

Curriculum Vitae

PERSONAL INFORMATION



Ying-Jui Ho

Name	Ying-Jui Ho 何應瑞	Dender	Male	Age	51
Nationality	Republic of China	ID no.			
City of born	Hualien, Taiwan	Birth date	April 18, 1967		
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EDUCATION

Degree	School	Institute	Major	Date
Ph.D.	National Taiwan University	Institute of Physiology	Behavioral Neuroscience	1994/9 ~ 2002/5
	<u>Thesis:</u> The Role of Glutamatergic System in the Behavior Expression in Olfactory Bulbectomized Rats			Advisor: Dr. Yuan-Feen Tsai
M.S.	National Defense Medical Center	Institute of Physiology	Psychopharmacology and Neuroscience	1992/9 ~ 1994/7
	<u>Thesis:</u> Effects of excitatory amino acid and antipsychotics, haloperidol and amperozide, on dopamine transmission in rat's nucleus accumbens and striatum			Advisor: Dr. Che-Se Tung
B.S.	Kaohsiung Medical University	Department of Pharmacy	Pharmacy	1986/9 ~ 1990/6

PROFESSIONAL DISCIPLINE

Physiology, Pharmacology, Neuroscience, Neuropsychology, Psychology, Biopsychology
Neurodegeneration, Parkinson's disease, Dementia with Lewy bodies, Animal Study, Behavioral science, Cognitive function

RECENT Research work

A **phase 2 clinical trial** approved by US and Taiwan FDAs: applying ceftriaxone on neurodegeneration and dementia in Parkinson's disease

頭孢曲松治療巴金森氏症失智臨床試驗: Title: [To Assess the Efficacy and Safety of Ceftriaxone in Patients With Mild to Moderate Parkinson's Disease Dementia](#) ◦ Trial No.: BRICEFA20170414; Website: <https://clinicaltrials.gov/ct2/results?cond=&term=BRICEFA20170414&cntry=&state=&city=&dis t=&Search=Search>

Ceftriaxone is developed for the new indication to treat Parkinson's disease dementia (PDD). Ceftriaxone is the drug substance of Rocephin® approved by FDA in 1984 as a cephalosporin antibiotic to function as anti-bacterial infection. Ceftriaxone is a β -lactam antibiotic for treating respiratory tract infection, urinary tract infection, bacterial septicemia, and meningitis (Congeniet al., 1984). It has been reported that ceftriaxone upregulated expression of glutamate transporter-1 (GLT-1) (Rothstein et al., 2005), and several subsequent studies demonstrated the antiexcitotoxic potential of this compound (Chu et al., 2007). Neuroprotective effects of ceftriaxone have been demonstrated following 5 days of pretreatment with ceftriaxone (200 mg/kg/day) in the *in vitro* models of stroke (Lipskiet al., 2007). Treatment with ceftriaxone (200 mg/kg/day) for 7 or 14 days during hypoxic exposure was found to increase GLT-1 expression, resulting in sequestration of excess glutamate into glial cells, protection of neurons from excitotoxicity, and improved spatial memory retrieval (Hota et al., 2009). However, nothing is known about the effects of ceftriaxone on cognitive behavior and neurodegeneration in Parkinson's disease (PD) patients.

Since ceftriaxone increases GLT-1 expression and reuptake of released glutamate may thus reduce excitotoxicity, it may be useful for treating PD symptoms. Ceftriaxone was used to conduct in several nonclinical pharmacological studies to show the effects of ceftriaxone on working memory, object recognition, and neuroprotection in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP)-induced PD rat model, which demonstrated that ceftriaxone inhibited MPTP lesion-induced dopaminergic degeneration in the nigrostriatal system, microglial activation in the substantia nigra pars compacta (SNc), and cell loss in the hippocampal CA1 area. These results demonstrate that ceftriaxone prevents loss of neurogenesis in the brain of PD rats.

Clinical program: A randomized, double-blinded, Phase II trial is designed to investigate the safety and efficacy profiles of ceftriaxone in PDD patients.

The present study includes primary and secondary study objectives. The primary objective is to evaluate the improvement of cognitive function in PDD patients with ceftriaxone administration. The secondary objectives are to evaluate the efficacy and safety profiles in PDD patients with ceftriaxone administration. The study will be enrolled in approximate 106 patients to achieve at least 84 evaluable patients. Eligible subjects will be randomized to receive either ceftriaxone or placebo in a 1:1 ratio. Patients in the investigational product group will receive 1g/day of ceftriaxone reconstituted in lidocaine; while patients with placebo treatment will receive the same volume of lidocaine injection. Both groups will be administered via intramuscular (IM) injection for 3 doses every cycle (2 weekly cycle), for a total of 16 cycles.

For primary endpoint, comparison of the treatment difference in mean net change in Alzheimer's Disease Assessment Scale-Cognitive subscale (ADAS-Cog) score with time course will be evaluated. For secondary endpoints, the efficacy profile of ceftriaxone will be assessed by the changes of Unified Parkinson's Disease Rating Scale (UPDRS), Judgment of Line Orientation score, Mini Mental

State Examination, Clinical Dementia Rating Scale, Color Trail test scores, Tc-99m TRODAT SPECT and MRI images changes as well as the overall evaluation of Alzheimer's Disease Cooperative Study-Clinician's Global Impression of Change(ADCS-CGIC) score from baseline at week 16 and 32 visits. The baseline of each efficacy factors will be evaluated on Day 1 before dosing.

PROFESSIONAL EXPERIENCE

Department /	Institution	Position	Date
Department of Psychology 心理學系	Chung Shan Medical University 中山醫學大學	Professor 教授	2011/08 ~ present
Russian International Affairs Council (RIAC)俄羅斯國際事務部	the Review Board of the Russian Science Foundation (RSF)俄國科學基金會	審查委員	2019/04 ~迄今
南投縣政府 防毒委員			2016.08.01-2018.07.31
台中市政府 防毒委員			2017.01.01-2018.12.31
BrainX Corporation		Founding Shareholder	2016.07.06~
The Chinese Physiological Society 中國生理學會		Member of the Council 理事	2016/04/05 ~
瑞金抗齡基金會		董事	2017.01.01 ~
The Chinese Physiological Society 中國生理學會		Executive Secretary 秘書長	2012/03/01 ~ 2016/04/01
Student Affairs 學務處	Chung Shan Medical University 中山醫學大學	Dean 學務長	2012.08.01~ 2014.07.31
中山醫學大學 Chung Shan Medical University	教師會 Teacher association	理事長 Director-General	2012/01/01 ~ 2012/07/31
Chung Shan Medical University Hospital 中山醫院	Human Subject Research Ethics Committee/ IRB 人體研究委員會	Independent Expert Consultant 獨立諮詢委員	2011/08/01 ~ present
Taiwan Neuromodulation Society 台灣神經調節學會		Member of the Council 理事	2007/12 ~ present
Dept. Psychopharmacology 藥理學科	Central Institute of Mental Health, Germany 德國心智健康研究院	Visiting Fellow 訪問學者	2007/06/30 ~ 07/11
Division of Extracurricular Activities 課外活動組	Office of Student Affairs, Chung Shan Medical University 中山醫學大學	Chair 主任	2006/03 ~ 2008/03
Department of Psychology 心理學系	Chung Shan Medical University 中山醫學大學	Associate Professor 副教授	2005/08 ~ 2011/07/31

Department of Psychology 心理學系	Chung Shan Medical University 中山醫學大學	Assistant Professor 助理教授	2002/08 ~ 2005/07/31
Experimental and Physiological Psychology 實驗與生理心理學系	Philipps University of Marburg, Germany 德國 Marburg 大學	Visiting Scholar 訪問學者	2001/03 ~ 2002/02
Chang Gung Nursing Junior College 長庚護專		Lecturer 兼任講師	2000/09 ~ 2001/01
Tri-Service General Hospital 三軍總醫院		Pharmacist 藥劑師	1993/01 ~ 1993/06
Chinese Air Force 空軍		Commissioned Lieutenant 少尉軍官	1990/07 ~ 1992/05

