WAN CHAN, DEPT. CHEM, HKUST

PERSONAL INFORMATION

Sex:	Male	Year of Birth:	1979
Marital status:	Married	Nationality:	Chinese
Office:	2358-7370	E-mail:	chanwan@ust.hk
Address:	Room 4520, Department of Chemistry and Division of Environment & Sustainability, HKUST, Clear Water Bay, Kowloon, Hong Kong		

WORKING EXPERIENCE

- **Associate Professor (7/2017 - present)**
- **Assistant Professor (8/2011 - 7/2017)**

  Department of Chemistry and Division of Environment & Sustainability
  The Hong Kong University of Science and Technology

- **Postdoctoral Associate (7/2008-8/2011),**

  Department of Biological Engineering (Formerly Division of Toxicology),
  Massachusetts Institute of Technology (Advisor: Prof. Peter C. Dedon)

ACADEMIC QUALIFICATION

- **Ph.D. in Bioanalytical Chemistry (9/2004-12/2007)**

  Hong Kong Baptist University (Advisor: Prof. Zongwei Cai)
  Dissertation: Development and Application of Liquid Chromatography and Electrospray-Ionization Mass Spectrometry Methods for Herbal Medicine Analysis and for the Studies of Metabolism, DNA Adducts and Metabonomics of Aristolochic Acids

- **B.Sc. in Chemistry (9/2001-6/2004)**

  First Class Honors
  Hong Kong University of Science and Technology
  Undergraduate Research Project: Development and Application of an On-Sorbent Derivatization and In-Injection Port Thermal Desorption Gas-Chromatography Method for Analyzing Aromatic Amines in Air Samples

COURSES TAUGHT

- Fundamentals of Analytical Chemistry (CHEM2310, 3 credits)
  Fall 2012-13, 183 students; (Co-teach with Prof. JZ Yu)
  Fall 2013-14, 241 students;
  Fall 2014-15, 117 students;
  Fall 2015-16, 111 students.
- Separation Science (CHEM4330, 3 credits)
  Spring 2011-12, 54 students;
  Spring 2012-13, 63 students;
  Spring 2013-14, 60 students;
  Spring 2014-15, 83 students;
  Spring 2015-16, 58 students.
- Chemistry UG Seminar (CHEM3928, 1 credit)
  Spring 2011-12, 11 students;
  Spring 2013-14, 12 students.
- Science School Induction (SCIE1000, 1 credit)
  Spring & Fall 2012-13, 37 students; (20 contact hrs in total)
  Spring & Fall 2013-14, 36 students; (20 contact hrs in total)
  Spring & Fall 2014-15, 36 students; (20 contact hrs in total)
  Spring & Fall 2015-16, 36 students. (20 contact hrs in total)
- Guided Study on Research I, (SCIE1500, 1 credit, Co-teach with faculties in SCIE)
  Spring 2012-13, 37 students;
  Spring 2013-14, 36 students.
- Guided Study on Research II (SCIE2500, 1 credit, Co-teach with faculties in SCIE)
  Spring 2014-15, 1 student.
- Young Entrepreneurship Syndicate in Applied Science Workshop (SCIE4850, 1 credit, Co-teach with faculties in SCIE)
  Spring 2014-15, 20 students;
  Spring 2015-16, 9 students.

HONOR AND AWARDS

- **Research Article of the Year Award Lectureship**, *Journal of Agricultural and Food Chemistry* and *American Chemical Society Division of Agrochemicals*, 2017.
- **Merck Award of Achievement,** Division of Chemical Toxicology, American Chemical Society, 2010.
- MIT Center for the Environmental Health Sciences **Outstanding Poster Award**, MIT, 2009.
- **Baptist Chemists Postgraduate Paper Award** for the outstanding achievement in research publications, HKBU, 2007-2008.
- **Dr. Wu Yee Sun Memorial Scholarship Fund** on the basic of academic merit, HKBU, 2006-2007.

