

**Hoon Eng Khoo****EDUCATION:**

- 2003 Postgraduate Diploma in Medical Education, University of Dundee, UK
- 1976 PhD, St. Mary's Medical School, University of London, UK
- 1973 BA (cum laude, Phi Beta Kappa, Sigma Xi,) in Biochemistry, Smith College, Northampton, MA, USA.

**EMPLOYMENT:**

- 2011-present Yale-NUS College, National University of Singapore
- 2008-2010 Professor, Provost and Acting Vice-Chancellor, Asian University for Women, Bangladesh
- 2007-2008 Vice-President for Academic Planning, Asian University for Women Support Foundation, Boston, U.S.A.
- 1988-present Associate Professor, Department of Biochemistry, Yong Loo Lin School of Medicine, National University of Singapore (tenured); on leave of absence 2007-2010
- 1976-1987 Associate Professor, Department of Biochemistry, Faculty of Medicine, National University of Malaysia (tenured)

**PROFESSIONAL LEADERSHIP:**

- 2008-2011 Member, Education Committee, International Union of Biochemistry and Molecular Biology (IUBMB): reviewing Standards for undergraduate degrees in Biochemistry and Molecular Biology
- 2006-2011 Chairman, Education Section, Executive Council, Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB)
- 1995-2004 President, Singapore Society for Biochemistry and Molecular Biology
- 1999-2005 Secretary-General, Federation of Asian and Oceanian Biochemists and Molecular Biologists
- 1996-2005 Council Member, Singapore National Academy of Science

**ACADEMIC LEADERSHIP AND POSITIONS OF RESPONSIBILITY:**

- 2015-present Associate Dean of Faculty, Yale-NUS College, NUS
- 2014-2015 Acting Director, Division of Science, Yale-NUS College, NUS
- 2012-2015 Director for Special Projects, Office of President, Yale-NUS College, NUS
- 2011-2012 Director, Office of Executive Vice-President (Academic Affairs), Yale-NUS College, NUS
- 2010-2011 Deputy Director, International Relations Office, NUS
- 2008-2010 Provost and Acting Vice-Chancellor, Asian University for Women
- 2007-2008 Vice-President for Academic Planning, Asian University for Women Support Foundation
- 2005-2007 Deputy Head, Medical Education Unit, Yong Loo Lin School of Medicine, National University of Singapore
- 2000-2001 Chairman, Postgraduate Bioengineering Committee
- 1997-2003 Vice-Dean, Faculty of Medicine, National University of Singapore

- 1999-2003 Director, Centre for IT, Faculty of Medicine 1999-2003
- 1997-2003 Chairman, Graduate Programme Committee, Faculty of Medicine
- 1998-1999 Chairman, Committee for BSc (Biomedical Science) course, Faculty of Science
- 1990-1997 Department committees: curriculum development for medical and Science students, postgraduate student screening
- 1990-1997 Coordinator - Science Year 2 courses
- 1997- 1998 Member, Working Committee, Bioscience Centre

#### **Organising Committees of international conferences**

- 2006 Chairman, 3<sup>rd</sup> APMEC
- 2005 Member, 1<sup>st</sup> SMEC (Student Medical Education Conference)
- 2004 Member, 2<sup>nd</sup> APMEC
- 2003 Member, 1<sup>st</sup> APMEC (Asia Pacific Medical Education Conference)
- 2002 Member, 1<sup>st</sup> ASEAN PBL in Health Sciences Conference
- 1995 Secretary, 3<sup>rd</sup> IUBMB (International Union for Biochemistry and Molecular Biology) Conference

#### **Curriculum committees (during tenure as vice-dean)**

- 1998-2002 Chaired various committees to establish Master's programs in Clinical Science, Bioinformatics, Bioengineering and joint degrees with external institutions
- 1997-98 Chaired committee to review and establish new post-graduate program (MSc and PhD) in Faculty of Medicine
- 1997 Chaired committee to establish undergraduate degree in Biomedical Science which commenced in July 1998

