

Yi-Fang Chuang M.D., Ph.D. (莊宜芳)

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NATIONALITY: TAIWAN

EDUCATION

Ph.D., Department of Mental Health, Johns Hopkins Bloomberg School of Public Health, 2012

Concentrations: cognitive aging, mental health in the elderly
Dissertation: Aggregate Cardiovascular Risk and Changes in Cognition, Brain Structures and Functions in Older Adults

M.D., National Taiwan University, Taipei, Taiwan, 2002

PROFESSIONAL EXPERIENCE

Assistant professor, 2015/2- now
Institute of Public Health, National Yang-Ming University, Taipei, Taiwan

Clinical fellow, 2014/9-2015/1
Center for Geriatrics and Gerontology, Taipei Veterans General Hospital, Taipei, Taiwan

Postdoctoral fellow, 2012 – 2014
Lab of Behavior Neuroscience, National Institute of Aging, Baltimore, Maryland US

House staff (Psychiatry), 2007 - 2008
Min-Sheng General Hospital, TaoYuan Hsien, Taiwan

Fellowship (Psychiatric Research), 2006 - 2007
Department of Psychiatry, National Taiwan University Hospital, Taipei, Taiwan

Residency, Department of Psychiatry, 2002 - 2006
National Taiwan University Hospital, Taipei, Taiwan

RESEARCH SKILLS AND QUALIFICATIONS

Extensive knowledge of STATA, R, SAS, SPSS statistical programs; experiences in longitudinal data analysis, survival analysis, mixed effect models

Proficiency in structural and functional neuroimaging analysis and software (FSL, SPM, Freesurfer)

- Network Analysis: Functional Connectivity (Baltimore), Dec 12 – 16, 2011
- SPM8 for Basic and Clinical Investigators (Baltimore), March 14-18, 2011
- The Athinoula A. Martinos Center for Biomedical Imaging Visiting Fellowship Program in Functional MRI (Boston), September 27- October 1, 2010

Programming ability in C++ and Matlab

Board certification, Taiwanese Society of Psychiatry, October 2006

TEACHING EXPERIENCE

Teaching Assistant, 2009 - 2011

Johns Hopkins Bloomberg School of Public Health

Courses: Introduction to Behavioral and Psychiatric Genetics; Perspectives of Psychiatry; Brain and Behavior in Mental Disorders

AWARDS AND HONORS

1. LiFu Medical Research, Cultural, and Educational Foundation Award, Taipei, Taiwan, 2015
2. Oral Presentation in the Developing Topic Session in the Alzheimer's Association International Conference, Boston, 2013: Midlife adiposity and *FTO* genotype: state and trait predictors of brain function during aging
3. Travel award for "Evidence on Changes in the Central Nervous System Control of Movement Across the Lifespan and in Aging" workshop in the Gerontological Society of America annual meeting, 2012
4. Lucy Shum Memorial Award, Johns Hopkins School of Public Health, 2012
5. Alzheimer's Disease Drug Discovery Young Investigator Scholarship, 2011
6. Overseas Study Scholarship (support for 3-year PhD study), Ministry of Education, Taiwan Nov. 2007
7. Andrew T. Huang Medical Education Promotion Fund scholarship (support for clerkship in Duke University), March 2002

PUBLICATIONS

1. **Chuang Y-F**, Varma V, An Y, Tanaka T, Davatzikos C, Resnick SM, et al. Interaction between Apolipoprotein E and Butyrylcholinesterase Genes on Risk of Alzheimer's