PUBLICATIONS

(A) Referred Paper in English

1. **Ho YJ*** MS Shen, CH Tai, HH Li, JH Chen WC Liao, PY Chiu, IY Lee, CL Lin, CS Hung. Use of ceftriaxone in treating cognitive and neuronal deficits associated with dementia with Lewy bodies. *Forntiers in in Neurosciences* (in press 20190502) (SCI).
2. Volgin AD, A Bashirzade, TG Amstislavskaya, OA Yakovlev, KA Demin, **YJ Ho**, D Wang, VA Shevyrin, D Yan, Z Tang, J Wang, M Wang, ET Alpyshov, N Serikuly, EA Wappler-Guzzetta, AM Lakstygal, AV Kalueff*. Dark classics in chemical Neuroscience: arecoline. *ACS Chem Neurosci*, 2019. E-pub Date: 2019/01/22, (in press, 2019). (SCI)
3. Lai CL, WM Chi, **YJ Ho**, CC Lin, HC Lin, CL Kuo, JH Chen* Using a Numerical Method to Precisely Evaluate the Alpha Angle in a Hip Image. *Med Biol Eng Comput*, published online: 08 April, 2019. DOI: [10.1007/s11517-019-01973-4](https://doi.org/10.1007/s11517-019-01973-4) (SCI)
4. Tai CH, M Bellesi, AC Chen, CL Lin, HH Li, PJ Lin, WC Liao, CS Hung*, RK Schwarting*, **YJ Ho***. A new avenue for treating neuronal diseases: ceftriaxone, an old antibiotic demonstrating behavioral neuronal effects. *Brain Res Res* 364: 149- 156, Feb. 20, 2019. (SCI)
<Review paper>
5. 何應瑞*、許弘毅、張鳴宏、廖玟潔、林志立*、洪菁穗*。從路易氏體失智症之病理特徵找尋治療方法 (Exploring a therapeutic method for dementia with Lewy bodies based on the pathophysiology)。 *台灣醫學雜誌* (in press, 2018)
6. 何應瑞*、沈枚萱、陳安芝、戴春暉、洪菁穗*、邱百誼*、賴德仁*。路易氏體失智症複雜的神經病理:頭孢曲松治療之潛力(Complicated pathophysiology of dementia with Lewy bodies: Therapeutic potential of ceftriaxone. *Clinical Medicine* 83(3): 185-93, 2019)。*臨床醫學雜誌* 83(3): 185-93, 2019
7. Kung WM, **Ho YJ**, H Yoshizawa, S Matsuo, CY Wei. Behavioural and cognitive changes in Lewy body dementia. *Behavioural Neurology*, vol. 2018, 2018. Article ID: 2404191, 2018. (SCI)
8. Chang CC, TC Lin, HL Ho, HH Li, CY Kuo, TA Korolenko, WJ Chen, TJ Lai, **YJ Ho***, CL Lin*. GLP-1 analogue Liraglutide attenuates mutant huntingtin-induced neurotoxicity by restoration of neuronal insulin signaling. *Int J Mol Sci* 19: 2505, 2018. (SCI)
9. **Ho YJ***, JC Weng, CL Lin, MS Shen, HH Li, WC Liao, NM Tsai, CS Hung*, TJ Lai*, IY Lee*. Ceftriaxone treatment for neuronal deficits: a histological and MEMRI study in a rat model of dementia with Lewy bodies. *Behav Neurol* 2018: 4618716, Aug. 2, 2018. (SCI)
10. Chang CC, HH Li, YT Chang, **YJ Ho**, LJ Hsieh, PY Chiu, YS Cheng, CL Lin, TJ Lai. Abeta exacerbates α -synuclein-induced neurotoxicity through impaired insulin signaling in α -synuclein-overexpressed human SK-N-MC neuronal cells. *CNS Neuroscience & Therapeutics* 24(1): 47-57, 2018. . DOI: 10.1111/cns.12772. Oct. 11, 2017. (SCI)
11. Chi WM, CC Lin, **YJ Ho**, HC Lin, JH Chen*. Using nonlinear finite element models to analyse stress distribution during subluxation and torque required for dislocation of newly developed total hip structure after prosthetic impingement. *Med Biol Eng Comput* 56: 37- 47, 2018. (SCI)
12. Hsieh MH[#], WY Meng[#], WC Liao[#], JC Weng, HH Li, HL Su, CL Lin*, CS Hung*, **YJ Ho***. Ceftriaxone reverses deficits of behavior and neurogenesis in an MPTP-induced rat model of Parkinson's disease dementia. *Brain Res Bull* 132: 129- 38, 2017. (SCI)
13. Tikhonova MA, SC Ho, AA Akopyan, NG Kolosova, JC Weng, WY Meng, CL Lin, TG Amstislavskaya, **YJ Ho***. Neuroprotective effects of ceftriaxone treatment on cognitive and neuronal deficits in a rat model of accelerated senescence. *Behav Brain Res*, 330: 8-16, May.

12, 2017. (SCI)

14. Chen LY, TY Renn, WC Liao, FD Mai, YJ Ho, G Hsiao, AW Lee, HM Chang. Melatonin successfully rescues hippocampal bioenergetics and improves cognitive function following drug intoxication by promoting Nrf2-ARE signaling activity. *J Pineal Res* e12417, May. 2, 2017. (SCI)
15. Weng JC, MA Tikhonova, JH Chen, MS Shen, WY Meng, YT Chang, KH Chen, KC Liang, CS Hung, TG Amstislavskaya, YJ Ho*. Ceftriaxone prevents the neurodegeneration and decreased neurogenesis seen in a Parkinson's disease rat model: an immunohistochemical and MRI study. *Behav Brain Res* 305: 126-39, Mar 08, 2016 (SCI)
16. Lin CL, YS Cheng, HH Li, PY Chiu, YT Chang, YJ Ho, TJ Lai. Amyloid- β suppresses AMP-activated protein kinase (AMPK) signaling 2 and contributes to α -synuclein-induced cytotoxicity. *Exp Neurol* 275: 84-98, 2016. (SCI)
17. Chi WM, CY Wang, LY Chen, YJ Ho, PJ Wu, JH Chen. Effects of Yuan Ji dance on standing balance control in community-dwelling middle-aged and elderly people. *J Nan Kai*, 12: 1, 21-30, 2015.
18. Huang CK, YT Chang, TG Amstislavskaya, MA Tikhonova, CL Lin, CS Hung, TJ Lai, YJ Ho*. Synergistic effects of ceftriaxone and erythropoietin on neuronal and behavioral deficits in an MPTP-induced animal model of Parkinson's disease dementia. *Behav Brain Res* 294: 198-207, Aug 15, 2015. (SCI)
19. Tikhonova MA, AV Romaschenko, AE Akulov, YJ Ho, NG Kolosova, MP Moshkinb, TG Amstislavskaya. Comparative study of perception and processing of socially or sexually significant odor information in male rats with normal or accelerated senescence using fMRI. *Behav Brain Res*. 294: 89-94, Aug. 12, 2015. (SCI)
20. Lin HC HC, WM Chi, YJ Ho, CC Lin, JH Chen. Theoretical Analysis of Total Hip Dislocation and Comparison of the Hemispherical Cup and a Newly Developed Cup. *Med Biol Eng Comput* 51(4): 397- 404, Apr. 1, 2015. (SCI, EI)
21. Tikhonova MA, CH Ting, NG Kolosova, CY Hsu, JH Chen, CW Huang, GT Tseng, CS Hung, PFu Kao, TG Amstislavskaya, YJ Ho*. Improving bone microarchitecture in aging with diosgenin treatment: a study in senescence-accelerated OXYS rats. *Chin J Physiol* 58(5): 322-31, Oct. 31, 2015 (SCI)
22. Hsu CY, CS Hung, HM Chang, WC Liao, SC Ho, YJ Ho*. Ceftriaxone prevents and reverses behavioral and neuronal deficits in an MPTP-induced animal model of Parkinson's disease dementia. *Neuropharmacol* 91:43-56, 2015. (SCI)
23. Chu SC, PN Chen, YJ Ho, CH Yu, YS Hsieh, DY Kuo*. Both neuropeptide Y knockdown and Y1 receptor inhibition modulate CART-mediated appetite control. *Hormones and Behavior* 67: 38-47, 2015. (SCI)
24. Lin WL, SM Wang, YJ Ho, HC Kuo, YJ Lee, TH Tsen. Ethyl acetate extract of *Wedelia chinensis* inhibits tert-butyl hydroperoxide-induced damage in PC12 cells and D-galactose-induced neuronal cell loss in mice. *BMC Complement Altern Med* 14: 491, 2014. (SCI)
25. Ho SC, CC Hsu, CR Pawlak, MA Tikhonova, TJ Lai, TG Amstislavskaya, YJ Ho*. Effects of ceftriaxone on the behavioral and neuronal changes in an MPTP-induced Parkinson's disease rat model. *Behav Brain Res* 268: 177-84, May 05, 2014. (SCI)

