

## ABBREVIATED CURRICULUM VITAE

**Chair-Professor Juei-Tang Cheng, Ph.D., F.C.P.**  
**Institute of Medical Research**  
**Chang Jung Christian University**  
**Tainan City, Taiwan 71101**

### **Personal Data:**

Born June, 1949 in Taiwan

Married ( 1 Son)

e-mail: [jtcheng@mail.cjcu.edu.tw](mailto:jtcheng@mail.cjcu.edu.tw)

### **Education:**

Ph.D. in Pharmacology, 1978

University of Shizuoka. Shizuoka City, Japan

### **Employment:**

Chair-Professor of Medical Research (2009 – Present)

Chang Jung Christian University, Tainan City, Taiwan

Professor of Pharmacology (1988 – 2009)

Chairman of Research Center for Traditional Chinese Medicine (1996 –2009)

College of Medicine, National Cheng Kung University

Tainan City, Taiwan

Dean (2007 –2009) of College of Medicines and Nursings,

Hung Kuang University, Taichung County, Taiwan

### **Honors and Awards:**

President of the Society of Basic Neurosciences in Taiwan, 1999 – 2001

Fellowship Award from American College of Clinical Pharmacology, 1997

Award of Best Professor in National Cheng Kung University 1997

Best Teacher of the Year Award in Medical College 1994, 1997, 1998, 1999

(College of Medicine, National Cheng Kung University)

Award of Excellent Research from Taipei Association of Chinese Medicine, 2002

Prize of Best Research in Chinese Medicine from Taiwan Society of Chinese  
Medicine 2003

**Society Memberships:**

American Diabetes Association (2000)  
New York Academy of Sciences (1996)  
International Brain Research Organization (1994)  
Asian Society of Neurochemistry (1994)  
Japan Society of Pharmacology (1978)

**Editorial Board:**

PLOS One (USA) **Academic Editor**  
Life Sciences (U.S.A.) **Associate Editor**  
Formosan Journal of Surgery (Taipei) **Deputy Editor**  
Clinical and Experimental Pharmacology and Physiology (Australia)  
Evidence-based Complementary and Alternative Medicine (U.S.A.)  
World Journal of Diabetes (Beijin, China)

**Executive Chief Editor**

Journal of Pharmaceutical Sciences (Taipei)  
Journal of Chinese Traditional Medicine (Taipei)

**Major Research or Research Area of Interest:**

1. R&D of Natural Products
2. Pathophysiology of Diabetic and Hypertensive Disorders
3. Therapeutics of X-syndrome
4. Scientific View of Chines Traditional Medicine
5. Screen of Bioactivity in Animal Models

**Publications (2013- 2017)**

1. Lai, Y.H., Chen, L.J. and **Cheng, J.T.** (2013) Role of TNF- $\alpha$  in renal damage in mice showing hepatic steatosis induced by high fat diet. *Hormone & Metab. Res.*, 45:38-42.
2. Mar, G.Y., Chou, M.T., Chung, H.H., Chiu, N.H., Chen, M.F. and **Cheng, J.T.** (2013) Changes of imidazoline receptors in spontaneously hypertensive rats. *Int. J. Exp. Pathol.* 94:17-24.
3. Yang, T.T., Ku, P.M., Hsu, C.T., Chung, H.H., Lee, W.J. and **Cheng, J.T.** (2013) Mediation of AMP Kinase in the increase of glucose uptake into L6 Cells

