

【基本資料】

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【學歷】

陽明大學/中央研究院 分子醫學學程 博士 (2003~2006)
陽明大學 生物醫學影像暨放射科學所 博士 (2003~2006)
陽明大學 放射醫學科學所碩士 (2001~2003)

【經歷】

國軍台中總醫院 軍醫少尉(1999~2001)
NRPGM分子醫學影像核心設施 博士後研究員 (2006.2~2006.7)

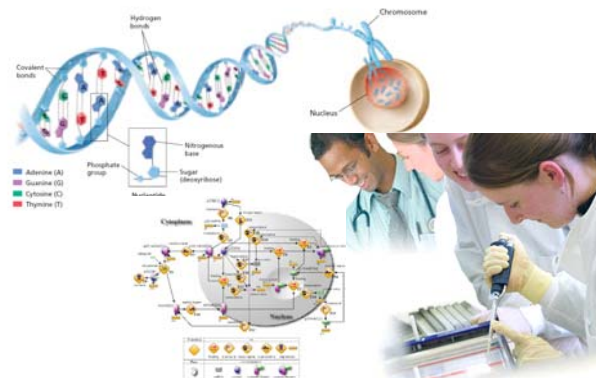
【介紹】

謝佳宏助理教授 (Chia-Hung Hsieh Ph.D.)，畢業於中研院分子醫學學程與國立陽明大學生物醫學影像暨放射科學所博士班，於2006年2月獲得兩學程的博士學位證書。曾任中研院基因體中心之分子基因影像核心設施實驗室博士後研究員。2006年8月至本校基礎醫學研究所擔任助理教授一職。謝老師同時也是學校臨床醫學研究所、生物醫學影像暨放射科學系與醫院醫學研究部的合聘教師與研究員。因其研究專長領域為分子醫學、分子影像與放射科學，故在學校基礎醫學研究所、臨床醫學研究所、生物醫學影像暨放射科學系及老化醫學學程教授相關專業領域知識並投入學校醫院幾個頂尖研究中心推動臨床與基礎研究之整合工作。謝老師在教學上，從課程規劃與課後輔導皆相當用心負責。其教學七大要點：1. 設計課程，編選教材。2. 規則制定，互相尊重。3. 充分準備，認真上課。4. 雙向互動，學思並重。5. 課後輔導，解除疑惑。6. 適度評量，獎罰分明。7. 細心留意，檢討改進。讓學生都能夠接受他的教學方式與理念。此外，謝老師所開設的課程與上課內容強化了基礎醫學研究所與臨床醫學所學生對分子醫學與轉譯醫學之知識與概念並且提升生物醫學影像暨放射科學系國考及格率與升學率。此外，為了指導研究所學生具有專業與國際觀之研究人才。謝老師在除了培養研究生具有專業研究能力之外也細心教導學生之英文報告與溝通能力，帶領所指導的研究生參與國際研討會口頭報告並連續幾年均獲得 Student Travel Stipend Award。此外，謝老師也積極輔導學生盡早確立自己的興趣及志向，幫助學生釐清未來發展方向。提供周詳的升學及就業資訊。並且協助學生了解有意報考的研究所，指導準備甄選入學的口試。目前已輔導與協助多位學生順利升學與就職。謝老師在教學、研究及行政服務等方面，皆有優異的表現並

且對教育的投入與人才的培育值得肯定與嘉許於 99 學年度榮獲醫學院優良教師。

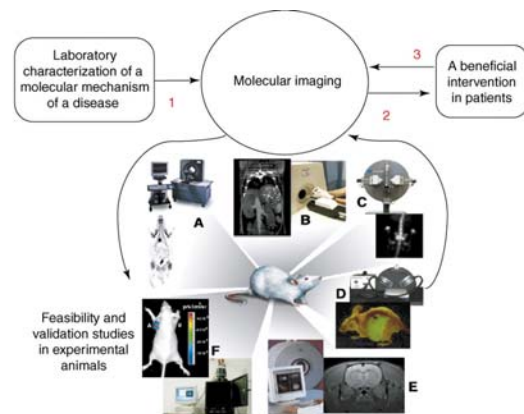
【專長】

分子醫學影像
分子醫學
分子細胞生物學
腫瘤生物學
放射生物學
放射腫瘤學
核子醫學



【目前研究方向】

1. **分子與基因影像**: 發展新式光學、核醫、超音波影像報導基因與分子探針並應用於觀察分子醫學上所感興趣之致病基因或分子在活體內表現情形。藉由此分子影像配合其他的解剖及生理功能影像探討疾病的分子病理機轉與疾病的早期診斷。
2. **分子治療**: 發展具有特異性抑制蛋白質作用之多胜肽藥物並結合 protein transduction 技術來運送治療多胜肽以達能轉一性標的與抑制細胞內不正常的蛋白質作用，進而治療疾病。
3. **幹細胞治療**: 探討幹細胞分化成血管內皮細胞與促使血管新生之分子機轉，藉此來增強幹細胞在缺血組織之治療。
4. **癌症幹細胞**: 探討循環性腫瘤缺氧對於癌症幹細胞分化與腫瘤生成之機轉。
5. **轉譯生物醫學影像**: 分子醫學影像在轉譯醫學之開發與應用。



TRENDS in Molecular Medicine

【研究計畫補助】

From National Science Council

(Principle investigator)

- Translational Molecular Imaging of Radioiodine Labeled Eosinophil Cationic Protein: A Potential Diagnosis Tool in Allergic Inflammation Response
20100801~20130731, NT 2,900,000.
- Investigation of the Impact of Intermittent Hypoxia in Glioblastoma Multiforme Progression and Resistance to Radiation Therapy.
20080801~20110731, NT 3,590,000.