CAMPUS SERVICE

- Scientific Advisor, Science Focus magazine, by School of Science, HKUST; 2014-present
- *Ad hoc* Search Committee for Lecturer II; Environmental Science (ENVS) Programs, 2013-present
- *Ad hoc* Teaching Appointment Committee; ENVS, 2014-present
- Pre-major faculty advisor for School of Science; 2012-present
- UG Committee, Department of Chemistry; 2012-present
- PG Committee, Department of Chemistry; 2014-present
- UG Committee, ENVS; 2014-present
- Teaching Faculty Search Committee, ENVS; 2013-present
- Seminar Committee, Department of Chemistry; 2012-present
- Guard of Angels for Mass Spectrometry facilities (Chairman), 2012-2015

COMMUNITY SERVICE

- The HKDSE Subject Committee (CHEM); 2011-present
- Mentor of "1 + 1 Science Tip-top Talent Scheme", by The Hong Kong Federation of Youth Group; 2014/15, 2015/16.
- Panel member the Hong Kong Scholarship for Excellence Scheme (2016-present).

ACTIVITIES WITH PROFESSIONAL SOCIETIES:

- Member: The American Chemical Society (2010, 2014-present)
- Member: The American Association for Cancer Research (2009)
- Member: The Hong Kong Society of Mass Spectrometry (2005-2008, 2011-present)
- Council member: The Hong Kong Society of Mass Spectrometry (2011-present)

REVIEWER OF JOURNALS

Anal. Chem.; Chem. Res. Toxicol.; J. Agri. Food Chem; Food Chem.; Biom. Chromatogr.; J. Chromatogr. A; Rapid Commun. Mass Spectrom.; Toxins; Scientific Reports; Int J Mol Sci; J. Hazard. Mater; Analyst; Food Res. Int.; ACS Sensors; Green Chemistry

PUBLICATION

Refereed Journals:

Affiliation: The Hong Kong University of Science and Technology

1. Wang Y, Chan K-K, and Chan W*, (2017) Plant uptake and metabolism of nitrofuran antibiotics in spring onion grown in nitrofuran contaminated soil. *J Agric Food Chem.*, **65**:4255-4261.
2. Deng K and Chan W*, (2017) Development of a QuEChERS-based method for determination of carcinogenic 2-nitrofluorene and 1-nitropyrene in rice grains and vegetables: A comparative study with Benzo[*a*]pyrene. *J Agric Food Chem.*, **65**:1992-1999.
3. Meng X, and Chan W*. (2017) Determination of 2-alkylcyclobutanones in ultraviolet light irradiated fatty acids, triglycerides, corn oil, and pork samples: Identifying a new source of 2-alkylcyclobutanones. *Food Chem.*, **217:**352-9.

