高雄醫學大學研發電子報

二、研究論文分享

題目： Emphysematous Prostatitis

作者： Wang, Hsun-Shuan(小港 泌尿科 王巽玄); Shih, Ming-Chen(附院 影像醫學部 石明誠) N Engl J Med 2016; 375:879September 1, 2016DOI: 10.1056/NEJMicm1507124

摘要：

A 42-year-old man with diabetes presented to the emergency department with severe dysuria and incontinence, which he had had for several days. Laboratory studies were notable for pyuria on urinalysis, leukocytosis (a white-cell count of 10,820 per cubic millimeter), elevated C-reactive protein levels (134.1 mg per liter), hyperglycemia (glucose level, 900 mg per deciliter [50 mmol per liter]), and an elevated level of glycated hemoglobin (11.4%). Radiography of the kidney, ureter, and bladder showed an atypical focus of gas accumulation behind the right pubic ramus (Panel A, arrows). Subsequent computed tomography (CT) of the abdomen revealed emphysematous prostatitis of the right prostate lobe (Panel B, arrows). A Foley catheter was placed, and CT-guided percutaneous drainage of the prostate was performed. Broad-spectrum antibiotics and intravenous fluid therapy were initiated, and strict blood sugar control was implemented with an insulin drip. Urine and blood cultures grew Klebsiella pneumoniae. The patient remained in the hospital for 1 month and was treated for infection, sepsis, poor control of blood sugar levels, and acute kidney injury. His condition gradually improved, and he was discharged home. Emphysematous prostatitis is a rare sequela of complicated urinary tract infection and is more commonly found in patients with immunosuppression, diabetes mellitus with poor glycemic control, liver cirrhosis, alcoholism, or recent urethral instrumentation. The most common pathogen in patients with diabetes, as in this case, is K. pneumoniae.

題目：G9a/RelB regulates self-renewal and function of colon-cancer-initiating cells by silencing Let-7b and activating the K-RAS/β-catenin pathway

作者：Cha, Shih-Ting; Tan, Ching-Ting; Chang, Cheng-Chi; Chu, Chia-Yu; Lee, Wei-Jiunn; Lin, Been-Zen; Lin, Ming-Tsan; Kuo, Min-Liang(醫學研究所 郭明良) Nat Cell Biol. 2016 Sep;18(9):993-1005. doi: 10.1038/ncb3395. Epub 2016 Aug 15.

摘要：

Epigenetic reprogramming has been associated with the functional plasticity of cancer-initiating cells

(CICs); however, the regulatory pathway has yet to be elucidated. A siRNA screen targeting known epigenetic genes revealed that G9a profoundly impairs the chemo-resistance, self-renewal and metastasis of CICs obtained from patients with colorectal cancer (CRC). Patients with elevated G9a were shown to face a high risk of relapse and poor survival rates. From a mechanistic perspective, G9a binds with and stabilizes RelB, thereby recruiting DNA methyltransferase 3 on the Let-7b promoter and repressing its expression. This leads to the activation of the K-RAS/β-catenin pathway and regulates self-renewal and function of CICs. These findings indicate that the G9a/RelB/Let-7b axis acts as a critical regulator in the maintenance of CIC phenotypes and is strongly associated with negative clinical outcomes. Thus, these findings may have diagnostic as well as therapeutic implications for the treatment of chemotherapy-resistant or metastatic CRC.

題目：**Long-term Effects of Hepatitis B Immunization of Infants in Preventing Liver Cancer.**

作者：Chang, Mei-Hwei; You, San-Lin; Chen, Chien-Jen; Liu, Chun-Jen; Lai, Ming-Wei; Wu, Tzee-Chung; Wu, Shu-Fen; Lee, Chuan-Mo; Yang, Sheng-Shun; Chu, Heng-Cheng; Wang, Tsang-Eng; Chen, Bor-Wen; Chuang, Wan-Long(醫學系內科學科 莊萬龍); Soon, Maw-Soan; Lin, Ching-Yih; Chiou, Shu-Ti; Kuo, Hsu-Sung; Chen, Ding-Shinn
GASTROENTEROLOGY v.151 n.3 p.472+

摘要：

BACKGROUND & AIMS: The incidence of hepatocellular carcinoma (HCC) increases with age, but protective antibody responses decrease with time after infants are immunized against hepatitis B virus (HBV). We investigated whether immunization of infants against HBV prevents their developing HCC as adults. We also searched for strategies to maximize the cancer-preventive effects.

