

NAME: Ricky M.S. Wong

EDUCATION:

9/88-8/92 Ph.D. in Chemistry, University of Texas at Austin, Texas, U.S.A.

POSITIONS HELD:

- 9/07–present Professor, Department of Chemistry, Hong Kong Baptist University
9/11–8/2014 Head of Department of Chemistry, Hong Kong Baptist University
9/03–8/2007 Associate Professor, Department of Chemistry, Hong Kong Baptist University
8/98–8/2003 Assistant Professor, Department of Chemistry, Hong Kong Baptist University
5/97–8/1998 Research Fellow, The Laser Physics Centre, Research School of Physical Sciences & Engineering, Australian National University, Australia
11/94–4/1997 Wissenschaftlicher Mitarbeiter (Research Scientist), Institute of Quantum Electronics, Nonlinear Optics Laboratory, ETH-Zürich, Switzerland
12/93–7/1994 Chercheur Associé (Research Associate), Groupe des Matériaux Organiques, IPCMS, Centre National de la Recherche Scientifique, France
11/92–11/1993 Marion-Merrell-Dow/Université Louis Pasteur Postdoctoral Research Fellow, Institut de Physique et Chimie des Matériaux de Strasbourg, Université Louis Pasteur, France

PREVIOUS RELEVANT RESEARCH WORK:

Development of (I) diagnostic tools and therapeutic drugs for Alzheimer's disease; (II) functional molecules for multiphoton excited amplified stimulated emission, sensing and imaging; and (III) advanced materials for organic electronics.

PUBLICATION RECORDS: (>190 SCI publications, *h*-index = 44, total citation > 6260 (as of March 2023))

(A) *Recent five years:*

- (1) X. Wang, A. Iyaswamy, D. Xu, S. Krishnamoorthi, S. G. Sreenivasmurthy, Y. Yang, Y. Li, C. Chen, M. Li, H.-W. Li*, **M.S. Wong*** Real-time Detection and Visualization of Amyloid- β Aggregates Induced Hydrogen Peroxide in Cell and Mouse Models of Alzheimer's Disease *ACS Appl. Mater. Interfaces* **2023**, *15*(1), 39–47.
- (2) A. Iyaswamy*, X. Wang, S. Krishnamoorthi, V. Kaliamoorthy, S.S.K. Durairajan, J.-X. Song, B.C.-K. Tong, S.G. Sreenivasmurthy, Z. Zhu, C.-F. Su, J. Liu, K.-H. Cheung, J.-H. Lu, J.-Q. Tan, H.-W. Li*, **M.S. Wong***, M. Li* Theranostic F-SLOH mitigates Alzheimer's disease pathology involving TFEB and ameliorates cognitive functions in Alzheimer's disease models. *Redox Biology* **2022**, *51*(5), 102280.
- (3) X. Wang, H.-N. Chan, N. Desbois, C. Gros*, F. Bolze*, Y. Li*, H.-W. Li*, **M.S. Wong*** Multimodal Theranostic Cyanine-Conjugated Gadolinium(III) Complex for In Vivo Imaging of Amyloid- β in Alzheimer's Disease Mouse Model *ACS Appl. Mater. Interfaces*, **2021**, *13*(16), 18525–18532.
- (4) C. Wang, X. Wang, H.-N. Chan, G. Liu, Z. Wang, H.-W. Li*, **M.S. Wong*** Amyloid- β Oligomer-Targeted Gadolinium-Based NIR/MR Dual-Modal Theranostic Nanoprobe for Alzheimer's Disease *Adv. Funct. Mater.* **2020**, *30*, 1909529.
- (5) Y. Li, D. Xu, H.-N. Chan, C.-Y. Poon, S.-L. Ho, H.-W. Li*, **M.S. Wong*** Dual-Modal NIR-Fluorophore Conjugated Magnetic Nanoparticle for Imaging Amyloid- β Species in Vivo *Small*, **2018**, *28*, 1800901.