- induced by activation of imidazoline I-2 receptors. *Hormone & Metab. Res.*, 45:359-63.
4. Chen, Y.W., Hsieh, P.L., Chen, Y.C., Hung, C.H. and **Cheng, J.T.** (2013) Physical exercise induces excess hsp72 expression and delays the development of hyperalgesia and allodynia in painful diabetic neuropathy rats. *Anesth Analg.*, 116: 482-490.
  5. Chen, Z.C., Yu, B.C. Chen, L.J. and **Cheng, J.T.** (2013) Increase of peroxisome proliferator-activated receptors  $\delta$  (PPAR $\delta$ ) by digoxin to improve lipid metabolism in the heart of diabetic rats. *Hormone & Metab. Res.*, 45: 364-371.
  6. Lee, L.M., Lin, C.H., Chung, H.H., **Cheng, J.T.**, Chen, I.H. and Tong, Y.C. (2013) Agmatine induces rat prostate relaxation through activation of peripheral imidazoline I2-receptors. *LUTS*, 5: 39–43.
  7. Mar, G.Y., Ku, P.M., Chen, L.J., Cheng, K.C., Li, Y.X. and **Cheng, J.T.** (2013) Increase in cardiac M<sub>2</sub>-muscarinic receptor expression is regulated by GATA binding protein 4 (GATA-4) in streptozotocin-induced diabetic rats. *Int. J. Cardiol.*, 167: 436 - 441.
  8. Tzeng, J.I., Chen, M.F., Chung, H.H. and **Cheng, J.T.** (2013) Silymarin decreases connective tissue growth factor to improve liver fibrosis in rats treated with carbon tetrachloride. *Phytotherapy Res.*, 27:1023-1028.
  9. Cheng, K.C., Asakawa, A., Li, Y.X., Liu, I.M., Amitani, H., **Cheng, J.T.** and Inui, A. (2013) Opioid  $\mu$ -receptors as new target for insulin resistance. *Pharmacol Ther.*, 139:334-340.
  10. Lee, W.J., Chung, H.H., Cheng, Y.Z., Lin, H.H. and **Cheng, J.T.** (2013) Rhodiola-water extract induces  $\beta$ -endorphin secretion to lower blood pressure in spontaneously hypertensive rats. *Phytotherapy Res.*, 27:1543-1547.
  11. Chen, Z.C., Chen, L.J. and **Cheng, J.T.** (2013) Doxorubicin-induced cardiac

- toxicity is mediated by lowering of peroxisome proliferator-activated receptor  $\delta$  expression in rats. *PPAR Res.*, 2013:456042. doi: 10.1155/2013/456042.
12. Chung, H.H., Lee, K.S. and **Cheng, J.T.** (2013) Decrease of obesity by allantoin via imidazoline I<sub>1</sub>-receptor activation in high fat diet-fed mice. *Evid Based Complement Alternat Med (eCAM)*, 2013:589309. doi: 10.1155/2013/589309.
  13. Wang, L.Y., Ku, P.M., Chen, S.H., Chen, L.J., Yu, Y.M. and **Cheng, J.T.** (2013) Characterization of the specificity of imidazoline I-1 receptor antibody for subtype of imidazoline receptors in vitro. *Hormone & Metab. Res.*, 45:485 - 489.
  14. Wang, L.Y., Chung, H.H. and **Cheng, J.T.** (2013) Decrease of plasma glucose by *Hibiscus taiwanensis* in type-1-like diabetic rats. *Evid Based Complement Alternat Med (eCAM)*, 2013:356705. doi: 10.1155/2013/356705.
  15. Chen, Z.C., Lee, K.S., Chen, L.J., Wang, L.Y., Niu, H.S. and **Cheng, J.T.** (2013) Cardiac peroxisome proliferator-activated receptor  $\delta$  (PPAR $\delta$ ) as a new target for increased contractility without altering heart rate. *PLoS One*. 28: 8(5):e64229
  16. Lo, S.H., Lee, K.S., Chen, L.J., **Cheng, J.T.** and Chen, C.H. (2013) Increase of PPAR $\delta$  by dopamine mediated via DA-1 receptor-linked phospholipase C pathway in neonatal rat cardiomyocytes. *Auton Neurosci.*, 177:211-216.
  17. Huang, C.W., Lai, M.C., **Cheng, J.T.**, Tsai, J.J., Huang, C.C. and Wu, S.N. (2013) Pregabalin attenuates excitotoxicity in diabetes. *PLoS One*. 8(6):e65154
  18. Piletz, J.E., Aricioglu, F., **Cheng, J.T.**, Fairbanks, C.A., Gilad, V.H., Haenisch, B., Halaris, A., Hong, S., Lee, J.E., Li, J., Liu, P., Molderings, G.J., Rodrigues, A.L., Satriano, J., Seong, G.J., Wilcox, G., Wu, N. and Gilad, G.M. (2013) Agmatine: clinical applications after 100 years in translation. *Drug Discov Today* 18:880-893.
  19. Chung, H.H. and **Cheng, J.T.** (2013) Improvement of obesity by activation of I<sub>1</sub>-imidazoline receptors in high fat diet-fed mice. *Hormone & Metab. Res.*,

45:581-585.