4. Liu J, Chan K. K. Jason, and Chan W*. (2016) Quantitation of a New Post-Translation Modification, Thiazolidination, in Protein and Cells by Isotope-Dilution Liquid Chromatography-Tandem Mass Spectrometry. *Chem. Res. Toxicol.*, **29:** 1865-1871.
5. Wang Y, Wong T-Y, and Chan W*, (2016) Quantitation of the DNA Adduct of Semicarbazide in Organs of Semicarbazide-Treated Rats by Isotope-Dilution Liquid Chromatography-Tandem Mass Spectrometry: A Comparative Study with the RNA Adduct. *Chem. Res. Toxicol.*, 29:1560−1564.
6. Chan W*, *et al*. (2016) Quantitation of Aristolochic Acids in Corn, Wheat Grain, and Soil Samples Collected in Serbia: Identifying a Novel Exposure Pathway in the Etiology of Balkan Endemic Nephropathy, *J Agric Food Chem*, **64:**5928-34. ***(Best Paper of 2016 in JAFC)***
7. Song H, Dong C, Qin M, Chen Y, Sun Y, Liu J, Chan W, Guo Z. (2016) A thiamine-dependent enzyme utilizes an active tetrahedral intermediate in vitamin K biosynthesis. *J. Am. Chem. Soc.*, **138:**7244-7.
8. Hu Q, Meng X, Chan W*, (2016) An Investigation on the Chemical Structure of Nitrogen and Sulfur-codoped Carbon Nanoparticles by Ultra-performance Liquid Chromatography-tandem Mass Spectrometry. *Anal. Bioanal. Chem.*, 138:7244-7.
9. Wang Y, Chan H-W, and Chan W*, (2016) Facile Formation of a DNA Adduct of Semicarbazide on Reaction with Apurinic/Apyrimidinic Sites in DNA, *Chem. Res. Toxicol*., **29:** 834−840.
10. Wang Y and Chan W*, (2016) Automated in-injector derivatization combined with high performance liquid chromatography-fluorescence detection for the determination of semicarbazide in fish and bread samples, *J. Agric. Food Chem.*, **64:**2802−2808.
11. Meng X, Tong T, Wang L, Liu H, and Chan W,* (2016) Determination of 2-alkylcyclobutanones by combining precolumn derivatization with 1-naphthalenyl hydrazine and ultra-performance liquid chromatography with fluorescence detection, *Anal. Bioanal. Chem.*, **408:**3707-3714.
12. Hu Q, Meng X, Choi MM, Gong X, and Chan W*, (2016) Separation and structural elucidation of carbon nanoparticles by ultra-performance liquid chromatography coupled with electrospray ionisation quadrupole time-of-flight tandem mass spectrometry, *Anal. Chim. Acta.*, **911:**100-107.
13. Liu J, Meng X, and Chan W*, (2016) Quantitation of Thioprolines in Grape Wine by Isotope-Dilution Liquid Chromatography–Tandem Mass Spectrometry, *J. Agric. Food Chem.*, **64:**1361-1366.
14. Li W, Hu Q, and Chan W*, (2016) Uptake and accumulation of nephrotoxic and carcinogenic aristolochic acids in food crops grown in *Aristolochia clematitis*-contaminated soil and water, *J. Agric. Food Chem.*, **64:**107-112.
15. Leung EM, Deng K, Wong T-Y, and Chan W*, (2016) Determination of DNA adducts by combining acid-catalyzed hydrolysis and chromatographic analysis of the carcinogens-modified nucleobases, *Anal. Bioanal. Chem.*, **408:**953-961.
16. Li W, Hu Q, and Chan W*, (2015) Mass spectrometric and spectrofluorometric studies of the interaction of aristolochic acids with proteins, *Sci. Rep.* **5:**15192. DOI: 10.1038/srep15192.

17. Jumpathong W, Chan W, Taghizadeh K, Ramesh BI, and Dedon PC*, (2015) Metabolic fate of endogenous molecular damage: Urinary glutathione conjugates of DNA-derived base propenals as markers of inflammation, *Proc. Natl. Acad. Sci. USA*, **112:**E4845–E4853.

18. Li Y, Liu J, Wang Y, Chan H-W, Wang L*, and Chan W*, (2015) Mass spectrometric and spectrophotometric analyses reveal an alternative structure and a new formation mechanism for melanin, *Anal. Chem.*, **87:**7958−7963.

19. He W, Huang T, Tang Y, Liu YH, Wu XL, Chen S, Chan W, Wang YJ, Deng ZX, Liu XY, Chen S, Wang LR, (2015) Regulation of DNA phosphorothioate modification in Salmonella enterica by DndB, *Sci. Rep.* **5:**12368. DOI: 10.1038/srep12368.

20. Deng K, Wang Y, Wong T-Y, Leung EM and Chan W*, (2015) Combination of pre-column nitro-reduction and ultra-performance liquid chromatography with fluorescence detection for the sensitive quantification of 1-nitronaphthalene, 2-nitrofluorene, and 1-nitropyrene in meat product, *J. Agric. Food Chem.,* **63:** 3161-3167.

21. Leung EM and Chan W*, (2015) Quantification of aristolochic acids-RNA adducts in the urine of aristolochic acids-treated rats by liquid chromatography–tandem mass spectrometry, *Chem. Res. Toxicol*. **28:**567-569.

22. Leung EM and Chan W*, (2015) Comparison of DNA and RNA adduct formation: Significantly higher levels of RNA than DNA modifications in the internal organs of aristolochic acids-dosed rats, *Chem Res Toxicol*. **28:**248-255.

23. Liu J and Chan W*, (2015) Quantification of thiazolidine-4-carboxylic acid in toxicant-exposed cells by isotope-dilution liquid chromatography–mass spectrometry reveals intrinsic antagonistic response to oxidative stress-induced toxicity, *Chem. Res. Toxicol*. **28:**394-400.

