# 花蓮慈濟醫院研究部

## 婦女癌症防治中心分子腫瘤研究室

主 持 人：黃玄舜
(Huang Hsuan-Shun, Ph.D.)

### 研究簡介

●高級別漿液性卵巢癌的成因不明，常在晚期才發現，為死亡率高的主要原因，病因學的研究是降低卵巢癌威脅的重要工作，我們以臨床檢體及分子細胞生物技術為基礎，在先前的研究已逐步發現排卵濾泡液中致癌因子與相關致癌機制，從癌症發生到癌轉移的過程一步一步解析高級別漿液性卵巢癌發展的過程。本系列研究除了增進癌症病因學的發展外，更重要的是希望能提供卵巢癌初級預防及次級預防的重要資訊，以期減緩現代婦女遭受此疾病的威脅。

●慈濟婦女癌症防治中心由朱堂元主任領導整體研究團隊，結合臨床與基礎醫學研究，建立了長期臨床研究世代及組織庫，並以細胞和基因轉殖小鼠為基礎研究模式，探討排卵導致卵巢癌發生的機制，這些生理功能導致癌症發生的原因也可延伸至其他癌別的研究，目前正有計畫的進行中；希望藉由這些研究體系釐清癌化之分子機制，並運用其關鍵知識與技術為婦女癌症找到更有效之預防、診斷與治療模式。

### 計畫與經費來源

1. 112年 國科會計畫: Ovulation-induced neutrophil extracellular traps (NETs) enhance intraperitoneal metastasis of serous tubal intraepithelial carcinoma: a preclinical investigation; NSTC 112-2314-B-303 -011 -MY3
2. 112年慈濟醫院院內計畫: Progesterone prevents intraperitoneal dissemination of epithelial ovarian cancer: Preclinical study with a mouse model; TCRD112-044
3. 108年 科技部計畫：Transformation activity of HGF in ovulatory follicular fluid on fallopian tube fimbrial epithelium ；MOST 108-2314-B-303 -005 -MY2

### 研究成果

1. Tang-Yuan Chu, Aye Aye Khine, Na-Yi Yuan Wu, Pao-Chu Chen, Sung-Chao Chu, Ming-Hsun Lee**, Hsuan-Shun Huang** (2023) Insulin-like growth factor (IGF) and hepatocyte growth factor (HGF) in follicular fluid cooperatively promote the oncogenesis of high-grade serous carcinoma from fallopian tube epithelial cells: Dissection of the molecular effects. Molecular carcinogenesis, Jun 2. doi: 10.1002/mc.23586. (SCI, 103/297, BIOCHEMISTRY & MOLECULAR BIOLOGY IF: 5.14)
2. Tang-Yuan Chu, Sung-Chao Chu, Aye Aye Khine, Pao-Chu Chen, Ming-Hsun Lee, **Hsuan-Shun Huang** (2022). Effect of ovulation IGF and HGF signaling on the oncogenesis of murine epithelial ovarian cancer cell ID8. EXPERIMENTAL CELL RESEARCH, 15;419(2):113323. (SCI, 127/245, ONCOLOGY IF: 4.15).
3. **Huang H. S**., † Chen P. C., † Chu S. C., Lee M. H., Huang C. Y., Chu T. Y. (2021) Ovulation sources coagulation protease cascade and hepatocyte growth factor to support physiological growth and malignant transformation. Neoplasia, Nov;23(11):1123-1136. 【SCI, 72/242 IF: 6.22】
4. **Huang H. S**., † Chu S. C., † Chen P. C., Lee M. H., Huang C. Y., Chou H. M., Chu T. Y. (2021) Insuline-Like Growth Factor-2 (IGF2) and Hepatocyte Growth Factor (HGF) Promote Lymphomagenesis in p53-null Mice in Tissue-specific and Estrogen-signaling Dependent Manners. Journal of cancer. 12(20):6021-6030. 【SCI, 131/308, IF: 4.48】
5. Hsu CF†., **Huang H. S.,** † Chen P. C., Ding D. C., Chu T. Y. († equal first) (2019) IGF-axis confers transformation and regeneration of fallopian tube fimbria epithelium upon ovulation. EBioMedicine. Mar;41:597-609.【SCI, Rank 13/133, IF: 11.2】
6. Wu, N. Y., **Huang, H.S.,** Chao, T. H., Chou, H. M., Fang, C., Qin, C. Z., Tzeng, Y. J., Lin, C. Y., Chu, T. Y., Zhou, H. H., (2017) Progesterone prevents high grade serous ovarian cancer by induction necroptosis in p53-defective Fallopian tube epithelium. Cell Reports 18(11):2557–2565.【SCI, Rank 26/187, IF: 9.99】
7. **Huang, H.S.,** Chu, S.C., Hsu, C.F., Chen, P.C., Ding, D. C., Chang, M.Y., and Chu, T.Y. (2016) Haemoglobin in pelvic fluid rescues Fallopian tube epithelial cells from reactive oxygen species stress and apoptosis. J Pathol. 240(4):484-494.【SCI, Rank 5/77, IF: 9.89】