#### **Development of Education**

- 2013 Chairman, Taskforce on Global Health and Leadership curriculum, Yong Loo Lin School of Medicine, NUS
- 2007-2010 Vice-President for Academic Planning, Provost and Acting Vice-Chancellor, Asian University for Women
- 2005-07 Associate Director, Centre for Development of Teaching and Learning, National University of Singapore
- 2005-2012 Deputy Head, Medical Education Unit, Faculty of Medicine, National University of Singapore
- 2004-2012 Member, Education Task Force, Faculty of Medicine, National University of Singapore
- 2004-2011 Member, Committee on Admissions, Faculty of Medicine, National University of Singapore
- 1999-2005 Associate, Centre for Development of Teaching and Learning, National University of Singapore
- 1998 Consultant reviewer, International Union of Biochemistry and Molecular Biology Committee on Education report - Standards for the PhD degree in Biochemistry and Molecular Biology
- 1997-07 PBL Committee, Faculty of Medicine, National University of Singapore (conducted workshops for staff, students, case writers)

#### **Faculty and Professional development**

2004, 2005,

- 2010 Facilitator, Harvard-Macy Medical International-NUS Physician Educator Programme, October 2004, 2005, 2010
- 1996-present Organised and ran workshops on pedagogy and Problem-based Learning (PBL) for NUS faculty and teaching assistants, high school teachers, army training personnel, nursing school faculty and clinical faculty in Singapore.
- 2004-05 Organised and ran workshops on pedagogy, PBL and assessment in Malaysia, Indonesia and Vietnam for university faculty.

#### **TEACHING EXPERIENCE:**

- i. Medical, Dental and Science undergraduates:**
  - a. Topics: Metabolism, Integration and Regulation of Metabolism
- ii. Science Year 4 (Honours):**  
Topics: Immunoassays, Cell signaling, Venoms and toxins
- iii. Supervision of research students:**  
Undergrad and Honours: 38; Graduate: MSc 7; PhD 14; Medical students : 13
- iv. Examination of postgraduate theses:**  
Chaired numerous postgraduate oral examinations  
Examined theses for PhD: 6; MSc: 7
- v. Translation (with others) into Malay :**  
Montgomery, R., Dryer, R.L., Conway, T.W. and Spector, A.A. (1983). Biochemistry A Case-Oriented Approach, C.V. Mosby Company, London. Translated as Biokimia Satu Pendekatan Kes, Penerbit Universiti Kebangsaan Malaysia, Bangi, Malaysia. by Nik Nawal Nik Adeeb, Asmah Rahmat, Shaik Alaudeen, Ng Mee Lian, Khoo Hoon Eng, Ton So Har, Faridah Abdullah and Wan Zurinah Wan Ngah.
- vi. Visiting Professor:** Airlangga University Medical School, Surabaya, Indonesia (2005)

#### **Teaching Award:**

NUS Annual Excellent Teacher Award, 2004-2005

#### **CIVIC EXPERIENCE:**

- 2009-2017 Board of Trustees, Smith College, USA
- 2006 Co-founder, SAFE (Supporting, Affirming and Empowering our LGBTQ family and friends), Singapore
- 2003-2007 Treasurer, Executive Committee of AWARE (Association of Women for Action and Research), Singapore
- 2002-2005 Board of Directors, Alumnae Association of Smith College, USA
- 1988-2000 National Alumnae Admissions Coordinator for Asia, Smith College, USA
- 1981 Co-founder, All Women Action Society, Malaysia.

Since 2006, I have given talks at many functions supporting LGBT individuals and allies.

**RESEARCH EXPERIENCE:**

**Publications:** >100 papers in international journals; 17 in local journals; >100 papers presented at conferences

2 books on Biotechnology, 3 books on Medical Education;

**Reviewer:** Toxicon; Annals Academy of Medicine, Singapore; Medical Education Online; Biochimie; Singapore Medical Journal; FEBS Letters; Medical Education

**Editor:** The Singapore Biochemist; Annals Academy of Medicine, Singapore

**Editorial Board:**

International Journal of Biotechnology & Biochemistry;  
Malaysian Journal of Biochemistry and Molecular Biology,  
Singapore Medical Journal

**Grant Reviewer:**

National University of Singapore, Biomedical Research Council,  
National Medical Research Council, Defence Medical Research  
Institute