24. Wang Y and Chan W*, (2014) Determination of aristolochic acids by high-performance liquid chromatography with fluorescence detection, *J. Agric. Food Chem.,* **62:**5859-5864.

25. Leung EM and Chan W*, (2014) Noninvasive measurement of aristolochic acid-DNA adducts in urine samples from aristolochic acid-treated rats by liquid chromatography coupled tandem mass spectrometry: Evidence for DNA repair by nucleotide-excision repair mechanisms, *Mutat. Res.*, **766-767:**1-6.

26. Chan W*, Ye Y, and Leung EM, (2014) Rapid identification of γ-irradiated food by direct solvent extraction and liquid chromatography-tandem mass spectrometric analysis of 2-dodecylcyclobutanone: Application in surveillance of irradiated food, *Food Chem*. **161:**312-316.

27. Leung EM and Chan W*, (2014) A novel reversed-phase HPLC method for the determination of urinary creatinine by pre-column derivatization with ethyl chloroformate: Comparative studies with the standard *Jaffé* and isotope-dilution mass spectrometric assays, *Anal Bioanal Chem*, **406:**1807-1812.

28. Leung EM, Tang, PN, Ye Y, and Chan W,* (2013) Analysis of 2-alkylcyclobutanones in cashew net, nutmeg, apricot kernel, and nutmeg samples: Re-evaluating the uniqueness of 2-alkylcyclobutanones for irradiated food identification, *J. Agric. Food Chem.* **61:**9950-9954.

29. Zhang Y, Hu Q, Paau MC, Xie S, Gao P, Chan W,* and Choi MM,* (2013) Probing histidine-stabilized gold nanoclusters product by high-performance liquid chromatography and mass spectrometry, *J. Phys. Chem. C* **117:**18697-18708.
30. Hu Q, Paau MC, Zhang Y, Chan W,* Gong XJ, Zhang L, and Choi MM,* (2013) Capillary electrophoretic study of amine/carboxylic acid-functionalized carbon nanodots, *J. Chromatog. A* **1304:**234-240.
31. Ye Y, Liu H, Horvatovich P, and Chan W,* (2013) Liquid chromatography-electrospray ionization tandem mass spectrometric analysis of 2-alkylcyclobutanones in irradiated chicken by pre-column derivatization with hydroxylamine, *J. Agric. Food Chem*, **61:**5758-5763.
32. Li J, Leung EM, Choi MM, and Chan W,* (2013) Combination of pentafluorophenylhydrazine derivatization and isotope dilution LC-MS/MS techniques for the quantification of apurinic/apyrimidinic sites in cellular DNA, *Anal Bioanal Chem*, **405:**4059-4066.
33. Li J and Chan W,* Investigation of the biotransformation of osthole by LC-MS/MS, (2013) *J. Pharmaceut. Biomed. Anal.* **74:**156-161.
34. Xie S, Paau MC, Zhang Y, Shuang S, Chan W, and Choi MM, (2012) High-performance liquid chromatographic analysis of as-synthesised N,N'-dimethylformamide-stabilised gold nanoclusters product. *Nanoscale* **4:**5325-320

Affiliation: Massachusetts Institute of Technology

35. Lim KS, Cui L, Taghizadeh K, Wishnok JS, Chan W, Demott MS, Babu IR, Tannenbaum SR, Dedon PC, (2012) In Situ Analysis of 8-Oxo-7,8-dihydro-2'-deoxyguanosine Oxidation Reveals Sequence- and Agent-Specific Damage Spectra., *J Am Chem Soc.* **134:**18053-64.
36. Wang L, Chen S, Kevin L. Vergin KL, Giovannon SJ, Chan W, Demott MS, Taghizadeh K, Cutler M, Timberlake S, Alm EJ, Polz MF, Pinhassi J, Deng Z, Dedon PC. (2011) DNA phosphorothioation is widespread and quantized in bacterial genomes, *Proc. Natl. Acad. Sci. U.S.A.* **108:**2963-2968.
37. Chan W and Dedon PC. (2010) The biological and metabolic fate of DNA damage products, *J. Nucleic acids*. DOI:10.4061.
38. Chan W, Chen BZ, Wang LR, Taghizadeh K, Demott MS, Razskazovskiy Y, and Dedon PC. (2010) Quantification of the 2-deoxyribonolactone and nucleoside 5'-aldehyde products of 2-deoxyribose oxidation in DNA and cells by isotope-dilution gas chromatography mass spectrometry: Differential effects of γ-radiation and Fe^{2+}-EDTA, *J. Am. Chem. Soc.* **132:**6145-6153.