METHODS: We collected data from 2 Taiwan HCC registry systems on 1509 patients (6-26 years old) diagnosed with HCC from 1983 through 2011. Data on history of HBV immunization and prenatal maternal levels of HBV antigens of all HCC patients born after July 1984 were retrieved from the HBV immunization data bank of the Taiwan Center for Disease Control. We collected data on birth cohort-specific populations (6-26 years old) of Taiwan using the National Household Registry System. Rates of HCC incidence per 10(5) person-years were derived by dividing the number of patients with HCC by the person-years of the general population. Relative risks (RR) for HCC were estimated by Poisson regression analysis in vaccinated vs unvaccinated birth cohorts. We stratified patients by age group to evaluate the association of birth cohorts and HCC risks.

RESULTS: Of the 1509 patients with HCC, 1343 were born before, and 166 were born after, the HBV vaccination program began. HCC incidence per 10(5) person-years was 0.92 in the unvaccinated cohort and 0.23 in the vaccinated birth cohorts. The RRs for HCC in patients 6-9 years old, 10-14 years old, 15-19 years old, and 20-26 years old who were vaccinated vs unvaccinated were 0.26 (95% confidence interval

[CI], 0.17-0.40), 0.34 (95% CI, 0.25-0.48), 0.37 (95% CI, 0.25-0.51), and 0.42 (95% CI, 0.32-0.56), respectively. The RR for HCC in 6- to 26-year-olds was lower in the later vs the earlier cohorts (born in 1992-2005 vs 1986-1992; P < .001 and 1986-1992 vs 1984-1986; P < .002). Transmission of HBV from highly infectious mothers and incomplete immunization were associated with development of HCC.

CONCLUSIONS: Based on an analysis of 1509 patients with HCC in Taiwan, immunization of infants against HBV reduces their risk of developing HCC as children and young adults. Improving HBV vaccination strategies and overcoming risk factors could reduce the incidence of liver cancer.

三、最新消息

1. 動物中心公告：

公告一、實驗動物入室申請請遵守本中心網頁公告之流程,因目前使用人數眾多,小鼠飼養已超過本中心最大容量, 尤其申請籠數較多時,需要較長時間安排,計畫主持人請斟酌計畫執行期限,提早提出申請. http://www.kmuh.org.tw/www/clireser/實動5/3.doc

公告二、本中心之收費標準公告於本中心網頁.
http://www.kmuh.org.tw/www/clireser/data/money.pdf

2. 健康資料庫研究設計諮詢服務預約：**服務對象**：凡有興趣申請健康資料加值中心之資料庫者，含高醫教職員工生及校外研究人員，皆可申請資料庫研究諮詢服務。**費用**：免費。**預約辦法**：請先找出您方便的開放時段填寫並送出線上預約單，完成預約後本中心將寄送確認信給您。相關服務網址如下：http://cchia.kmu.edu.tw/index.php/健康資料庫協作諮詢預約。

四、徵求計畫

1. 科技部人文司 105 年度第二期補助延攬人文及社會科學類博士後研究人員，自 105 年 10 月 1 日受理申請。旨揭補助延攬人文學及社會科學類博士後研究人員，已自 104 年度開始分二期受理申請，除符合「補助延攬人文學及社會科學類博士後研究人員試行要點」第三點第(二)項規定，得以隨到隨審申請方式提出者外，凡向該司申請延攬博士後研究人員均須於規定之二期申請時程內(每年 5 月及 10 月)提出，續聘者亦同。非依該要點規定期程內提出者，恕不受理。有意申請者請於 105.10.1 至 10.31 止完成線上申請作業同時副知研發處，以利彙整函送科技部申請。

