Curriculum Vitae

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Degree

1969/09~1973/06	China Medical College
1976/09~1978/06	Master of Pharmaceutical, Toyama University, Japan
1978/09~1982/06	Pharmaceutical Dr. Toyama Medical and Pharmaceutical University, Japan

Research and Professional Positions Held

1982-1986	Associate Professor in Kaohsiung Medical College
1982-1983	Associate Professor in Taipei Medical College
1986-present	Professor in Kaohsiung Medical University Adviser of Ministry of Finance and Commissioner of Kaohsiung Customs
1986	The Best Pharmacist Award of The National Union of Pharmacist Associations ROC “Who’s Who” in the ROC

1988	The Best Publication Award, Pharmacognosy and The Clinical and Application of Crude Drug by Ministry of Education
1989	Researcher of The National Research Institute of Chinese Medicine The Best Publication Award, The Clinical Pharmacognosy I-II by Ministry of Education
1990	The Best Publication Award, Crude Drud Bupleurum and Bupleurum-Containing Prescription by Ministry of Education Emeritus Professor in University of Hofstra, USA
1992	The Excellence Professor Award by Ministry of Education
2001-2004	The President of Society of Pharmacognosy of ROC
2001	The Excellence Research Award by Kaohsiung Medical University
2002	The Excellence Research Award by Kaohsiung Medical University
2003	The Excellence Research Award & The Excellence Alumni Association Award by Kaohsiung Medical University
2004	The Highest RPI Award by Kaohsiung Medical University
2005	The Excellence Research Award by Kaohsiung Medical University
2006	The Excellence Teacher Award by Kaohsiung Medical University
2007	The Excellence Research Award by Kaohsiung Medical University The Excellence Alumni Association Award by Kaohsiung Medical University The Excellence Award by Industry- University Corporation
2010/10-2011/07	The Excellence Researcher Award by NSC Grant in 2010
2011/08-2012/07	The Excellence Researcher Award by NSC Grant in 2011
2012/08-2013/07	The Excellence Researcher Award by NSC Grant in 2012
2012	The Excellence Research Award by The Alumni Association of Kaohsiung Medical University The Top Research Paper Award by Kaohsiung Medical University The Excellence Research Paper Award of General Teacher by Kaohsiung Medical University The 10th National Innovation Award-Student Research Contest-The Third Prize

Research Aims and Study Results of the *Materia Medica* Laboratory (1982~2007)

I. Research Aims

The aims of this laboratory are to study the origin of crude drugs, isolate active components from natural medicines, develop bioassays, evaluate the biochemical functions of natural medicines, assess the pharmacological mechanism of the active ingredients in the natural medicines, and establish the relations between natural medicines and different cultures of various ethic communities around the world.

II. Research Areas

1. Pharmacognostical studies

The origins of crude drugs are carried out through systematic market survey, investigating the botany, and comparative histology of medicinal plant materials. We also establish DNA finger printing of natural medicines.

2. Herbological studies

To ensure the authenticity, purity, and therapeutic properties of the natural medicines, the specific origin as well as the authentic plant material itself is studied by traditional pharmacognostical research method and by surveying literature reports.

3. Evaluation of the pharmacological effect and mechanism of natural medicines

i. Studies on the liver protective and therapeutic effect of crude drugs: the hepatoprotective effects of natural medicines are examined in rats with acute hepatitis induced by carbon tetrachloride, β-D-galactosamine, acetaminophen and chronic alcoholic hepatitis. Histopatholgical changes in liver are also examined.

ii. Studies on the anti-inflammatory, antioxidant, and free radical scavenger activities of crude drugs natural medicines: the natural medicines are evaluated for their anti-inflammatory activities against carrageenan-induced paw edema in rat. The antioxidant activity is examined against $FeCl_2$-ascorbic acid induced lipid-peroxidation. The free radical scavenging activity is examined by means of cytichrome *c* assay and electron spin resonance (ESR) methods.

iii. Anti-ascitic tumor and radioprotection of crude drugs and prescription: crude drugs and Chinese traditional prescriptions are examined for their abilities to inhibit the ascitic tumor growth and proliferation and modify hamatopoiesis after irradiation.