26. Ho SC, CC Hsu, CH Yu, WN Huang, MA Tikhonova, MC Ho, CS Hung, TG Amstislavskaya, **YJ Ho***. Measuring Attention in a Parkinson's disease Rat Model using the 5-arm Maze Test. *Physiology & Behavior* 130: 176-81, May 05, 2014. **(SCI)**
27. Tikhonova MA, CH Yu, NG Kolosova, LA Gerlinskaya, SO Maslennikova, AV Yudina, TG Amstislavskaya, **YJ Ho***. Comparison of behavioral and biochemical deficits in rats with hereditary defined or D-galactose-induced accelerated senescence: Evaluating the protective effects of diosgenin. *Pharmacol Biochem and Behav* 120: 7-16, Feb. 1, 2014. **(SCI)**
28. Hung YT, MA Tikhonova, SJ Ding, PF Kao, HHC Lan, JM Liao, JH Chen, TG Amstislavskaya, and **YJ Ho***. Effects of chronic treatment with diosgenin on bone loss in a D-galactose-induced aging rat model. *Chin J Physiol* 57(3): 121- 27, 2014. **(SCI)**.
29. Lin HC, WM Chi, **YJ Ho**, JH Chen. Effects of design parameters of total hip components on the impingement angle and determination of the preferred liner skirt shape with an adequate oscillation angle. *Med Biol Eng Comput* 51(4): 397- 404, Apr. 1, 2013. **(SCI)**
30. Yang LH, **YJ Ho**, JF Lin, CW Yeh, SH Kao, LiS Hsu. Butein inhibits the proliferation of breast cancer cells through generation of reactive oxygen species and modulation of ERK and p38 activities. *Molecular medicine reports* 6(5):1126-32, Nov. 2012. **(SCI)**
31. Hsia CH, CH Wang, YW Kuo, **YJ Ho**, HL Chen. Fructo-oligosaccharide systemically diminished D-galactose-induced oxidative molecule damages in BALB/cJ mice. *British Journal of Nutrition* 107: 1787–92, 2012. **(SCI)**.
32. Lin HC, WM Chi, **YJ Ho**, JH Chen*. Effects of design parameters of total hip components on the impingement angle and determination of the preferred liner skirt shape with an adequate oscillation angle. *Med Biol Eng Comput* 51(4): 397- 404, Apr. 1, 2013. **(SCI)**.
33. Hsia CH, CH Wang, YW Kuo, **YJ Ho**, HL Chen. Fructo-oligosaccharide systemically diminished D-galactose-induced oxidative molecule damages in BALB/cJ mice. *British Journal of Nutrition* 107: 1787–92, 2012. **(SCI)**.
34. Hsieh MH, SC Ho, KY Yeh, CR Pawlak, HM Chang, **YJ Ho***, TJ Lai*, FY Wu. Blockade of metabotropic glutamate receptors inhibits cognition and neurodegeneration in an MPTP-induced Parkinson's disease rat model. *Pharmacology, Biochemistry and Behavior* 102: 64-71, 2012. **(SCI)**.
35. Pawlak CR, FS Chen, FY Wu, **YJ Ho***. Potential of D-cycloserine in the treatment of behavioral and neuroinflammatory disorders in Parkinson's disease and studies that need to be performed before clinical trials. *Kaohsiung J Med Sci* 28(8): 407-17, Aug. 16, 2012. **(SCI)**.
36. **Ho YJ***, FL Chen, SM Liu, AL Wang, YC Li, TJ Lai, SS Huang. Effects of chronic resistive airway loading on behavioral changes in rats. *Chin J Physiol* 55(4): 245-252, Aug. 31, 2012. DOI: 10.4077/CJP.2012.BAA044 **(SCI)**.
37. **Ho YJ***, SY Tai, CR Pawlak, AL Wang, CW Cheng, MH Hsieh. Behavioral and IL-2 Responses to Diosgenin in Ovariectomized Rats. *Chin J Physiol* 55(2): 91-100, 12 Apr, 2012. **(SCI)**.
38. Pawlak CR, BD Karrenbauer, P Schneider, **YJ Ho**. The elevated plus-maze test: differential psychopharmacology of anxiety-related behavior. *Emotion Review* 4(1):98-115, Jan. 24, 2012. **(SCI)**
39. Hsieh MH, SL Gu, SC Ho, CR Pawlak, CL Lin, **YJ Ho***, TJ Lai, FY Wu. Effects of MK-801 on recognition and neurodegeneration in MPTP-induced Parkinson's rat model. *Behav Brain Res* 229(1): 41-47, Jan. 10, 2012 **(SCI)**

40. Schneider P, WF Wolfgang, N Schweinfurth, **YJ Ho**, A Sartorius, R Spanagel, CR Pawlak. Central metabolite changes and activation of microglia after peripheral interleukin-2 challenge. **Brain Behav Immun**, 26(2): 277-83, Feb. 1, 2012. (SCI)
41. Chang CC, TC Kuan, YY Hsieh, **YJ Ho**, YL Sun, CS Lin. Effects of diosgenin on myometrial matrix metalloproteinase-2 and -9 activity and expression in ovariectomized rats. **Int J Biol Sci** 7: 837-847, July. 7. 2011. (SCI)
42. Schneider P, **YJ Ho**, R Spanagel, CR Pawlak. A novel elevated plus-maze procedure to avoid the one-trial tolerance problem. **Frontiers in Behavioral Neuroscience** 5(43):1-8, July 27, 2011. (SCI)
43. **Ho YJ***, SC Ho, CR Pawlak, KY Yeh. Effects of D-cycloserine on MPTP-induced behavioral and neurological changes: potential for treatment of Parkinson's disease dementia. **Behavioural Brain Research** 219(2): 280-90, 2011. (SCI)
44. Huang GJ, SC Ho, CK Lai, SL Gu, MH Hsieh, **YJ Ho***. D-cycloserine reverses recognition deficits in MPTP-induced Parkinson's disease mice model. **Proceedings of XVII International Congress of Neuropathology**, pp 31-35, 2010. (September 11-15, 2010, Salzburg, Austria)
45. Ho SC, GJ Huang, CK Lai, SL Gu, MH Hsieh, **Ho YJ***. MPTP-induced animal model of Parkinson's disease dementia: there are species differences. **Proceedings of XVII International Congress of Neuropathology** pp 23-29, 2010. (September 11-15, 2010, Salzburg, Austria)
46. Sy HN, SL Wu, WF Wang, CH Chen, YT Huang, YM Liou, CS Chiou, CR Pawlak, **YJ Ho***. MPTP-induced dopaminergic degeneration and deficits in object recognition in rats are accompanied by neuroinflammation in the hippocampus. **Pharmacol Biochem and Behav** 95:158-165, Feb. 26, 2010. (SCI).
47. Wang AL, YM Liou, CR Pawlak, **YJ Ho***. Involvement of NMDA receptors in both MPTP-induced neuroinflammation and deficits in episodic-like memory in Wistar rats. **Behav Brain Res** 208: 38-46, Mar. 17th, 2010. (SCI).
48. Wang WF, SL Wu, YM Liou, AL Wang, CR Pawlak, **YJ Ho***. MPTP lesion causes neuroinflammation and deficits in object recognition in Wistar rats. **Behavioral Neuroscience** 123(6): 1261-70, Dec. 17th, 2009. (SCI).
49. Karrenbauer BD, **YJ Ho**, V Ludwig, J Löhn, R Spanagel, RKW Schwarting, CR Pawlak. Time-dependent effects of striatal interleukin-2 on open field behaviour in rats. **Journal of Neuroimmunology** 208: 10-18, Mar. 31, 2009. (SCI).
50. Bauhofer A, **YJ Ho**, A Schmitt, M Köster, RKW Schwarting, CR Pawlak. Individual behavioral differences in recovery from abdominal sepsis in rats. **Inflammation Research** 58:1-9, Feb. 5, 2009. (SCI).
51. Lee SD, WW Kuo, **YJ Ho**, AC Lin, CH Tsai, HF Wang, CH Kuo, AL Yang, CY Huang, JM Hwang. Cardiac Fas-dependent and mitochondrial dependent apoptosis in ovariectomized rats. **Maturitas** 61:268-77, Nov. 20, 2008. (SCI).
52. Chiang CY, KY Yeh, SF Lin, H Hsueh, MY Tai, **YJ Ho***, YF Tsai. Effects of alcohol on the mouse-killing behavior of olfactory bulbectomized rats. **Chinese Journal of Physiology** 51(6): 408-13, Dec. 31, 2008. (SCI)
53. Chen JH, JSS Wu, HC Lin, SL Wu, WF Wang, SK Huang, **YJ Ho***. Dioscorea improves the morphometric and mechanical properties of bone in ovariectomized rats. **Journal of the Science of Food and Agriculture** 88: 2700-06, Oct. 7. 2008. (SCI)

