CURRICULUM VITAE

Liu Xuewei
Full Professor
School of Physical and Mathematical Sciences

Academic Qualifications

2000 PhD in Chemistry, University of Southern California

1996 BSc, MSc in Chemistry, China Agricultural University

Professional Qualifications / Memberships

2012 - Present Steering Committee Member, Asian Communications of Glycobiology and Glycobiotechnology (ACGG)

2004 - Present Member, American Chemical Society

Summary of Working Experience

Sept 2019 - Present	Full Professor, School of Physical and Mathematical Sciences, College of Science, NTU
Jan 2016 - Present	Deputy Director, Centre for Antimicrobial Bioengineering, NTU
Sept 2012 - Aug 2019	Associate Professor, School of Physical and Mathematical Sciences, College of Science, NTU
Nov 2005 - Aug 2012	Assistant Professor, School of Physical and Mathematical Sciences, College of Science, NTU
Sept 2003 - Oct 2005	Postdoc, California Institute of Technology, Pasadena
Jun 2002 - Aug 2003	Senior Research Scientist, Chugai Pharma USA, San Diego
Dec 2000 - Jun 2002	Research Scientist, Proctor & Gamble Pharmaceuticals, Cincinnati

Academic Honours and Awards

1999 Liang Fellowship, University of Southern California

1998 President Research Fellowship, Nagoya University, Japan

1995 Zhenxing Nongyao Award, Chinese Association of Agrochemicals

1993 President Award, China Agricultural University

RESEARCH SUMMARY

Key Areas of Research

- Carbohydrate Chemistry
- Chemical Glycobiology
- Natural Products and Medicinal Chemistry

Research Awards / Recognition

2016 First Place Award, The 2nd NTU-ICES (A*STAR) Joint Science Program

2012 The 7th Asian Core Program (ACP) Lectureship Award (China)

2012 CoS Collaborative Research Award

2011 The 6th Asian Core Program (ACP) Lectureship Award (Korea)

2011 The 6th Asian Core Program (ACP) Lectureship Award (Taiwan)

2009 Young Researcher Award, School of Physical and Mathematical Sciences

2007 Excellent Presentation Award, PERCH-CIC Congress V, Thailand

2006 The 1st Asian Core Program (ACP) Lectureship Award (Japan)

Plenary / Keynote / Award / Invited Presentations *[Total: 80, Last 3 years: 22]*

* Partially sponsored by the organizer ** Fully sponsored by the organizer

Plenary Presentations

1. ****Plenary speaker**, "Tailor-made Peptidoglycans and Glycoconjugates for Antimicrobial Research", The Joint Meeting of 11th International Symposium on Integrated Synthesis (ISONIS-11) and 3rd International Symposium on Middle Molecular Strategy (3rd ISMMS), **Awaji Island**, **Japan**, 16-18 November, **2017**.
2. ****Plenary speaker** (大会特邀嘉宾), "Synthesis of Antimicrobial Peptides, Glycopeptides and Peptidoglycans", The 1st Symposium of Carbohydrate Synthesis (首届糖合成化学高峰论坛), **Jinan**, **China**, 15-16 May, **2017**.
3. ***Plenary speaker**, "New Glycosylation Methods and New Glycosylated Nanodevices Interfacing with Living Cells", The 15th Tetrahedron Symposium Asia, Singapore Expo, **Singapore**, 28-31 October, **2014**.
4. ****Plenary speaker**, "Efficient Synthesis of Oligosaccharides and Biosensors based on Carbohydrate-Lectin Interactions", Symposium on Glycobiology & Glycobiotechnology, **Xi-An**, **China**, 16-19 July, **2014**.
5. ****Plenary speaker**, "Glycosciences: From Synthetic Methods to Glycobiology", Gordon Conference, Mt Snow, **Vermont**, **USA**, June 16-21, **2013.**
6. ****Plenary speaker**, "Carbohydrate-Lectin Interaction in Glycoscience", 7th Glycan Forum, **Berlin**, **Germany**, 20-22 March, **2013**.
7. ****Plenary speaker,** "Stereoselective Synthesis of Carbohydrates and Natural Products via Facial Control", 12th International Symposium for Chinese Organic Chemists (ISCOC) and 9th International Symposium for Chinese Organic Chemists (ISCIC), **Lanzhou**, **China**, 19–22 August, **2012**.
8. ****Plenary speaker**, "Design and Synthesis of New Therapeutic Agents for Cancers", *Combinatorial Chemistry and Chemical Biology toward A New Paradigm for Drug Discovery (CCCB), and 28th Conference on Combinatorial Chemistry* (JCCF28), **Osaka**, **Japan**, 24-25 September, **2009**.

