

廖志中 Liaw, Chih-Chuang

論文及著述

A. 期刊論文

1. Yaun-Chao Huang, Tsong-Long Hwang, Yu-Liang Yang, Shih-Hsiung Wu, Mei-Hua Hsu, Jih-Pyang Wang, Sheng-Chih Chen, Li-Jiau Huang, and **Chih-Chuang Liaw***, 'Acetogenin and Prenylated Flavonoids from *Helminthostachys zeylanica* with Inhibitory Activity on Superoxide Generation and Elastase Release by Neutrophils', *Planta Med.* **2010**, 76, 447-453. (Impact factor 2.154, Plant Sciences, 56/190=29.5%, * correspondence)
2. **Chih-Chuang Liaw**, Tung-Ying Wu, Fang-Rong Chang, Yang-Chang Wu, 'Historic Perspectives of Annonaceous Acetogenins. From Chemical Bench to Preclinical Trials', *Planta Med.*, **2010**, 76, 1390-1404. (Impact factor 2.154, Plant Sciences, 56/190=29.5%)
3. **Chih-Chuang Liaw***, Wen-Ying Liao, Chien-Sheng Chen, Yang-Chang Wu, Shu-Chuan Jao, Chia-Ning Shen*, and Shih-Hsiung Wu,* "Calcium-chelating Capability of Tetrahydrofuranic Moieties Modulates Cytotoxicity of Annonaceous Acetogenins" *Angew. Chem. Int. Ed.* **2011**, 50, 7885–7891. (Impact factor 13.455, Chemistry, Multidisciplinary, 7/154=4.5%, * correspondence)
4. **Chih-Chuang Liaw**; Jia-Lin Chang;* Shou-Fong Chen; Jih-Hong Huang; Jyun-Fu Sie; Yung-Yi Cheng, "Simulations of circular dichroism spectra of a pair of diterpene enantiomers by time-dependent density functional theory" *Chem. Phys. Lett.* **2011**, 517, 51-54. (Impact factor 2.337, Physics, Atomic, Molecular & Chemical, 12/33=36.4%)
5. Wen-Ying Liao, Chia-Ning Shen, Li-Hua Lin, Yu-Liang Yang, Hsin-Ying Han, Jing-Wei Chen, Sheng-Chu Kuo, Shih-Hsiung Wu, **Chih-Chuang Liaw***, "Asperjinone, A Nor-Neolignan, and Terrein, A Suppressor of ABCG2-expressing Breast Cancer Cells, from Thermophilic *Aspergillus terreus*", *J. Nat. Prod.* **2012**, 75, 630-635 (IF: 3.789, Plant Sciences, 23/200=11.5%)
6. Shwu-Li Wu, Jui-Hsin Su, Chiung-Yao Huang, Chi-Jen Tai, Ping-Jyun Sung, **Chih-Chuang Liaw**, Jyh-Horng Sheu,* "Simplexins P–S, Eunicellin-Based Diterpenes from the Soft Coral *Klyxum simplex*", *Mar. Drugs*, **2012**, 10, 1203-1211. (IF: 2.853, Chemistry, Medicinal, 22/59=37.3%)
7. David J. Gonzalez, Yuquan Xu, Yu-Liang Yang, Eduardo Esquenazi, Wei-Ting Liu, Anna Edlund, Tram Duong, Liangcheng Du, István Molnár, William H. Gerwick, Paul R. Jensen, Michael Fischbach, **Chih-Chuang Liaw**, Paul Straight, Jack E. Dixon, Victor Nizet, Pieter C. Dorrestein,* "Observing the Invisible through Imaging Mass Spectrometry, a Window into the Metabolic Exchange Patterns of Microbes", *J. Proteomics*, **2012**, 75, 5069-5076. (IF: 3.888, Biochemical Research Methods, 16/79=20.2%).
8. Hui-Yu Fang,# **Chih-Chuang Liaw**,# Chih-Hua Chao, Zhi-Hong Wen, Yang-Chang Wu, Chi-Hsin Hsu, Chang-Feng Dai, and Jyh-Horng Sheu, "Bioactive Pregnane-type Steroids from the Soft Coral *Scleronephthya gracillimum*", *Tetrahedron* **2012**, 68, 9694-9700. (IF: 2.641, Chemistry, Organic, 17/57=29.8%, # equal contribution)
9. Hui-Chi Huang, **Chih-Chuang Liaw**, Hsin-Ling Yang, You-Cheng Hseu, Hsiou-Ting Kuo, Yao-Ching Tsai, Shih-Chang Chien, Sakae Amagaya, Yu-Chang Chen, Yueh-Hsiung Kuo. "Lanostane triterpenoids and sterols from *Antrodia camphorate*." *Phytochemistry* **2012**, 84, 177–183. (IF: 2.547, Plant Sciences, 53/200=26.5%)