20. Su, C.H., Chen, L.J., Liao, J.F. and **Cheng, J.T.** (2013) Increase of phosphatase and tensin homolog by silymarin to inhibit human pharynx squamous cancer. *J. Med. Food*, 16:778-784.
21. Wang, L.Y., Ku, P.M., Chen, S.H., Chung, H.H., Yu, Y.M. and **Cheng, J.T.** (2013) Insulin resistance induced by zymosan as a new animal model in mice. *Hormone & Metab. Res.*, 45: 736-740.
22. Su, C.H., Chen, L.J., Liao, J.F. and **Cheng, J.T.** (2013) Dual effects of silymarin on nasopharyngeal carcinoma cells (NPC-TW01). *Forsch Komplementmed.* 20:261-266.
23. Li, Y.X., Cheng, K.C., Asakawa, A., Kato, I., Sato, Y., Amitani, H., Kawamura, N., **Cheng, J.T.** and Inui, A. (2013) Role of musclin in the pathogenesis of hypertension in rat. *PLoS One.* 8(8):e72004.
24. Kuo, S.C., Ku, P.M., Chen, L.J., Niu, H.S. and **Cheng, J.T.** (2013) Activation of receptors  $\delta$  (PPAR $\delta$ ) by agonist (GW0742) may enhance lipid metabolism in heart both In Vivo and In Vitro. *Hormone & Metab. Res.*, 45: 880-886.
25. Cherng, Y.G., Tsai, C.C., Chung, H.H., Lai, Y.W., Kuo, S.C. and **Cheng, J.T.** (2013) Antihyperglycemic action of sinapic acid in diabetic rats. *J. Agric. Food Chem.*, 61:12053-12059.
26. Kuo, S.C., Chung, H.H., Huang, C.H. and **Cheng, J.T.** (2014) Decrease of hyperglycemia by syringaldehyde in diabetic rats. *Hormone & Metab. Res.*, 46: 8-13.
27. Chang, P.C., Chen, L.J. and **Cheng, J.T.** (2014) Role of peroxisome proliferator-activated receptors delta (PPARdelta) in rats showing endotoxemic heart failure. *J. Appl. Biomed.*, 12: 79 – 85.
28. Huang, K.C., Cherng, Y.G., Chen, L.J., Hsu, C.T. and **Cheng, J.T.** (2014)

Rosiglitazone is effective to improve renal damage in type-1-like diabetic rats. *Hormone & Metab. Res.*, 46:240-244.

29. Tsai, T.C., Lin, C.H., Chung, H.H., **Cheng, J.T.**, Chen, I.H. and Tong, Y.C. (2014) Urinary bladder relaxation through activation of imidazoline receptors induced by agmatine is increased in diabetic rats. *LUTS*, 6: 117 – 13.
30. Cheng, K.C., Asakawa, A., Li, Y.X., Chung, H.H., Amitani, H., Ueki, T., **Cheng, J.T.** and Inui, A. (2014) Silymarin induces insulin resistance through an increase of phosphatase and tensin homolog in Wistar rats. *PLoS One*. 9(1):e84550.
31. Sheu, J.R., Thomas, P.A. and **Cheng, J.T.** (2014) Editorial, Novel Drugs Development for Cardio-/Cerebrovascular Diseases. *BioMed Res Int.*, 2014, 467936.
32. Fan, E.W., Chen, L.J., **Cheng, J.T.** and Tong, Y.C. (2014) Changes of urinary bladder contractility in high-fat diet-fed mice: The role of tumor necrosis factor- $\alpha$ . *In. J. Urol.*, 21:831-835.
33. Kang, L., Chen, C.H., Wu, M.H., Chang, J.K., Chang, F.M. and **Cheng, J.T.** (2014) 17 $\beta$ -Estradiol protects against glucosamine-induced pancreatic  $\beta$ -cell dysfunction. *Menopause* 21:1239-1248.
34. Tsai, C.C., Lee, K.S., Chen, S.H., Chen, L.J., Liu, K.F. and **Cheng, J.T.** (2014) Decrease of PPAR $\delta$  in Type-1-Like Diabetic Rat for Higher Mortality after Spinal Cord Injury. *PPAR Res.* 2014:456386.
35. Chen, L.J., Cheng, M.F., Ku, P.M. and **Cheng, J.T.** (2014) Cerebral Klotho Protein as a Humoral Factor for Maintenance of Baroreflex. *Hormone & Metab. Res.*, 47:125-132.
36. Yeh, M.C., Chen, L.J., Niu, H.S., Yang, T.T., Lin, K.C. and **Cheng, J.T.** (2014) Signals for increase of  $\mu$ -opioid receptor expression in muscle by hyperglycemia. *Neurosci. Lett.*, 582:109-114.