Keynote Presentations

1. ***Keynote speaker**, "Glycosciences: The Next Biomolecular Frontiers", ANNUM VI (Asian network for natural and unnatural materials) conference, **Gifu**, **Japan**, 27-28 July **2018.**
2. ***Keynote speaker**, "Dual Glycosylation: A Minimalist Approach for Oligosaccharide Synthesis", The 29th International Carbohydrate Symposium, **Lisbon**, **Portugal**, 15-19th July, **2018.**
3. ****Keynote speaker,** "Advanced Glycosylation Methods That Allows Easy Access to Complex Glycoconjugates", Synthetic Biology International Meeting, **Wuhan**, **China**, 21-22 May, **2018**.
4. ***Keynote speaker**, "Tailor-made Peptidoglycans and Glycoconjugates for Antimicrobial Research", 1st National Conference of Signal Communication and Pathogenesis in Microbes, **Guangzhou**, **China**, 1-4 December, **2017**.
5. ***Keynote speaker**, "Antimicrobial Peptides, Glycopeptides and Peptidoglycans", The 3rd Glycobiology World Congress, **London**, **UK**, 26-28 Jun **2017**.
6. ***Co-Chair and keynote speaker**, "Synthesis of Antimicrobial Peptides, Glycopeptides and Peptidoglycans", International Conference on Cellular & Molecular Bioengineering (ICCMB4), **Singapore**, 4-6 January, **2017**.
7. ***Session chair** and **Keynote speaker,** "Quick Assembly of Glycosides and Glycoproteins: General Tactics and New Glycosylation Methods", The XXVIII International carbohydrate symposium, **New Orleans**, **USA**, 17-22 July, **2016**.
8. ***Keynote speaker**, "Exploring and Exploiting Carbohydrate-lectin Interactions", PacifiChem, **Honolulu**, Hawaii, **USA**, 15-20 December, **2015.**

9. ****Keynote speaker**, "Acceptor-controlled Stereoselective Glycosylation", The 1st Symposium of Carbohydrate Synthesis (首届糖合成化学高峰论坛), **Nanchang**, **China**, 10-11 April, **2015**.
10. ***Session chair and Keynote speaker**, "New Glycosylation Methods & New Glycosylated Nanodevice Interfacing with Living Cells", Society for Glycobiology (SFG) & Japanese Society of Carbohydrate Research (JSCR) Joint Meeting, **Honolulu**, Hawaii, **USA**, 16-19 November, **2014**.
11. ***Keynote speaker**, "Glycosciences: From Synthetic Methods to Glycobiology", Singapore – South Korea Symposium on Glycomics, BioProcessing Institute, A*STAR, **Singapore**, 13 February, **2014**.
12. ***Keynote speaker**, "Stereoselective Glycosylation and Its Use in the Synthesis of Carbohydrates and Natural Products", 26th International Carbohydrate Symposium, **Madrid**, **Spain**, 22-27 July, **2012**.
13. ***Keynote speaker**, "Stereoselective Glycosylation and Its Use in the Synthesis of Carbohydrates and Natural Products", 27th Chinese Chemical Society Conference, **Xiamen**, **China**, 19-23 June, **2010**.