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11. Shu-Jing Wu, **Chih-Chuang Liaw**, Shin-Zon Pan, Hsing-Chia Yang, Lean-Teik Ng, "Phellinus linteus polysaccharides and their immunomodulatory properties in human monocytic cells", *J. Funct. Foods*, **2013**, 5, 679–688 (IF: 3.574, Food Science & Technology, 7/123=5.7%).
12. Chun-Chi Chen, Yung-Lin Yang, Chun-Lin Ou, Chih-Hung Chou, **Chih-Chuang Liaw**, Po-Chiao Lin.* "Direct monitoring of chemical transformations by combining thin layer chromatography with nanoparticle-assisted laser desorption/ionization mass spectrometry", *Analyst*, **2013**, 138, 1379–1385 (IF=4.107, Chemistry, Analytical, 7/74=9.5%)
13. Wen-Ying Liao, # **Chih-Chuang Liaw**, # Yuan-Chao Huang, Hsin-Ying Han, Hung-Wei Hsu, Shiao-Min Hwang, Sheng-Chu Kuo, and Chia-Ning Shen,* "Cyclohexylmethyl flavonoids suppress propagation of breast cancer stem cells via downregulation of NANOG", *Evid. Based Compl. Altern. Med.* **2013**, 2013, Article ID 170261, 14 pages (IF: 1.880, Integrative & Complementary Medicine, 7/24=29.2%, # equal contribution).
14. **Chih-Chuang Liaw**, Yu-Chang Chen, Guan-Jhong Huang, Yao-Ching Tsai, Shih-Chang Chien, Jyh-Horng Wu, Sheng-Yang Wang, Louis Kuoping Chao, Ping-Jyun Sung, Hui-Chi Huang, Yueh-Hsiung Kuo. "Anti-inflammatory Lanostanoids and Lactone Derivatives from *Antrodia camphorate*." *J. Nat. Prod.* **2013**, 76, 489–494. (IF: 3.789, Plant Sciences, 23/200=11.5%)
15. Jen-Yang Tang, Jin-Ching Lee, Yung-Ting Chang, Ming-Feng Hou, Hurng-Wern Huang, **Chih-Chuang Liaw**,* and Hsueh-Wei Chang,* "Long Noncoding RNAs-Related Diseases, Cancers, and Drugs." *Sci. World J.* **2013**, 2013, Article ID 943539, 7 pages, <http://dx.doi.org/10.1155/2013/943539>. (IF: 1.219, Multidisciplinary Sciences, 16/55=29.1%)
16. Hui-Chi Huang, Guan-Jhong Huang, **Chih-Chuang Liaw**, Chang-Syun Yang, Chung-Ping Yang, Chao-Lin Kuo, Yen-Hsueh Tseng, Sheng-Yang Wang, Wen-Te Chang, Yueh-Hsiung Kuo, A new megastigmane from *Kalanchoe tubiflora* (Harvey) Hamet, *Phytochem. Lett.* **2013**, 6, 379-382 (IF: 1.450, Plant Sciences, 97/200=48.5%)
17. Hui-Chi Huang, Ming-Kuem Lin, Hsin-Ling Yang, You-Cheng Hseu, **Chih-Chuang Liaw**, Yen-Hsueh Tseng, Minoru Tsuzuki, Yueh-Hsiung Kuo. Cardenolides and Bufadienolide Glycosides from *Kalanchoe tubiflora* and Evaluation of Cytotoxicity, *Planta Med.* **2013**, 79, 1362-1369. (IF: 2.152, Plant Sciences, 60/200=30.0%)
18. Chiung-Yao Huang, **Chih-Chuang Liaw**, Bo-Wei Chen, Pei-Chin Chen, Jui-Hsin Su, Ping-Jyun Sung, Chang-Feng Dai, Michael Y. Chiang, and Jyh-Horng Sheu,* "Withanolide-Based Steroids from the Cultured Soft Coral *Sinularia brassica*." *J. Nat. Prod.* **2013**, 76, 1902-1908. (IF: 3.789, Plant Sciences, 23/200=11.5%)
19. Chao-Jen Shih, # Pi-Yu Chen, # **Chih-Chuang Liaw**, # Ying-Mi Lai, Yu-Liang Yang, Bringing microbial interactions to light using imaging mass spectrometry, *Nat. Prod. Rep.* **2014**, 31, 739-755. (# equal contribution) (IF: 10.107, Chemistry, Medicinal, 1/59=1.7%)
20. Tung-Ho Wu, # Yung-Yi Cheng, # Chao-Jung Chen, Lean-Teik Ng, Li-Chen Chou, Li-Jiau Huang, Yung-Husan Chen, Sheng-Chu Kuo, Mohamed El-Shazly, Yang-Chang Wu, Fang-Rong Chang,* and **Chih-Chuang Liaw**,* "Three New Clerodane Diterpenes from *Polyalthia longifolia* var. *pendula*", *Molecules* **2014**, 19, 2049-2060. (IF: 2.416, Chemistry, Organic, 21/57=36.8%)

