

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)

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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:

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 (2012- 2016)

1. Yang, P.S., Wu, H.T., Chung, H.H., Chen, C.T., Chi, C.W., Yeh, C.H. and **Cheng, J.T.** (2012) Rilmenidine improves hepatic steatosis through p38-dependent pathway to higher the expression of farnesoid X receptor. *Naunyn-Schmiedeberg's Arch. Pharmacol.*, 385: 51- 56.
2. Lin, K.C., Yeh, L.R., Chen, L.J., Wen, Y.J., Cheng, K.C. and **Cheng JT.** (2012) Plasma glucose-lowering action of allantoin is induced by activation of imidazoline I-2 receptors in streptozotocin-induced diabetic rats. *Hormone & Metab. Res.*, 44: 41-46.

3. Lee, L.M., Lin, C.S., Chung, H.H., Lin, K.C. and **Cheng JT.** (2012) Urinary bladder relaxation through activation of opioid μ -receptors induced by loperamide is increased in diabetic rats. *Exp. Clin. Endocrinol. Diabetes* 120: 323-328.
4. Wu, H.T., Chen, W., Cheng, K.C., Ku, P.M., Yeh, C.H. and **Cheng, J.T.** (2012) Oleic acid activates peroxisome proliferator-activated receptor α to compensate insulin resistance in steatotic cells. *J. Nutrit. Biochem.*, 23:1264-1270.
5. Kang, L., Chen, C.H., Cheng, Y.C., Chang, C.H., Lee, C.T., Chang, J.K., **Cheng, J.T.** and Chang, F.M. (2012) Glucosamine-induced insulin resistance in ovariectomized rats is relevant to decreasing the expression of glucose transport protein subtype 4 in the skeletal muscle and in increasing the size of pancreatic islets. *Menopause* 19:496-502.
6. Chen, I.H., Tong, Y.C. and **Cheng, J.T.** (2012) Metabolic syndrome decreases tissue perfusion and induces glandular hyperplasia in the fructose-fed rat prostate. *Neurourol Urodyn.*, 31: 600-604.
7. Chen, M.F., Yang, T.T., Yeh, L.R., Chung, H.H., Wen, Y.J., Lee, W.J. and **Cheng, J.T.** (2012) Activation of imidazoline I-2B receptors by allantoin to increase glucose uptake into C2C12 Cells. *Hormone & Metab. Res.*, 44:268-272.
8. Yu, H.C., Chen, L.J., Cheng, K.C., Li, Y.X., Yeh, C.H. and **Cheng, J.T.** (2012) Silymarin inhibits cervical cancer cell through an increase of phosphatase and tensin homolog (PTEN). *Phytotherapy Res.*, 26: 709-715.
9. Chen, W., Chung, H.H. and **Cheng, J.T.** (2012) Opiate-induced constipation is related to the activation of opioid μ_2 -receptors in small intestine of mice. *World J. Gastroent.*, 18:1391-1396
10. Lee, L.M., Lu, C.C., Chung, H.H. and **Cheng, J.T.** (2012) Prostatic relaxation induced by loperamide is reduced in spontaneously hypertensive rats. *Scientific*

World Journal, 2012: 941685.

11. Lin, C.C., Lin, L.T., Yen, M.H., **Cheng, J.T.**, Yeh, C.H. and Hsing, C.H. (2012) Renal protective effect of Xiao-Chai-Hu-Tang on diabetic nephropathy of type 1-diabetic mice. *Evid. Bas. Com. Altern. Med. (eCAM)*, 2012:984024.
12. Lee, L.M., Tsai, T.C., Chung, H.H., Tong, Y.C. and **Cheng, J.T.** (2012) Prostatic relaxation induced by agmatine is decreased in spontaneously hypertensive rats. *BJU Int.*, 110: E253-E258.
13. Chung, H.H., Yang, T.T., Chen, M.F., Chou, M.T., and **Cheng, J.T.** (2012) Improvement of Hyperphagia by Activation of Cerebral I1-Imidazoline Receptors in Streptozotocin-induced Diabetic Mice. *Hormone & Metab. Res.*, 44: 645-649.
14. Chou, M.T., Lo, S.H., Cheng, K.C., Li, Y.X., Chen, L.J. and **Cheng, J.T.** (2012) Activation of β -adrenoceptors by dobutamine may induce a higher expression of peroxisome proliferator-activated receptors δ (PPAR δ) in neonatal rat cardiomyocytes. *Scientific World Journal*, 2012: 248320.
15. Cheng, K.C., Li, Y.X., Asakawa, A., Ushikai, M., Kato, I., Sato, Y., **Cheng, J.T.** and Inui, A. (2012) Characterization of preptin-induced insulin secretion in pancreatic β -cells. *J. Endocrinol.*, 215: 43-49.
16. Huang, C.H., Chen, M.F., Chung, H.H. and **Cheng, J.T.** (2012) Antihyperglycemic effect of syringaldehyde in streptozotocin-induced diabetic rats. *J. Nat. Prod.*, 75: 1465-1468.
17. Cheng, Y.Z., Chen, L.J., Lee, W.J., Chen, M.F., Lin, H.J. and **Cheng, J.T.** (2012) Increase of myocardial performance by Rhodiola-ethanol extract in diabetic rats. *J. Ethnopharmacol.*, 144: 234 – 239.
18. Chen, I.H., Tong, Y.C. and **Cheng J.T.** (2012) Metabolic syndrome decreases tissue perfusion and induces glandular hyperplasia in the fructose-fed rat prostate.

Neurourol Urodyn., 31: 600-604.