2. 科技部人文司公開徵求 106 年度「補助人文及社會科學研究圖書計畫」106 年度圖書規劃重點議題公布於科技部網站首頁「動態資訊」項下之計畫徵求。請依公告之重點議題備註欄註明之執行年期提出申請，本計畫每一議題每年補助計畫經費以新臺幣三百萬元（不含管理費）為上限。符合資格有意申請者請於校內截止日 105.12.12 前完成線上申請作業同時副知研發處以利彙整函送科技部申請。
3. 科技部徵求 2017/2018 年臺灣與英國在生命科學領域之「國際夥伴關係建立暨交流計畫(International Partnering Awards, IPA)」與雙邊學術研討會，我方申請人(會議召集人或計畫主持人)須符合申請科技部專題研究計畫資格者；英方申請人須為已獲有 BBSRC 研究計畫補助者或是受聘於所屬國家級生命科學研究所之研究人員。我方申請人應自科技部網站「學術研發服務網登入」頁內以線上方式提出計畫書，並須於校內截止日 105.11.15 前完成線上申請作業同時副知研發處以利彙整函送科技部申請。兩項方案詳細申請方式，請參閱本項補助作業須知：
https://www.most.gov.tw/division/detail?subSite=sci&article_uid=19e37536-7aa3-4611-93fc-f620f2d97a50&menu_id=150043c6-ff58-41a3-9c69-b0c555e372a2&l=CH。所需之英文申請書表格，請至科技部科國司相關網頁內下載及參考：
https://www.most.gov.tw/sci/ch/list?menu_id=12eaa71e-785b-42f0-8329-d64668403e95&filter_uid=9871f89f-e835-4a59-a549-3d0a5a1bf60e。
4. 科技部辦理甄選國內青年學者/學生參加「第 67 屆林島諾貝爾獎得主會議化學領域會議」。參與旨述會議甄選資格為化學領域 35 歲以下且學習成績達 5%內優秀同學或博士後研究人員。有意申請者請備齊下列資料於 105.10.17 前送至研發處彙整以利函送科技部申請。
(1)被推薦人中英文簡歷
(2)參與本活動之目的說明(英文)
(3)近三年學習成績單(英文)
(4)英文推薦信(至少一封)
5. 科技部工程司『醫療器材創新研究專案計畫』徵求公告。本專案計畫希望能透過跨領域整合並掌握臨床需求，導入創新醫材發展，以行動醫療、體外檢測、多模式診治技術與組織修復材料等創新性較高的領域做為重點推動方向。有意申請者請依科技部專題計畫作業要點於線上系統研提計畫申請書，請於校內截止日 105.12.12 下午 5 時前完成並繳交送出同時副知研發處，以利彙整函送科技部申請。科技部工程司承辦人:陳淑鈞 02-2737-7371 scnchen@most.gov.tw。
6. 科技部公開徵求 2017 年臺德(MOST-DFG)雙邊共同合作研究計畫。本項臺德雙邊合作計畫不限合作領域，惟須由臺灣及德國雙方計畫主持人共同研議完成並提出英文合作計畫書，且分別提送科技部及德國研究基金會審查。任一方未收到申請書，則合作案無法成立。其中我方主持人應依科技部專題研究計畫申請規定向科技部提出申請。申請資格：臺方申請人須符合科技部專題研究計畫申請人資格。德方申請人依德國研究基金會規定辦理(http://www.dfg.de/formulare/50_01/50_01_en.pdf)。合作領域：所有基礎科學及應用研究領域。計畫類型：雙邊協議專案型國際合作研究計畫(Joint Call)，雙方組成合作研

究團隊，共同合作進行本項研究計畫。申請截止日期：校內截止日至 2016 年 11 月 28 日中午 12 時。

7. 科技部公開徵求臺德(MOST-DFG)雙邊研討會及研究訪問計畫。申請資格：臺方申請人須符合本部專題研究計畫申請人資格。德方申請人依德國研究基金會規定辦(http://www.dfg.de/formulare/1_813/1_813_en.pdf)。 合作領域：所有基礎科學及應用研究領域計畫類型：1.雙邊研討會：補助臺德雙邊研究學者藉由特定主題之學術研討，以探索雙邊合作之可能性，利於建構雙方未來共同研究計畫。2.研究訪問：補助臺德雙邊學者以國外研究及客座訪問方式進行互訪，以準備及建構雙方未來特定共同研究計畫。本計畫隨到隨審，但應於活動辦理四個月前提出。

五、校外合作專區

高醫大中山大學學術交流

1.105 年兩校合作計畫期中報告請計畫主持人於 105.10.21 繳交成果報告書紙本及電子檔至研發處，謝謝！

2.106 年度兩校申請計畫徵求將於近期公告，相關資訊請參閱網址：
http://devel.kmu.edu.tw/index.php/zh-TW/行政規劃組/nsysukmu/442-106 中山高醫合作計畫

3. 經費變更表請至研發處網站-中山高醫合作經費變更表網站下載，謝謝！

六、研究榮譽榜

（一）論文（感謝圖書資訊處提供資料）

1.本單元定期收錄高醫研究論文發表於 SCI/SSCI 資料庫且發表期刊影響指數(Imapact Factor>5)或該領域排名前 10%之優良期刊。本期資料庫更新日期：2016 年 09 月 01 日至 2016 年 09 月 30 日。網址如下：