Lectureship Award Presentations

1. ****Award speaker**, Asian Core Program Lectureship Award (2012) Tour: "Glycosciences: From Synthetic Methods to Glycobiology", School of Chemistry and Chemical Engineering, Beijing University, **China**, 9 September, **2013**.
2. ****Award speaker**, Asian Core Program Lectureship Award (2012) Tour: "Glycosciences: From Synthetic Methods to Glycobiology", School of Pharmacy, Beijing University, **China**, 11 Sept., **2013**.
3. ****Award speaker**, Asian Core Program Lectureship Award (2012) Tour: "Glycosciences: From Synthetic Methods to Glycobiology", Institute of Chemistry, Chinese Academy of Sciences, **China**, 12 September, **2013**.
4. ****Award speaker**, Asian Core Program Lectureship Award (2011) Tour: "Glycosciences: From Synthetic Methods to Glycobiology", KAIST, **Korea**, 5 Aug, **2013**.
5. ****Award speaker**, Asian Core Program Lectureship Award (2011) Tour: "Glycosciences: From Synthetic Methods to Glycobiology", POSTECH, **Korea**, 6 Aug, **2013**.
6. ****Award speaker**, Asian Core Program Lectureship Award (2011) Tour: "Glycosciences: From Synthetic Methods to Glycobiology", Sungkyunkyan University, **Suwon**, **Korea**, 8 August, **2013.**
7. ****Award speaker**, Asian Core Program Lectureship Award (2011) Tour: "Glycosciences: From Synthetic Methods to Glycobiology", National Taiwan Normal University, **Taiwan**, 14, May, **2013**.
8. ****Award speaker**, Asian Core Program Lectureship Award (2011) Tour: "Glycosciences: From Synthetic Methods to Glycobiology", National Tsing Hua University, **Taiwan**, 15 May, **2013**.
9. ****Award speaker**, Asian Core Program Lectureship Award (2011) Tour: "Glycosciences: From Synthetic Methods to Glycobiology", National Chiao Tung University, **Taiwan**, 16 May, **2013**.
10. ****Award speaker**, Asian Core Program Lectureship Award (2011) Tour: "Glycosciences: From Synthetic Methods to Glycobiology", National Sun Yat Sen University, **Taiwan**, 17 May, **2013**.
11. ****Award speaker**, Asian Core Program Lectureship Award (2006) Tour: "An Easy Access to Aminoglycosides via Intramolecular Rh-catalyzed Aziridination of Glycals", Keio University, **Tokyo**, **Japan**, 23 June, **2008**.
12. ****Award speaker**, Asian Core Program Lectureship Award (2006) Tour: "An Easy Access to Aminoglycosides via Intramolecular Rh-catalyzed Aziridination of Glycals", Tokyo Institute of Technology, **Tokyo**, **Japan**, 24 June, **2008**.

13. ****Award speaker**, Asian Core Program Lectureship Award (2006) Tour: "An Easy Access to Aminoglycosides via Intramolecular Rh-catalyzed Aziridination of Glycals", The University of Tokyo, **Japan**, 25 June, **2008**.
14. ****Award speaker**, Asian Core Program Lectureship Award (2006) Tour: "An Easy Access to Aminoglycosides via Intramolecular Rh-catalyzed Aziridination of Glycals", RIKEN, **Tokyo**, **Japan**, 27 June, **2008**.