**Advisor:** Imperial College Press and World Scientific

**Invited Lectures:**

1. Khoo, H.E. (1997) Characterization of stonustoxin, a unique lethal protein from stonefish (*Synanceja horrida*) venom. Presented at the 25<sup>th</sup> Anniversary FAOBMB Symposium, Manila, Philippines, 2-5 December 1997.
2. Khoo, H.E. (2000) Structure and functions of stonustoxin, the lethal factor from stonefish (*Synanceja horrida*) venom. Presented at 20<sup>th</sup> Hamburg-Blankenese Conference, Hamburg, Germany, 10-14 May 2000.
3. Khoo, H.E. (2000) Using PBL techniques to teach biochemistry to medical students in a revised traditional curriculum. Presented at 18<sup>th</sup> International Congress of Biochemistry and Molecular Biology, Birmingham, UK. 16-20 July 2000.
4. Khoo, H.E. (2000) Bioactive proteins from the stonefish (*Synanceja horrida*) venom. Presented at 15<sup>th</sup> FAOBMB Symposium, Beijing, China, 21-24 October 2000.
5. Khoo, H.E. (2000) Postgraduate Education in Biochemistry in NUS. Presented at 15<sup>th</sup> FAOBMB Symposium, Beijing, China, 21-24 October 2000.
6. Khoo, H.E., Tan, CH, Gwee, M.C.E. and Cheong, SM. (2004) Status of PBL in the Asia-Pacific Region: The Singapore Experience. Presented at 4<sup>th</sup> Asia-Pacific Conference on Problem Based Learning (PBL) in Health Sciences, University of the Philippines, Manila, September 22 – 25, 2004
7. Khoo, HE (2004) Teaching Biochemistry to medical students. Presented at FAOBMB/IUBMB/A-IMBN (22-26 November, 2004), Bangkok, Thailand.
8. Khoo, H.E. (2005) PBL Culture – In Conflict with Asian Culture? Presented at “The Improvement of Educational Quality and the Students’ Performance” September 5-6, 2005, Solo City, organized by State University of Jakarta, Indonesia
9. Khoo, H.E. (2005) Faculty and student development for the PBL process in NUS. Presented at Medical Education Seminar, University of Andalas, Padang, Indonesia. September 6-7, 2005
10. Khoo, H.E., Zjhra, M., Hsu, A.H.Y. and Hoffmann, F. (2009) Innovative and collaborative approach to hiring new faculty at the Asian University for Women (AUW), presented at 21st IUBMB International Congress and 12th FAOBMB Congress of Biochemistry and Molecular Biology, Shanghai, China. August 2-7, 2009.
11. Khoo, H.E. (2010) Women’s Leadership and Good Governance, Presented at Gender Mainstreaming: Justice For All, Penang, Malaysia. 31 July – 1<sup>st</sup> August 2010
12. Khoo, H.E. (2010) Extending Our Reach and Closing the Gender Gap, Presented at HERITAGE AND HOPE: WOMEN’S EDUCATION IN A GLOBAL CONTEXT, Bryn Mawr College, U.S.A. 23 – 25 September 2010.
13. Khoo, H.E. (2015) Liberal arts education experience at Yale-NUS College, presented at Global Research Network for Future Liberal Arts Education Workshop, June 18-19, 2015, International Christian University, Tokyo, Japan.

14. Khoo, H.E. (2015) Educating Women Leaders, Presented at HEAD Foundation Public Lecture Series, 26 August, 2015, Singapore.
15. Khoo, H.E. (2016) A new liberal arts college – integrating curriculum, residential life and professional experiences, presented at Global Research Network for Liberal Arts Education Workshop, “*Practicing Liberal Arts Education: Multicultural and Multidisciplinary Approaches*”, 26-27 February, 2016, International Christian University, Tokyo, Japan.
16. Khoo, H.E. (2016) Teaching Biochemistry in a new liberal arts college, to be presented at 25<sup>th</sup> Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB) International Conference in conjunction with the 43<sup>rd</sup> PSBMB Annual Convention, December 5-7, 2016, Manila, Philippines.

### International Research Collaborations:

1. Sugahara K, Kobe Women’s College of Pharmacy, Japan.
2. Kuhn P, Stanford Synchrotron Research Laboratory, Stanford University, USA.
3. Strong P, Sheffield Hallam University (UK).
4. Norton R, Biomolecular Research Institute, Melbourne, Australia.

### Patent Application:

1. A US Provisional Patent, *Anti-Coagulant Protein From Snake Venom*, was filed in December 2005 [Finally, patent process was not completed.]

