Curriculum Vitae

Name: Shean-Jaw Chiou
Sex: Male
Nationality: Taiwan
Education:
1987: Bechelor degree in pharmacy at China Medical College (Taiwan)
1989: Master degree in biochemistry at Kaohsiung Medical University (Taiwan)
1998: Doctorate degree in science at K.U. Leuven (Leuven, Belgium)

Work Experience:
1998~1999: Postdoctoral fellow at Institute of Biomedical Science, Academia Sinica (Taiwan)
1999~present: Assistant professor at Graduate Institute of Biochemistry, Kaohsiung Medical University, (Taiwan)
2005~2006: Visiting scholar at Unite de Defense Innee et Inflammation, Institut Pasteur (Paris)
2008~ : Member of Institutional Review Board for Good Clinical Practice and Research Ethic (Taiwan)

Expertise:

(i) Protein chemistry/ protein purification
(ii) Proteomics
(iii) Innate immunity

Research Interests:

Antimicrobial peptides: Study of antimicrobial peptides in both in invertebrate and vertebrate: (i) to identify antimicrobial peptides as novel antibiotics (ii) to develop antimicrobial peptides as early diagnostic biomarkers of infection in human respiratory cells (iii) the biological functions of antimicrobial peptides in innate immunity.

Skeletal muscle cells differentiation: (i) study of skeletal muscle degeneration and regeneration (ii) muscle-specific regulatory factors in myogenesis

Projects:

1. 人類呼吸道上皮細胞經由 Toll-like receptors 路徑誘發抗微生物之 Peptides 形成的研究 (2006.12~2007.7, grant support: KMU, (QA096004))
2. Study of Antimicrobial and Immunomodulatory Peptide (2009.1~2010.12, grant support: BNP Paribas (D10-00108))
3. Beta-2 microglobulin 促進口腔癌細胞侵犯與移動之机轉探討(2010.1~2010.12, grant support: KMU-M099006)
4. Identification and characterization of a 9kDa moiety of beta-2 microglobulin: mechanism in the synthesis and biological activities. (2011.1~2011.12, grant support: KMU-M100005)

International Collaboration:

Dr. Michel Chignard,

Unite de Defense Innee et Inflammation

Inserm E336, Institut Pasteur (Paris), France.

Study of the synthesis of antimicrobial peptides by respiratory epithelial cells upon activation through different Toll-like receptors.

Publications

1. Bylemans D., Hua Y.-J., **Chiou S.-J.**, Koolman J., Borovsky D. and De Loof A. Pleiotropic effects of Neb-TMOF, an oostatic hexapeptide. (1995) **Eur. J. Entomol**.: 92(1): 143-149.

2. **Chiou S.-J.**, Verhaert P., De Loof A., Vanden Broeck J., Schoofs L., Claeys M., Pasteels J. M. and Daloze D. Compounds from immature insects toxic to adults: identification and possible relation to metamorphosis. (1997) **Annals of the New York Academy of Sciences**: Trends in Comparative Endocrinology and Neurobiology: 571-573.

3. **Chiou S.-J**., Cerstiaens A., Kotanen S., De Loof A. and Schoofs L. Insect larvae contain substances toxic to adults: the discovery of paralysins. (1998) **Journal of Insect physiology** 44: 405-411.

4. Vanden Broeck J., **Chiou S.-J.**, Schoofs L., Hamdaoui A., vandenbussche F., Simonet G. and De Loof A. Cloning of the cDNAs encoding three small serine-protease inhibiting peptides from the desert locust Schistocerca gregaria and analysis of tissue- andstage-dependent expression. **European Journal of Biochemistry**. 1998, 254:90-95.

5. **Chiou S.-J.**, Vanden Broeck J., Vandenbussche F., Simonet G., Borovsky D. and De Loof A. Cloning of the cDNA encoding Scg-SPRP, an unusual Ser-protease-related protein from vitellogenic female desert locusts, Schistocerca gregaria. (1998) **Insect Biochem. Molec. Biol.** 28: 801-808.

6. Hamdaoui A., Wataleb S., Devreese B., **Chiou S.-J**., Vanden Broeck J., Van Beeumen J., DE Loof A. and Schoofs L. Purification and characterization of a group of five novel peptide serine serine protease inhibitors from ovaries of the desert locust, Schitstocerca gregaria. (1998) **FEBS Letter** 422:74-78.

7. **Chiou S.-J**. , Kotanen S. Cerstiaens A., Daloze D. Pasteels J. M., Lesage A., Drijfhout W., Verhaerrt P., Dillen L., Claaeys M., De Meulemeester H., Nuttin B., De Loof A. and Schoofs L. Purification of toxic compounds from larvae of the gray fleshfly: the

identification of paralysins. (1998) **Biochemical and Biophysical Research Communications** 246: 457-462.