(B) *Beyond the recent five-year period:*

- (6) L. Guo, K.F. Li, X. Zhang, K.W. Cheah*, **M.S. Wong*** Highly Efficient Multiphoton-Pumped Frequency-Upconversion Stimulated Blue Emission with Ultralow-Threshold

- from Highly Extended Ladder-Type Oligo(*p*-phenylene)s *Angew. Chem. Int. Ed.* **2016**, *55*, 10639–10644.
- (7) W. Yang, Y. Wong, O.T.W. Ng, L.P. Bai, D.W.J. Kwong, Y. Ke, Z.H. Jiang, H.W. Li*, K.K.L. Yung*, **M.S. Wong***, Inhibition of Beta-Amyloid Peptide Aggregation by Multifunctional Carbazole-Based Fluorophores *Angew. Chem. Int. Ed.* **2012**, *51*, 1804.
 - (8) H.H. Fan, L. Guo, K.F. Li, **M.S. Wong***, K.W. Cheah*, Exceptionally Strong Multiphoton Excited Blue Photoluminescence and Lasing from Ladder-Type Oligo(*p*-phenylene)s *J. Am. Chem. Soc.* **2012**, *134*, 7297–7300.
 - (9) P.L. Wu, X.J. Feng, H.L. Tam, **M.S. Wong***, K.W. Cheah*, Efficient Three-Photon Excited Deep Blue Photoluminescence and Lasing of Diphenylamino and 1,2,4-Triazole Endcapped Oligofluorenes *J. Am. Chem. Soc.* **2009**, *131*, 886–887.
 - (10) Z.Q. Gao*, M. Luo, X.H. Sun, H.L. Tam, **M.S. Wong***, B.X. Mi, P.F. Xia, K.W. Cheah, C.H. Chen, New Host Containing Bipolar Carrier Transport Moiety for High-Efficiency Electro-phosphorescence with Low Voltage *Adv. Mater.* **2009**, *21*, 688–692.

PATENTS:

- (1) S.-L. Ho, H.-N. Chan, D. Xu, H.W. Li, **R.M.S. Wong**, “Magnetic Platform for Direct and Multiplex Immune-Based Detection of Trace Amount of Protein Biomarkers” US Patent No.: US 10739336 B2 (Aug 2020)
- (2) H. Zhang, **R.M.S. Wong**, L. Guo, S.W. Tsang, K. Liu, T. Zhang, “The Use of Diterpenoid Derivatives as Novel Anticancer Agents” US Patent No. US 9795589 B1 (Oct 2017).
- (3) Y. Li, D. Xu, S.-L. Ho, C.-Y. Poon, H.-N. Chan, H.-W. Li, **R.M.S. Wong**, “Imaging Beta-Amyloid Peptides Aggregation” US Patent No. US 9795694 B2 (Oct 2017).
- (4) L. Guo, D. Xu, S.-L. Ho, C.-Y. Poon, O.T.W. Ng, H.-W. Li, K.K.L. Yung, D.W.J. Kwong, **R.M.S. Wong**, “Imaging Beta-Amyloid Peptides and Inhibition of Beta-Amyloid Peptide Aggregation”, US Patent No. US 9403794 B2 (Aug 2016).
- (5) L. Guo, D. Xu, S.-L. Ho, C.-Y. Poon, O.T.W. Ng, H.-W. Li, K.K.L. Yung, D.W.J. Kwong, **R.M.S. Wong**, “Imaging Beta-Amyloid Peptides and Inhibition of Beta-Amyloid Peptide Aggregation”, US Patent No. US 9255933 B2 (Feb 2016).
- (6) W. Yang, Y. Wong, O.T.W. Ng, H.-W. Li, K.K.L. Yung, D.W.J. Kwong, **R.M.S. Wong**, “Imaging Beta-Amyloid Peptides and Inhibition of Beta-Amyloid Peptide Aggregation”, US Patent No. 9156814 B2 (Oct 2015).
- (7) **R.M.S. Wong**, W. Zhang, L. Guo “Low Bandgap Dicyanovinyl and Tricyanovinyl Oligothiophenes for Solar Cell Applications”, US Patent No. 9147848 B2 (Sept 2015).
- (8) P.F. Xia, Z.Q. Gao, **M.S. Wong**, K.W. Cheah, C.H. Chen, “Synthesis and applications of hole-injecting *p*-phenylenediamine-substituted 9,9'-dialkylfluorenes”, Chinese Patent: ZL 200810212016.3 (2013).
- (9) P.F. Xia, Z.Q. Gao, **M.S. Wong**, K.W. Cheah, C.H. Chen, Organic Light Emitting Devices, Chinese Patent: ZL 200720178162.X (2009).
- (10) Y. Tao, M. D'Iorio, **M.S. Wong**, “Use of Oligophenylenevinyls in Organic Light Emitting Devices”, United States Patent: US 6733904 B2 (2004).

POSTGRADUATE SUPERVISION:

Twelve Ph.D. and two MPhil. students graduated under my supervision over the years and Three Ph.D. students are currently pursuing their studies in my lab.

EDITORSHIP:

Associate Editor of General Chemistry since 2017.

Co-editor of The Hong Kong Special Issue of Advanced Materials on issue 31/2014.