iv. Active components of crude drugs: active compounds isolated from the crude drugs are subjected to structure identification followed by evaluation of their anti-inflammatory, anti-tumor, antiviral, antioxidant, free radical scavenging, and hepatoprotective activities.

v. Immunomodulatory activities: crude drugs are evaluated for their immunomodulatory functions and their active components involved are identified.

vi. Quality evaluation of crude drugs and development of alterative techniques.

vii. Studies on ethnic medicinal resources: the survey of medicinal resources is conducted in various countries around the world. Research regarding ethnopharmacology is also undertaken.

viii. Quality evaluation of medicinal plant materials and functional foods: various medicinal plant materials and functional foods are assessed for their toxicological and pharmacological properties. The international market is surveyed for potential commercialization and export of these functional foods in related industries.

ix. Antiviral activity of natural medicines. Crude drugs are evaluated for their antiviral activities against HSV-1, HSV-2, RSV, adenoviruses, enteroviruses,

HBV, and HCV, among others.

x. Anti-tumor activity of natural medicines. Crude drugs and their active principles are evaluated for their anti-tumor activities against human cancer cell lines, including hepatoma cells (HepG2, PLC/PRF/5, Hep3B, HepG2/C3A, SK-Hep1, HA22T/VGH, HepG2.2.15). The underlying mechanisms are also investigated, including pathways involving p53, p21, Fas ligand/Fas receptor, Bcl-2, and Bax proteins which are strongly associated with apoptotic pathway.

III. Research and Study Focus of Anticancer and Antiviral Activities of Natural Medicines

1. Research and study of anticancer activity of natural medicines

For the anti-tumor activity of natural medicines, crude drugs and their active principles were evaluated against human liver cancer cell lines (HepG2, PLC/PRF/5, Hep3B, SK-Hep1, HA22T/VGH), lung cancer cell line (A549), breast cancer cell lines (MCF-7 and MDA-MB-231), cervical cancer cell line (Hela) and leukemia cell lines (L1210, U937, P3HR1, Raji, K562, CCRF-CEM).

The results indicated that the mechanism of their apoptotic effect often involved upregulation of p53, p21/WAF1, Fas receptor, Fas ligand, Bax, and Noxa as well as decreasing Bcl2 and Bcl-XL. In addition, the inhibition of NF-kB and the enhancement of JNK/AP-1, P38, ERK1/2, MEK (MAPKs signaling pathways) activity were observed.

All of the natural products can effectively inhibit cancer cell proliferation, block cell cycle progression in G0/G1 or G2/M phase, and induce apoptosis through either the Fas/FasL System or the mitochondrial apoptotic pathway.

i. Study of anti-liver cancer activity: aloe-emodin of *Rheum palmatum*, resveratrol of wine and *Polygonum cuspidatum*, EGCG of green tea, tetrandrine of *Stephania tetrandra*, baicalein of *Scutellaria baicalensis* and *S. rivularis*, shikonin of *Lithospermum erythrorrhizon*, apigenin of *Perilla frutescens*, *Plantago major* and parsley, saikosaponin d of *Bupleurum spp.*, rhein of *R. palmatum*, acacetin of *Buddleja officinalis* and propolis, emodin of *P. cuspidatum* and *R. palmatum*, isoliquiritigenin of *Glycyrrhiza uralensis*, casuarinin of *Terminalia arjuna*, cinnamaldehyde of *Cinnamomum cassia*, and luteolin of *Lonicera japonica*, etc., were found to have toxic effect against various liver cancer cell lines (HepG2, SK-Hep1, HA22T/VGH, Hep3B, and PLC/PRF/5). Their mechanisms of action were also clarified.

ii. Study of anti-lung cancer activity: crude saponin of *Bupleurum kaoi*, ursolic acid of *Arctostaphlos uva-urs*, gossypol of cotton seed, prodelphinidin B-2 3'-O-gallate of green tea, isoliquiritigenin of *G. uralensis*, casuarinin of *Terminalia arjuna*, prodelphinidin B-2 3, 3'di-O-gallate of *Myrica rubra*, saikosaponin d of *Bupleurum spp.*, etc., were found to have toxic effect against the lung cancer cell line, A549. We also clarified the underlying mechanisms.