21. Chun-Yu Chen,[#] **Chih-Chuang Liaw**,[#] Yi-Hsuan Chen, Wen-Yi Chang, Pei-Jen Chung, Tsong-Long Hwang, “A novel immunomodulatory effect of ugonin U in human neutrophils via stimulation of phospholipase C” *Free Radic. Biol. Med.* **2014**, 72, 222-231. ([#] equal contribution) (IF: 5.736, Endocrinology & Metabolism, 16/128=12.5%)
22. Tung-Ho Wu,[#] Yung-Yi Cheng,[#] Jing-Ru Liou,[#] Tzong-Der Way, Chao-Jung Chen, Yung-Husan Chen, Sheng-Chu Kuo, Mohamed El-Shazly, Fang-Rong Chang, Yang-Chang Wu,^{*} and **Chih-Chuang Liaw**,^{*} “Clerodane diterpenes from *Polyalthia longifolia* var. *pendula* protect SK-N-MC human neuroblastoma cells from β -Amyloid insult”, *RSC Adv.* **2014**, 4, 23707-23712 (IF: 3.840, Chemistry, Multidisciplinary, 33/157=21.0%)
23. Hui-Yu Fang, Shu-Fen Chiou, Chokkalingam Uvarani, Zih-Hong Wen, Chi-Hsin Hsu, Yang-Chang Wu, Wei-Lung Wang, **Chih-Chuang Liaw**,^{*} and Jyh-Horng Sheu,^{*} “Cytotoxic, anti-inflammatory and antibacterial sulfur-containing polybromoindoles from the Formosan red alga *Laurencia brongniartii*”, *Bull. Chem. Soc. Jpn.* **2014** 87, 1278–1280. (IF: 2.210, Chemistry, Multidisciplinary, 57/157=36.3%)
24. **Chih-Chuang Liaw**,^{*} Yu-Liang Yang, Chun-Kuang Lin, Jin-Ching Lee, Wen-Ying Liao, Chia-Ning Shen, Jyh-Horng Sheu, and Shih-Hsiung Wu,^{*} “New Meroterpenoids from *Aspergillus terreus* with Inhibition of Cyclooxygenase-2 Expression”, *Org. Lett.* **2015**, 17, 2330–2333. (IF: 6.364, Chemistry, Organic, 4/57=7.0%)
25. Chun-Kuang Lin, Chin-Kai Tseng, Kai-Hsun Chen, Shih-Hsiung Wu, **Chih-Chuang Liaw**,^{*} Jin-Ching Lee,^{*} “Betulinic acid exerts anti-hepatitis C virus activity via the suppression of NF- κ B and MAPK-ERK1/2-mediated cyclooxygenase-2 expression”, *Br. J. Pharmacol.* **2015**, in press. (IF: 4.842, Pharmacology & Pharmacy, 24/254=9.4%)