- Disease in a Prospective Cohort Study. *Journal of Alzheimer's Disease*. 2020;75:417-427.
2. Kao WH, Kuo CF, Chiou MJ, Liu YC, Wang CC, Hong JH, Hsu JT, Chiang YJ, **Chuang YF**. Adverse birth outcomes in adolescent and young adult female cancer survivors: a nationwide population-based study. *Br J Cancer*. 2020 Mar;122(6):918-924
 3. Chiu, Y. L., Tsai, H. H., Lai, Y. J., Tseng, H. Y., Wu, Y. W., Peng, Y. Sen, ... **Chuang, Y. F.** (2019). Cognitive impairment in patients with end-stage renal disease: Accelerated brain aging? *Journal of the Formosan Medical Association*. 2019 May;118(5):867-875.
 4. Chiu, Y.-L., Shu, K.-H., Yang, F.-J., Chou, T.-Y., Chen, P.-M., Lay, F.-Y., ... **Chuang, Y.-F.** (2018). A comprehensive characterization of aggravated aging-related changes in T lymphocytes and monocytes in end-stage renal disease: the iESRD study. *Immun Ageing*. 2018 Nov 8;15:27
 5. Moored, K. D., Chan, T., Varma, V. R., **Chuang, Y.-F.**, Parisi, J. M., & Carlson, M. C. (2018). Engagement in Enriching Early Life Activities is Associated with Larger Hippocampal and Amygdala Volumes in Community-Dwelling Older Adults. *The J Gerontol B Psychol Sci Soc Sci*. 2018 Dec 17. doi: 10.1093/geronb/gby150. Online ahead of print.
 6. **Chuang YF**, Elango P, Gonzalez CE, Thambisetty M. Midlife anticholinergic drug use, risk of Alzheimer's disease, and brain atrophy in community-dwelling older adults. *Alzheimer's & Dementia: Translational Research & Clinical Interventions*. 2017(3) 471-479
 7. Khasawinah S, **Chuang YF**, Caffo B, Erickson KI, Kramer AF, Carlson MC. The association between functional connectivity and cognition in older adults. *Journal of Systems. J Syst Integr Neurosci*. 2017 May;3(3) doi: 10.15761/J SIN.1000163. Epub 2017 May 31.
 8. Yau HJ, Wang DV, Tsou JH, **Chuang YF**, Chen BT, Deisseroth K, Ikemoto S, Bonci A. Pontomesencephalic Tegmental Afferents to VTA Non-dopamine Neurons Are Necessary for Appetitive Pavlovian Learning. *Cell Rep*. 2016 Sep 6;16(10):2699-710.
 9. Chiu YL, Lin CH, Sung BY, **Chuang YF**, Schneck JP, Kern F, Pawelec G, Wang GC. Cytotoxic polyfunctionality maturation of cytomegalovirus-pp65-specific CD4 + and CD8 + T-cell responses in older adults positively correlates with response size. *Sci Rep*. 2016 Jan 18;6:19227
 10. Simpson BN, Kim M, **Chuang YF**, Beason-Held L, Kitner-Triolo M, Kraut M, Lirette ST, Windham BG, Griswold ME, Legido-Quigley C, Thambisetty M. Blood metabolite markers of cognitive performance and brain function in aging. *J Cereb Blood Flow Metab*. 2016 Jul;36(7):1212-23