iii. Study of anti-breast cancer activity: prodelphinidin B-2 3, 3'di-O-gallate of *M. rubra*, asiatic acid of *Centella asiatica*, and ellipticine of *Ochrosia elliptica*, etc., were found to have toxic effect against breast cancer cell lines, MCF-7 and MDA-MB-231.

iv. Study of anti-cervical cancer activity: apigenin and chalcon were found to have toxic effect against the cervical cancer cell line, HeLa.

v. Study of anti-leukemia cell lines: for the anti-leukemic activity of natural medicines, crude drugs and their active principles were evaluated against leukemia cell lines: L1210, U937, P3HR1, Raji and K562. The results indicated that *Coptis chinensis, Epimedium sagittatum, Salvia miltiorrhiza*, *Ganoderma*

lucidum, *Poria cocos*, and *Scutellaria rivularis* were found to have toxic effect against leukemia cells. The associated major compounds in these herbs, including berberine, copticine, linalool, ursolic acid, baicalin, luteolin, baicalein, quercertin, and rutin, were found to exhibit anti-leukemic activity as well. The mechanism of baicalin-induced apoptosis in CCRF-CEM cell line was demonstrated to be mediated by a p53-independent decline of Bcl2, release of cytochrome *c*, the collapse of mitochondrial transmembrane potential, and the activation of caspase-3.

2. Research and study of antiviral activity of natural medicines

For the antiviral activity of natural medicines, crude drugs and their active principles were evaluated against activities of hepatitis B virus, herpesviruses, respiratory syncytial virus, adenoviruses, enteroviruses, and coronavirus, among others.

i. Study of anti-HBV activity: saikosaponin c can suppress the expression of HBeAg and also the replication of HBV-DNA. Ethanol and water extracts of P. cuspidatum were found to inhibit the replication of HBV-DNA. The prescription Shiosaikotoo has anti-HBV activity as well.
ii. Study of anti-HSV activity: caffeic acid of *Euphorbia thymifolia* and *P. major*, punicalagin and punicalin of *Terminalia catappa*, prodelphinidin B-2 3'-O-gallate of green tea, prodelphinidin B-2 3, 3'di-O-gallate of *M. rubra*, casuarinin of *T. arjuna*, putranjivain A of *Euphorbia jolkini*, proanthocyanidins A-1 of *Vaccinium vitis-idaea*, and quercetin of *Caesalpinia pulcherrima* were found to inhibit HSV-1 and/or HSV-2 infection.
iii. Study of anti-RSV activity: punicalagin and punicalin of *Terminalia catappa*, methanol extracts of *Rhein officinale*, and *Scutellaria baicalensis* were found to inhibit RSV infection. Chrysophanol, emodin, and rhein of *R. officinale* were found to prevent RSV infection, and sennoside A can inhibit the replication of RSV.
iv. Study of anti-ADV activity: caffeic acid, chlorogenic acid, and ferulic acid of *Plantago asiatica* possess anti-adenoviruses activity. Quercetin of *Caesalpinia pulcherrima* exhibit anti-ADV type 3, 8, and 11 activity, prevent ADV-3 attachment and penetration into vero cells, and inhibit its early replication stage.
v. Study of anti-enteroviruses activity: *Ocimum basilicum* and ursolic acid possess anti-coxsaxckievirus B1 (CVB1) and EV71 activity, by inhibiting viral infection and replication.
vi. Study of anti-coronavirus activity: saiposakonin a, b2, c, and d of *Buplerum Radix* exhibit anti-coronavirus 229E *in vitro*. Saikosaponin b2 achieved strongest antiviral activity against coronavirus infection by inhibiting viral attachment and penetration, as well as interfering with the early stage of viral replication.

3. Other research and studies

i. Study of anti-pulmonary fibrosis activity: Yin-Qiao-San, *Houttuynia cordata*, and *Forsythia suspensa* can prevent bleomycin-induced pulmonary fibrosis in mice. The mode of action of *H. cordata* and *F. suspensa* is related to their antioxidant ability. Yin-Qiao-San has a different mechanism of action than that of *H. cordata* and *F. suspensa*.
ii. Study of anti-hepatic fibrosis activity: the crude saponin and polysaccharide extracted from *Bupleurum kaoi* and *B. chinense* can improve the dimethylnitrosamine-induced histopathological changes of liver fibrosis in rats.
iii. Study of anti-alcoholic induced hepatitis activity: the water extract, crude saponin, and polysaccharide of *B. kaoi* and *B. chinense* can improve the alcohol-induced chronic hepatitis in rats. The effect of *B. kaoi* is better than that of *B. chinense*.