Affiliation: Hong Kong Baptist Unviersity

39. Chan W†, Lin S†, Sun S, Liu H, Cai Z, and Luk JM. Metabolomics Reveals Responses to Partial Hepatectomy in Hepatocellular Carcinoma Patients in Conjunction with Multivariate Data Analysis, (2011) *Am. J. Anal. Chem* **2:**142-151 († *designate equal contribution*).
40. Lin S†, Chan W†, Li J, and Cai Z. (2010) Liquid chromatography/mass spectrometry for investigating the biochemical effects induced by aristolochic acid in rats: the

plasma metabolome, *Rapid Commun. Mass Spectrom.* **24:**1312-1318. († *designate equal contribution*)

41. Yue H, Chan W, Yu KJ, Guo L, Liu N, Liu HW, and Cai ZW. (2009) Recent progress in quantitative analysis of DNA adducts of nephrotoxic aristolochic acid, *Sci. China Ser. B* **52:**1576-1582.
42. Yue H, Chan W, Guo L, and Cai ZW. (2009) Determination of aristolochic acid I in rat urine and plasma by high-performance liquid chromatography with fluorescence detection, *J. Chromatog. B* **877:**995-999.
43. Liu N, Chan W, Lee KC and Cai ZW. (2009) A method to enhance a1 ions and application for peptide sequencing and protein identification, *J. Am. Soc. Mass Spectrom.* **20:**1214-1223.
44. Chan W, Poon WT, Chan Y-W, Wan K-Y, and Cai ZW. (2009) A new approach for the sensitive determination of DNA adduct of aristolochic acid II by using high-performance liquid chromatography with fluorescence detection, *J. Chromatog. B* **877:**848-852.
45. Li JH, Chan W, and Cai ZW. (2009) On-line capillary electrophoresis-electrospray ionization mass spectrometry analysis of urinary porphyrins, *Electrophoresis* **30:**1790-1797.
46. Cui L, Chan W, Qiu F, Cai ZW, Yao Z. (2008) Identification of four urea adducts of Andrographolide in human, *Drug Metab. Lett.*, **2:**261-268.
47. Chan W, Yue H, Wong Ricky NS, Cai ZW. (2008) Characterization of the DNA Adducts Induced by Aristolochic Acids in Oligonucleotides by Electrospray Ionization Tandem-Mass Spectrometry, *Rapid Commun. Mass Spectrom.*, **22:**3735-3742.
48. Chan W, Yue H, Poon WY, Chan Y-W, Schmitz Oliver J, Kwong, Daniel WJ, Wong Ricky NS, Cai ZW. (2008) Quantification of Aristolochic Acid-Derived DNA Adducts in Rat Kidney and Liver by Using Liquid Chromatography-Electrospray Ionization Mass Spectrometry, *Mutat. Res.*, **646:**17-24.
49. Lee KC, Chan W, Liang ZT, Liu N, Zhao ZZ, Lee Albert WM, Cai ZW. (2008) Rapid screening method for intact glucosinolates in Chinese medicinal herbs by using liquid chromatography coupled with electrospray ionization ion trap mass spectrometry in negative ion mode, *Rapid Commun. Mass Spectrom.*, **22:**2825-2834.
50. Liu N, Song WJ, Wang P, Lee KC, Chan W, Chen HL and Cai ZW. (2008) Proteomics analysis of differential expression of cellular proteins in response to avian H9N2 virus infection in human cells, *Proteomics* **8:**1851-1858.
51. Cui L, Chan W, Wu JL, Jiang Z-H, Chan K, Cai ZW. (2008) High performance liquid chromatography analysis for rat metabolism and pharmacokinetic studies of lithospermic acid B from danshen, *Talanta* **75:**1002-1007.
52. Chan W, Lee KC, Liu N, Wong Ricky NS, Liu HW and Cai ZW. (2008) Liquid chromatography-mass spectrometry for metabonomics investigation of the biochemical effects induced by aristolochic acid in rats: The use of information dependent acquisition for biomarker identification, *Rapid Commun. Mass Spectrom.*, **22:**873-880.
53. Chan W, Cai ZW. **(**2008) Aristolochic acid induced changes in the metabolic profile of rat urine, *J. Pharmaceut. Biomed.*, **46:**757-762.