Invited Presentations

1. ***Invited speaker,** "Biohybrid peptidoglycan oligomers that incorporate into bacterial cell walls", The 11th International Symposium on Glycosyltransferases, **Qingdao**, **China**, 19-23 June, **2018**.
2. ****Invited speaker,** "Glycosciences: The Next Biomolecular Frontiers", Northwest University, **Xi-An**, **China**, 4 May, **2018**.
3. ****Invited speaker,** "Glycosciences: The Next Biomolecular Frontiers", Northwest A&F University, **Shanxi**, **China**, 2 May, **2018**.
4. ****Invited speaker,** "Strategic Glycosylations", Osaka University, **Osaka**, **Japan**, 20 November, **2017**.
5. ***Invited speaker**, "Glycosylation in Carbohydrate Synthesis and Glycoprotein Synthesis", 13th Midwest Carbohydrate and Glycobiology Symposium, **Madison**, WI, **USA**, 22-23 September, **2017**.
6. ****Invited speaker,** "Glycosciences: From Synthetic Methods to Glycobiology", South China Agricultural University, **Guangzhou**, **China**, 18 September, **2017**.
7. ***Invited speaker**, the 14th International Symposium for Chinese Organic Chemists (ISCOC) and the 11th International Symposium for Chinese Inorganic Chemists (ISCIC), **Singapore**, 8-10 Dec., **2016**.
8. ***Session chair** and **invited speaker**, "Dual Native Chemical Ligation: New Methods for Peptide and Glycopeptide Synthesis", P2S2 Symposium, **Singapore**, 8-9 Dec **2016**.
9. ****Invited speaker**, "Glycochemistry and Glycobiology", Dalian Institute of Chemistry and Physics, Chinese Academy of Sciences, **Dalian**, **China**, 6 April, **2016**.
10. ****Invited speaker**, "Glycochemistry and Glycobiology", Jiangnan University, **Wuxi**, **China**, 8 April, **2016**.
11. ****Invited speaker**, "Glycobiology-Oriented Synthesis", NanjingTech University, **Nanjing**, **China**, 11 April, **2016**.
12. ****Invited speaker**, "Glycobiology-Oriented Synthesis", Hangzhou Normal University, **Hangzhou**, **China**, 12 April, **2016**.
13. ***Invited speaker**, "Glycosciences: From Synthetic Methods to Glycobiology", 6th ICBE-International Conference on Biomolecular Engineering, **Singapore**, 5-7 January, **2016.**
14. ***Co-organiser,** The 7th International Peptide Symposium, at Breakthrough Theatre, Matrix, Biopolis, **Singapore**, 9-11 December, **2015**
15. ****Invited speaker**, "Glycosciences: From Synthetic Methods to Glycobiology", School of Pharmacy and School of Chemistry and Chemical Engineering, Shandong University, **Jinan**, **China**, 6 April**, 2015**.
16. ****Invited speaker**, "New Glycosylation Methods and Glycobiology", School of Pharmacy, Sichuan University, **Chengdu**, **China**, 8 April, **2015**.
17. ****Invited speaker**, "New Glycosylation Methods and Glycobiology", School of Chemistry and Chemical Engineering, Shaanxi Normal University**, Xi-An**, **China**, 16 April, **2015**.
18. ***Invited speaker**, "New Glycosylation Methods & New Glycosylated Nanodevice Interfacing with Living Cells", 8th Singapore International Chemistry Conference, U-Town, **Singapore**, 14-17 December, **2014**.
19. ***Invited speaker**, "The Intriguing Dual-Directing Effect of 2-Cyanobenzyl Ether for Highly Stereospecific Glycosylation Reaction", ICCEOCA-9/NICCEOCA-5, **Petaling Jaya**, **Malaysia**, 1-4 December, **2014**.

