

## Poster Presentation

2010/ 11/ 05 Fri. 12:30~14:00

Floor 1st., lobby of LiFu Hall

No.	Name	Topic
01	陳維均	Bupropion for Interferon- $\alpha$ -induced Depression in Patients with Hepatitis C Viral Infection: An Open-label Study
02	Jane Pei-Chen Chang	Polyunsaturated fatty acids ( PUFAs) levels and initial presentation of somatic symptoms induced by interferon-alpha therapy in patients with chronic hepatitis C viral infection
03	Jane Pei-Chen Chang	DISC1 Genetic Variances (Ser704Cys) and Visual Memory in Patients with Schizophrenia
04	施貞伊	Neural Circuitry of Emotional Processing in Major Depressive Disorder with fMRI
05	Jane Pei-Chen Chang	Glycine Transporter-1 Inhibitor Treatment in A Patient with Attention Deficit Hyperactivity Disorder and Tourette's Syndrome
06	洪崇傑	Study on the Physical Fitness, Metabolic Syndrome and Sleep Disturbance Related to the Clinical Severity of the Schizophrenic Patients
07	林明燈	The influence of MET proto-oncogene on social cognition in Han Chinese patients with schizophrenia
08	曾梅雀	Interferon-alpha induces inducible nitric oxide synthase expression in microglia: Implications of IFN-alpha-induced depression-like behaviors
09	顏瑞萱	Attentional bias effect: the influence of categories of emotional words on patients with depression
10	林佳瑤	Attentional bias effect of drug-related words on people with drug addiction
11	吳沁縈	Exercise Influencing Cognitive Function and NMDA Genetic Expression in Schizophrenic Patients
12	劉佩如 朱婉華 蔡榮哲	Adopt the Rasch Measurement Model for the Construct Validity of SMDM in Taiwan
13	郭宜瑾	Testing General Cognitive Slowing in Patients with Depression
14	曹茵網	Docosahexaenoic acid suppresses neuroinflammatory responses and induces heme oxygenase-1 expression in BV-2 microglia
15	曹茵網	Astrocytes, glutamate-induced neuron death, and the role of neurotrophins (NTFs) GDNF
16	邱偉哲	The Risk of Withdrawal from Labor Force in Patients with Schizophrenia: An Observational Study with the National Claims Database in Taiwan.
17	邱智強	Investigation of the relationship between n-3 polyunsaturated fatty acids and cognitive impairment in people with previous late-life depression

## #13 Testing General Cognitive Slowing in Patients with Depression

### OBJECTIVE

Patients with depression are known to have emotional and cognitive deficits compare to normal controls. It has been proposed that patients with depression were generally slowing in all aspects of cognitive processes, rather than specifically impaired in certain cognitive functions. The goal of this study was to use the Brinlty plot to estimate whether patients with depression were cognitive slowing or cognitive changes to normal participants in the Stroop task.

### METHOD

There were 26 patients ( $38 \pm 12$  years old) with depression and 50 healthy normal controls ( $42 \pm 10$  years old). The stimuli were four Chinese characters denoting red, green, blue, and yellow, plotted with one of the four colors red, green, blue, and yellow. Three conditions were presented: congruent (C, the word RED in red), incongruent (IC, the word RED in yellow), and the neutral (N, the word VISION in yellow). The participants were required to identify the ink of words as soon and accurately as possible. The Stroop interference effect was the response time between IC and N, and the Stroop facilitation effect was the response time between C and N. The results of all conditions were illustrated with a Brinley plot, in which responses of normal participants were at x-axis while that of patients with depression were at the y-axis. The data points were fitted by a linear regression model. If patients with depression were general cognitive slowing to normal participants, a linear regression should be fitted ( $R^2$  closely to one). In this case, the slope represents the ratio of cognitive slowing factor between these two groups, while the intercept indicates the sensory motor slowing factor.

### RESULT

The patients with depression did not show larger reaction times than normal participants in all conditions significantly. But the  $R^2$  of the linear regression was 0.998, suggesting that patients with depression indeed represent a cognitive slowing to normal participants. Also, the slope of the regression line was 1.19, suggesting patients in general was 1.19 times slower than normal. The intercept was -303.2, suggesting that patients did not slow too much in the periphery sensory motor speed to normal participants.

### CONCLUSION

Patients with depression showed cognitive slowing in Stroop task compare to normal participants as revealed by the Brinlty plot.