54. Chan W, Lee KC, Liu N, and Cai ZW. (2007) A sensitive enhanced high performance liquid chromatography fluorescence method for the detection of nephrotoxic and carcinogenic aristolochic acid in herbal medidines, *J. Chromatog. A* **1164:**113-119.
55. Chan W, Luo HB, Zheng YF, Cheng YK, and Cai ZW. (2007) Investigation of the metabolism and reductive activation of carcinogenic aristolochic acids in rats, *Drug Metab. Dispos.* **35:**866-874.
56. Chan W, Zheng YF, and Cai ZW. (2007) Liquid Chromatography-Tandem Mass Spectrometry Analysis of the DNA Adducts of Aristolochic Acids, *J. Am. Soc. Mass Spectrom.* **18:**642-650.
57. Ma WT, Chan W, Steinbach K, and Cai ZW. (2007) Determination of five nitrobenzoic acids in groundwater by using solid-phase extraction and liquid chromatography-mass spectrometry, *Anal. Bioanal. Chem.* **387:**2219-2225.
58. Lee KC, Cheuk MW, Chan W, Lee AW-M, Zhao ZZ, Jiang ZH, and Cai ZW. (2006) Determination of glucosinolates in traditional Chinese herbs by high-performance liquid chromatography and electrospray mass spectrometry, *Anal. Bioanal. Chem.* **385:**2225-2232.
59. Chan W, Hui KM, Poon WT, Lee KC, and Cai ZW. (2006) Differentiation of herbs linked to "Chinese herb nephropathy" from the liquid chromatographic determination of aristolochic acids, *Anal. Chim. Acta.* **579:**112-116.
60. Chan W, Cui L, Xu GW, and Cai ZW. (2006) Study of the phase I and phase II metabolism of nephrotoxin aristolochic acid by liquid chromatography/tandem mass spectrometry, *Rapid Commun. Mass Spectrom.* **20:**1755 -1760.

Book Chapter:

1. Chan W and Cai ZW. (2005) Identification of components in traditional Chinese medicinal products using LC-MS, in *Encyclopedia of Mass Spectrometry (V8),* Pergamon Pr, article #: Else_EMASV008_93.

Non-peer-reviewed Articles:

1. 陳雲. (2015) 生活中的化學, in 香港電台 eTVonline, 『這一科, 學什麼』, http://utalks.etvonline.hk/article96.php.

OUTREACH TALKS GIVEN AT LOCAL SECONDARY SCHOOLS

1. "An Introduction to Food Safety Testing", *Po Leung Kuk Ngan Po Ling College*; May, 2017
2. "An Introduction to Food Safety Testing", *St. Paul's Convent School*; Jan, 2016.
3. "An Introduction to Food Safety Testing", *Sha Tin Government Secondary School*; April, 2015.
4. "An Introduction to Food Safety Testing", *Our Lady of the Rosary College*; April, 2015.
5. "An Introduction to Food Safety Testing", *Kowloon True Light College*; Dec 2014.
6. "An Introduction to Food Safety Testing", *Po Leung Kuk Ngan Po Ling College*; Nov 2014.
7. "An Introduction to Food Safety Testing", *HK Tang King Po College*; June, 2014.

8. "Chemistry in Our Daily Life" *Wa Ying College*, Nov 2013.
9. "An Introduction to Food Safety Testing", *Carmel Divine Grace Foundation Secondary School*; Nov 2013
10. "An Introduction to Food Safety Testing", *Hong Kong True Light College*; Oct 2013.

