




## CURRENT POSTGRADUATE STUDENT

<b>SURNAME</b>	LYU	
<b>NAME</b>	Hao	
<b>PROGRAM</b>	PhD in Surgery	
<b>DATE OF REGISTRATION</b>	1 August 2018	
<b>SUPERVISOR</b>	Professor WONG Kwok Chu George and Professor POON Wai Sang	
<b>FIELD OF RESEARCH / INTENDED THESIS TITLE</b>	Neurosurgery	
<b>KEYWORDS FOR RESEARCH</b>	Neuroscience; Stem cell; Hypoxic-ischemic encephalopathy	
<b>RESEARCH STUDY:</b>		
<p>Recent studies showed that umbilical cord blood (UCB) mononuclear cells (UCBMNC) have neuro-repair and neuroprotection effects. Red cell fraction (RCF) of UCB contain fetal haemoglobins which may be useful to treat neonatal hypoxic-ischemic encephalopathy (HIE).</p> <p>Hypoxic-ischemic encephalopathy (HIE) causes 840,000 (23%) neonatal deaths worldwide and has no predictive biomarkers and effective treatment. Neonatal anaemia is common and also can cause severe brain damage, requiring blood transfusion in &gt;20% of pre-term and 2% of term infants.</p> <p>I will investigate whether UCBMNC, RCF and UCB can enhance the recovery of neurological motor and cognitive deficits in an animal model of neonatal HIE.</p>		



**CONFERENCE TITLE / ABSTRACT / POSTER:**

1. MicroRNA-182 Regulates Neurite Outgrowth Involving the PTEN/AKT Pathway. Wang WM, Lu G, Su XW, Lyu H, Poon WS. *Front Cell Neurosci*. 2017 Apr 10;11:96. doi: 10.3389/fncel.2017.00096. eCollection 2017. PMID: 28442995
2. Baicalein enhances the effect of low dose Levodopa on the gait deficits and protects dopaminergic neurons in experimental Parkinsonism. Zhiyuan VeraZheng, Camille Yim Cheung, Lyu Hao, Ho Yin Chan, Yi Li, ZhaoXiang Bian, Kevin K.W. Wang, WaiSang Poon. *J Clin Neurosci*. 2019 Jun;64:242-251. doi: 10.1016/j.jocn.2019.02.005. Epub 2019 Mar 21. PMID: 30905662.
3. The Effect of GLP-1 Receptor on Axon Regeneration in a Murine Stroke Model. Poster presentation in 23rd Annual Scientific Meeting. Hong Kong Neurosurgical Society.
4. Enriched Environment Enhances Motor and Sensory Function Outcomes in Rat Intracerebral Hemorrhage Model. Poster presentation in 24th Annual Scientific Meeting Hong Kong Neurosurgical Society