20. **Invited speaker**, "Novel Glycosylated Nanodevices Interfacing with Living Cells", Singapore Sensor Centre Inaugural networking workshop, NUS, **Singapore**, 26 July, **2014**.
21. ***Invited speaker**, "Stereoselective Glycosylation Methods and Their Application in Oligosaccharide Synthesis", the 5th International Conference on the Development of Biomedical Engineering, **Ho Chi Minh City**, **Vietnam**,16-18 June, **2014**.
22. ***Invited speaker**, "Stereoselective Glycosylation and Its Use in the Synthesis of Carbohydrates and Natural Products", 2014 Canadian Society for Chemistry (CSC) annual conference, **Vancouver**, **Canada**, 1-5 June, **2014**.
23. ***Invited speaker**, "Interfacing Glycosylated Nanodevice with Living Cells: From Biosensing to Drug Delivery". the Asia-Canada Glycoscience Symposium, **Vancouver**, **Canada**, 31 May-1 June, **2014**
24. ****Invited speaker**, "Glycosciences: From Synthetic Methods to Glycobiology", Huazhong University of Science and Technology, School of Chemistry and Chemical Engineering, **Wuhan, China**, 21 April, **2014**.
25. ****Invited speaker**, "Glycosciences: From Synthetic Methods to Glycobiology", School of Pharmacy, Huazhong University of Science and Technology, **Wuhan**, **China**, April 22**, 2014**.
26. ****Invited speaker**, "Glycosciences: From Synthetic Methods to Glycobiology", School of Chemistry, Huazhong Agricultural University, **Wuhan**, **China**, 23 April, **2014**.
27. ****Invited speaker**, "Glycosciences: From Synthetic Methods to Glycobiology", Wuhan University of Technology, **Wuhan**, **China**, 24 April, **2014**.
28. **Invited speaker**, "New Glycosylation Methods", 27th International Carbohydrate Symposium, **Bangalore**, **India**, 12-17 January, **2014**.
29. ****Invited speaker**, "Design and Synthesis of New Therapeutic Agents for Cancers", Shandong University, **China**, 2-5 September, **2013**.
30. ****Invited speaker**, "Carbohydrates – The Next Biomolecular Frontiers", Southwest University, **Chongqing**, **China**, 2 July, **2013**.
31. ****Invited speaker**, "New Methods for Carbohydrate Synthesis", Yunnan University, **Kunming**, **China**, 19-22 June, **2012**.
32. ***Invited speaker**, "Stereoselective Glycosylation and Its Use in the Synthesis of Carbohydrates and Natural Products", 28th Chinese Chemical Society Conference, **Chengdu**, **China**, 13-16 April, **2012**.
33. ***Invited speaker**, "New Synthetic Methods in Carbohydrate Chemistry", Zhejiang Normal University, **Hangzhou**, **China**, 11 April, **2012**.
34. ***Invited speaker**, "Direct and stereoselective synthesis of α-Linked 1,3-*cis*-3-aminodeoxyglycosides", The 6th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-6), **Hong Kong**, 11-15 December, **2011**.
35. ****Invited speaker**, "Discovery of Estrogen Receptor Antagonist: Protein-ligand Binding Study", East China Normal University, **Shanghai**, **China**, 16-18 June, **2010**.
36. **Invited speaker**, "Design and Synthesis of New Therapeutic Agents for Cancers", University of New South Wales, **Sydney**, **Australia**, 11-14 May, **2010**.
37. ***Invited speaker**, "Large-scale Fabrication of Wavelike Single-crystal Nanosheets for High-power Lithium Ion Batteries", 8th International Symposium on New Materials for Electrochemical Systems, **Shanghai**, **China**, 11-15 July, **2010**.
38. **Invited speaker**, "Design and Synthesis of New Therapeutic Agents for Cancers", NUS–UoH Chemistry Bilateral Symposium, NUS, **Singapore**, 14-15 December, **2009**.
39. **Invited speaker**, "Conversion of Glucose and Cellulose to DMF, a Potential Additive in Gasoline", 1st Annual Workshop on Energy Research Organized by ERI@N and NSWU, NTU, **Singapore**, 6-7 August, **2009**.
40. **Invited speaker**, "Biomass-derived Gasoline Additive", 1st Annual Workshop on Energy Research Organized by ERI@N, NTU, **Singapore**, 2-4 June, **2009**.

41. ***Invited speaker**, "Synthesis of Sugars and Other Neuritogenic Molecules", *2nd UK-Singapore Symposium – Contemporary Organic Synthesis, Methods and Techniques*, Biopolis, **Singapore**, 15 February, **2008**.
42. **Invited speaker**, "Sugars in Organic Synthesis and Chemical Biology", *International Symposium on Catalysis and Fine Chemicals 2007*, Nanyang Technological University, **Singapore**, 17-21 December, **2007.**
43. ***Invited speaker**, "Intramolecular Rh-catalyzed Aziridination of Glycals: A Novel Direct Access to Aminoglycosides", *PERCH-CIC Congress V*, **Pattaya city**, **Thailand**, 6-9 May, **2007**.
44. ***Invited speaker**, "Synthetic Study of Chondoitin Sulfate Small Molecules That Stimulate Neuronal Outgrowth", *First International Conference of Cutting-Edge Organic Chemistry*, Naha-city, **Okinawa**, **Japan**, 16-20 October, **2006**.
45. **Invited speaker**, "Design and Synthesis of Peptidomimetics as MC4R Ligands", *Nanyang Technological University-University of Warwick Symposium*, NTU, **Singapore**, 17 August, **2006**.