54. Pawlak CR*, **YJ Ho***, R. K.W. Schwarting*. Animal models of human psychopathology based on individual differences in novelty-seeking and anxiety. *Neuroscience & Biobehavioral Reviews* 32: 1544-68, Oct. 10. 2008. (SCI)
55. Lee YT, WF Wang, CW Cheng, SL Wu, CR Pawlak, **YJ Ho***. Effects of escapable and inescapable stressors on behavior and interleukin-2 in the brain. *Neuroreport* 19(12): 1243-47, Aug. 6. 2008. (SCI)
56. Hsieh YS, SF Yang, SC Chu, **YJ Ho**, CS Kuo, DY Kuo. Transcriptional interruption of cAMP response element binding protein modulates superoxide dismutase and neuropeptide Y-mediated feeding behavior in freely moving rats. *Journal of Neurochemistry* 105: 1438-1449, May. 2008. (SCI)
57. Wu SL, LS Hsu, WT Tu, WF Wang, YT Huang, CR Pawlak*, **YJ Ho***. Effects of D-cycloserine on the behavior and ERK activity in the amygdala: Role of individual anxiety levels. *Behavioral Brain Research* 187(2): 246-53, Mar. 5. 2008. (SCI)
58. **Ho YJ***, WY Hsu, CF Wang, T Tseng, CW Cheng, YC Hung, CC Hsu, MD Kao, YF Tsai. Psychoimmunological effects of dioscorea in the ovariectomized rats: role of anxiety level. *Annals of General Psychiatry* 6:21, Aug. 10, 2007.
59. Wang WF, YP Lei, T Tseng, WY Hsu, CF Wang, CC Hsu, **YJ Ho***. Effects of apomorphine on the expression of learned helplessness behavior. *Chinese Journal of Physiology* 50(2): 63-68, Apr. 30, 2007. (SCI).
60. Chen LM, WW Kuo, JJ Yang, SG Wang, YL Yeh, FJ Tsai, **YJ Ho**, MH Chang, CY Huang, SD Lee. Eccentric cardiac hypertrophy was induced by long-term intermittent hypoxia. *Experimental Physiology* 92(2):409-16 Mar. 2007. (SCI).
61. **Ho YJ***, LS Hsu, CF Wang, WY Hsu, TJ Lai, CC Hsu, YF Tsai. Behavioral effects of D-cycloserine in rats: the role of anxiety level. *Brain Res* 1043: 179-185, May. 2005. (SCI).
62. **Ho YJ**, KH Chen, MY Tai, YF Tsai. MK-801 suppresses muricidal behavior but not locomotion in olfactory bulbectomized rats: involvement of NMDA receptors. *Pharmacol Biochem Behav* 77: 641-46, Mar. 2004. (SCI).
63. **Ho YJ**, H Hsueh, HA Shui, MY Tai, KH Chen, YF Tsai. Effects of desipramine and MK-801 on components of muricidal behavior in olfactory bulbectomized rats: an application of incisor-cutting animal model. *Neurosci Res Comm* 34(3): 136-43, May. 2004. (SCI).
64. **Ho YJ**, CR Pawlak, LH Ku, RKW Schwarting. Acute and long-term consequences of single MDMA administration in relation to individual anxiety levels in the rat. *Behav Brain Res* 149: 135-44, Mar. 2004. (SCI).
65. Pawlak CR, **YJ Ho**, RKW Schwarting, A Bauhofer. Relationship between striatal levels of interleukin-2 mRNA and plus-maze behaviour in the rat. *Neurosci Lett* 341: 205-08, May. 2003. (SCI).
66. **Ho YJ**, J Eichendorff, RKW Schwarting. Individual response profiles of male Wistar rats in animal models of anxiety and depression. *Behav Brain Res* 136: 1-12, Oct. 2002. (SCI).
67. Hsueh H, **YJ Ho**, HA Shui, MY Tai, KH Chen, YF Tsai. Effects of incisor cutting on muricidal behavior induced by olfactory bulbectomy in rats. *Physiol and Behav* 76 (4-5): 669-75, Aug. 2002. (SCI).
68. **Ho YJ**, TM Liu, MY Tai, CS Wong, YF Tsai. Effects of olfactory bulbectomy on the density of

NMDA receptors in rat's brain: [³H] MK-801 binding assay. *Brain Res* 900: 214-18, May. 11, 2001. (SCI)

69. Ho YJ, YC Chang, TM Liu, MY Tai, CS Wong, YF Tsai. Striatal glutamate release during novelty exposure-induced hyperactivity in olfactory bulbectomized rats. *Neurosci Lett* 287 (2): 117-20, Jun. 23, 2000. (SCI)

(B) In Chinese with English Abstract

1. 何應瑞*、沈枚萱、陳安芝、戴春暉、洪菁穗*、邱百誼*、賴德仁*。路易氏體失智症複雜的神經病理:頭孢曲松治療之潛力(Complicated Pathophysiology of Dementia with Lewy Bodies: Therapeutic Potential of Ceftriaxone)。 *臨床醫學雜誌* (in press, 2018)。
2. 何應瑞*、許弘毅、張鳴宏、廖玟潔、林志立*、洪菁穗*。從路易氏體失智症之病理特徵找尋治療方法(Exploring a Therapeutic Method for Dementia with Lewy Bodies based on the Pathophysiology)。 *台灣醫學雜誌* (in press, 2018)。
3. 何應瑞*、許兆畬、陳福士、洪菁穗、賴德仁。紅血球生成素之神經保護效果：應用於治療巴金森氏症失智為例。澄清醫護管理雜誌 11(3): 37-42, Jul, 2015. (Neuronal protection of erythropoietin: a possible application in Parkinson's disease dementia. Cheng Ching Medical Journal 11(3): 37-42, Jul, 2015)
4. 廖丹瑜、洪櫻慈、周璟言、黃冠達、何詩君、黃國洲、張思毅、徐詩惠、吳聲輝、廖娟妙*、何應瑞*。增加麩胺酸轉運子之表現對巴金森氏症大鼠的認知缺陷之效果。中華民國生醫材料及藥物致放學會 2012 年會論文集, Apr., 2012, Taipei。【Liao TY, YT Hung, CY Chou, GD Huang, SH Ho, GJ Huang, SY Chang, SH Hsu, SH Wu, JM Liao, YJ Ho*. Effects of enhancing glutamate transporter expression on cognitive dysfunction in Parkinson's disease rat model. Biomaterials and Drug Delivery Systems 2012 Annual Meeting and Symposium, Apr., 2012, Taipei.】
5. 陳福士、黃國洲、吳富英、何應瑞*。Amantadine 抑制巴金森氏症失智及 NMDA 受體於其中所扮演之角色：文獻回顧與探討。 *臨床醫學* 68(5): 386-92, Nov. 1, 2011。
6. 莊婷、謝明鴻、陳福士、吳富英、何應瑞*。D-cycloserine 加強暴露療法治療恐懼症之文獻回顧。 *台灣醫學* 15(6): 1-11, Jun 21, 2011.。【Chuang T, MH Hsieh, FS Chen, FY Wu, YJ Ho*. D-cycloserine facilitates the effects of exposure therapy on phobias. *Formosan J Medicine* 15(6): 1-11, Jun 21, 2011. (in Chinese with English abstract).】
7. 何應瑞*、巫錫霖、王文甫、施曉雅、黃耀庭。巴金森氏症患者的幻覺及其可能的神經心理機轉。 *台灣醫學* 14(1): 88-96, Jan. 1st, 2010。【YJ Ho*, Wu SY, Wang WF, Sy HN, Huang YT. Hallucinations in Parkinson's disease: the possible neuropsychological mechanisms, *Formosan J Medicine* 14(1): 88-96, Jan. 1st, 2010. (in Chinese with English abstract).】
8. 何應瑞*、巫錫霖、王文甫、黃耀庭、鄭鈞文。麩胺酸神經系統與神經免疫功能在巴金森氏症失智的可能角色。 *台灣醫學* 13(1): 100-06, Jan. 1st. 2009。 (CCH grant 93118 and 92521; NSC 96-2320-B-040-019) 【Ying-Jui Ho*, Shey-Lin Wu, Wen-Fu Wang, Yao-Ting Huang, Chun-Wen Cheng. Role of glutamatergic and neuroimmunological function in the dementia in Parkinson's disease. *Formosan J Medicine* 13(1): 100-06, Jan. 1st. 2009】
9. 王慶福、游顯妹、王郁茗、何應瑞、曾淑梅。配合生理回饋之放鬆訓練對重症加護病房護理人員焦慮反應之影響效果【The effects of biofeedback-assisted relaxation on nursing staffs with anxiety reaction in ICU, Chung Shan Medical Journal】。 *中山醫學雜誌*, 18(2): 241-53, Dec. 2007。

