

花蓮慈濟醫院研究部

高壓氧實驗室

主持人：王健興 醫師 研究成員：戴國峯 助理教授

研究簡介

本實驗室研究方向主要在探討以免疫療法合併高壓氧處理來進行腫瘤的治療。免疫療法主要分三大部分來進行：**(1)**利用核糖核酸干擾技術透過反轉錄病毒載體或是腺病毒載體來調控免疫抑制蛋白的表現。**(2)**利用病毒載體將細胞激素基因送入腫瘤細胞內來提升對抗腫瘤的免疫力。**(3)**利用李斯特菌會感染肝細胞的特性，研究李斯特菌的抗腫瘤免疫反應。此外對於探討高壓氧與細胞激素對傷口修復也是本實驗室研究的方向之一。

計畫與經費來源

1. TCCT-1041A01 Evaluation of melanoma therapeutic effect using intratumoral 6-gingerol injection and TGF beta 1 knockdown in an animal model
2. TCCT-1031A01 Evaluation of the combined effects of fibroblast inoculation and hyperbaric oxygen treatment on cutaneous wound closure in experimental mice
3. TCCTIC-1021C025 Evaluation of the effects of hyperbaric oxygen on proliferation, metastasis and angiogenesis of murine cancer cells in vivo
4. TCCT-1021A04 Evaluation of the effects of hyperbaric oxygen on proliferation and metastasis of human umbilical vein endothelial cells (HUVEC) and murine cancer cells in vitro
5. TCCT-1011A05 Therapeutic efficacy evaluation of hepatocellular carcinoma using intratumoral injection with *Listeria monocytogenes*

研究成果

(A)期刊論文

1. **Wang CH**, Zheng L. J., Yang Z. Y., Zheng J. P., She H. H., Chiang C. Y., and Tai K. F. (2014) Intratumoral Injection with *Listeria monocytogenes* Provides Anticancer Effects in a Subcutaneous Liver Tumor Model. JTCCT 23:93-108
2. Tai K. F., **Chien-Hsing Wang** (2013) Using Adenovirus Armed Short Hairpin RNA Targeting Transforming Growth Factor-Beta1 Inhibits of Melanoma Growth and Metastasis in an ex-vivo Animal Model. Annals of Plastic Surgery Ann Plast Surg. 71 Suppl 1:S75-81.
3. **Wang CH**, Kuo-Feng Tai, Sih-Wei Tseng, Chun-Yu Wang, Yen-Po Chao (2013) Knockdown of Transforming Growth Factor-Beta1 Expression by RNA Interference Inhibits Colon Carcinoma growth in Immunocompetent Mice. JTCCT 20 :213-234
4. Tai K. F., Tseng S-W., Mao-Chin Hung, Fan-Chieh Meng, Wei-Chieh Sun, **Chien-Hsing Wang** (2011) Inhibition of Melanoma Cell Growth and Pulmonary Metastasis in an ex-vivo Animal Model Using Adenovirus Armed Short Hairpin RNA Targeting Transforming Growth Factor-Beta1 Encoding mRNA. JTCCT 16 :375-396
5. Tai K. F., Tseng S. W., Hsu C. J., Yeh Y.C., Yang S.Y., **Chien-Hsing Wang** (2010) Targeting transforming growth factor-beta1 by RNA Interference attenuates melanoma cell growth and inhibits pulmonary metastasis in an ex-vivo animal model. JTSPS. 19(1) :1-15

(B)專利

1. 專利名稱:血液混合裝置, 專利類型:新型專利, 證書字號: M525225, 2016/7/11-2026/5/2
2. 專利名稱:血液混合器, 專利類型:新型專利, 證書字號: M530695, 2016/10/21-2026/7/11
3. 專利名稱:複合式多功能療癒構造, 專利類型:新型專利, 證書字號: M531280, 2016/11/1-2026/7/14