### PUBLICATIONS :

#### (a) Education

1. Khoo, H.E. (1982) Penggunaan komputer untuk pendidikan perubatan klinikal, Buletin Pendidikan Perubatan, UKM. 1(9) : 8-9.
2. Khoo, H.E. Pakar perubatan di dalam sebuah mesin, (1982) Buletin Pendidikan Perubatan, UKM. 1(9) : 10-11.
3. Khoo, H.E. and Sharifah H. Shahabudin, (1982) Concept of validity and analysing multiple choice questions, Buletin Pendidikan Perubatan, UKM. 1(11) : 5-7.
4. Khoo, H.E. and Sharifah H. Shahabudin, (1982) Analysing multiple choice questions, Buletin Pendidikan Perubatan, UKM. 1(11) : 8-10.
5. Khoo, H.E. (1992) Writing – A chore, a nightmare, a pleasure? The Singapore Biochemist, 8 (no. 2): 63-66
6. Khoo, H.E. and Tan T.W. (1994) Singapore Biotechnology Database Project, The Singapore Biochemist, 9 (no. 2): 33-34
7. Khoo, H.E. (1996) Research spotlight on Department of Biochemistry, Medviews, No. 3: 11-15.
8. Khoo, H.E. (2000) Two decades of teaching. In *Reflections on Teaching*, CDTL, NUS, pp 13-14.
9. Khoo, H.E. (2000) Can Asians Do PBL? CDTL Brief, 3(3): 3-4.
10. Khoo, H.E. , Chhem, R.K., Gwee, M.C.E. and Balasubramaniam, P. (2001) Introduction of Problem-Based Learning in a Traditional Medical Curriculum in Singapore - Students’ and Tutors’ Perspectives, *Annals Acad. of Med, Singapore* 30:371-374
11. Khoo HE, Chhem RK (2001) Problem-based learning: Issues and challenges, *Annals Academy Of Medicine Singapore* 30: 338-339
12. Khoo, H.E. (2003) Improving the Medical Graduate Programme and Supervision of Postgraduate Students CDTL Brief 6(6) 1-2
13. Khoo, HE (2003) Implementation of problem-based learning in Asian medical schools and students’ perceptions of their experience. *Medical Education* 37: 401-409
14. Khoo, HE (2004) National University of Singapore hosts successful conference, *The Clinical Teacher*. 1(1):42-43.
15. Amin Z, Khoo, HE, Tan CH (2004) A novel approach to faculty development programme evaluation. *Med Educ*. 38:1187-8.
16. Amin Z, Chong YS, Khoo HE. (2005) Towards better practices in medical student assessment. *Ann Acad Med Singapore*. 34:471-2
17. Amin Z, Khoo, HE, Gwee MCE, Koh, DR. (2005) Medical education in Southeast Asia: emerging issues, challenges and opportunities. *Med Educ* 39:829–32.
18. Khoo H.E. (2005) Teaching biochemistry to medical students in Singapore – From organic chemistry to Problem-based Learning. *Annals Academy of Medicine Singapore* 34:79C-83C
19. Khoo H.E. (2005) Getting Assessment TIPS in Singapore at the 2<sup>nd</sup> Asia Pacific Medical Education Conference (December 2004), *Clinical Teacher* 2(2): 124-127.

20. Gwee, M.C.E. and Khoo H.E. (2005) Problem-based Learning: Roles and Responsibilities of Tutors and Students in Ideas on Teaching 4: 13-14
21. Tan CH, Amin Z, Khoo HE, Gwee M, Davis M, Koh DR (2007) Student perceptions of the benefits of problem-based learning. *Med Teach.* 29(2-3):284
22. Amin Z, Khoo HE, Chong YS. (2007) Outcomes in medical education. *Ann Acad Med Singapore.* 36(9):711-1
23. Koh GCH, Khoo HE, Wong ML, Koh, D.(2008) The effects of problem-based learning during medical school on physician competency: a systematic review. *CMAJ* 178:34-41.
24. Zubair Amin, Massimiliano Tani, Khoo Hoon Eng, Dujeepea D Samarasekara & Chan Yiong Huak (2009) Motivation, Study Habits, and Expectations of Medical Students in Singapore", *Medical Teacher.* 31:e560-e569
25. Khoo, HE (2009) Developing the Next Generation of Women Leaders. Interview with "Breakfast Grille", Malaysia. <http://www.bfm.my/Asian-University-Women-Khoo-Hoon-Eng.html>
26. Khoo, HE (2010) Educate Girls, Eradicate Poverty - A Mutually Reinforcing Goal *UN Chronicle*, Volume XLVII, Number 1, 2010
27. Khoo, HE and Pike, K. (2010) The Asian University for Women: Educating Asian women for positive change and how Japan can make a difference. *Brittanica Japan 2010*: 120-126.
28. Khoo, HE (2015) Female Leadership Education, Empowerment for Change, Lecture Paper, HEAD Foundation, Singapore.