Summaries of Research Results from 2008~ 2013

I. Development of Antivirals and Investigation of their Mechanisms of Action

(a) Hippomania A isolated from *Phyllanthus urinaria* inhibits HSV-2 infection
(b) The Chinese prescription Yin-Chen-Hao-Tang inhibits both HSV-1 and HSV-2 infection
(c) The Chinese prescription Long-Dan-Xie-Gan-Tan exhibits anti-HSV-1 and -HSV-2 activity
(d) 4-Methoxycinnamldehyde inhibits RSV infection
(e) Inactivation of HSV-2 particles by Excoecarinin purified from *Phyllanthus urinaria*
(f) The hydrolyzable tannins chebulagic acid and punicalagin inhibit HSV-1 entry and cell-to-cell spread
(g) Sheng-Ma-Ge-Gen-Tang inhibits the cytopathic effect of RSV
(h) *Cimicifuga foetida* L. inhibits RSV infection of HEp-2 and A549 cells
(i) Cimicifugin from *Cimicifuga foetida* L. inhibits RSV infection

II. Assessment of Bioactivities from Nano-formulated Medicinal Natural Products

(a) Antioxidant effects of quercetin nanoparticles
(b) Nanoparticle formulation of *Cuscuta chinensis* and its hepatoprotective activity
(c) Hepatoprotective effect of naringenin-loaded nanoparticles against CCl_4-induced acute liver failure in rats
(d) Enhancement of antioxidant and antihepatoma activities of curcumin by nano-forumulation
(e) Enhancement of dissolution and antioxidant activity of kaempferol using a nanoparticle engineering process
(f) Antioxidant activities of silymarin nanoparticles
(g) Evaluation of dissolution properties and analysis of hepatoprotective effect via antioxidant and anti-inflammatory functions of nano-formulated resveratrol

III. Evaluation and Mechanistic Studies and Natural Anticancer Drugs

(a) Kotomolide A induces apoptosis in human breast cancer cells via ROS generation and c-Jun NH2-terminal kinase pathway
(b) The Chinese prescription Huang-Lian-Jie-Du-Tang induces cell cycle arrest and apoptosis in human liver cancer cells *in vitro* and *in vivo*
(c) Resveratrol arrests cell cycle and induces apoptosis in human hepatocellular carcinoma cells

IV. Other Studies

(a) 28-day oral toxicity study with aqueous extract of spider brake (*Pteris multifida* Poiret) in rats
(b) Protective effect of *Houttuynia cordata* extract on bleomycin-induced pulmonary fibrosis in rats
(c) Evaluation of antioxidant activities and flavonol content in different extracts and fractions of *Cuscuta chinensis*
(d) The Chinese prescription Long-Dan-Xie-Gan-Tang, Yin-Chen-Hao-Tang, and WTTC inhibit the formation of free radical and scavenge free radical *in vitro*
(e) Anti-hyperlipidemic activity of spider brake (*Pteris multifida*) with rats fed with a high cholesterol diet
(f) Evaluation of the antioxidant and free radical-scavenging activities of *Pteris Multifida*

Poiret aqueous extract

(g)Chebulagic acid and chebulinic acid show antifibrotic effects through the inhibition of Smad pathway in the TGF-β1-induced hepatic stellate cells

(h)Renal protective effect of Xiao-Chai-Hu-Tang on diabetic nephropathy of type 1-diabetic mice

Pharmacognostic Book Publications (1982~2013)

Pharmacognosy

1. *Kampo* Pharmacognosy→New Edition of *Kampo* Pharmacognosy (Vol. I)
2. Clinical Pharmacognosy (Vol. I-II)
3. Applications of Natural Medicine (Vol. I-II)
4. Practical Pharmacognosy
   (a) An Outline of Chinese Medicine
   (b) Crude Drugs and Free Radicals
   (c) Pharmacognostical Therapies in the Treatment of Blood Stasis
   (d) Crude Drug *Bupleurum* and *Bupleurum*-Containing Prescriptions
   (e) Application of Crude Drugs in Paediatrics, Gynecology, and Obstetrics
   (f) Application of Crude Drugs in Chinese Medicated Diet and Dietetic Therapy
   (g) Functional Foods and Health
   (h) Clinical Diagnosis and Application of Crude Drugs
5. Pharmacognosy in Molecular Medicine and Pharmacology (in progress)
6. Pharmacognosy in Translational Medicine (in progress)
7. Pharmacognosy in Regenerative Medicine (in progress)
8. Pharmacognostical Therapy
9. Museum of World Ethnopharmacology

