day
Academic Staff	\$150.00 for 2-day
Industry/ Public	\$120.00 for 1-day \$200.00 for 2-day

**Special thanks to :**



All fees are nett and quoted in SGD. Only **cash** or **cheque** payments are accepted.

**For NUS staff/students, please contact Ms Hew Swee Lim to make payment.**

**To register, click on this [link](#)**

For more information, contact **Ms Hew Swee Lim**

Email: [smabox3@nus.edu.sg](mailto:smabox3@nus.edu.sg)

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