10. 王慶福、鍾麗珍、王郁茗、**何應瑞**、賴德仁。生理回饋訓練與放鬆訓練對大學生焦慮與憂鬱反應之影響效果 (Effect of biofeedback training and relaxation training on anxiety and depressive reactions of college students, *Chung Shan Medical Journal*) 。 **中山醫學雜誌** , 18(2): 255-70, Dec. 2007 。
11. 黃秋谷、王慶福、徐文鈺、**何應瑞***、黃耀庭、賴德仁。影響神經功能並參與情感疾病之發炎物質：心理神經免疫學之基礎。 **臨床醫學月刊** 58(1):51-56, Jul. 2006 。【Huang CK, CF Wang, WY Hsu, YT Huang, TJ Lai, **YJ Ho***. Inflammatory substances affecting neuronal function and affective disorders: fundamentals of psychoneuroimmunology. *Clinical Medicine* 58(1): 51-56, Jul. 2006. (in Chinese with English abstract)】
12. **何應瑞***、蔡元奮。麩胺酸神經系統在憂鬱症中可能的角色：以嗅球被切除之大鼠為動物模式所得的證據。 **台灣精神醫學雜誌** 19(1): 5-18, Mar. 2005. (TSSCI). 【**YJ Ho***, YF Tsai. Possible Role of Glutamatergic System in Depression: Evidence from Animal Model of Olfactory Bulbectomized Rats. *Taiwanese J Psych* 19(1): 5-18, Mar. 2005.】
13. 杜瑋庭、曾鼎、王安莉、鍾宛玲、林俊成、許立松、徐文鈺、王慶福、**何應瑞***。NMDA 受體在 D-cycloserine 對焦慮行為作用之角色。 **台灣醫學** 9(2): 173-179, Mar. 2005. 【Tu WT, T Tseng, AL Wang, WL Chung, CC Lin, LS Hsu, WY Hsu, CF Wang, **YJ Ho**. Effects of D-cycloserine on anxiety behavior: role of NMDA receptor. *Formosan Journal of Medicine* 9(2): 173-197, Mar. 2005.) (in Chinese with English abstract)】
14. 黃秋谷、王慶福、徐文鈺、賴德仁、**何應瑞***。麩胺酸神經系統 NMDA 受體在精神分裂症之角色：作用在甘胺酸結合位之藥物所得的證據。 **臨床醫學月刊** 55(4): 253-258, Apr. 2005. 【Huang CK, CF Wang, WY Hsu, TJ Lai, **YJ Ho***. Role of glutamatergic NMDA receptor in schizophrenia: evidence from drugs acting at the glycine binding site. *Clinical Medicine* 55(4): 253-258, Apr. 2005. (in Chinese with English abstract)】
15. 黃秋谷、**何應瑞***。搖頭丸：危險的急性中毒與棘手的慢性中毒。 **臨床藥學雜誌** 10 (2): 49-62, 2002. (Huang CK, **YJ Ho***. "Ecstasy", its dangerous acute-effects and long-term toxicity. *Formosa J Clinic Pharmacy* 10 (2): 49-62, 2002. (in Chinese with English abstract))
16. **何應瑞***。山藥，植物性的賀爾蒙。常春月刊 164:90-93, 1996 。 【**Ho YJ**. Dioscorea, Phytohormone. *Evergreen* 164:90-93, 1996. (in Chinese with English abstract)】

(C) Conference Abstract

More than [170](#) conference abstracts, since 1995.

(D) Patent

1. 發明人：何應瑞、陳建宏。申請人：中山醫大、江文舜。發明名稱：A use of pharmaceutical composition comprising erythropoietin and ceftriaxone in the manufacture of a medicament for the treatment of Parkinson's disease dementia. **Japan**, **日本專利(已核准)**。
2. 發明人：何應瑞、陳建宏。申請人：中山醫大、江文舜。發明名稱：A use of pharmaceutical composition comprising erythropoietin and ceftriaxone in the manufacture of a medicament for the treatment of Parkinson's disease dementia. **Australia** **澳洲專利 (專利號碼:104112897) <專利期: 2016.04.20.-2036.04.19.>**

3. 發明人：何應瑞、陳建宏。申請人：中山醫大、江文舜。發明名稱：使用一包含有頭孢曲松與紅血球生成素的組合來治療和/或預防巴金森氏症失智 (Treatment and/or prevention of Parkinson's disease dementia with a combination of ceftriaxone and erythropoietin) **Taiwan**, 台灣專利(專利證號: I558410 號) <專利期:2016.11.21- 2035.04.21>
4. 何應瑞*, 申請人:何應瑞、中山醫大。名稱:用於治療神經退化性疾病之醫藥組合物 (Pharmaceutical compositions for treatment of neurodegenerative disorders). **Taiwan**, 台灣專利 (專利字號: 發明第 I544923 號) (Taiwan)
5. 何應瑞*, 申請人:何應瑞、中山醫大。名稱:用於治療神經退化性疾病之醫藥組合物 (Pharmaceutical compositions for treatment of neurodegenerative disorders). **Taiwan**, 台灣專利 (專利字號:發明第 I544923 號) (Taiwan)
6. 發明人：陳建宏、何應瑞。申請人：中山醫學大學。發明名稱：全人工髖關節結構。台灣專利。核准審定書：(105)智專一(六)04486 字第 10520740900 號 (**Taiwan**)。
7. 發明人：何應瑞。專利權人：中山醫學大學、晉亞化工廠。專利名稱：使用頭孢曲松來治療和/或預防巴金森氏症失智(Treatment and / or prevention of Parkinson's disease dementia with ceftriaxone)。美國專利號：US 9,326,988 B2 (**USA**)。
8. Treatment and/or prevention of parkinson's disease dementia with ceftriaxone, China (專利字號:ZL2012101549642)。發明人：何應瑞。專利權人：中山醫學大學、晉亞化工廠。用頭孢曲松製備治療和/或預防巴金森氏症失智的醫藥品的用途。中國專利 (**China**)
9. Instrument for measuring and training animal attention, Taiwan, ROC (專利字號:M433088)。中華民國新型專利：何應瑞、鴻剛實業股份有限公司。專利名稱：動物注意力訓練及測量裝置 (**Taiwan**)。
10. Composition containing diosgenin and use thereof to improve at least one of cognitive deficits associated with menopausal syndrome, China (專利字號:ZL 201110100440.0)。中國專利。發明人：何應瑞*、陳建宏。專利權人：中山醫學大學、何應瑞、晉亞化工廠。專利名稱：使用薯蕷皂素來改善停經症候群有關聯的認知缺陷。(**China**)
11. Improvement of cognitive deficit associated with menopausal syndrome with diosgenin。(專利字號:I422378)中華民國發明專利。發明人：何應瑞*、陳建宏。專利權人：中山醫學大學。專利名稱：使用薯蕷皂素來改善與停經期症候群有關聯的認知缺陷。(**Taiwan**)

(E) Book

1. 人體生理學：身體功能之機轉。賴義隆、何應瑞等譯自 Vander, Sherman, Luciano's Brief Edition Human Physiology。2006 年，藝軒圖書出版社。(ISBN：986157252X)
2. 王春美、何應瑞、施柯念、秦作威、高婷玉、溫小娟、葉睿毅、廖美華、滿庭芳、駱明潔、盧敏吉、顏惠芷。新編生理學。華格那企業有限公司，2004 年，台中市。(ISBN 986-7905-27-X)
Ho YJ. (2003). Nervous system. In CM Chung (Eds.): *Current Physiology*. Wagner Publishing Co. Ltd., Tai-Chung, Taiwan. 77-120. (ISBN 986-7905-27-X)
Ho YJ. (2003). The central nervous system. In CM Chung (Eds.): *Current Physiology*. Wagner Publishing Co. Ltd., Tai-Chung, Taiwan. 121-148. (ISBN 986-7905-27-X)

3. 吳莉玲、朱冠州、何應瑞。生理學精要。藝軒圖書出版社，2003 年，台北市。(ISBN 9576167108)
4. 吳莉玲、何應瑞。生理學精華。藝軒圖書出版社，2002 年，台北市。(ISBN 9576166799)

PROFESSIONAL MEMBERSHIPS

Taiwan Neuromodulation Society
Taiwanese Psychological Association
Society for Neuroscience
The Chinese Physiological Society
The Chinese Neuroscience Society

LICENCE

Pharmacist of ROC

證照：專門職業及技術人員高等考試藥師藥字第 17091 號

HONOR AND AWARDS

2016 Special Talents Award (MOST, ROC. 2016.08.01- 2017.07.31)
2015 Special Talents Award (MOST, ROC. 2015.08.01- 2016.07.31)
2014 Special Talents Award (MOST, ROC. 2014.08.01- 2015.07.31)
2014 Super Teacher Award (Teachers Union of Taichung, ROC. 2015)
2013 Outstanding Teaching Award, Chung Shan Medical University
2013 Special Talents Award, National Science Consul (NSC, ROC. 2013.08.01- 2014.07.31)
2012 Special Talents Award, National Science Consul (NSC, ROC. 2012.08.01- 2013.07.31)
2005 Aristotle Research Award, The International Society on Brain and Behaviour, Europ
2003 Award of Outstanding Scientific Achievement and Presentation, Neuroscience Society, ROC
2001 Visiting Scholar of NSC and DAAD, Germany
2000 Award of Scholarship from Chung Hwa Rotary Educational Foundation, ROC
1993 Award of Scholarship from Academic Research Foundation, ROC

UNIVERSITY COMMITTEES

Interviewer, Department of Psychology applicants, Chung Shan Medical University (2002-present)
Committee on Faculty Promotions and Evaluation, School of Psychology, Chung Shan Medical University (2002-present)
Committee on Faculty Promotions and Evaluation, School of Optometry, Chung Shan Medical University (2002-present)
Committees, Environment and Safety Office, Chung Shan Medical University (2002-present)