Pharmacognostic Research Focus
(Publications: 302 Papers; 1980~2013)

Pharmacognosy

1. Herbology (history and identification of origin of Chinese herbs)
2. Crude drug identification (authentication through anatomical/histological studies and DNA sequencing)
3. Chemical component analysis from crude drugs
4. Survey of crude drug resources
5. Anti-inflammatory and immunomodulatory activities
6. Antioxidant and free radical-scavenging activities
7. Anti-microbial activities
8. Anti-radiation and anti-malignant ascites activities
9. Cultivation method and quality analysis of medicinal herbs
10. Liver-protective functions and stimulatory activities in liver regeneration (Shosaikoto [*Bupleurum kaoi*-based])
11. Anticancer (anti-neoplastic) activities against liver, lung, breast, and cervical cancers and leukemia
12. Antiviral activities against herpesviruses, coronavirus, enteroviruses, measles virus, respiratory syncytial virus, hepatitis B virus, and hepatitis C virus
13. Drug delivery (nanoparticle formulation) and pharmacokinetic studies
14. Anti-diabetic and anti-nephropathy effects
15. Anti-alcoholic hepatitis and anti-liver fibrosis/cirrhosis
16. Anti-hyperlipidemia and anti-hyperglycemia activities
17. Ethnopharmacology and collection of ethno-crude drugs

Publications from 2009 ~ 2013

1. Feng-Lin Yen1, Tzu-Hui Wu1, Liang-Tzung Lin, Thau-Ming Cham, **Chun-Ching Lin***. Naringenin-loaded nanoparticles improve the physicochemical properties and enhance the hepatoprotective effect of free naringenin on CCl4-induced acute liver failure in rats. **Pharmaceutical Research** 2009 Apr, 26(4):893-902 (SCI)

2. Kuo Chih Wang, Jung San Chang, Lien Chai Chiang*, **Chun Ching Lin***. 4-Methoxycinnamldehyde inhibited human respiratory syncytial virus in a human larynx carcinoma cell line. **Phytomedicine** 2009 Sep. 16(9): 882-886 (SCI)
(Short Communication)

3. HUANG Hsin-hsin, CHENG Hua-yew, YANG Chien-min, LIN Liang-tzung, and **LIN Chun-ching***. Prescription Long Dan Xie Gan Tang, Yin Chen Hao Tang and WTTC inhibit the forma Yang C, Yang CC*. Anti-hyperlipidemic activity of spider brake (Pteris multifida) with rats fed a high cholesterol diet. **Pharmaceutical Biology** 2010 Feb; 48(2):221-6 (SCI)

5. Feng-Lin Yen,Tzu-Hui Wu,Cheng-Wei Tzeng, Liang-Tzung Lin, **Chun-Ching Lin***. Curcumin Nanoparticles improve the Physicochemical Properties of Curcumin and Effectively enhance Its Antioxidant and Antihepatoma Activities. **Journal of Agricultural and Food Chemistry** 2010 Jun 23; 58(12):7376-82 (SCI)

6. Pei-Chi Liao, Lean-Teik Ng, Liang-Tzung Lin, Christopher D. Richardson, Guey-Horng Wang, **Chun-Ching Lin***. Resveratrol Arrests Cell Cycle and Induces Apoptosis in Human Hepatocellular Carcinoma Huh-7 Cells. **Journal of Medicinal Food** 2010 Dec; 13(6):1415-23 (SCI)

7. Liang-Tzung Lin1, Ting-Ying Chen1, Chueh-Yao Chung, Ryan S. Noyce, Bruce T. Grindley, Craig McCormick, Ta-Chen Lin, Guey-Horng Wang, **Chun-Ching Lin*** and Christopher D. Richardson*. Hydrolyzable Tannins (Chebulagic Acid and Punicalagin) Target Viral Glycoprotein-Glycosaminoglycan Interactions to Inhibit Herpes Simplex Virus Type 1 Entry and Cell-to-Cell Spread. **Journal of Virology** 2011 May; 85(9): 4386-4398 (SCI)