#### **Books related to education**

29. Amin, Z and Khoo, H.E. Basics in Medical Education. World Scientific Publishing, Singapore, 2003
30. Amin, Z., Khoo, H.E., Gwee, M.C.E., Koh, D.R. and Tan, C.H. Profiles of Asian Medical Schools. Part 1: Southeast Asia. Medical Education Unit, Faculty of Medicine, National University of Singapore, May 2004.
31. Amin, Z, Chong, Y.S. and Khoo, H.E. Practical Guide to Medical Student Assessment. World Scientific Publishing, Singapore, 2006
32. Amin, Z and Khoo, H.E. Basics in Medical Education (2<sup>nd</sup> Edition). World Scientific Publishing, Singapore, 2008

#### **(b) Venoms and Toxins:**

##### **(i) Stonefish**

1. Poh, C.H., Yuen, R., Khoo, H.E., Chung, M.C.M., Gwee, M. and Gopalakrishnakone, P.(1991) Purification and partial characterization of the lethal factor (stonustoxin) from stonefish (*Synanceja horrida*) venom. *Comp. Biochem. Physiol.* 99B : 793-798.
2. Poh, C.H., Yuen, R., Chung, M.C.M. and Khoo, H.E. (1992) Purification and partial characterization of hyaluronidase from stonefish (*Synanceja horrida*) venom. *Comp. Biochem. Physiol.* 101B : 159-163. [
3. Sugahara, K., Takeda, K., Yamada, S., Musashi, A., Sugiura, M., Yuen, R., Khoo, H.E., and Poh, C.H. (1992) Identification of the reaction products of the purified hyaluronidase from stonefish (*Synanceja horrida*) venom. *Biochem. J.* 283 : 99-104.
4. Vasuthevan, S., Bongso, T.A., Khoo, H.E. and Yuen, R. (1993) Evaluation of stonefish (*Synanceja horrida*) venom hyaluronidase on cumulus dispersal, fertilization rates and cytogenetics of murine oocytes and embryos. *Assisted Reproductive Technology/Andrology (ARTA)* 4 : 261-267.
5. Low, K.S.Y., Gwee, M.C.E., Yuen, R., Gopalakrishnakone, P. and Khoo, H.E. (1993) Stonustoxin: highly potent endothelium-dependent vasorelaxant action in the rat. *Toxicon* 31:1471-1478.
6. Lau, C.O., Khoo, H.E., Yuen, R. and Tan, C.H. (1993) Isolation of a novel fluorescent toxin from the coral reef crab, *Lophozozymus pictor*. *Toxicon.* 31:1341-1345
7. Low, K.S.Y., Gwee, M.C.E., Yuen, R., Gopalakrishnakone, P. and Khoo, H.E. (1994) Stonustoxin: effects on neuromuscular function in vitro and in vivo. *Toxicon* 32:573-581.
8. Gwee, M.C.E., Gopalakrishnakone, P., Yuen, R., Khoo, H.E. and Low, K.S.Y. (1994) A review of stonefish venoms and toxins. *Pharmacology and Therapeutics* 64:509-528
9. Ghadessy, F.J., Jeyaseelan, K., Chung, M.C.M., Khoo, H.E. and Yuen, R. (1994) A genomic region encoding stonefish (*Synanceja horrida*) stonustoxin beta subunit contains an intron. *Toxicon* 32:1684-1688.
10. Khoo, H.E., Hon, W.M., Lee, S.H. and Yuen, R. (1995) Effects of stonustoxin (lethal factor from *Synanceja horrida* venom) on platelet aggregation. *Toxicon* 33:1033-1041.
11. Yuen, R., Cai, B. and Khoo, H.E. (1995) Production and characterization of monoclonal antibodies against Stonustoxin from *Synanceja horrida*. *Toxicon* 33:1557-1564.