List of Publications *(in chronological order, starting with the most recent)*

*	Denotes PhD students	**	Denotes directly supervised research staff
‡	Denotes co-first author	†	Denotes corresponding authorship
#	Denotes Tier 1 papers	Bold	Denotes main author

Journal Papers *[Total: 141, Last 3 years: 28]*

1. *Báti, G.; *He, J.-X.; **Pal, K. B.; **Liu, X.-W.**† Stereo- and regioselective glycosylation with protection-less sugar derivatives: An alluring strategy to access glycans and natural products. *Chem. Soc. Rev.* **2019**, under revision. #
2. Rajan, S.; Jang, Y.; Kim, C.-H.; Toh, H. T.; Jeon, J.; Song, B.; Maqueda, A. S.; Lescar, J.; Shin, J.; Liu, X.-W.; Feitosa, M.; Hwang, D.; Lim, K.-L.; Park, H. M.; Lee, C. H.; Petsko, G.; Yoon, H. S.† Co-crystal structure and function of Nurr1 bound to the cyclopentenone prostaglandin A1. *Cell* **2019**, under revision. #
3. *Xu, Y.; Zhang, K.; Reghu, S.; **Lin, Y.; Chan-Park, M. B.†; **Liu, X.-W.**† Synthesis of antibacterial glycosylated polycaprolactones bearing imidazoliums with reduced hemolytic activity. *Biomacromolecules* **2019**, *20*, 949-958. #
4. *Das, M.‡; *Vu, M. D.‡; **Zhang, Q.; **Liu, X.-W.**† Metal-free Visible Light Photoredox enables generation of carbyne equivalents *via* phosphonium ylides C-H activation. *Chem. Sci.* **2019**, *10*, 1687-1691. #
5. *Yao, H.‡; *Vu, M. D.‡; **Liu, X.-W.**† Recent advances in reagent-controlled stereoselective/stereospecific glycosylation. *Carbohydr. Res.* **2019**, *473*, 72-81.
6. *Vu, M. D.; *Leng, W. L.; Hsu, H.-C.; **Liu, X.-W.**† Alkene synthesis using phosphonium ylides as umpolung reagents. *Asian J. Org. Chem.* **2019**, *8*, 93-96. #
7. *Leng, W. L.‡; *Yao, H.‡; *He, J.-X.‡; **Liu, X.-W.**† Venturing beyond donor-controlled glycosylation: new perspectives towards anomeric selectivity. *Acc. Chem. Res.* **2018**, *51*, 628-639. #
8. Zhao, S.; Huang, J.-J.; Sun, X.; Huang, X.; Fu, S.; Yang, L.; Liu, X.-W.; He, F.†; Deng, Y.† (1-Aryloxy-2-hydroxypropyl)-phenylpiperazine derivatives suppress *candida albicans* virulence by interfering with morphological transition. *Microb. Biotechnol.* **2018**, *11*, 1080-1089.
9. Low, Z. J.; Pang, L. M.; Ding, Y.; Cheang, Q. W.; **Le Mai Hoang, K.; Tran, H. T.; Li, J.; Liu, X.-W.; Kanagasundaram, Y.; Yang, L.; Liang, Z.-X.† Identification of a biosynthetic gene cluster for the polyene macrolactam sceliphrolactam in a *streptomyces* strain isolated from mangrove sediment. *Sci. Rep.* **2018**, *8*, 1594. #