37. Yang, T.T., Niu, H.S., Chen, L.J., Ku, P.M., Lin, K.C. and **Cheng, J.T.** (2015) Canavanine induces insulin release via activation of imidazoline I-3 receptors. *Clin Exp Pharmacol Physiol.*, 42:263-268.
38. Cheng, M.F., Chen, L.J., Niu, H.S., Yang, T.T., Lin, K.C. and **Cheng, J.T.** (2015) Signals mediating Klotho-induced neuroprotection in hippocampal neuronal cells. *Acta Neurobiol Exp (Wars)*, 75:60-71.
39. Tsai, C.C., Chuang, T.W., Chen, L.J., Niu, H.S., Chung, K.M., **Cheng J.T.** and Lin, K.C. (2015) Increase in apoptosis by combination of metformin with silibinin in human colorectal cancer cells. *World J Gastroenterol.*, 21:4169-4177.
40. Chao, P.C., Chang, C.H., Niu, H.S., Huang, G.C., Chen, L.J. and **Cheng, J.T.** (2015) Canavanine Increases Glucose Uptake in C2C12 Cells Through the Activation of Imidazoline I-2B Receptors. *Clin Exp Pharmacol Physiol.*, 42:1045-1050.
41. Lin, C.M., Tsai, J.T., Chang, C.K., **Cheng, J.T.** and Lin, J.W. (2015) Development of telmisartan in the therapy of spinal cord injury: pre-clinical study in rats. *Drug Des Devel Ther.*, 9: 4709-4717.
42. Chang, C.H., Chao, P.C., Niu, H.S., Huang, G.C., Chen, L.J. and **Cheng, J.T.** (2015) Canavanine activates imidazoline I-2 receptors to reduce hyperglycemia in type 1-like diabetic rats. *Chem Biol Interact.* 240: 304-309.
43. Niu, H.S., Ku, P.M., Niu, C.S., **Cheng, J.T.** and Lee, K.S. (2015) Development of PPAR-agonist GW0742 as antidiabetic drug: study in animals. *Drug Des Devel Ther.*, 9: 5625 – 5632.
44. Wu, T.L., Niu, H.S., Chen, L.J., **Cheng, J.T.** and Tong, Y.C. (2016) Increase of human prostate cancer cell (DU145) apoptosis by telmisartan through PPAR-delta pathway. *Europ. J. Pharmacol.*, 775: 35–42.
45. Niu, H.S., Liu, I.M., Niu, H.S., Ku, P.M., Hsu, C.T. and **Cheng, J.T.** (2016)