12. Ghadessy, F.G., Chen, D.S., Kini, R.M., Chung, M.C.M., Khoo, H.E., Jeyaseelan, K., and Yuen, R. (1996) Stonustoxin is a novel lethal factor from stonefish (*Synanceja horrida*) venom. cDNA cloning and characterization. *J. Biol. Chem.* 271:25575-25581.
13. Chen, D., Kini, R.M., Yuen, R. and Khoo, H.E. (1997) Haemolytic activity of stonustoxin from stonefish (*Synanceja horrida*) venom. Pore-formation and the role of cationic amino acid residues. *Biochem. J.* 325(3):685-691.
14. Khoo, H.E. , Chen, D. and Yuen, R. (1998) Role of free thiol groups in the biological activities of stonustoxin, a lethal factor from stonefish (*Synanceja horrida*) venom. *Toxicon* 36:469-476
15. Khoo, H.E. , Chen, D. and Yuen, R. (1998) The role of cationic amino acid residues in the lethal activity of stonustoxin from stonefish (*Synanceja horrida*) venom. *Biochem. Mol. Biol. Intl.* 44:643-646.
16. Yew, W.S., Kolatkar, P.R., Kuhn, P. and Khoo, H.E. (1999) Crystallisation and preliminary crystallographic study of Stonustoxin, a protein lethal factor isolated from the stonefish (*Synanceja horrida*) venom. *J. Struc. Biol.* 128:216-218
17. Yew, W.S. and Khoo, H.E. (2000) The role of tryptophan residues in the hemolytic activity of stonustoxin, a lethal factor from stonefish (*Synanceja horrida*) venom. *Biochimie* 82:251-257
18. Khoo, H.E. (2002) Stonefish venom components and their biological activity *Clin Exp Pharmacol Physio* 29 (9): 802-806 [invited review]
19. Sung, J.M.L., Low, K.S.Y. and Khoo, H.E. (2002) Characterization of the mechanism underlying stonustoxin-mediated relaxant response in the rat aorta *in vitro* *Biochem. Pharmacol.* 63(6):1113-8.
20. Ng HC, Ranganathan, S. Chua, KL and Khoo, HE (2005) Cloning and characterization of an aquatic hyaluronidase from the venom of stonefish, *Synanceja horrida*. *Gene* 346: 71-81
21. H.C. Liew, H.E. Khoo, P.K. Moore, M. Bhatia, J. Lu and S.M. Moochhala, (2007) Synergism between hydrogen sulfide (H<sub>2</sub>S) and nitric oxide (NO) in vasorelaxation induced by stonustoxin (SNTX), a lethal and hypotensive protein factor isolated from stonefish *Synanceja horrida* venom , *Life Sciences* 80: 1664-1668

#### (ii) Snake venoms and other toxins

22. Lau, C.O., Khoo, H.E., Yuen, R. and Tan, C.H. (1993) Isolation of a novel fluorescent toxin from the coral reef crab, *Lophozozymus pictor*. *Toxicon.* 31:1341-1345.
23. Khoo, K.S., Kam, W.K., Khoo, H.E., Gopalakrishnakone, P. and Chung, M.C.M. (1993) Purification and partial characterization of two cytolytins from a tropical sea anemone, *Heteractis magnifica*. *Toxicon* 31:1567-1579.
24. Lau, C.O., Tan, C.H., Khoo, H.E., Li, Q.T. and Yuen, R. (1995) Improved ethanolic extraction of a fluorescent toxin from the coral reef crab, *Lophozozymus pictor*. *Natural Toxins* 3:87-90.
25. Lau, C.O., Tan, C.H., Li, Q.T., Ng, F.H., Yuen, R. and Khoo, H.E. (1995) Bioactivities and mechanism of action of *Lophozozymus pictor* toxin. *Toxicon* 33:901-908.
26. Lau, W.F., Khoo, H.E. and Das, N.P. (1995) Potentiation of  $\alpha$ -adrenoceptor agonist mediated - lipolysis by cholesterol-derived oxysterols. *Biochem and Mol Biol Intl* 35:1349-1358.
27. Khoo, H.E., Lim, J.P.C. and Tan, C.H. (1995) Effects of sea anemone (*H. magnifica* and *E. equina*) cytolytins on synaptosomal uptake of GABA and choline. *Toxicon* 33: 1365-1371.
28. Lau, C.O., Tan, C.H., H.E. Khoo, R. Yuen, R.J. Lewis, G.P. Corpuz and G.S. Bignami (1995) *Lophozozymus pictor* toxin: a fluorescent structural isomer of palytoxin. *Toxicon* 33: 1373-1377.
29. Lau, C.O., Ng, F.H., Khoo, H.E., Yuen, R. and Tan, C.H. (1996) Inhibition of sodium-independent uptake processes in purified rat brain synaptosomes by *Lophozozymus pictor* toxin and palytoxin. *Neurochem. Intl.* 28:385-390.
30. Nirthanan S, Joseph JS, Gopalakrishnakone P, Gwee MCE, Khoo HE, Kini MR (2001) A neurotoxin (Candoxin) isolated from the venom of the Malayan krait *Bungarus candidus*, significantly potentiates the activity of acetylcholinesterase in the venom. *FASEB Journal* 15: A894-A894 Part 2
31. Nirthanan, S., Joseph J. S., Gwee M.C.E., Khoo H. E., Cheah L.S. and Gopalakrishnakone P. (2002) Acetylcholine and norepinephrine account for the cholinergic and adrenergic effects of the venom of the black scorpion *Heterometrus spinifer* *Br J Pharmacol* 63 (1): 49-55
32. Nirthanan S, Charpentier E, Gopalakrishnakone P, Gwee MC, Khoo HE, Cheah LS, Bertrand D, Kini RM. (2002) Candoxin, a novel toxin from *Bungarus candidus* is a reversible antagonist of muscle (alpha beta gamma delta ) but a poorly reversible antagonist of neuronal alpha 7 nicotinic acetylcholine receptors. *J Biol Chem.* 277(20):17811-20