B、研討會論文

1. Jing-Wei Chen, Long-Chi Wang, Yu-Ming Ju, **Chih-Chuang Liaw**^{*}, 2010, ‘Studies on the Chemical Constituent of *Xylaria bambusicola*’, 7th International Symposium for Chinese Medicinal Chemists, Feb 1- 5, Kaohsiung, Taiwan.
2. Yung-Yi Cheng, Tzong-Der Wey, Sheng-Chu Kuo, Sheng-Chih Chen, **Chih-Chuang Liaw**^{*}, 2010, ‘New Clerodane Diterpenes Increase the Viability of SK-N-MC Human Neuroblastoma Cells under β -amyloid-induced Neurotoxicity’, 7th International Symposium for Chinese Medicinal Chemists, Feb 1- 5, Kaohsiung, Taiwan.
3. **Chih-Chuang Liaw**,^{*} Yung-Yi Cheng, Yu-Liang Yang, Shih-Hao Wang, Tzong-Der Wei, Sheng-Chu Kuo, and Shih-Hsiung Wu, 2010, ‘New Diterpenes From *Polyalthia longifolia* var. *pendula* Protect Sk-N-MC Human Neuroblastoma Cells From β -amyloid Insult’, the 51th Annual Meeting of the American Society of Pharmacognosy, July 10-July 14, St. Petersburg, Florida, USA.
4. Shih-Yun Chung, **Chih-Chuang Liaw**,^{*} Hui-kang Liu, 2010, ‘Studies on the constituent of the dry stem of *Tinospora crispa*’, The 25th Symposium on Natural Products, Nov. 6-7, Museum of Marine Biology and Aquariums, Pingtung, Taiwan.
5. Shih-Yun Chung, Jin-Bin Wu, Sheng-Chu Kuo, **Chih-Chuang Liaw**,^{*} 2011, ‘Four new cis-clerodane-type furanoditerpenoids of the dry stem of *Tinospora crispa*’, 2011 Taiwanese-Russian Organic, Medicinal and Bio Chemistry Interactions (TROMBCI) & PST Medicinal Chemistry Symposium, April 3-6, Citou, Taiwan.
6. **Chih-Chuang Liaw**,^{*} Shih-Yuan Chung, Shang-Chu Kuo, and Hei-Kang Liu, 2011,

'*cis*-Clerodane-Type Furanoditerpenoids from *Tinospora crispa* Attenuate Beta-Cell Dysfunction Induced by Dexamethasone', the 52th Annual Meeting of the American Society of Pharmacognosy, July 30-Aug 3, San Diego, California, USA.