8. Cheng-Wei Tzeng, Feng-Lin Yen, Tzu-Hui Wu, Horng-Huey Ko, Chiang-Wen Lee, Wen-Sheng Tzeng*, **Chun-Ching Lin***. Enhancement of dissolution and antioxidant activity of kaempferol using a nanoparticle engineering process. **Journal of Agricultural and Food Chemistry** 2011 May 11; 59(9): 5073-5080 (SCI)

9. Kuo Chih Wang , Jung San Chang , Lien Chai Chiang , **Chun Ching Lin***. Sheng-Ma-Ge-Gen-Tang inhibited cytopathic effect of human respiratory syncytial virus in cell lines of human respiratory tract. **Journal of Ethnopharmacology** 2011 May 17; 135(2): 538-544 (SCI)

10. 10. Kuang-Ping Lan, Ying-Pei Shen, Shui-Huei Lee, Tzu-Ching Wang, Tzu-Ling Wang-Mccall, **Chun-Ching Lin**, Chi-Ching Yang. Antioxidant and Free Radical-Scavenging Activities of Pteris Multifida Poiret Aqueous extract. **Journal of Food Quality** 2011 Aug. 34(4): 252-258 (SCI)

11. 11. Hsin-Ying Chuang, Lean-Teik Ng, Liang-Tzung Lin, Jung-San Chang, Jen-Yang Chen, Ta-Chen Lin, **Chun-Ching Lin***. Chebulagic acid and chebulinic acid show antifibrotic effects through the inhibition of Smad pathway in the TGF-β1-induced hepatic stellate cells. **Journal of the Science of Food and Agriculture** 2011 Dec. 91(15):2777-2784 (SCI)

12. 12. Hua-Yew Cheng, Chien-Min Yang, Ta-Chen Lin, Liang-Tzung Lin, Lien-Chai Chiang, **Chun-Ching Lin***. Excoecarianin, Isolated from Phyllanthus urinaria Linnea, Inhibits Herpes Simplex Virus Type 2 Infection through Inactivation of Viral Particles. **Evidence- based Complementary and Alternative Medicine** 2011, Article ID 259103: 1-10 (SCI)

13. Kuo Chih Wang, Jung San Chang, Lien Chai Chiang, **Chun Ching Lin***. Cimicifuga foetida L. inhibited human respiratory syncytial virus in HEp-2 and A549 cell lines. **American Journal of Chinese Medicine** 2012 Feb. 40(1):151-162 (SCI)

14. **Chun-Ching Lin**, Liang-Tzung Lin, Ming Hong Yen, Juei-Tang Cheng, Ching-Hua Yeh and Chung-Hsi Hsing. Renal protective effect of Xiao-Chai-Hu-Tang on diabetic nephropathy of type 1-diabetic mice. **Evidence-Based Complementary and Alternative Medicine** 2012, Article ID 984024: 1-11 (SCI)

15. Wen-Chan Hsu, Lean-Teik Ng, Tzu-Hui Wu, Liang-Tzung Lin, Feng-Lin Yen*, **Chun-Ching Lin***. Characteristics and Antioxidant Activities of Silymarin Nanoparticles. **Journal of Nanoscience and Nanotechnology** 2012 March, 12(3): 2022-2027 (SCI)

16. Chiang-Wen Lee, Feng-Lin Yen, Haw-Wei Huang, Tzu-Hui Wu, Horng-Huey Ko, Wen-Sheng Tzeng*, **Chun-Ching Lin***. Resveratrol nanoparticle system improves dissolution properties and enhances the hepatoprotective effect of resveratrol through antioxidant and anti-inflammatory pathway. **Journal of Agricultural and Food Chemistry** 2012 May, 60(18): 4662-4671 (SCI)

17. Kuo-Chih Wang, Jung-San Chang, Liang-Tzung Lin, Lien-Chai Chiang, **Chun-Ching Lin***. Antiviral effect of cimicifugin from Cimicifuga foetida against human respiratory syncytial virus. **American Journal of Chinese Medicine** 2012 Sep. 40(5):1033-1045 (SCI)