33. Nirthanan, S., Joseph J. S., Gwee M.C.E., Khoo H. E., Cheah L.S. and Gopalakrishnakone P. (2002) Acetylcholine and norepinephrine account for the cholinergic and adrenergic effects of the venom of the black scorpion *Heterometrus spinifer*. *Biochem Pharmacol* 63:49-55
34. Gwee MC, Nirthanan S, Khoo HE, Gopalakrishnakone P, Kini RM, Cheah LS (2002) Autonomic effects of some scorpion venoms and toxins. *Clin Expl Pharm Physio* 29 (9): 795-801 [invited review]
35. Ng, H.C. and Khoo, H.E. (2002) Cancer-homing toxins. *Curr Pharm. Design.* 8 (22): 1973-1985 [invited review]
36. Nirthanan S, Gao R, Gopalakrishnakone P, Gwee MCE, Khoo HE, Cheah LS, Kini RM (2002) Pharmacological characterization of mikatoxin, an alpha-neurotoxin isolated from the venom of the New-Guinean small-eyed snake *Micropechis ikaheka* *Toxicon* 40 (7): 863-871
37. Le, V.D., Selvanayagam, A.E., Gopalakrishnakone, P. and Khoo, H.E. (2002) A new avidin-biotin optical immunoassay for the detection of beta-bungarotoxin and application in diagnosis of experimental snake envenomation. *J Immunol Methods.* 2002 Feb 1;260(1-2):125-36.
38. S Nirthanan, E Charpentier, P Gopalakrishnakone, M C E Gwee, H E Khoo, L S Cheah, R M Kini and D Bertrand<sup>4</sup> (2003) Neuromuscular effects of candoxin, a novel toxin from the venom of the Malayan krait (*Bungarus candidus*) *Br. J. Pharmacol.* 139:832-844.
39. Selvanayagam, N, P Gopalakrishnakone, M C E Gwee, H E Khoo and R M Kini, (2003) Non-conventional toxins from Elapid venoms. *Toxicon*, 4, 15, 41: 397-407.
40. Le, VD, Quen LK, Khoo, HE and Gopalakrishnakone (2003). Immunogenicity of venoms from four common snakes in the South of Vietnam and development of ELISA kit for venom detection. *J Immunol Methods* 282 (1-2): 13-31
41. Le, VD, Khoo, HE, Quen LK and Gopalakrishnakone (2004) Optical immunoassay for snake venom detection, *Biosensors & Bioelectronics* 19:1285-1294.
42. Wang, YW, Yap, LL, Chua KL and Khoo, HE. (2008) A multigene family of *Heteractis magnificalyisins* (HMgs), *Toxicon* 51: 1374-1382

#### (c) Nitric oxide and liver disease

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