INTERNATIONAL SCIENTIFIC ACTIVITIES

Institute of Cytology and Genetics, Novosibirsk, Russia	Prof. TG Amstislavskaya MA Tikhonova	2013/07/09~ 07/13
Institute of Cytology and Genetics, Novosibirsk, Russia	Prof. TG Amstislavskaya MA Tikhonova	2012/06/25~ 07/12
Visiting Department of Experimental and Physiological Psychology, Philipps-University of Marburg., Germany	Prof. RKW Schwarting	2008/07/14~ 07/29
Visiting Department of Psychopharmacology, Central Institute of Mental Health, Germany	Dr. Cornelius Rainer Pawlak	2007/06/30~ 2007/07/11

Conference presentation

1. **Ho YJ***, AC. Chen, CH. Tai, PF. Kao, CY. Shen, WH. Wang, CC. Kuo, MA. Tikhonova, T-G. Amstislavskaya. Changing the game for treating Parkinson's disease dementia. 12th World Congress on Controversies in Neurology (CONy) Mar 22-25, 2018, **Warsaw, Poland**.
2. **Ho YJ***, AC Chen, JC Weng, PF Kao, CY Shen, WH Wang, CH Tai, CC Kuo. Treatment for Parkinson's disease dementia with an old medicine. **Faculty of Psychiatry of Old Age Conference 2017**, Nov. 8-11, 2017, **Queenstone, New Zealand**.
3. Chen AC, CH Tai, JC Weng, PF Kao, CY Shen, WH Wang, CC Kuo, MA Tikhonova MA, TG Amstislavskaya TG, **YJ Ho***. Treatment for Parkinson's Disease with an old Medicine: Data of Animal and Human. **Belyaev Conference 2017**. Aug. 7-10, 2017. **Novosibirsk, Russia. (oral)**
4. Lai TJ (賴德仁), CL Lin, HH Li, PY Chiu, **YJ Ho**. Dysregulation of insulin signaling plays an important role in dementia with Lewy bodies (DLB). **Belyaev Conference 2017**. Aug. 7-10, 2017. **Novosibirsk, Russia. (oral)**
5. Renn TY, LY Chen, YC Liu, FD Mai, **YJ Ho**, HM Chang (張宏名). An Innovative Strategy to Rescue the Hippocampal Bioenergetics in a Rat Model of Parkinson's Disease: Utilizing Plasmon-activated Water as a Natural Approach. **Belyaev Conference 2017**. Aug. 7-10, 2017. **Novosibirsk, Russia. (oral)**
6. Kao PF* (高潘福), JH Weng, **YJ Ho**. The clinical use of ^{99m}Tc-trodat-1 imaging in Parkinson's disease: a molecular imaging agent development experience in Taiwan. **Belyaev Conference 2017**. Aug. 7-10, 2017. **Novosibirsk, Russia. (oral)**
7. **Ho YJ**, MS Lin, JC Weng* (翁駿程). Detecting neuronal activity in rat model of dementia with Lewy bodies by using MEMRI. **Belyaev Conference 2017**. Aug. 7-10, 2017. **Novosibirsk, Russia. (oral)**
8. LinCL (林志立), HH Li, HG Kim, CC Chang, PY Chiu, **YJ Ho**, TJ Lai. Co-expression of Oct4, Sox2, Klf4 and Nanog (KOSN) transcription factors protects against amyloid β -induced neurotoxicity by improving insulin signaling sensitivity. **Belyaev Conference 2017**. Aug. 7-10, 2017. **Novosibirsk, Russia. (oral)**
9. Li HH (李欣樺), FJ Lu, PY Chiu, **YJ Ho**, TJ Lai**, Chih-Li Lin Title: Overexpression of Nanog Attenuates A β -induced Neurotoxicity through Insulin Signaling. **Belyaev Conference 2017**. Aug. 7-10, 2017. **Novosibirsk, Russia. (oral)**
10. **Ho YJ***. A potential therapy for Parkinson's disease dementia: by using ceftriaxone. The 13th International Conference on Alzheimer's and Parkinson's Disease. Mar. 29- Apr. 2, 2017. Vienna, **Austria**.
11. **Ho YJ***, MS Shen, WY Meng, YT Chang, JC Weng, JH Chen, CS Hung, MA Tikhonova, TG Amstislavskaya. Relationships between neuronal activity and density after ceftriaxone treatment in a Parkinson's disease rat model: an immunohistochemical and MRI study. The 10th Federation of European Neurosciences Societies. Jul. 2-6, 2016, Copenhagen, **Denmark**
12. Chen JH, Chi WM, Lin CC, Yeh HH, **Ho YJ**, Kuo CL. Effects of component design on dislocation and stress distribution after prosthetic impingement in total hip replacement, Annual Conference on Engineering and Information Technology, Mar. 29-31, 2016. Kyoto, **Japan**

13. Tseng LH, CY Chou, PC Hsu, **YJ Ho**, SC Sheen, Postnatal exposure to moderate noise impaired behavior, learning and memory in adult female rat. 12th World Congress of Biological Psychiatry (WFSBP 2015) Jun 14-18, 2015. (MOST 103-2410-H-127-001). Athens, **Greece**
14. Meng WY, YT Chang, GT Tseng, YL Chen, MS Shen, SH Chang, Y-R Chen, WC Liao*, **YJ Ho***. Effects of CEF on neurogenesis and cognitive function in an MPTP-induced Parkinson's disease rat model. FAOPS, 22-25, Nov, 2015. Bangkok, **Thailand**.
15. Chang YT, CY Chang, MS Shen, WY Meng, GT Tseng, YL Chen, SH Chang, YR Chen, MA Tikhonova, TG Amstislavskaya*, JC Weng*, **YJ Ho***. CEF recovers neuronal density and activity changes in an MPTP-induced Parkinson's disease rat model: an MEMRI study. FAOPS, 22-25, Nov, 2015. Bangkok, **Thailand**.
16. Chang YT, MS Shen, CS Hung, MA Tikhonova, TG Amstislavskaya*, JC Weng*, **YJ Ho***. Effects of ceftriaxone on neuronal deficits in an MPTP-induced animal model of Parkinson's disease dementia: an immunohistological and MRI study. The 5th Euro-India International Conference on Holistic Medicine (ICHM-2015), Sep 11-13, 2015. Kottayam, Kerala, **India (oral)**.
17. Amstislavskaya TG, **YJ Ho**, MV Tenditnik, SC Ho, MA Tikhonova. Neuroprotection and improvement of cognitive function with ceftriaxone treatment in PD animal models. The 38th Annual Meeting of the Japan Neuroscience Society. Jul 28-31, 2015, **Japan**.
18. **Ho YJ***, SC Ho, CS Hung. Increasing glutamate transporters inhibits cognitive deficits in Parkinson's disease dementia. The 2nd East Asia German Alumni Symposia in Life Science. Oct. 17-19, 2014, **Taipei, ROC. (oral)**
19. Huang CE, **YJ Ho**, TG Amstislavskaya, MA Tikhonova, NG Kolosova, PF Kao. Correlation between trabecular bone and age in genetically accelerated senescence OXYS rat by using micro-CT. World Molecular Imaging Congress Sept. 17-20, 2014, Seoul, **Korea**.
20. Chen JH, HC Lin, **YJ Ho**, WM Chi. Theoretical Analysis of Total Hip Dislocation. 2014 LSBE, 2014, **Japan**
21. The 4th Regional International "Stress and Behavior" 2014 Conference, Jun 22-24, 2014, **New Orleans, LA, USA. (oral)**
22. The 8th FENS Forum of Neuroscience, from July 14-18, 2012. **Barcelona, Spain**
23. Bilateral Russian-Taiwanese Seminar Jul 2, 2012. **Novosibirsk, Russia**
24. The 7th Conference of Siberian Physiologists. Jun. 27-29, 2012, **Krasnoyarsk, Russia. (oral)**
25. BIT's 3rd Annual Word Congress of NeuroTalk-2012, May. 18-20, 2012, **Beijing, China**
26. The 7th Congress of the Federations of Asian and Oceanian Physiological Societies (FAOPS), Sep. 11-14, 2011, Taipei, Taiwan, **ROC. (oral)**
27. The 12th European Congress of Psychology. Jul. 04-08, 2011. Istanbul, **Turkey. (oral)**
28. The XVIIth International Congress of Neuropathology. September 11-15, 2010. Salzburg, **Austria**
29. Brain circuits – from receptors to network dynamics, Research workshop of the Israel science foundation. Jan. 31 – Feb. 4, 2010. Ein-gedi, **Israel. (oral)**
30. The 22nd Biennial Meeting of the ISN/APSJ Joint Meeting. Aug. 23-28, 2009. Busan, **South Korea**
31. International Congress of Psychology. Jul. 20-25, 2008, Berlin, **Germany**
32. Neuroscience 2007, Nov. 3-7, 2007, San Diego, CA, **USA**
33. 37th International Society of PsychoNeuro Endocrinology (ISPNE) Annual Meeting, Hormone & brain, from cloning to Clinic. Aug. 23-26, 2006, Leiden, **Netherlands**
34. DAAD/NSC Project Based Personnel Exchange Program. Aug. 6-28, 2006, Marburg and Mannheim, **Germany**
35. 2nd International Congress on Brain and Behavior. 2005. Thessaloniki, **Greece**
36. Neuroscience 2004: the 34th Annual Meeting, 2004. San Diego, **USA**
37. The 9th Biennial European Behavioral Pharmacology Society Meeting. 2001. Marseille, **France**