INVITED SEMINARS

1. "Metabolomics investigation of the pathophysiology of air pollution–induced human diseases", School of Pharmacy, WuHan University; June 2014.
2. "Mass spectrometry-based metabolomics investigations of the effect of atmospheric pollution on human health", The Hong Kong Society of Mass Spectrometry; April 2013.
3. "Developing Mass Spectrometric Methods for Genetic Toxicology Studies", Department of Chemistry, The Hong Kong Baptist University; Jan 2013
4. "Combination of Pentafluorophenylhydrazine derivatization and isotope dilution LC-MS/MS techniques for the quantification of Apurinic/Apyrimidinic sites in cellular DNA", AB SCIEX Hong Kong LC/MS Users Group Meeting; December 2012.
5. "Developing a "General" Biomarker for Toxicant Exposure Assessment", Xi'an Jiao Tong University; Jan, 2012.
6. "Investigation of the metabolism of osthole by liquid chromatography coupled with electrospray ionization tandem mass spectrometry", Chinese Academy of Medical Sciences & Peking Union Medical College; Dec, 2011
7. "A liquid chromatography mass spectrometry-based metabolomics approach to develop biomarker of oxidative stress and carbonyl exposure", Department of Pathology, The University of Hong Kong; Aug, 2011.

CONFERENCE/SYMPOSIUM PRESENTATIONS

1. Chan W, Mass spectrometric analysis of carbon nonoparticles. 6th World Chinese Mass Spectrometry Conference (WCMSC) meeting, Texas, USA, June 2016
2. Chan W, Environmental pollution as one of the major causes to aristolochic acid & Balkan endemic nephropathy. Workshop of Environmental Sciences. The Hong Kong Baptist University, Hong Kong, April 2016
3. Chan W, Noninvasive measurement of carcinogens exposure by quantifying urinary DNA/RNA adducts. *American Chemical Society*. Massachusetts, USA. Aug 2015 (Oral presentation).
4. Y Wang and Chan W, Determination of protein-bound metabolites of nitrofurans by combining on-line precolumn derivatization and high performance liquid chromatography with fluorescence detection. *American Chemical Society*. Massachusetts, USA. Aug 2015 (poster presentation).
5. Liu J and Chan W, Quantification of thiazolidine-4-carboxylic acid in toxicant-exposed cells by liquid chromatography-mass spectrometry reveals an intrinsic antagonistic response to oxidative stress-induced toxicity. *American Chemical Society*. Massachusetts, USA. Aug 2015 (poster presentation).
6. Leung M and Chan W, Noninvasive measurement of Aristolochic Acid-DNA adducts in urine samples from aristolochic acid-treated rats by liquid chromatography coupled

electrospray ionization tandem mass spectrometry. *American Chemical Society*. Massachusetts, USA. Aug 2015 (poster presentation).

7. Deng K and Chan W, Combination of pre-column nitro-reduction and ultraperformance liquid chromatography with fluorescence detection for the sensitive quantification of 1-nitronaphthalene, 2-nitrofluorene, and 1-nitropyrene in meat products. *American Chemical Society*. Massachusetts, USA. Aug 2015 (poster presentation).
8. Chan W and Dedon PC, Quantification of the 2-deoxyribonolactone and nucleoside 5'-aldehyde products of 2-deoxyribose oxidation in DNA and cells by isotope-dilution gas chromatography mass spectrometry. *American Chemical Society*. Massachusetts, USA. Aug 2010 (poster presentation).
9. Chan W and Dedon PC, Quantification of 2-deoxyribose oxidation products in oxidized DNA by GC/MS. *American Association for Cancer Research*. Colorado, USA. April 2009 (poster presentation).
10. Chan W and Cai ZW, Analysis of the DNA adducts induced by aristolochic acids by using LC/MS. *Beijing Conference and Exhibition on Instrumental Analysis*. Beijing, China. Oct. 2005 (poster presentation).
11. Chan W and Cai ZW, LC/MS based metabonomic study of aristolochic acids in rat. *The 9th International Symposium on Hyphenated Techniques in Chromatography and Hyphenated Chromatographic Analyzers*. York, UK. Feb. 2006 (oral presentation).
12. Chan W and Cai ZW, LC/MS based metabonomic study of aristolochic acids in rat. *8th HKSMS Annual General Meeting*. Hong Kong, China. June 2006 (oral presentation).