7. Hui-Yu Fang, **Chih-Chuang Liaw**, Shu-Fen Chiou, Zhi-Horng Wen, Yang-Chang Wu, Chi-Hsin Hsu, Wei-Lung Wang, Jyh-Horng Sheu, 2011, 'Bioactive Brominated Indoles from the Alga *Laurencia brongniartii*', the 3rd International Symposium for Marine Biology and Biotechnology, Sep. 21-23, Museum of Marine Biology and Aquariums, Pingtung, Taiwan.
8. **Chih-Chuang Liaw**,* Wen-Ying Liao, Chien-Sheng Chen, Shu-Chuan Jao, Yang-Chang Wu, Chia-Ning Shen,* and Shih-Hsiung Wu,* 2011, 'Calcium-Chelating Capability of Tetrahydrofuranic Moieties Modulates the Cytotoxicity of Annonaceous Acetogenins', The 26th Symposium on Natural Products, Oct. 29-30, China Medical University, Taichung, Taiwan.
9. Wen-Ying Liao, Chia-Ning Shen, Li-Hua Lin, Yu-Liang Yang, Hsin-Ying Han, Jing-Wei Chen, Sheng-Chu Kuo,* Shih-Hsiung Wu,* and **Chih-Chuang Liaw**,* 2012, 'Asperjinone, A Nor-Neolignan, and Terrein, A Suppressor of ABCG2-expressing Breast Cancer Cells, from Thermophilic *Aspergillus terreus*', 2012 TPST Medicinal Chemistry Symposium, May 5-7, Citou, Taiwan.
10. Pei-Jing Chen, **Chih-Chuang Liaw**,* Chi-Hsin Hsu, 2012, 'Studies on the Antibacterial Chemical Constituents of *Vibrio* sp. (QWI06)', 2012- Symposium on Natural Products Chemistry for Graduate Students, May 17-18, Museum of Marine Biology and Aquariums, Pingtung, Taiwan.
11. Wen-Ying Liao, Chia-Ning Shen, Li-Hua Lin, Yu-Liang Yang, Hsin-Ying Han, Jing-Wei Chen, Sheng-Chu Kuo,* Shih-Hsiung Wu,* and **Chih-Chuang Liaw**,* 2012, 'Asperjinone, A Nor-Neolignan, and Terrein, A Suppressor of ABCG2-expressing Breast Cancer Cells, from Thermophilic *Aspergillus terreus*', International Congress on Natural Products Research, July 28-Aug. 1, New York, USA.
12. **Chih-Chuang Liaw**,* Hui-Kang, Liu, Jia-Ling Chang, Shih-Yuan Chung, and Shang-Chu Kuo, 2012, "Attenuation of Dexamethasone Mediated G1 Phase Arrest in Insulin Secreting Cells by Furanoditerpenoids from *Tinospora crispa*". 9th IUPAC International Symposium on Biomolecular Chemistry & 8th International Symposium for Chinese Medicinal Chemists. Aug. 25-29, Beijing, China.
13. Kai-Hsun Chen, **Chih-Chuang Liaw**,* 2012, 'New Triterpene Glycosides from the Aerial Root of *Avicennia marina*', The 27th Symposium on Natural Products, Oct. 5-7, Kaohsiung Medical University, Kaohsiung, Taiwan.
14. Pei-Jing Chen, Yu-Liang Yang, Chi-Hsin Hsu, **Chih-Chuang Liaw**,* 2013, 'Studies on the Antimicrobial Chemical Constituents of *Vibrio proteolyticus* (Strain QWI06)', 2013 TPST Medicinal Chemistry Symposium, Jan. 22-24, Pingtung, Taiwan.
15. **Chih-Chuang Liaw**,* Pei-Jing Chen, Yu-Liang Yang, Chi-Hsin Hsu, 2013, 'Novel Tyrosin-lipid Derivatives, Vitroprocines, from Marine Bacteria, *Vibrio proteolyticus*, Exhibited Significant Anti-microbial Activity against Opportunistic Pathogen, *Acinetobacter baumannii*', 2013 Gordon Research Conferences: Marine Molecular Ecology, Aug. 11-16, Hongkong, China.
16. Er-Mau Hong, **Chih-Chuang Liaw**,* 2013, 'Exploring the Bioactive Components from Marine Bacterium, *Microbulbifer variabilis* C-03, Which Symbiosis with *Palythoa* sp.' The 28th Symposium on Natural Products, Oct. 19-20, National Research institute of Chinese Medicine, Ministry of Health and Welfare, Taipei, Taiwan.