19. Chen, I.H., Chung, H.H., **Cheng, J.T.** and Tong, Y.C. (2012) Metabolic syndrome enhances prostate contractility and in vitro phenylephrine-induced α_1 -adrenoceptor protein expression in the fructose-fed rat. *LUTS* (2012) doi: 10.1111/luts.12002.
20. Yang, T.T., Chiu, N.H., Chung, H.H., Hsu, C.T., Lee, W.J. and **Cheng, J.T.** (2012) Stimulatory effect of allantoin on imidazoline I1 receptors in animal and cell line. *Hormone & Metab. Res.*, 44: 879- 884.
21. Cheng, K.C., Li, Y.X. and **Cheng, J.T.** (2012) The use of herbal medicine in cancer-related anorexia/ cachexia treatment around the world. *Curr. Pharm. Des.* , 18:4819- 4826.
22. Lai, Y.H., Chen, L.J. and **Cheng, J.T.** (2013) Role of TNF- α in renal damage in mice showing hepatic steatosis induced by high fat diet. *Hormone & Metab. Res.*, 45:38-42.
23. 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.
24. 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.
25. 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.
26. Chen, Z.C., Yu, B.C. Chen, L.J. and **Cheng, J.T.** (2013) Increase of peroxisome

- proliferator-activated receptors δ (PPAR δ) by digoxin to improve lipid metabolism in the heart of diabetic rats. *Hormone & Metab. Res.*, 45: 364-371.
27. 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.
 28. Mar, G.Y., Ku, P.M., Chen, L.J., Cheng, K.C., Li, Y.X. and **Cheng, J.T.** (2013) Increase in cardiac M₂-muscarinic receptor expression is regulated by GATA binding protein 4 (GATA-4) in streptozotocin-induced diabetic rats. *Int. J. Cardiol.*, 167: 436 - 441.
 29. 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.
 30. Cheng, K.C., Asakawa, A., Li, Y.X., Liu, I.M., Amitani, H., **Cheng, J.T.** and Inui, A. (2013) Opioid μ -receptors as new target for insulin resistance. *Pharmacol Ther.*, 139:334-340.
 31. Lee, W.J., Chung, H.H., Cheng, Y.Z., Lin, H.H. and **Cheng, J.T.** (2013) Rhodiola-water extract induces β -endorphin secretion to lower blood pressure in spontaneously hypertensive rats. *Phytotherapy Res.*, 27:1543-1547.
 32. Chen, Z.C., Chen, L.J. and **Cheng, J.T.** (2013) Doxorubicin-induced cardiac toxicity is mediated by lowering of peroxisome proliferator-activated receptor δ expression in rats. *PPAR Res.*, 2013:456042. doi: 10.1155/2013/456042.
 33. Chung, H.H., Lee, K.S. and **Cheng, J.T.** (2013) Decrease of obesity by allantoin via imidazoline I₁ -receptor activation in high fat diet-fed mice. *Evid Based Complement Alternat Med (eCAM)*, 2013:589309. doi: 10.1155/2013/589309.
 34. 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.
35. 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.
 36. 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 δ (PPAR δ) as a new target for increased contractility without altering heart rate. *PLoS One*. 28: 8(5):e64229
 37. Lo, S.H., Lee, K.S., Chen, L.J., **Cheng, J.T.** and Chen, C.H. (2013) Increase of PPAR δ by dopamine mediated via DA-1 receptor-linked phospholipase C pathway in neonatal rat cardiomyocytes. *Auton Neurosci.*, 177:211-216.
 38. 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
 39. 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.
 40. Chung, H.H. and **Cheng, J.T.** (2013) Improvement of obesity by activation of α -imidazoline receptors in high fat diet-fed mice. *Hormone & Metab. Res.*, 45:581-585.
 41. 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.
 42. 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.

43. 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.
44. 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.
45. Kuo, S.C., Ku, P.M., Chen, L.J., Niu, H.S. and **Cheng, J.T.** (2013) Activation of receptors δ (PPAR δ) by agonist (GW0742) may enhance lipid metabolism in heart both In Vivo and In Vitro. *Hormone & Metab. Res.*, 45: 880-886.
46. 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.
47. 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.
48. 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.
49. 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.
50. 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.
51. 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.
52. Sheu, J.R., Thomas, P.A. and **Cheng, J.T.** (2014) Editorial, Novel Drugs Development for Cardio-/Cerebrovascular Diseases. *BioMed Res Int.*, 2014, 467936.
 53. 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- α . *In. J. Urol.*, 21:831-835.
 54. Kang, L., Chen, C.H., Wu, M.H., Chang, J.K., Chang, F.M. and **Cheng, J.T.** (2014) 17 β -Estradiol protects against glucosamine-induced pancreatic β -cell dysfunction. *Menopause* 21:1239-1248.
 55. Tsai, C.C., Lee, K.S., Chen, S.H., Chen, L.J., Liu, K.F. and **Cheng, J.T.** (2014) Decrease of PPAR δ in Type-1-Like Diabetic Rat for Higher Mortality after Spinal Cord Injury. *PPAR Res.* 2014:456386.
 56. 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.
 57. Yeh, M.C., Chen, L.J., Niu, H.S., Yang, T.T., Lin, K.C. and **Cheng, J.T.** (2014) Signals for increase of μ -opioid receptor expression in muscle by hyperglycemia. *Neurosci. Lett.*, 582:109-114.
 58. 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.
 59. 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.
 60. 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.
61. 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.
62. 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.
63. 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.
64. 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.
65. 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.
66. 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.
67. 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.
68. 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.
69. 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.
70. Chang, W.T., **Cheng, J.T.**, Chen, Z.C. (2016) Telmisartan improves cardiac fibrosis in diabetes through peroxisome proliferator activated receptor δ (PPAR δ): from bedside to bench. *Cardiovasc Diabetol.* , 15(1):113.
71. 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.
72. 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.
73. 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.