- Development of an Optimal TKGFP Fusion Reporter Gene for Use in Translation Medicine in Molecular-Genetic Imaging.
20080801~20090731, NT 1,180,000.

(Co-principle investigator)

- 憂鬱症的創新診斷與治療：從分子至社區--〈子計畫二〉發展標的 NMDA 接受體上甘胺酸位置之核醫藥物。
20090801~20120731, NT 4,500,000

From China Medical University

(Principle investigator)

- The Impact of Acute and Chronic Hypoxia in Radiosensitivity in Glioblastoma Multiforme Progression.
20080801~20090731, NT 500,000.
- Imaging the HIF-1 Signal Transduction Activity and Tumor Cell Trafficking in Breast Cancer Progression.
20070801~20080731, NT 500,000.
- 利用分子影像探討 SDF-1/CXCR7 在缺血再灌流損害之角色。
20091001 ~ 20100930, NT 500,000.
- THE MECHANISM OF INTERMITTENT HYPOXIA INDUCED HMGB1 RELEASE AND ITS PROTEIN TRAFFICKING IN GLIOBLASTOMA MULTIFORME PROGRESSION.
2009121 ~ 20101130, NT 400,000
- 探討慢性缺氧及急性缺氧間的差別效應與機制對於腫瘤放射敏感度在多發性神經膠質瘤之研究
201011 ~20101231, NT 400,000

(Co-principle investigator)

- ROLE OF HMGB1 IN ANGIOGENESIS AND REGULATION BY ANTI-OXIDANT PROCESS
20091201 ~ 20101130, NT 400,000

【研究著作目錄】

SCI Publications: 2009-2011 RPI =133

- **Hsieh CH**, Chen YF, Chen FD, Hwang JJ, Chen JC, Liu RS, Kai JJ, Chang CW, Wang HE. Evaluation of pharmacokinetics of 4-borono-2-(18)F-fluoro-L-phenylalanine for boron neutron capture therapy in a glioma-bearing rat model with hyperosmolar blood-brain barrier disruption. J Nucl Med.2005;46:1858-1865.
- **Hsieh CH**, Liu HM, Hwang JJ, Wang HE, Kai JJ, Chen FD. A simple

model for quantification of the radiobiological effectiveness of the $^{10}\text{B}(\text{n},\alpha)^7\text{Li}$ capture reaction in BNCT. *Appl Radiat Isot.* 2006;64(3):306-314.

- **Hsieh CH**, Liu RS, Wang HE, Hwang JJ, Deng WP, Chang CW, Chen FD. In vitro Evaluation of Herpes Simplex Virus Type 1 Thymidine Kinase Reporter System in Dynamic Studies of Transcriptional Gene Regulation. *Nucl Med Biol.* 2006;33(5):653-60.
- Chang CW, Lin M, Wu SY, **Hsieh CH**, Liu RS, Wang SJ, Huang KL, Chen CH, Wang HE. A high yield robotic synthesis of 9-(4-[[^{18}F]-fluoro-3-hydroxymethylbutyl]guanine ([[^{18}F]FHBG) and 9-[[3-[[^{18}F]-fluoro-1-hydroxy-2-propoxy)methyl]guanine ([[^{18}F] FHPG) for gene expression imaging. *Appl Radiat Isot.* 2007;65(1):57-63.
- **Hsieh CH**, Chen FD, Wang HE, Hwang JJ, Chang CW, Lee YJ, Gelovani JG, Liu RS. Generation of Destabilized Herpes Simplex Virus type 1 Thymidine Kinase as Transcription Reporter for PET Reporter Systems in Molecular-Genetic Imaging. *J Nucl Med.* 2008 Jan;49(1):142-50.
- Tsai CH, Chiu SJ, Liu CC, Sheu TJ, **Hsieh CH**, Keng PC, Lee YJ. Regulated expression of cofilin and the consequent regulation of p27(kip1) are essential for G(1) phase progression. *Cell Cycle.* 2009 Aug;8(15):2365-74.
- **Hsieh CH**, Kuo JW, Chang CW, Lee YJ, Gelovani JG, Liu RS. Construction of mutant TKGFP for real-time imaging of temporal dynamics of HIF-1 signal transduction activity mediated by hypoxia and reoxygenation in tumors in living mice. *J Nucl Med.* 2009 Dec;50(12):2049-57.
- **Hsieh CH**, Lee CH, Liang JA, Yu CY, Shyu WC. Cycling hypoxia increases U87 glioma cell radioresistance via ROS induced higher and long-term HIF-1 signal transduction activity. *Oncol Rep.* 2010 Dec;24(6):1629-36.