- Eucommia bark (Du-Zhong) improves diabetic nephropathy without altering blood glucose in type 1-like diabetic rats. *Drug Des Devel Ther.*, 10: 971 – 978.
46. Ku, M.C., Fang, C.M., **Cheng J.T.**, Liang, H.C., Wang, T.F., Wu, C.H., Chen, C.C., Tai, J.H., Chen, S.H. (2016) Site-specific covalent modifications of human insulin by catechol estrogens: Reactivity and induced structural and functional changes. *Sci Rep.* 6:28804.
  47. Niu, H.S., Chang, C.H., Niu, C.S., **Cheng, J.T.**, Lee, K.S. (2016) Erythropoietin ameliorates hyperglycemia in type 1-like diabetic rats. *Drug Des Devel Ther.* 10:1877-1884.
  48. Lo, S.H., Cheng, K.C., Li, Y.X., Chang, C.H., **Cheng, J.T.**, Lee, K.S. (2016) Development of betulinic acid as an agonist of TGR5 receptor using a new in vitro assay. *Drug Des Devel Ther.* 10:2669-2676.
  49. Chang, W.T., **Cheng, J.T.**, Chen, Z.C. (2016) Telmisartan improves cardiac fibrosis in diabetes through peroxisome proliferator activated receptor  $\delta$  (PPAR $\delta$ ): from bedside to bench. *Cardiovasc Diabetol.* , 15(1):113.
  50. Wang, C.M. Hsu, C.T., Niu, H.S., Chang, C.H., **Cheng, J.T.**, Shieh, J.M. (2016) Lung damage induced by hyperglycemia in diabetic rats: the role of signal transducer and activator of transcription 3 (STAT3). *Diabet and Complicat* 30(8):1426-1433.
  51. Niu, H.S., Chao, P.C., Ku, P.M., Niu, C.S., Lee, K.S., **Cheng, J.T.** (2016) Amarogentin ameliorates diabetic disorders in animal models. *Naunyn-Schmiedebergs Arch Pharmacol.* 389(11):1215-1223.
  52. Chang, W.T., Shih, J.Y., Feng, Y.H., Chiang, C.Y., Kuo, Y.H., Chen, W.Y., Wu, H.C., **Cheng, J.T.**, Wang, J.J., Chen, Z.C. (2016) The Early Predictive Value of Right Ventricular Strain in Epirubicin-Induced Cardiotoxicity in Patients with Breast Cancer. *Acta Cardiol Sin.*, 32(5):550-559.
  53. Ku, M.C., Fang, C.M., **Cheng, J.T.**, Liang, H.C., Wang, T.F., Wu, C.H., Chen,



- C.C., Tai, J.H., Chen, S.H. (2016) Site-specific covalent modifications of human insulin by catechol estrogens: Reactivity and induced structural and functional changes. *Sci Rep.* 2016 Jun 29;6:28804. doi: 10.1038/srep28804.
54. Li, Y., Cheng, K.C., Niu, C.S., Lo, S.H., **Cheng, J.T.**, Niu, H.S. (2017) Investigation of triamterene as an inhibitor of the TGR5 receptor: identification in cells and animals. *Drug Design, Development and Therapy* 2017;11: 1127–1134.
55. Lo, S.H., Hsu, C.T., Niu, H.S., Niu, C.S., **Cheng, J.T.**, Chen, Z.C. (2017) Cryptotanshinone Inhibits STAT3 Signaling to Alleviate Cardiac Fibrosis in Type 1-like Diabetic Rats. *Phytother Res.*31: 638 – 646.
56. Hsu, C.C., Lin, M.H., **Cheng, J.T.**, Wu, M.C. (2017) Antihyperglycemic action of Diosmin, a citrus flavonoid, is induced through endogenous  $\beta$ -endorphin in type I-like diabetic rats. *Clin Exp Pharmacol Physiol.* 44: 549 - 555.
57. Chen, I.H., **Cheng, J.T.**, Tong, Y.C. (2017) Metabolic Syndrome Induced Bladder Cannabinoid Receptor Changes in the Fructose-Fed Rats. *Low Urin Tract Symptoms.* 2017 Apr 6. doi: 10.1111/luts.12156.
58. Lo, S.H., Niu, H.S., Cheng, Y.Z., Niu, C.S., **Cheng, J.T.**, Ku, P.M. (2017) Loperamide-induced Cardiac Depression Is Enhanced by Hyperglycemia: Evidence Relevant to Loperamide Abuse. *Arch. Med. Res.* 48: 64 – 72.
59. Liu, K.F., Li, Y., Cheng, K.C., Hsu, C.C., **Cheng, J.T.**, Peng, W.H. (2017) Changes in PPAR $\delta$  expression in a rat model of stress-induced depression. *Clin Exp Pharmacol Physiol.*44: 664 – 670.
60. Hsu, C.C., Lin, M.H., **Cheng, J.T.**, Wu, M.C. (2017) Diosmin, a Citrus Nutrient, Activates Imidazoline Receptors to Alleviate Blood Glucose and Lipids in Type 1-Like Diabetic Rats. *Nutrients.* 2017; 9(7). pii: E684. doi: 10.3390/nu9070684.
61. Lo, S.H., Hsu, C.T., Niu, H.S., Niu, C.S., **Cheng, J.T.**, Chen, Z.C. (2017)