11. **Chuang YF**, Yang An, Murat Bilgel, Dean F. Wong, Juan C. Troncoso, Richard J. O'Brian, Luigi Ferruci, Susan M. Resnick, Madhav Thambisetty. Midlife Adiposity predicts earlier onset of Alzheimer's dementia, neuropathology and presymptomatic cerebral amyloid accumulation. *Mol Psychiatry*. 2016 Jul;21(7):910-5
12. Carlson MC, Kuo JH, **Chuang YF**, Varma VR, Harris G, Albert MS, Erickson KI, Kramer AF, Parisi JM, Xue QL, Tan EJ, Tanner EK, Gross AL, Seeman TE, Gruenewald TL, McGill S, Rebok GW, Fried LP. Impact of the Baltimore Experience Corps Trial on cortical and hippocampal volumes. *Alzheimers Dement*. 2015 Nov;11(11):1340-8
13. Varma VR, **Chuang YF**, Harris GC, Tan EJ, Carlson MC. Low-intensity daily walking activity is associated with hippocampal volume in older adults. *Hippocampus* 2015 May;25(5):605-15
14. **Chuang YF**, Tanaka T, Beason-Held LL, An Y, Terracciano A, Sutin AR, Kraut M, Singleton AB, Resnick SM, Thambisetty M. FTO genotype and Aging: pleiotropic longitudinal effects on adiposity, brain function, impulsivity and food preference. *Molecular Psychiatry* 2015 Feb;20(1):140-7
15. **Chuang YF**, Breitner JC, Chiu YL, Khachaturian A, Hayden K, Corcoran C, Tschanz J, Norton M, Munger R, Welsh-Bohmer K, Zandi PP; For the Cache County Investigators. Use of diuretics is associated with reduced risk of Alzheimer's disease: The Cache County Study. *Neurobiology of aging* 2014 Nov;35(11):2429-35
16. **Chuang YF**, Eldreth D, Erickson KI, Varma V, Harris G, Fried LP, Rebok GW, Tanner EK, Carlson MC. Cardiovascular risks and brain function: a functional magnetic resonance imaging study of executive function in older adults. *Neurobiology of aging* 2014 Jun;35(6):1396-403
17. Jonassaint CR, Varma VR, **Chuang YF**, Harris GC, Yasar S, Polinder-Bos H, Carlson MC. Lower hemoglobin is associated with poorer cognitive performance and smaller Brain volume in older adults. *Journal of the American Geriatric Society*. 2014 May;62(5):972-3.
18. **Chuang YF**, Hayden KM, Norton MC, Tschanz J, Breitner JC, Welsh-Bohmer KA, Zandi PP., for the Cache County Investigators. Association between APOE epsilon4 allele and vascular dementia: The Cache County study. *Dement Geriatr Cogn Disord*. 2010; 29(3):248-53
19. Chiu YL, **Chuang YF**, Fang KC, Liu SK, Chen HY, Yang JY, Pai MF, Peng YS, Wu KD, Tsai TJ. Higher systemic inflammation is associated with poorer sleep quality in stable haemodialysis patients. *Nephrol Dial Transplant*. 2009 Jan;24(1):247-51
20. **Chuang YF**, Chiu YL, Hwang TC, Chu TS. 2006. Delirium and multiple electrolyte

abnormalities associated with high dose paroxetine exposure. *Psychiatry and Clinical Neurosciences*. 60(5): 642-3

Book Chapter

1. Carlson, M.C., Eldreth, D., **Chuang, Y.-F.** & Eaton, W.W. Mental Disorders Across the Life Span and the Role of Executive Function Networks. in *Public Mental Health* (ed. Eaton, W.W.) 245-268 (Oxford University Press, Inc., New York, New York, 2013).

Grants

計畫名稱 (請註明計畫編號)	計畫內擔任之工作	執行年度	補助或委託機構
腎病患者慢性發炎與認知功能退化及腦部影像變化之關聯性研究 105FN13	計畫主持人	105/01-106/04	亞東陽明合作計畫
尋找阿滋海默症之週邊血液生物標記：運用蛋白質體學之技術 MOST105-2314-B-010-002	計畫主持人	105/04-106/10	科技部
腎病患者睡眠障礙與認知功能及腦部影像變化之關係 -- 探討免疫發炎反應為中介因子 106DN13	計畫主持人	106/01-106/12	亞東陽明合作計畫
輕度認知功能障礙之流行病學:運用前瞻性世代研究，腦影像及生物標記 MOST106-2628-B-010-001-MY4	計畫主持人	107/08-110/08	科技部

1. Chuang Y-F, Varma V, An Y, Tanaka T, Davatzikos C, Resnick SM, *et al.* Interaction between Apolipoprotein E and Butyrylcholinesterase Genes on Risk of Alzheimer's Disease in a Prospective Cohort Study. *Journal of Alzheimer's Disease*. 2020;75:417-427.