## Curriculum Vitae of Tony Kung Ming SHING

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Nationality: British Citizen Marital Status: Married with no children

## **Summary of Career**

04/2019 - 03/2021 - Part-time Professor, Chuo University and Gakushuin University, Tokyo, Japan 10/2017 - 03/2019 - Professor, Department of Chemistry, Keio University, Hiyoshi, Yokohama, Japan

09/2016—09/2017 — Invited Visiting Professor, Sophia University, Tokyo, Japan 10/1996—07/2016 — Professor, Department of Chemistry, CUHK, Hong Kong

08/2011 - 07/2014 - Department Chairman, Department of Chemistry, CUHK, Hong Kong

04/1993 - 09/1996 - Senior Lecturer, Department of Chemistry, CUHK, Hong Kong

08/1990 - 03/1993 - Lecturer, Department of Chemistry, CUHK, Hong Kong

10/1984 - 07/1990 - "New Blood" Lecturer, Department of Chemistry, University of Manchester, UK

09/1982 - 09/1984 - Postdoctoral Fellow (supervisor: Prof. G.W.J. Fleet), University of Oxford, UK

09/1981 - 08/1982 - Postdoctoral Fellow (supervisor: Prof. A.S. Perlin), McGill University, Canada

## **Summary of Education**

Ph.D. in Carbohydrate Chemistry, 09/1978–08/1981, Birkbeck College, University of London M.Sc. (Distinction) in Analytical Chemistry, 09/1977–08/1978, Imperial College, University of London B.Sc. (Hons.) in Chemistry with Biology, 09/1973–08/1976, University of Hong Kong

### **Publications Summary**

Total number of publications: 125. Books/book chapters: 6 book chapters

# **Brief Career Highlights**

The applicant was lecturer in chemistry at the University of Manchester for 6 years before moving to The Chinese University of Hong Kong (CUHK) in August 1990. He had carried out independent research in natural product synthesis for the past 34 years using carbohydrates as chiral starting materials. Recent research includes discovery of pseudo-sugar derivatives as potential anti-diabetic agents, a patent has been successfully filed and registered in the USA. He retired from CUHK in 2016 and was invited to Tokyo to contribute to chemistry education. In Tokyo, He has been giving organic chemistry lectures in English and instructing students in the preparation of power points and in their oral presentation skills.

#### **Representative Publications**

- 1. L. Adak, S. Kawamura, G. Toma, T. Takenaka, K. Isozaki, H. Takaya, A. Orita, H. C. Li, T. K. M. Shing, and M. Nakamura, "Synthesis of Aryl C-Glycosides via Iron-Catalyzed Cross Coupling of Halosugars: Stereoselective Anomeric Arylation of Glycosyl Radicals" *J. Am. Chem. Soc.*, 2017, **139 (31)**, 10693–10701.
- 2. Wai-Lung Ng, Kit-Man Lau, C. B.-S. Lau and T.K.M. Shing, "Concise and Stereodivergent Synthesis of Carbasugars Reveals Unexpected Structure-Activity Relationship (SAR) of SGLT2 Inhibition" *Sci. Rep.* 2017, **7**, 5581.
- 3. Wai-Lung Ng, Kit-Man Lau, C. B.-S. Lau and T.K.M. Shing, "Palladium-Catalyzed Arylation of Carbasugars Enables the Discovery of Potent and Selective SGLT2 Inhibitors", *Angew. Chem. Int. Ed.* 2016, **55**, 13818-13821.
- 4. T.K.M. Shing, Wai-Lung Ng, J. Y.-W. Chan and C. B. S. Lau," Design, Syntheses, and SAR Studies of Carbocyclic Analogues of Sergliflozin as Potent Sodium-Dependent Glucose Cotransporter 2 Inhibitors", *Angew. Chem. Int. Ed.* 2013, **52**, 8401-8405.
- 5. T. K. M. Shing, K. H. So, "Facile and Enantiospecific Syntheses of (6*S*,7*R*)-6-Chloro-7-benzyloxy-, (7*S*)-Halo-, (7*S*)-Hydroxy-cocaine and Natural (–)-Cocaine from D-(–)-Ribose", *Org. Lett.*, 2011, **13**, 2916-2919.
- 6. T. K. M. Shing, K. H. So and W. S. Kwok, "Carbocyclization of Carbohydrates: Diastereoselective Synthesis of (+)-Gabosine F, (-)-Gabosine O, and (+)-4-epi-Gabosine O", Org. Lett., 2009, 11, 5070-5073.
- 7. T. K. M. Shing, Y. Y. Yeung, "Total Synthesis of (–)-Samaderine Y from (S)-(+)-Carvone" Angew. Chem. Int. Ed. 2005, 44, 7981-7984.
- 8. T. K. M. Shing, C. S. K. Kwong, A. W. C. Cheung, S. H.-L. Kok, Z. Yu, J. Li, and C. H. K. Cheng "Facile, Efficient, and Enantiospecific Syntheses of 1,1'-*N*-linked-pseudodisaccharides as a New Class of Glycosidase Inhibitors." *J. Am. Chem. Soc.* 2004, **126**, 15990-15992.

#### Other Indicators of Esteem

- 2 Asian Core Program (ACP) Lectureship Awards from Thailand and Korea (12/2011).
- WuXi Apptec Life Science and Chemistry Third Award, China (12/2010).
- 2 Asian Core Program (ACP) Lectureship Awards from Japan and China (12/2009).
- Chairman, The Royal Society of Chemistry, Hong Kong Section (2008-present).
- Croucher Senior Research Fellowship, Hong Kong (03/2008).
- Asian Core Program (ACP) Lectureship Award from Taiwan (10/2006).
- Chartered Scientist (CSci), The Royal Society of Chemistry and The Science Council, UK (2004).
- D.Sc. degree awarded by University of London for contribution in Organic Synthesis (11/2002).
- Adjunct Professor, Xiamen University, China. (03–06/2013).
- Visiting Professor, Institute of Chemistry Research, Kyoto University (06–08/2010).
- Visiting Scholar, Department of Chemistry, Tokyo Institute of Technology (04–05/2009).
- Visiting Associate Professor, University of California, Irvine, U.S.A. (01–04/1990).
- Faculty Exemplary Teaching Award 2004 and 2012, The Chinese University of Hong Kong.
- Chartered Chemist (CChem) and Fellow of the Royal Society of Chemistry (FRSC) (1995)
- Member, International Advisory Panel, School of Chemistry, Bristol University, UK (2006-present).
- Supervision of 23 PhD graduates.