REVIEWER :

International Review: The Russian International Affairs Council (RIAC -

www.russiancouncil.ru/en) as the official operator of the Russian Science Foundation (RSF - <http://rscf.ru/en/>), Aug., 2018-

Editorial Board: Behavioral Neurology, 2018- ; International Journal of Clinical Pharmacology & Pharmacotherapy, 2015-

2016 Neurotoxic Res

2015 Infection and Drug Resistance

2015 Fund Clin Pharmacol (SCI)

2015 Brain Research (SCI)

2015 Rejuvenation Research (SCI)

2014 Chinese Journal of Psychology (中華心理學雜誌)

2014 Neurosci Lett (SCI)

2013 Neuropharmacol (SCI)

2011 Chin J Physiol (SCI)

2011 Neuropharmacology (SCI)

2010 Chin J Physiol (SCI)

2010 Psychopharmacology (SCI)

2009 Psychopharmacology (SCI)

2009 Chin J Physiol (SCI)

2009 Brain Behavior and Immunity (SCI)

2008 CNS Spectrums (SCI)

2008 Reviewer in 'BMIC 2008'

2008 Genes Brain and Behavior

2006 Chinese J Physiology (SCI)

2005 J Psychopharmacology (SCI)

2005 CNS Spectrums (SCI)

2004 Physical Education Journal

2004 體育月刊

MEMBERSHIP IN ORGANIZING OR PROGRAM COMMITTEE OF THE SCIENTIFIC CONFERENCES

Secretary General. The 31st Joint Annual Conference of Biomedical Science. Mar 26-27, 2016. Taipei, ROC.

Secretary General. The 30th Joint Annual Conference of Biomedical Science. Mar. 21-22, 2015. Taipei, ROC.

Secretary General. The 29th Joint Annual Conference of Biomedical Science. Mar. 15-16, 2014. Taipei, ROC.

Secretary General. The 28th Joint Annual Conference of Biomedical Science. Mar 23-24, 2013. Taipei, ROC.

GRANT SUPPORTED

Project Title	Period
探討路易氏體失智症之機轉以利診斷與治療：麩胺酸神經系統過度活化之角色 [MOST 106-2410-H-040 -003 -MY2]	2017.08.01.- 2019.07.31
以 MEMRI 測量路易氏體失智症大鼠腦部神經活性：行為神經科學研究 Detecting neuronal activity in rat model of dementia with Lewy bodies by using MEMRI: a neuronal behavioral study [CSH-2017-C-007]	2017.01.01- 2017.12.31
捐贈研究室基金(漢鼎股份有限公司)-何應瑞 [計畫代碼: M1040019]	2016.07.01- 2017.06.30
利用粒線體移植於退化之坐骨神經以促進神經再生 Nerve regeneration by mitochondria transplantation in a sciatic nerve degeneration [NCHU-CSMU-10502]	2016.05.1- 2016.12.31
BDNF基因變異(Val66Met)對原发性痛經患者的睡眠品質與腦部結構與功能的影響 [10501-62-046]	2016.01.01- 2016.12.31
探討路易氏體失智症之機轉以利診斷與治療：麩胺酸神經系統過度活化之角色 [MOST 106-2410-H-040 -003 -MY2]	2017.08.01.- 2019.07.31
Detecting neuronal activity in rat model of dementia with Lewy bodies by using MEMRI: a neuronal behavioral study [CSH-2017-C-007]	2017.01.01- 2017.12.31
Nerve regeneration by mitochondria transplantation in a sciatic nerve degeneration [NCHU-CSMU-10502]	2016.05.1- 2016.12.31
Synergistic effect of A β on α -synuclein-related neurotoxicity in dementia with Lewy bodies (DLB): investigating the putative role of AMPK-Sirt1 signaling [MOST 104-2314-B-040 -007-MY2]	2015.07.01- 2017.07.31
Establishing a rat model of dementia with Lewy bodies: role of amyloid β protein in α -synuclein aggregation and neurotoxicity [CSH-2015-C-005]	2015.01.01- 2015.12.31
Elucidating the mechanisms underling neuroprotection and improvement of cognitive function with ceftriaxone treatment in PD animal models [MOST 104-2923-H-040-001-MY3]	2015.01.01- 2017.12.31
Relationship between subjective sleep perception and brain morphological changes associated with cyclic menstrual pain in primary dysmenorrheal [編號：10401-62-046]	2015.01.01- 2015.12.31
Evaluating the effects of ceftriaxone and erythropoietin on Parkinson's disease dementia: a brain image and neurobehavioral study [MOST 103-2410-H-040-002-MY2]	2014.08.01- 2016.07.31
Effects of modulating glutamatergic activity and neurogenesis on Parkinson's disease dementia: establishing clinical potential based on animal study [NSC 102-2410-H-040-004]	2013.08.01- 2014.07.31
Effects of pharmacological manipulation of glutamatergic transmission on neurodegeneration and behavioral deficits in MPTP-induced Parkinson ' s disease animal model: advenced study [NSC 101-2410-H-040-003]	2012/08/01 ~ 2013/08/31
台俄雙邊研討會「心理神經內分泌障礙之遺傳與神經生理學機制：有關診斷與調整矯正之方法」 [NSC101-2911-I-010-014]	2012/06/25 ~ 2013/07/11
Role of glutamatergic metabotropic receptor in MPTP-induced Parkinson's disease dementia: a pilot study on the animals [CSH-2012-C-029]	2012/01/01 ~ 2012/12/31
Effects of pharmacological manipulation of glutamatergic transmission on neurodegeneration and behavioral deficits in MPTP-induced Parkinson's disease animal model [NSC 100-2410-H-040-003]	2011/08/01 ~ 2012/07/31
Aging-induced neurodegeneration and behavioral deficits: evaluating the protective effects of diosgenin [NSC 100-2923-H-040-009-MY3] (3-year international cooperation with RFBR 11-04-92009-HHC a)	2011/08/01 ~ 2014/07/31
Studying the effects of D-cycloserine on behavioral deficits and neuroinflammation in Parkinson's disease: preliminary basic research [NSC 99-2410-H-040 -008]	2010/08/01 ~ 2011/07/31
一個新的環境污染議題：十溴聯苯醚影響後代發育、神經行為及腦部蛋白質體學之探討 3/3 [NSC 97-2221-E-127 -003 -MY3]	2010/08/01 ~ 2011/07/31
銀杏萃取物對社交隔離所引起之行為缺陷的影響 [NSC 99-2410-H-241 -004]	2010/08/01 ~ 2011/07/31
薯蓣皂甘元對切除卵巢雌鼠之骨形態及機械特性功效之探討 [NSC 99-2221-E-040 -006]	2010/08/01 ~ 2011/07/31
Exploring the effects of ceftriaxone on neurodegeneration and behavioral deficits in Parkinson's disease animal model [98-產學 37]	2010/07/01 ~ 2011/06/30
Exploring the role of glutamatergic system in MPTP-induced neuro-behavioral deficits: an animal study [CSH-2010-C-020]	2010/01/01 ~ 2011/12/31
Studying the role of glutamatergic systems on MPTP-induced neuronal inflammation and behavioral	2009/08/01 ~

deficits: establishing an animal model for dementia in Parkinson's disease [NSC98-2410-H-040-003]	2010/07/31
一個新的環境污染議題：十溴苯醚影響後代發育、神經行為及腦部蛋白質體學之探討（2/3 年計畫）[NSC 97-2221-E-127 -003 -MY3]	2009.08.01-2010.07.31
一個新的環境污染議題：十溴苯醚影響後代發育、神經行為及腦部蛋白質體學之探討（1/3 年計畫）[NSC 97-2221-E-127 -003 -MY3]	2008.08.01-2011.07.31
Studying the effects of amantadine on episodic-like memory: possible role in Parkinson's disease dementia [097-CCH-CSMU-14]	2008.08.1-2009.07.31
探討動物焦慮程度之個體差異是否影響其腦內 ERK 對 D-cycloserine 之反應性（大專生：吳玉荅；計畫編號：97-2815-C-040 -035-H）	2008.07.01-2009.02.28
Role of psychological stress in the acute physical stress-induced changes of IL-2 in the brain [Project No. 92137]	2008.01.01-2008.12.31
Evaluating the effects of amantadine on the neuroimmunological function in Parkinson's disease: role of glutamatergic system in the degenerative dementia (NSC 96-2320-B-040-019)	2007.08.01-2008.07.31
Effects of inescapable stress on the neuroimmunological function: role of dopaminergic system and brain cytokines in depression animal model [Project No. 92521]	2007.01.01-2007.12.31
DAAD/NSC Project Based Personnel Exchange Program 計畫編號：0950042882P；核定編號：96-2911-I-040-00	2007.01.01-2007.12.31
Studying the effects of diosgenin on the neuroimmunological function of menopausal rats: also evaluating the response on the cell level (NSC 95-2320-B-040-009)	2006.08.01-2007.07.31
DAAD/NSC Project Based Personnel Exchange Program 計畫編號：0940042882；核定編號：95-2911-I-040-001	2006.01.01-2007.12.31
多巴胺轉運蛋白和 NMDA 受體遺傳基因多型性與巴金森氏病之失智症易感受性研究；並以動物模式探討胺酸神經系統在巴金森氏症所引發神經免疫反應之角色（第一年）(Chang-Hua Christian Hospital, CCH grant 93118)	2006.01.01-2007.12.31
Effects of inescapable stress on the neuroimmunological function of rats: preliminary study C950006)	2006.01.01-2006.12.31
Study on the behavioral and psychoneuroimmunological effects of dioscorea in menopausal rats: also evaluating the responses on the cell level (NSC 94-2320-B-040-019)	2003.08.01-2006.07.31