8. Chen YH, Guh JY, Chuang TD, Chen HC, **Chiou SJ**, Huang JS, Yang YL, Chuang LY. High glucose decreases endothelial cell proliferation via the extracellular signal regulated kinase/p15(INK4b) pathway. **Arch Biochem Biophys.** 2007, 465(1):164-71.

9. Chuang TD, Guh JY, **Chiou SJ**, Chen HC, Hung WC, Chuang LY. Sp1 and Smad3 are required for high glucose-induced p21(WAF1) gene transcription in LLC-PK(1) cells. **J Cell Biochem.** 2007, 102(5):1190-201.

10. Chuang TD, Guh JY, **Chiou SJ**, Chen HC, Huang JS, Yang YL, Chuang LY. Phosphoinositide 3-kinase is required for high glucose-induced hypertrophy and p21WAF1 expression in LLC-PK1 cells. **Kidney Int**. 2007, 71(9):867-74.

11. Lin KH, Guh JY, Mo JF, **Chiou SJ**, Hwang CC, Chuang LY. Advanced glycation end-product-inhibited cell proliferation and protein expression of beta-catenin and cyclin D1 are dependent on glycogen synthase kinase 3beta in LLC-PK1 cells. **Arch Biochem Biophys.** 2008, 477(1):27-32.

12. Chen CH, Su CY, Chien* CY, Huang CC, Chuang HC, Fang FM, Huang HY, Chen CM, **Chiou SJ*** . Overexpression of β2-microglobulin is associated with poor survival in patients with oral cavity squamous cell carcinoma and contributes to oral cancer cell migration and invasion. **Br J Cancer.** 2008, 99(9):1453-61. * Corresponding author. IF=4.846

13. Chou WW, Guh JY, Tsai JF, Hwang CC, **Chiou SJ**, Chuang LY. Arecoline-induced phosphorylated p53 and p21(WAF1) protein expression is dependent on ATM/ATR and phosphatidylinositol-3-kinase in clone-9 cells. **J Cell Biochem.** 2009, 107(3):408-17.

14. Hwang CC, Hsu CN, Huang TJ, **Chiou SJ**, Hong YR. Interactions across the interface contribute the stability of homodimeric 3alpha-hydroxysteroid dehydrogenase/carbonyl reductase. **Arch Biochem Biophys**. 2009; 490(1):36-41. (SCI, IF=2.626, Rank: 137/275)

15. Pu YS, Huang CY, Kuo YZ, Kang WY, Liu GY, Huang AM, Yu HJ, Lai MK, Huang SP, Wu WJ, **Chiou SJ**, Hour TC. Characterization of membranous and cytoplasmic EGFR expression in human normal renal cortex and renal cell carcinoma. **J Biomed Sci.** 2009, 16(1):82. (SCI, IF=2.013, Rank: 45/83)

16. Chen SC, Guh JY, Hwang CC, **Chiou SJ**, Lin TD, Ko YM, Huang JS, Yang YL, Chuang LY. Advanced glycation end-products activate extracellular signal-regulated kinase via the oxidative stress-EGF receptor pathway in renal fibroblasts. **J Cell Biochem.** 2010, 109(1): 38-48. (SCI, IF=3.54, Rank: 91/275)

17. Howng SL, Hwang CC, Hsu CY, Hsu MY, Teng CY, Chou CH, Lee MF, Wu CH, **Chiou SJ**, Lieu AS, Loh JK, Yang CN, Lin CS, Hong YR. Involvement of the residues of GSKIP, AxinGID, and FRATtide in their binding with GSK3beta to unravel a novel C-terminal scaffold-binding region. **Mol Cell Biochem**. 2010, 339(1-2):23-33.

18. Wang SJ, Tu HP, Ko AM, Chiang SL, **Chiou SJ**, Lee SS, Tsai YS, Lee CP, Ko YC. Lymphocyte α-kinase is a gout-susceptible gene involved in monosodium urate monohydrate-induced inflammatory responses. **J Mol Med (Berl)**. 2011 Aug 7. (in print) (SCI, IF= 5.192 , Rank: 13/106)

19. Chen SC, Liu CC, Huang SY, **Chiou SJ**. Vascular hyperpermeability in response to inflammatory mustard oil is mediated by Rho kinase in mice systemically exposed to arsenic. **Microvasc Res.** 2011;82(2):182-9. (SCI, IF= 2.39, Rank: 29/66)

20. Chen SC, Guh JY, Lin TD, **Chiou SJ**, Hwang CC, Ko YM, Chuang LY. Gefitinib

attenuates transforming growth factor-β1-activated mitogen-activated protein kinases and mitogenesis in NRK-49F cells. **Transl Res.** 2011,158(4):214-24. (SCI, IF=2.9, Rank: 5/31)