10. *Liao, H.; Ma, J.[†]; *Yao, H.; **Liu, X.-W.**[†] Recent progress of *c*-glycosylation methods in the total synthesis of natural products and pharmaceuticals. *Org. Biomol. Chem.* **2018**, *16*, 1791-1806. #
11. Mahadevegowda, S. H.; Hou, S.; Ma, J.; Keogh, D.; Zhang, J.; **Mallick, A.; Liu, X.-W.; Duan, H.[†]; Chan-Park, M. B.[†] Raman-encoded, multivalent glycan-nanoconjugates for traceable specific binding and killing of bacteria. *Biomater. Sci.* **2018**, *6*, 1339-1346. #
12. **Huang, N.[‡]; *Liao, H.[‡]; *Yao, H.; Xie, T.; Zhang, S.; Zou, K.[†;] **Liu, X.-W.**[†] Diastereoselective synthesis of *c*-vinyl glycosides via gold(i)-catalyzed tandem 1,3-acyloxy migration/Ferrier rearrangement. *Org. Lett.* **2018**, *20*, 16-19. #
13. Fong, J.; Zhang, C.; Liang, R.; Boo, Z. Z.; Tan, S. K.; Nielsen, T. E.; Givskov, M.; Liu, X.-W., Bin, W.; Su H.[†]; Yang, L.[†] Combination therapy strategy of quorum quenching enzyme and quorum sensing inhibitor in suppressing multiple quorum sensing pathways of *P. aeruginosa. Sci. Rep.* **2018**, *8*, 1155. #
14. Vedachalam, S.[†]; Murugesh, N.; Chakraborty, P.; Karvembu, R.; **Liu, X.-W.**[†] NHC catalyzed enantioselective coates-claisen rearrangement: a rapid access to the dihydropyran core for oleuropein based secoiridoids. *New J. Chem.* **2018**, *42*, 1832-1839. #
15. **Mallick, A.; *Xu, Y.; **Lin, Y.; *He, J.-X.; Chan-Park, M. B.[†]; **Liu, X.-W.**[†] Oxadiazabicyclooctenone as a versatile monomer for the construction of pH sensitive functional polymers *via* ROMP. *Polymer Chem.* **2018,** *9*, 372-377. #
16. **Le Mai Hoang, K.; *He, J.-X.; *Báti, G.; Chan-Park, M. B.[†]; **Liu, X.-W.**[†] A minimalist approach to stereoselective glycosylation with unprotected donors. *Nat. Commun.* **2017**, *8*, 1146. #
17. Lv, X.; Cao, H.; Lin, B.[†]; Wang, W.; Zhang, W.; Duan, Q.; Tao, Y.; Liu, X.-W.; Li, X.[†] Synthesis of sialic acids, their derivatives, and analogs by using a whole-cell catalyst. *Chem. Eur. J.* **2017**, *23*, 15143-15149. #
18. *Vu, M. D.; *Das, M.; **Liu, X.-W.**[†] Direct aldehyde Csp^2-H functionalization through visible-light-mediated photoredox catalysis. *Chem. Eur. J.* **2017**, *23*, 15899-15902. #
19. *Yao, H.; Zhang, S.; *Leng, W. L.; **Leow, M. L.; **Xiang, S.; *He, J.-X.; *Liao, H.; **Le Mai Hoang, K.; **Liu, X.-W.**[†] Catalyst-controlled stereoselective *O*-glycosylation: Pd(0) vs Pd(II). *ACS Catalysis* **2017**, *7*, 5456-5460. #
20. Hou, Z.[‡]; Shankar, Y. V.[‡]; Liu, Y.[‡]; **Ding, F.; Subramanion, J. L.; Ravikumar, V.; Zamudio-Vázquez, R.; Keogh, D.; Lim, H.; Tay, M. Y. F.; Bhattacharjya, S.; Rice, S. A.; Shi, J.; Duan, H.; Liu, X.-W.; Mu, Y.; Tan, N. S.; Tam, K. C.; Pethe, K.; Chan-Park, M. B.[†] Nanoparticles of short cationic peptidopolysaccharide self-assembled by hydrogen bonding with antibacterial effect against multidrug-resistant bacteria. *ACS Appl. Mater. Interfaces* **2017**, *9*, 38288-38303. #
21. *Liao, H.; *Leng, W. L.; **Le Mai Hoang, Kim; *Yao, H.; *He, J.-X.; Voo, A. Y. H.; **Liu, X.-W.**[†] Asymmetric syntheses of 8-oxabicyclo[3,2,1]octane and 11-oxatricyclo[5.3.1.0] undecane from glycals. *Chem. Sci.* **2017**, *8*, 6656-6661. #
22. *Leng, W. L.; *Liao, H.; *Yao, H.; Ang, Z.-E.; **Xiang, S.; **Liu, X.-W.**[†] Palladium-catalyzed decarboxylative allylation/Wittig reaction: substrate-controlled synthesis of *C*-vinyl glycosides. *Org. Lett.* **2017**, *19*, 416-419. #
23. Zeng, J.[†]; Sun, G.; Yao, W.; Zhu, Y.; Wang, R.; Cai, L.; Liu, K.; Zhang, Q.; **Liu, X.-W.**; Wan, Q.[†] 3-Aminodeoxypyranoses in glycosylation: diversity-oriented synthesis and assembly in oligosaccharides. *Angew. Chem. Int. Ed.* **2017**, *56*, 5227-5231. #
24. **Wu, X.; *Tan, Y. J.; Toh, H. T.; Nguyen, L. H.; *Kho, S. H.; Chew, S. Y.; Yoon, H. S.; **Liu, X.-W.**[†] Stimuli-responsive multifunctional glyconanoparticle platforms for targeted drug delivery and cancer cell imaging. *Chem. Sci.* **2017**, *8*, 3980-3988. #
25. *William, R.; *Leng, W. L.; **Wang, S.; **Liu, X.-W.**[†] The first intermolecular interrupted imino-Nazarov reaction: expeditious access to carbocyclic nucleoside analogues. *Chem. Sci.* **2016**, *7*, 1100-1103. #