- Ginsenoside Rh2 Improves Cardiac Fibrosis via PPAR $\delta$ -STAT3 Signaling in Type 1-Like Diabetic Rats. *Int J Mol Sci.* 2017; 18(7). pii: E1364. doi: 10.3390/ijms18071364.
62. Wang, L.Y., Cheng, K.C., Li, Y., Niu, C.S., **Cheng, J.T.**, Niu, H.S. (2017) Glycyrrhizic acid increases glucagon like peptide-1 secretion via TGR5 activation in type 1-like diabetic rats. *Biomed Pharmacother.* 95: 599 – 604.
63. Lin, M.H., Hsu, C.C., Lin, J., **Cheng, J.T.**, Wu, M.C. (2017) Identification of morin as an agonist of imidazoline I-3 receptor for insulin secretion in diabetic rats. *Naunyn-Schmiedebergs Arch Pharmacol.* 390: 997 -1003.
64. Wang, L.Y., Cheng, K.C., Li, Y., Niu, C.S., **Cheng, J.T.**, Niu, H.S. (2017) The Dietary Furocoumarin Imperatorin Increases Plasma GLP-1 Levels in Type 1-Like Diabetic Rats. *Nutrients.* 2017; 9(11). pii: E1192. doi: 10.3390/nu9111192.
65. Lin, M.H., Hsu, C.C., Lin, J., **Cheng, J.T.**, Wu, M.C. (2017) Investigation of morin-induced insulin secretion in cultured pancreatic cells. *Clin Exp Pharmacol Physiol.* 44:1254-1262.
66. Lo, S.H., Li, Y., Cheng, K.C., Niu, C.S., **Cheng, J.T.**, Niu, H.S. (2017) Ursolic acid activates the TGR5 receptor to enhance GLP-1 secretion in type 1-like diabetic rats. *Naunyn-Schmiedebergs Arch Pharmacol.* 390: 1097 – 1104.
67. Lin, C.S., Wu, T.T., Chang, C.H., **Cheng, J.T.**, Tong, Y.C. (2017) Changes of Bladder M1, 3 Muscarinic Receptor Expression in Rats Fed with Short-Term/Long-Term High-Fat Diets. *Low Urin Tract Symptoms.* 2017 Jul 5. doi: 10.1111/luts.12171.
68. Li,Y., Cheng, K.C., Liu, K.F., Peng, W.H., **Cheng, J.T.**, Niu, H.S. (2017) Telmisartan Activates PPAR $\delta$  to Improve Symptoms of Unpredictable Chronic Mild Stress-Induced Depression in Mice. *Sci Rep.* 7(1):14021. <doi:

10.1038/s41598-017-14265-4>

69. Kuo, S.C., Li, Y., Cheng, K.C., Niu, C.S., **Cheng, J.T.**, Niu, H.S. (2017) Investigation of the pronounced erythropoietin-induced reduction in hyperglycemia in type 1-like diabetic rats. *Endocr J.* <doi: 10.1507/endocrj.EJ17-0353>
70. Chiu, Y.H., Ku, P.M., Cheng, Y.Z., Li, Y., **Cheng, J.T.**, Niu, H.S. (2017) Phosphorylation of signal transducer and activator of transcription 3 induced by hyperglycemia is different with that induced by lipopolysaccharide or erythropoietin via receptor-coupled signaling in cardiac cells. *Mol Med Rep.* 17:1311-1320. <doi: 10.3892/mmr.2017.7973>
71. Kuo, S.C., Li, Y., Cheng, K.C., Niu, C.S., **Cheng, J.T.**, Niu, H.S. (2017) Increase in renal erythropoietin receptors in diabetic rats is mainly mediated by hyperglycemia associated with the STAT3/GATA-1 signaling pathway. *Biomed Pharmacother.* 96:1094-1102. <doi: 10.1016/j.biopha.2017.11.115>
72. Wu, T.T.L., Tang, Y.C., Chen, I.H., Niu, H.S., Li, Y., **Cheng, J.T.** (2018) Induction of apoptosis in prostate cancer by ginsenoside Rh2. *Oncotarget* (In Press).