

## CURRICULUM VITA OF PROF. NEAL T. S. CHUNG

Department of Chemical & Biomolecular Engineering, National U of Singapore

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1) [http://www.chee.nus.edu.sg/people/faculty\\_chungneal.html](http://www.chee.nus.edu.sg/people/faculty_chungneal.html)

2) <http://www.chbe.nus.edu.sg/membrane>

**Technical:** Ph.D. Chemical Engineer specializing in membrane science and engineering for water/energy/biofuel/gas/liquid/chemical/pharmaceutical separation and high performance polymers

- Expert and internationally known in membrane science and separation.
- Editorial Board Members of
  1. Journal of Membrane Science (Impact Factor = 3.247 in 2008)  
[http://www.elsevier.com/wps/find/journaleditorialboard.cws\\_home/502692/editorialboard](http://www.elsevier.com/wps/find/journaleditorialboard.cws_home/502692/editorialboard)
  2. Chemical Engineering Journal (Impact Factor = 2.813 in 2008)  
[http://www.elsevier.com/wps/find/journaleditorialboard.cws\\_home/601273/editorialboard](http://www.elsevier.com/wps/find/journaleditorialboard.cws_home/601273/editorialboard)
  3. Separation and Purification Reviews (Impact Factor = 1.529 in 2008)  
<http://taylorandfrancis.co.uk/journals/journal.asp?issn=1542-2119&linktype=5>
  4. Polymer Engineering and Science (Impact Factor = 1.245 in 2008)  
<http://www3.interscience.wiley.com/journal/107639236/home/EditorialBoard.html>
  5. Chemical Engineering and Technology (Impact Factor = 0.923 in 2008)  
[http://www3.interscience.wiley.com/journal/10008333/home/2044\\_edbd.html](http://www3.interscience.wiley.com/journal/10008333/home/2044_edbd.html)
  6. Separation Science and Technology (Impact Factor = 1.139 in 2008)  
<http://www.informaworld.com/smpp/title~db=all~content=t713708471~tab=editorialboard>
  7. Journal of Applied Polymer Science (Impact Factor = 1.187 in 2008)  
<http://www3.interscience.wiley.com/journal/30035/home/EditorialBoard.html>
  8. Desalination (Impact Factor = 1.155 2008)  
[http://www.elsevier.com/wps/find/journaleditorialboard.cws\\_home/502683/editorialboard](http://www.elsevier.com/wps/find/journaleditorialboard.cws_home/502683/editorialboard)
  9. Chinese Journal of Chemical Engineering (CJChE) (Impact Factor = 0.572 in 2008)  
[http://www.elsevier.com/wps/find/journaleditorialboard.cws\\_home/707628/editorialboard](http://www.elsevier.com/wps/find/journaleditorialboard.cws_home/707628/editorialboard)
  10. Recent Patents on Engineering (Bentham Science Publisher)  
<http://www.bentham.org/eng/EBM.htm>
  11. Recent Patents on Chemical Engineering (Bentham Science Publisher)  
<http://bentham.org/cheng/EBM.htm>
  12. Desalination and Water Treatment  
<http://www.deswater.com/editorial.shtml>
- Editor for the Applied Membrane Science and Technology Journal
- H-index = 30. One of the most highly cited NUS professors with science citation numbers of more than 200 times per year in years 2003, 2004, 2005, 2006, 300 times in 2007 and 390 in 2008.
- An author of 1 book, 12 book chapters, 325 journal papers and more than 200 conference papers.
- Received R & D grants of about S\$31 millions = US \$21 millions in last 14 years in NUS.
- Conducted joint research with Hitachi DuPont (1998-1999), British Gas (1998-2001), UOP (2003-2006), Merck (2003-2006), Hyflux (2005-2008), Mitsui (2005-2010), BASF (2005-2010), KAUST (2008-2010), PBI (2009-2012) and others.
- A part of the team invented, developed and commercialized Vectra™ liquid crystalline polymers with the annual business size of US\$150 million.
- Co-inventor of Hyflux Kristal 600™ ultra-filtration membranes for water treatment.

- An inventor of about 70 patents (including 35 US patent) and patent applications, the highest patent holder in NUS. Several of them commercialized.
- Consultant for Air Products (USA) in 1998-1999.
- Consultant for Hyflux (Singapore) in 2004-2008; led and built its membrane research team.
- 15-year industrial R& D experience in the US industry (13 years in Hoechst Celanese).

#### **Honors and Awards:**

- Adjunct Chair Professor, Taiwan Chung Yuan Christian University (Aug 1,2008-2010)
- Distinguish Alumni Award, Taiwan Chung Yuan Christian University (2009)

#### **Management:**

- Demonstrated managerial capability of managing multi-functional teams, project planning, joint R & D collaboration, technology and product development, and business plans.
- Progressed from Program Coordinator, Program Director, to the Deputy Director of the Institute of Materials Research and Engineering (IMRE) in 1996-2001, hand built the biggest R & D group in IMRE with more than 50 staff and the highest cost recovery of more than 30% by conducting world-class R & D and developing multi-million external R & D grants.
- A strong connection with research institutes, universities and industries in China mainland, Taiwan and USA

#### **EMPLOYMENT EXPERIENCE**

July 2007 **Fellow**, Singapore-MIT alliance  
To the present

July 2001 **Professor**, Dept of Chemical & Environmental Engineering, NUS  
to the present (<http://www.chee.nus.edu.sg/staff/000731chungts.html>)

Jan 2001 **Cluster Director**, Institute of Materials Research and Engineering (IMRE)  
to Aug 2001

Lead fundamental, technology and industry driven researches in the National Lab in the areas of Polymers and Chemicals for electronic devices, separation & purification, and controlled release devices.

June 2000 **Deputy Director**, Institute of Materials Research and Engineering (IMRE)  
to Dec 2000

Feb 2000 **Professor (Research)**, Dept of Chemical & Environmental Engineering, NUS  
to July 2001

1998-2000 **Program Director**, The Advanced Polymers and Chemicals Program, IMRE

1995-2000 **Associate Professor**, Dept of Chemical & Environmental Engineering, NUS

1997-1998 **Program Manager**, The Advanced Polymers Program, IMRE

1996-1997 **Program Coordinator**, The Advanced Polymers Group, IMRE

1993 to 1995 **Project Manager/Consulting Engineer**  
Aeroquip Corporate Technology Lab., Ann Arbor, Michigan

1988 to 1993 **Research Associate (equivalent to the Group Leader or Technical Manager)**  
Hoechst Celanese Research Division, New Jersey

1986 to 1988 **Staff Engineer (equivalent to Project Leader)**,  
Hoechst Celanese Research Division, New Jersey

1983 to **Senior Research Engineer**, Hoechst Celanese Research Division, New Jersey  
1986

1980-1983 **Research Engineer**, Hoechst Celanese Engineering Resins Company, New Jersey

1977-1980 **Research Assistant**, Dept. of Chem. Eng., State University of New York at Buffalo

1973-1975 **Research Assistant**, Dept. of Chemical Engineering, National Taiwan University

**PERSONAL**

Singapore PR, US citizen, Christian; married with two lovely children.