17. Yu-Ting Wang, **Chih-Chuang Liaw**,* 2013, 'Anti-microbial Components from Marine-derived *Streptomyces* spp. Against *Candida albicansis*' The 28th Symposium on Natural Products, Oct. 19-20, National Research Institute of Chinese Medicine, Ministry of Health and Welfare, Taipei, Taiwan.
18. **Chih-Chuang Liaw**,* Yu-Ting Wang, Er-Moa-Hong, 2014, 'Using Molecular Networking as A new Strategy of Bioactive Natural Products Discovery from Marine Microbes', 2014 PST Medicinal Chemistry Symposium, Jan. 21-23, National Dong Hwa University, Hua-lien, Taiwan.
19. Yu-Ting Wang, Ya-Ping Jhang, **Chih-Chuang Liaw**,* 2014, 'Anti-microbial Components from Marine-derived *Streptomyces* spp. Against *Candida albicansis*', The 3rd Asia-Pacific Coral Reef Symposium, June 23-27, Howard Hotel, Pingtung, Taiwan.
20. Er-Mao Hung, Ya-Ping Jhang, **Chih-Chuang Liaw**,* 2014, 'Studies on the Chemical Constituents of the Marine Microbe *Microbulbifer variabilis* and their Biological Activities, The 3rd Asia-Pacific Coral Reef Symposium, June 23-27, Howard Hotel, Pingtung, Taiwan.
21. Yi-yu, Chen, Ya-Ping Jhang, **Chih-Chuang Liaw**,* 2014, 'The investigation of Antimicrobial components of Marine-derived Fungi, *Trichoderma* spp. by LC-MS/MS Molecular Networking Analysis', The 3rd Asia-Pacific Coral Reef Symposium, June 23-27, Howard Hotel, Pingtung, Taiwan.
22. Po-Yi Cheng, Ya-Ping Jhang, Ka-Lai Pang, **Chih-Chuang Liaw**,* 2014, 'Study in the Antibacterial Components from Palythoa-Symbiotic Fungus, *Fusarium solani*', The 3rd Asia-Pacific Coral Reef Symposium, June 23-27, Howard Hotel, Pingtung, Taiwan.
23. **Chih-Chuang Liaw**,* 2014, 'Study in the Antibacterial Components from Palythoa-Symbiotic Fungus, *Fusarium solani*', The 10th International Mycological Congress (IMC10), August 3-8, Queen Sirikit National Convention Center, Bangkok, Thailand.
24. Yi-yu Chen, Ya-Ping Jhang, **Chih-Chuang Liaw**,* 2014, 'The investigation of Antimicrobial components of Marine-derived Fungi, *Trichoderma* spp. by LC-MS/MS Molecular Networking Analysis', The 29th Symposium on Natural Products, Sep. 27-28, Kaohsiung Medical University, Kaohsiung, Taiwan.
25. Po-Yi Cheng, Ya-Ping Jhang, Ka-Lai Pang, **Chih-Chuang Liaw**,* 2014, 'The Antibacterial Components from Palythoa-Symbiotic Fungus, *Fusarium solani* FS-01', 2014 Annual Meeting of Chinese Chemistry Society, Nov. 21-22, Industrial Technology Research Institute, Hsinchu, Taiwan.
26. Yi-Yu Chen, Yu-Liang Yang, **Chih-Chuang Liaw**,* 2015, "The Investigation on the Siderophore-like Organic Molecules from Marine-derived Fungi, *Trichoderma* spp. by LC-MS/MS Molecular Networking Analysis", 2015 MOST Ocean Sciences Conference, The Garden Villa, April 30th-May 1st, Kaohsiung, Taiwan.
27. Mo Aqib Raza Khan, **Chih-Chuang Liaw**,* 2015, "The Investigation on Siderophore-like Organic Ligands from Marine-derived Fungus *Aspergillus* sp.", 2015 MOST Ocean Sciences Conference, The Garden Villa, April 30th-May 1st, Kaohsiung, Taiwan.
28. Yan-Ching Hsu, Wen-Tseng Lo, **Chih-Chuang Liaw**,* 2015, "Searching the biomarkers of metaproteomics of zooplanktons for their qualification and quantification using LC-MS/MS", 2015 MOST Ocean Sciences Conference, The Garden Villa, April 30th-May 1st, Kaohsiung, Taiwan.
29. Po-Yi Cheng, Ya-Ping Jhang, Ka-Lai Pang, **Chih-Chuang Liaw**,* 2015, "The Investigation on the Marine Ligands from A Marine-Derived Fungus, *Aspergillus* sp. strain K16-16-21", 2015