18. Chiang-Wen Lee , Horng-Huey Ko , Chee-Yin Chai , Wan-Tzu Chen , **Chun-Ching Lin**, Feng-Lin Yen*. Effect of Artocarpus communis Extract on UVB Irradiation-Induced Oxidative Stress and Inflammation in Hairless Mice. ***International Journal of Molecular Sciences*** 2013 Feb. 12, *14*(2), 3860-3873 (SCI)

19. Wen-Chun Lan, Cheng-Wei Tzeng, **Chun-Ching Lin**, Feng-Lin Yen, Horng-Huey Ko*. Prenylated flavonoids from Artocarpus altilis: Antioxidant activities and inhibitory effects on melanin production. **Phytochemistry** 2013 May 25, 89(2013): 78-88 (SCI)

20. Feng-Lin Yen, Ming-Horng Tsai, Chuen-Mao Yang, Chan-Jung Liang, **Chun-Ching Lin**, Yao-Chang Chiang, Hui-Chun Lee, Horng-Huey Ko, Chiang-Wen Lee*. Curcumin Nanoparticles Ameliorate ICAM-1 Expression in TNF-a-Treated Lung Epithelial Cells through p47 phox and MAPKs/AP-1 Pathways. **PLoS One** 2013 May 9, 8(5):e63845 (SCI)

21. Tzeng-Jih Lin, Kuo-Chih Wang, **Chun-Ching Lin**, Lien-Chai Liang, Jung-San Chang*. Anti-Viral Activity of Water Extract of *Paeonia lactiflora* Pallas Against Human

Respiratory Syncytial Virus in Human Respiratory Yract Cell Lines. **American Journal of Chinese Medicine** 2013 June 41(3):585-599 (SCI)

22. Liang-Tzung Lin, Ting-Ying Chen, Song-Chow Lin, Chueh-Yao Chung, Ta-Chen Lin, Guey-Horng Wang, Robert Anderson, **Chun-Ching Lin*** and Christopher D. Richardson*. Broad-spectrum antiviral activity of chebulagic acid and punicalagin against viruses that use glycosaminoglycans for entry. **BMC Microbiology** 2013 Aug. 7, 13:187 (SCI)

23. Chiang-Wen Lee, Horng-Huey Ko, Chun-Ching Lin, Chee-Yin Chai, Wan-Tzu Chen, Feng-Lin Yen*. Artocarpin attenuates ultraviolet B-induced skin damage in hairless mice by antioxidant and anti-inflammatory effects. **Food and Chemical Toxicology** 2013 Oct., 60(2013):123-129 (SCI)

24. Liang-Tzung Lin, Shu-Jing Wu*, and **Chun-Ching Lin***. The anticancer properties and apoptosis-inducing mechanisms of cinnamaldehyde and the herbal prescription Huang-Lian-Jie-Du-Tang in human hepatoma cells. **Journal of Traditional and Complementary Medicine** 2013 Oct. 13, 3(4): 227-233

25. Liang-Tzung Lin, Chen-Jei Tai, Shun-Pang Chang, Jin-Liang Chen, Shu-Jing Wu*, **Chun-Ching Lin***. Cinnamaldehyde-induced apoptosis in human hepatoma PLC/PRF/5 cells involves the mitochondrial death pathway and is sensitive to inhibition by cyclosporin A and z-VAD-fmk.**Anti-Cancer Agents in Medicinal Chemistry** 2013 Dec, 13(10):1565-74 (SCI)

26. Horng-Huey Ko[1], Yi-Ting Tsai[1], Ming-Hong Yen, **Chun-Ching Lin**, Chan-Jung Liang, Tsung-Han Yang, Chiang-Wen Lee* and Feng-Lin Yen*. Norartocarpetin from a folk medicine Artocarpus communis plays a melanogenesis inhibitor without cytotoxicity and skin irritation in mice. **BMC Complementary and Alternative Medicine** 2013 Dec 10, 13: 348 (SCI)

27. Liang-Tzung Lin, Wen-Chan Hsu, and Chun-Ching Lin*. Antiviral Natural Products and Herbal Medicines. **Journal of Traditional and Complementary Medicine** 2014 Jan. 10, 4(1): 24-35