DISSERTATION

1. **Ho YJ**: Glutamatergic system in the amygdala and striatum is involved in the mouse-killing behavior and novelty exposure-induced hyperactivity in olfactory bulbectomized rats. 2002. Unpublished doctoral dissertation, National Taiwan University.
2. **Ho YJ**: Effects of excitatory amino acid and antipsychotics, haloperidol and amperozide, on dopamine transmission in rat's nucleus accumbens and striatum. 1994.

RESEARCH INTERESTS

1. Behavioral neuroscience, neuropharmacology, neurophysiology
2. Neurodegeneration and neurogenesis
3. Neurodegenerative disorders, Parkinson's disease, dementia with Lowy bodies
4. Cognitive function, memory, recognition

By using MPTP-induced Parkinson's disease (PD) rat model, my recent studies demonstrated that certain drugs, for example, ceftriaxone, inhibited neurodegeneration in the nigrostriatal DAergic system and in the hippocampus and restored hyperactivation of the subthalamic nucleus (STN) in the PD rats. Moreover, the treatment with these drugs also improves cognitive functions, working memory, and object recognition, in the PD model. More interestingly, our recent data indicated that the treatment with ceftriaxone increased neurogenesis in the substantia nigra and hippocampus. In addition, MRI study provided data support the above neuronal findings, where the treatment prevented decreased neuronal activities in the DAergic system and in the hippocampus but suppressed hyper-activity in the STN. More encouraging is that a case study in a PD patient showed symptom improvement and neuronal restoration.

These results strongly suggest that ceftriaxone has potential for treating dementia in PD. We own some patents of using the drug on treating PD. Therefore, we would devote ourselves to the clinical trial of PD treatment.

Previous studies:

Applying D-cycloserine on neurodegeneration and dementia in Parkinson's disease

I have been being engaged in the research on the topic of neurodegenerative disorders, for example, Parkinson's disease and dementia with Lowy bodies. I used animal as experimental subject and focused on detecting neuroprotection and cognitive improvement of drugs.

Parkinson's disease (PD)-related topics to clarify the role of glutamatergic system, NMDA receptors, and inflammatory cytokines in pathophysiology of PD [1-3]. Moreover, the effects of D-cycloserine (DCS) on animal behavior [4] and neurological functions [5] have also been probed into. So far, the MPTP injected into the substantia nigra of rats has been known not only to destroy the dopaminergic system and cause motor dysfunction in PD animal model [6] but also elicit microglial activation and increased levels of inflammatory cytokines in the substantia nigra, striatum, and hippocampus [7]. In addition, MPTP causes neuronal cell death in the hippocampus, increase of anxiety level, learning disabilities, and cognitive dysfunction, which is thus suggested as an animal model of PDD [8-10]. Our laboratory is the first to have proven that DCS (30 and 100 mg/kg/day, i.p.) can improve locomotion, anxiety, and cognitive function in MPTP-induced PD animal model [11] and that DCS at dosage of 10 mg/kg/day ensure animals under MPTP treatment restore their episodic-like memory, a complicate cognitive function that integrates such elements as what, where, and when. Amazingly, findings also show that DCS reduces microglial activation and neurodegeneration in the brain

of PD anima [8-10]. But surprisingly noted that when the DCS doses are at 30mg/kg/day, the above neurobehavioral effects are not observed [10]. Thus, the dose-response of DCS may not be linear, which is noteworthy in clinical applications.

INVITED PRESENTATIONS

活動名稱（或主辦單位編號）	主辦機構 / 擔任工作	活動日期	活動成效	人數
學術演講	成功大學認知所/演講人	2008/5/30	約 20 位國內外師生與會(英語報告)	
學術演講:心理神經免疫學的一些面向:細胞激素是身心的使者?	中台灣失智症學會/主講人	2008/3/29	約 30 位醫療專業人士與會	
學術演講:心理神經免疫學	中正大學心理學研究所/主講人	2007/5/11	約 50 位師生參與聽講	
學術演講:運用在生理心理學研究之動物行為模式	文化大學動物科學系/主講人	2007/4/26	約 50 位師生參與聽講	
學術演講:運用在生理心理學研究之動物行為模式	師範大學生物學系/主講人	2006/4/6	約 50 位教師與研究生參與聽講	50
學術演講:運用在生理心理學研究之動物行為模式:個體差之角色	中正大學/主講人	2005/11/25	約 30 位教師與研究生參與聽講	30
學術演講:運用在生理心理學研究之動物行為模式	國防醫學院/主講人	2004/11/18	約 30 位教師與研究生參與聽講	30
學術演講: Behavioral Paradigm in Biopsychological Research: Role of Individual Differences	中國醫藥大學附設醫院精神科/主講人	2004/8/27	約 20 位精神科醫師參與聽講	20
反毒演講:搖頭丸的神經毒性	靜和醫院精神科/主講人	2004/4/15	約 20 位精神科醫師、心理師及醫護人員參與聽講	20
生命教育主題電影【非關命運】導讀	東暉電影公司, 萬代福影城/主講人	2004/7/7	約 50 位一般民眾參與聽講	50

INVITED PRESENTATION

4-5. 教師研究與專業表現與社會、經濟、文化與科技發展需求之相關性

項次	活動名稱	主辦機構 / 擔任工作	活動日期	活動成效
1	學術演講:心理神經免疫學	中台灣失智症學會/主講人	97/03/29	
2	學術演講:心理神經免疫學	中正大學心理學研究所/主講人	96/05/11	約 50 位師生參與聽講
3	學術演講:運用在生理心理學研究之動物行為模式	文化大學動物科學系/主講人	96/04/26	約 50 位師生參與聽講
4	學術演講:運用在生理心理學研究之動物行為模式	師範大學生物學系/主講人	95/04/06	約 30 位教師與研究生參與聽講
5	學術演講:運用在生理心理學研究之動物行為模式:個體差之角色	中正大學/主講人	94/11/25	約 30 位教師與研究生參與聽講
6	學術演講:運用在生理心理學研究之動物行為模式	國防醫學院/主講人	93/11/18	約 30 位教師與研究生參與聽講
7	學術演講: Behavioral Paradigm in Biopsychological Research: Role of Individual Differences	中國醫藥大學附設醫院精神科/主講人	93/8/27	約 20 位精神科醫師參與聽講
8	專業論文審稿	CNS Spectrums (SCI)	94/8/	
9	專業論文審稿	Physical Education Journal	93/	
10	專業論文審稿	體育月刊	93/	

4-6. 教師提供社會服務之成效

項次	活動名稱（及編號）	主辦機構 / 擔任工作	活動日期	活動成效
1	反毒演講:搖頭丸的神經毒性	靜和醫院精神科/主講人	93/4/15	約 20 位精神科醫師、心理師及醫護人員

				員參與聽講
2	生命教育主題電影【非關命運】導讀	東暉電影公司，萬代福影城/主講人	95/	約 50 位一般民眾參與聽講

專業審查				
項次	活動名稱（及編號）	主辦機構 / 擔任工作	活動日期	活動成效
1	專業論文審稿	Genes Brain and Behavior/邀請論文審查	97/02/18	
2	審查國科會計畫	國科會/計畫審查人	96/01/15	
3	計畫審查	嘉義基督教醫院/審查人	96/12/24	
4	專業論文審稿	中國生理學雜誌/論文審查人	95/12/10	
5	教師升等審查。題目：音樂治療對女性慢性精神分裂症病患精神症狀的影響	義守大學/教師升等審查	95/11/26	
6	專業論文審稿	CNS Spectrums (SCI)	94/8/	
7	專業論文審稿	Physical Education Journal	93/	
8	專業論文審稿	體育月刊	93/	

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