MOST Ocean Sciences Conference, The Garden Villa, April 30th-May 1st, Kaohsiung, Taiwan.

C. Oral Presentation

1. **Chih-Chuang Liaw, 2010**, “From FID to Structure - Case Learning from Natural Products”, 2010 Annual Meeting of Chinese Chemistry Society, Dec. 4-5, Taipei, Taiwan.
2. **Chih-Chuang Liaw, 2011**, “The Historic Perspective of Pharmaceutical Industry”, Department of Bioscience Technology, Chung Yuan Christian University, Mar. 1st, Chung Li, Taiwan.
3. **Chih-Chuang Liaw, 2012**, “The Rapid Isolation and Structural Elucidation of Bioactive Secondary Metabolites from Marine Microorganisms”, 2012 the 18th Annual Conference for Technical Communication on Analytical Chemistry, National Sun Yat-sen University, May 26th-27th, Kaohsiung, Taiwan.
4. **Chih-Chuang Liaw, 2012**, “The diversity and biofunctions of secondary metabolites from extreme microbe”, 2012 the 27th Symposium on Natural Products, Kaohsiung Medical University, Oct. 5th-7th, Kaohsiung, Taiwan.
5. **Chih-Chuang Liaw, 2013**, “The Medicinal Application of Marine Natural Products”, March 6, National Chia-Yi University, Chia-Yi County, Taiwan.
6. **Chih-Chuang Liaw, 2014**, “The Study on the Marine Ligands Produced by Marine Microbes from Offshore Southern Taiwan”, 2014 MOST Ocean Sciences Conference, Howard Civil Service international House, April 27th-May 1st, Taipei, Taiwan.
7. **Chih-Chuang Liaw, 2014**, “Mining Marine Microbes for Discovering Novel Anti-bacterial Marine Natural Products by Molecular Networking”, the 10th Asia-Pacific Marine Biotechnology Conference, Academia Sinica, May. 4th-8th, Taipei, Taiwan.
8. **Chih-Chuang Liaw, 2014**, “Bioactive Compounds from Marine Microbes by Molecular Networking”, 2014 the 29th Symposium on Natural Products, Kaohsiung Medical University, Sep. 27th-28th, Kaohsiung City, Taiwan.
9. **Chih-Chuang Liaw, 2014**, “Recent Progress in Bioactive Natural Products from Marine Microbes”, Inviting Talk in Department of Chemistry, National Chung-Hsing University, Oct 15th, Taichung, Taiwan.
10. **Chih-Chuang Liaw, 2014**, “Antimicrobial Natural Products from Marine Microbes Targeted by Modern Mass Technologies”, 28th International Symposium on the Chemistry of Natural Products and 8th International Conference on Biodiversity (ISCNP28), Parkyard Hotel, Oct. 19th- 24th, Shanghai, China.
11. **Chih-Chuang Liaw, 2015**, “The Researches and Development of Biofunctional Secondary Metabolites from Marine Microorganisms”, Inviting Talk in Department of Plant Pathology, National Chung-Hsing University, Jan. 8th, Taichung, Taiwan.
12. **Chih-Chuang Liaw, 2015**, “The Investigation on Secondary Metabolites from Marine Microorganisms as Marine Organic Ligands to Complex Trace Metals”, 2015 MOST Ocean Sciences Conference, The Garden Villa, April 30th-May 1st, Kaohsiung, Taiwan.