2016 年 9 月份本校研究人員發表 SCI/SSCI 論文榮譽榜

序號	作者/單位	篇名	出處	影響指數

1	Wang, Hsun-Shuan(小港 泌尿科 王巽玄); Shih, Ming-Chen(附院 影像醫學部 石明誠)	Emphysematous Prostatitis	NEW ENGLAND JOURNAL OF MEDICINE v.375 n.9 p.879-879	55.873
2	Cha, Shih-Ting; Tan, Ching-Ting; Chang, Cheng-Chi; Chu, Chia-Yu; Lee, Wei-Jiunn; Lin, Been-Zen; Lin, Ming-Tsan; Kuo, Min-Liang(醫學研究所 郭明良)	G9a/RelB regulates self-renewal and function of colon-cancer-initiating cells by silencing Let-7b and activating the K-RAS/beta-catenin pathway	NATURE CELL BIOLOGY v.18 n.9 p.993-1005	19.679
3	Chang, Mei-Hwei; You, San-Lin; Chen, Chien-Jen; Liu, Chun-Jen; Lai, Ming-Wei; Wu, Tzee-Chung; Wu, Shu-Fen; Lee, Chuan-Mo; Yang, Sheng-Shun; Chu, Heng-Cheng; Wang, Tsang-Eng; Chen, Bor-Wen; Chuang, Wan-Long(醫學系內科學科莊萬龍); Soon, Maw-Soan; Lin, Ching-Yih; Chiou, Shu-Ti; Kuo, Hsu-Sung; Chen, Ding-Shinn	Long-term Effects of Hepatitis B Immunization of Infants in Preventing Liver Cancer	GASTROENTEROLOGY v.151 n.3 p.472+	16.716
4	Chen, Szu-Chia(附院 腎臟內科 陳思嘉); Lee, Mei-Yueh(附院 內分泌新陳代謝內科 李美月); Huang, Jiun-Chi(附院 腎臟內科 黃俊祺); Shih, Ming-Chen Paul(附院 影像醫學部 石明誠); Chang, Jer-Ming(附院 腎臟內科 張哲銘); Chen, Hung-Chun(附院 腎臟內科 陳鴻鈞)	Association of Ankle-Brachial Index and Aortic Arch Calcification with Overall and Cardiovascular Mortality in Hemodialysis	SCIENTIFIC REPORTS v.6 文獻號碼:33164	5.578
5	Lee, Mei-Yueh(附院 內分泌新陳代謝內科 李美月); Tsai, Kun-Bow(小港 病理科 蔡坤寶); Hsu, Jong-Hau(附院 小兒科部 徐仲豪); Shin, Shyi-Jang(附院 內分泌新陳代謝內科 辛錫璋); Wu, Jiunn-Ren(附院 小兒科部 吳俊仁); Yeh, Jwu-Lai(醫學系藥理學科 葉竹來)	Liraglutide prevents and reverses monocrotaline-induced pulmonary arterial hypertension by suppressing ET-1 and enhancing eNOS/sGC/PKG pathways	SCIENTIFIC REPORTS v.6 文獻號碼:31788	5.578
6	Shi, Jiajun; Zhang, Yanfeng; Zheng, Wei; Michailidou, Kyriaki; Ghoussaini, Maya; Bolla, Manjeet K.; Wang, Qin; Dennis, Joe; Lush, Michael; Milne, Roger L.; Shu, Xiao-Ou; Beesley, Jonathan;..... Hou, Ming-Feng(癌症中心 侯明鋒)等	Fine-scale mapping of 8q24 locus identifies multiple independent risk variants for breast cancer	INTERNATIONAL JOURNAL OF CANCER v.139 n.6 p.1303-1317	5.085

7	Jhuo, Shih-Jie(附院 心臟血管內科 卓士傑); Lo, Li-Wei; Chang, Shih-Lin; Lin, Yenn-Jiang; Chung, Fa-Po; Chiou, Chuen-Wang; Chen, Shih-Ann	Periesophageal vagal plexus injury is a favorable outcome predictor after catheter ablation of atrial fibrillation	HEART RHYTHM v.13 n.9 p.1786-1793	5.076
8	Chu, Hsueh-Liang; Hwang, Weng-Sing; Du, Je-Kang(牙醫學系 杜哲光); Chen, Ker-Kong(牙醫學系 陳克恭); Wang, Moo-Chin(香粧品學系 王木琴)	Crystallization behavior of ZrO2-3Y(2)O(3)-xSrO precursor powders synthesized by a coprecipitation process	JOURNAL OF ALLOYS AND COMPOUNDS v.678 p.518-526	2.999

（二）產學合作（感謝產學營運處提供資料）

專利、技轉及產學合作榮譽榜 http://ooiuc.kmu.edu.tw/index.php/zh-TW/榮譽榜

發行人:劉景寬校長

編輯委員：郭明良、楊俊毓、王秀紅、辛錫璋、莊麗月、顏正賢、蔡英美、鄭添祿、蔡哲嘉、楊淵韓、洪志興、陳泊余、田育彰、黃啟清、王彥雄、石啟仁、楊詠梅、蔡婉琪、劉旺達、林宜美、謝志昌、張維容

編輯小組：呂明姍、林妍吟、劉美淇、劉玟妦、黃馨儀、林慧姿、劉育君、陳淑真、蘇勤雅、郭淨紋、許幼青

執行編輯：莊麗月、田育彰、許幼青

發行單位: 高雄醫學大學研究發展處

參與單位：七學院研發組、產學營運處、國際事務處、圖書資訊處、附院臨床醫學研究部、小港研究暨教育訓練室、大同研究暨教育訓練室

電話；07-3121101-2322

傳真：07-3223170

網址：http://devel.kmu.edu.tw/front/bin/ptlist.phtml?Category=254