26. *Chai, H.[‡]; **Le Mai Hoang, K.[‡]; *Vu, M. D.; Pasunooti, K. K.; Liu, C.-F.; **Liu, X.-W.**[†] *N*-Linked glycosyl auxiliary-mediated native chemical ligation on aspartic acid: application towards *N*-glycopeptide synthesis. *Angew. Chem. Int. Ed.* **2016**, *55*, 10363-10367. **Highlighted by *X-MOL***. #
27. Xu, J.; Zhou, K.; Chen, F.; Chen, W.; Wei, X.; **Liu, X.-W.**[†]; Liu, J.[†] Natural integrated carbon architecture for rechargeable lithium-sulfur batteries. *ACS Sustainable Chem. Eng.* **2016**, *4*, 666-670.
28. *William, R.; **Wang, S.; **Mallick, A.; **Liu, X.-W.**[†] Interrupting Nazarov reaction with different trapping modality: Utilizing potassium alkynyltrifluoroborate as a σ-nucleophile. *Org. Lett.* **2016**, *18*, 4458-4461. #
29. *Xiang, S.; *Le Mai Hoang, K.; *He, J.-X.; *Tan, Y. J.; **Liu, X.-W.**[†] Reversing the stereoselectivity of a palladium-catalyzed *O*-glycosylation through an inner-sphere or outer-sphere pathway. *Angew. Chem. Int. Ed.* **2015**, *54*, 604-607. #
30. **Ding, F.; *William, R.; Kock, S. M.; **Leow, M. L.; **Liu, X.-W.**[†] A concise route to the highly functionalized azetidine precursor: the enantioselective synthesis of penaresidin B. *Chem. Commun.* **2015**, *51*, 4639-4642. #
31. *Ji, L.; *Xiang, S.; *Leng, W. L.; *Le Mai Hoang, K.; **Liu, X.-W.**[†] Palladium-catalyzed glycosylation: novel synthetic approach to diverse *N*-heterocyclic glycosides. *Org. Lett.* **2015**, *17*, 1357-1360. #
32. **Wu, J.; *Xiang, S.; **Zeng, J.; **Leow, M. L.; **Liu, X.-W.**[†] Practical route to 2-quinolinones *via* a Pd-catalyzed C–H bond activation/C–C bond formation/cyclization cascade reaction. *Org. Lett.* **2015**, *17*, 222-225. **Highlighted in *Synfacts* 2015, *11*, 346.** #
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