Conference Abstracts

- Ren-Shyan Liu, **Chia-Hung Hsieh**, Fu-Du Chen, Hsin-Ell Wang, Jeng-Jong Hwang, Wen-Ping Deng. Herpes Simplex Virus Type 1 Thymidine Kinase Reporter System Is Limited in Dynamic Studies of Short Time Scale Gene Expression Events. Fourth Annual Meeting of the Society for Molecular Imaging (2005)(Germany)(**Poster**) .
- **Chia-Hung Hsieh**, Ren-Shyan Liu, Fu-Du Chen. Generation of Destabilized Herpes Simplex Virus type 1 Thymidine Kinase as Transcription Reporter for PET Reporter System in Genetic Imaging. Fifth Annual Meeting of the Society for Molecular Imaging (2006) (USA)(**Oral**).
- Jung-Wen Kuo, **Chia-Hung Hsieh**, Ren-Shyan Liu. Imaging the HIF-1 Signal Transduction Activity and Tumor Cell Trafficking in Breast Cancer Progression. Sixth Annual Meeting of the Society for Molecular Imaging (2007)(USA)(**Poster**).
- **Chia-Hung Hsieh**, Jung-Wen Kuo, Ren-Shyan Liu. Generation of Destabilized HSV1-tk/GFP reporter gene as Transcription Reporter for Multimodality Imaging Systems in Molecular-Genetic Imaging. Sixth Annual Meeting of the Society for Molecular Imaging (2007)(USA)(**Poster**).
- **Chia-Hung Hsieh**, Jung-Wen Kuo, Ren-Shyan Liu. Generation of Destabilized

HSV1-tk/GFP reporter gene as Transcription Reporter for Multimodality Imaging Systems in Molecular-Genetic Imaging. 2008 SNM Annual Meeting (2007) (USA) (**Oral**).

- **Chia-Hung Hsieh**, Jung-Wen Kuo, Ren-Shyan Liu. Short half-life TKGFP fusion reporter gene for use in translational molecular-genetic imaging. 2008 SNM Annual Meeting (2008) (USA) (**Poster**).
- **Chia-Hung Hsieh**. Role of Molecular Imaging in the Era of Translation Medicine. International Small Imaging Symposium (2008) (China) (**Invited speaker**)
- **Chia-Hung Hsieh**, Jung-Wen Kuo, Ren-Shyan Liu. Molecular Imaging Assessment of the Impact of Intermittent Hypoxia in Glioblastoma Multiforme Progression. The 2008 World Molecular Imaging Congress (2008) (France) (**Oral**).
- **Chia-Hung Hsieh**, Chih-Chao V. Liu. Molecular imaging assessment of the role of SDF-1/CXCR7 in modulating post-ischemic angiogenesis driven by endothelial progenitor cells. The 2009 World Molecular Imaging Congress (2009) (Montréal, Canada) (**Poster**)
- Pei-shan Hung, Chih-Chao V. Liu, **Chia-Hung Hsieh**. Molecular imaging assessment of the impact of CXCR7/RDC1 in human lung cancer progression. The 2009 World Molecular Imaging Congress (2009)(Montréal, Canada) (**Poster**)
- Cheng- Hung Lee, Ren-Shyan Liu, **Chia-Hung Hsieh**. Molecular Imaging Assessment of the Effect of Acute and Chronic Hypoxia in Glioblastoma Multiforme Progression and Resistance to Radiation Therapy. The 2009 World Molecular Imaging Congress (2009) (Montréal, Canada) (**Oral**)
- Yu-jung Lin, Yi-Jang Lee, **Chia-Hung Hsieh**. A Novel NesTK:IFP1.4 Fusion Reporter Gene for Imaging of Temporal Dynamics and Spatial Heterogeneity of MDR1 Transcriptional Activation Mediating Tumor Microenvironment in Living Mice. The 2010 World Molecular Imaging Congress (2010) (Kyoto, Japan) (**Oral**)
- Chian-Yi Chung, Chih-Ling Hsu, Hui-Shan Chien, **Chia-Hung Hsieh**. Imaging mechanisms of cycling hypoxia-promoted tumor progression in U87 glioma. The 2010 World Molecular Imaging Congress (2010) (Kyoto, Japan) (**Poster**)

Conference Proceedings

- **C. H. Hsieh**, R. S. Liu, J. J. Hwang, H. M. Liu, Y. W. Hsueh, J. J. Kai, and F. D. Chen. Enhanced Tumor Cell Killing following BNCT with Hyperosmotic Mannitol-Induced Blood-Brain Barrier Disruption and Intracarotid Injection of Boronophenylalanine. 12th International Congress on Neutron Capture Therapy (2006).
- **C. H. Hsieh**, S. M. Hsu, W. L. Chen, J. J. Hwang , H. E. Wang, H. M. Liu, Y. W. Hsueh, F. D. Chen. Inefficiency of High Boron Concentrations for Cell Killing in Boron Neutron Capture Therapy. 12th International Congress on Neutron Capture Therapy (2006).