

A list of Prof. Neal Chung's Grants (1995-2009)
Sept 16, 2009

1. NUS, NRF, MOE & A*Star (Singapore's NSF) Grants (Prof. Chung is the Principal Investigator)

ID	Period	Project Title	Amount (\$)
1			
2	7/96 – 7/99 (NUS/A*Star)	Development of the third-generation High Performance Multi-Layer Composite Membrane Technology for Gas/Liquid Separation and Purification	772,500
3	1/99 - 1/01	Thin film polymerisation and characterization of liquid crystalline polymers	70,000
4	3/02 - 2/03	3rd Generation thin film polymerisation and characterization of liquid crystalline polymers	28,669
5	4/02 -1/05	The study of the effect of complex flow, rheological behavior and 6fda-polyimide chemistry on the formation and separation performance of gas separation hollow fiber membranes	348,113
6	4/02 - 3/05 (A*Star)	Fabrication of mixed-matrix polymeric membranes containing zeolites and carbon for high selectivity gas separation (Singapore and Canada NRC collaboration)	300,000
7	4/02 - 3/05	Enhanced organic solvent-based biopharmaceutical syntheses by new membrane development	179,704
8	4/04 -3/06	Fabrication of dual-layer asymmetric hollow fiber membranes with an ultra-tin mixed matrix selective layer for gas separation	133,000
9	1/05-12/08	Membrane development for solvent recovery and separation of antibiotics and intermediate pharmaceuticals	100,000
10	3/05- 2/07	Fundamental study of thermotropic liquid crystalline polymers by thin-film polymerization micro-reactors and monte carlo simulation	30,000
11	4/05-3/07	Investigation of transport mechanism in mixed matrix composite materials in gas/liquid separation	150,000
12	8/05-8/07 (A*Star)	The development of mixed matrix nano-composite materials for membrane separation of isopropanol and water	500,000
13	12/04– 11/07 (A*Star)	Development of a new complex of nontraditional membrane based methods for water treatment (This project was originally given to Prof. N. Kocherginsky, but NUS assigned it to me after he left NUS)	442,495
14	A*Star (11/06-10/09)	The material development for new desalination process, membrane distillation, for water production (Singapore-Poland collaboration)	882,380
15	NUS FOE (11/06-10/09)	Incentive grant for membrane distillation	30,000
16	A*Star (8/07-7/10)	Sub-nano pore-size membranes for biofuel separation and purification	498,990
17	NUS (10/07-9/10)	The NUS initiative on advanced membranes for pharmaceutical and biomedical applications	2,584,000
18	NRF (2/08-2/12)	molecular engineering of membrane materials: research and technology for energy development of hydrogen, natural gas and syngas	9,629,062
19	NUS FOE (08/08-10/10)	Incentive grant for BASF project, NRF and KAUST	66,000
20	EWI/NRF (10/08-10/10)	Material Engineering and Fabrication of High-Performance Nanofiltration-based FO Membranes for Water Reuses	1,154,400
21	A*Star (5/09-5/12)	Polymeric Membrane Development for CO ₂ Capture from Flue Gas (without including overhead = \$692,850)	831,420
22	A*Star (8/09-7/12)	Molecular engineering of membrane materials and fabrication for the separation of Acetone butanol ethanol (ABE) broths produced from non-food biomass (without including overhead = \$787,558)	945,069
23	A*Star (8/09-7/12)	Development of Hybrid Desalination Processes using Cold Energy from LNG Re-gasification (without including overhead = \$745,840)	895,008
24	EWI/NRF (8/09-7/12)	Conceptual demonstration and exploratory study of the fabrication of biomimetic membranes for desalination and water reuse (without including overhead = \$3,737,333)	4,517,700
			25,088,510

2. Prof. Neal Chung's Industrial and other Grants

ID	Company names & period	Subjects	Grant amount (\$)
1	Hitachi-Dupont Japan, IMRE (9/98 - 12/2000)	Investigation of viscosity stability of photo-definable polyamides	\$750,000
2	British Gas, UK, IMRE, ETI, NUS (2/99 – 2/2002)	The membrane technology for natural gas processing	\$1,900,000
3.	Singapore Defence Medical Research Institute (10/00 – 10/03)	Three collaboration projects on controlled release devices for drugs	\$2,000,000
4	Universal Oil Products (UOP) (USA)(5/03 – 4/05)	Mixed matrix membranes for gas/liquid separation	\$500,000
5	Merck (Germany) (1/04-12/07)	Exploratory study on pervaporation membranes for pharmaceuticals syntheses	\$90,000
6	Mitsui (Japan) (3/05-2/08)	Materials characterization for potential membrane applications	\$35,000
7	BASF (Germany)(4/05-3/07)	New membrane materials for kidney dialysis	\$250,000
8	Hyflux (Singapore) (4/05-3/08)	Membranes modifications and characterization for membrane bioreactor (MBR) applications	\$250,000
9	BASF (Germany) (4/08-7/10)	New membrane materials for kidney dialysis	\$240,000
10	KAUST (Saudi Arabia) (4/08-3/11)	Membranes for desalination (US 1,360,615.00)	\$1,878,192
11	PBI (USA) (2/09-1/12)	PBI Membranes for pervaporation	360,000
			\$8,253,192

Total = \$25,088,510 + \$8,253,192 = \$33,341,702 = US \$23.316 million

(exchange rate: 1 US\$=1.43 S\$)

I would like to thank my Lord Jesus Christ's mercy and grace for giving me so much research money, and very good researchers and students

Malachi 3:10 Bring the whole tithe into the storehouse, that there may be food in my house. Test me in this," says the LORD Almighty, "and see if I will not throw open the floodgates of heaven and pour out so much blessing that you will not have room enough for it.

玛拉基书 3:10: 万军之 耶和华说，你们要将当纳的十分之一，全然送入仓库，使我家有粮，以此试试我，是否为你们敞开天上的窗户，倾福与你们，甚至无处可容。