

國立陽明交通大學陽明校區 110 年第二季(4-6 月)重要論文

學院	系所	姓名	作者序	論文題目	期刊	年度/月份	Impact Factor	期刊領域 排名百分比	說明
醫學院	臨床醫學研究所	黃怡翔	通訊作者	Abatacept is second to rituximab at risk of HBsAg reverse seroconversion in patients with rheumatic disease	Annals of the Rheumatic Diseases	2021/06	19.103	2.08% (1/48)	本研究首次發現生物製劑中 abatacept 僅次於 rituximab 在 B 型肝炎表面抗原陰性、核心抗體陽性的類風濕關節炎患者，誘發表面抗原陽轉的風險。兩種生物製劑皆會導致 anti-HBs 消失，進而發生 B 型肝炎表面抗原陽轉的 B 型肝炎病毒再活化，因應此風險研究同時提供相對臨床處置之建議。刊登在 Top research journal in Rheumatology。
醫學院	臨床醫學研究所	李美璇	通訊作者	Postdiagnosis aspirin use associated with decreased biliary tract cancer-specific mortality in a large nationwide cohort	Hepatology	2021/05	17.4	4.58% (6/131)	Nationwide prospective cohort of newly diagnosed BTC between 2007 and 2015 were included and followed until December 31, 2017. Three nationwide databases, namely the Cancer Registration, National Health Insurance, and Death Certification System, were used for computerized data linkage. Aspirin use was defined as one or more prescriptions, and the maximum defined daily dose (DDD) was used to evaluate the dose-response relationship. Cox's proportional hazards models were applied for estimating hazard ratios (HRs) and 95% confidence intervals (CIs). Analyses accounted for competing risk of cardiovascular deaths, landmark analyses to avoid immortal time bias were performed. In total, 2,519 of patients with BTC were exposed to aspirin after their diagnosis (15.7%). After a mean follow-up of 1.59 years, the 5-year survival rate was 27.4%. The multivariate-adjusted HR for postdiagnosis aspirin users, as compared with nonusers, was 0.55 (95% CI, 0.51 to 0.58) for BTC-specific death. Adjusted HRs for BTC-specific death were 0.53 (95% CI, 0.48 to 0.59) and 0.42 (95% CI, 0.31 to 0.58) for ≤ 1 and > 1 maximum DDD, respectively, and showed a dose-response trend ($p < 0.001$; nonusers as a reference). Cancer-specific mortality was lower with postdiagnosis aspirin use in patients with all major BTC subtypes. The nationwide study revealed that postdiagnosis aspirin use was associated with improved BTC-specific mortality of various subtypes. The findings suggest that additional randomized trials are required to investigate aspirin's efficacy in BTC
醫學院	臨床醫學研究所	楊慕華	通訊作者	Regorafenib enhances antitumor immunity via inhibition of p38 kinase/Creb1/Klf4 axis in tumor-associated macrophages	Journal for ImmunoTherapy of Cancer	2021/04	13.751	4.94% (8/162)	Regorafenib may enhance antitumor immunity through modulation of macrophage polarization, independent of its anti-angiogenic effects. Optimization of regorafenib dosage for rational design of combination therapy regimen may improve the therapeutic index in the clinic.

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醫學院	公共衛生研究所	劉家軒	第一作者	Subsequent primary cancers of the digestive system among childhood and adolescent cancer survivors from 1975 to 2015 in the United States	American Journal of Gastroenterology	2021/05	10.861	8.40% (11/131)	This large and comprehensive study of childhood and adolescent cancer survivors examined previously unstudied associations for particular types of first primary cancers and subsequent primary digestive system cancers, by providing sex-specific risk estimates and analyzing more recently diagnosed first cancers than that of previous studies.
牙醫學院	牙醫學系	黃何雄	通訊作者	TiO ₂ nanonetwork on rough Ti enhanced osteogenesis in vitro and in vivo	Journal of Dental Research	2021/04	6.116	5.49% (5/91)	本研究應用簡易/快速/高性價比的表面處理技術，於鈦牙科植體表面製備出兼具微米/次微米/奈米尺度的形貌。體外生物實驗結果顯示，此形貌擁有超親水特性，並可顯著促進蛋白吸附、骨細胞貼附/遷移/礦化以及成骨相關基因/蛋白的表現。體內動物實驗顯示，所製備的表面特性可顯著提升骨癒合速度(vs.控制組)，並比國際知名品牌牙科植體擁有更高的骨頭-植體接觸面積(bone-to-implant contact)。本研究開發的牙科植體表面處理技術具高度國際市場競爭性，並可應用於骨科相關領域。
生命科學院	微生物及免疫學研究所	張佩靖	通訊作者	Long non-coding RNA KIKAT/LINC01061 as a novel epigenetic regulator that relocates KDM4A on chromatin and modulates viral reactivation	PLoS Pathogens	2021/06	6.82	4.17% (2/36)	Epigenetic regulation of chromatin structure and gene function connects genotype to phenotype and diseases. Long non-coding RNA (lncRNA) is emerging as a novel type of epigenetic regulator exhibiting diverse biological functions. Aberrant lncRNA expression is associated with various diseases, including cancer. The widespread epigenetic changes that occur during the latent-to-lytic switch of herpes virus life cycle make it an attractive model to study epigenetic regulation. Using Kaposi's sarcoma associated herpesvirus (KSHV) as a model, we identified KIKAT/LINC01061 as a novel histone lysine-specific demethylase 4A (KDM4A) interacting lncRNA. KDM4A is the first identified histone trimethyl demethylase that has been demonstrated as an oncogene in various cancers. Our data reveal a novel lncRNA-mediated regulation of the epigenetic function of KDM4A. KIKAT/LINC01061 triggered shifting of KDM4A as a potential epigenetic mechanism regulating gene transactivation. Therefore, this lncRNA-chromatin modifier interaction may serve as a potential target in cancer therapy.

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生物醫學暨工程學院	生醫光電研究所	Surojit Chattopadhyay	通訊作者	Detection of mercury in spiked cosmetics by surface enhanced Raman spectroscopy using silver shelled iron oxide nanoparticles	Sensors and Actuators: B. Chemical	2021/06	7.46	8.43% (7/83)	Heavy metal, such as mercury (Hg), contamination is a grave global issue affecting public health via drinking water, paints, and a wide range of personal consumer products such as cosmetics. Here, we have used Surface enhanced Raman spectroscopy (SERS) for a novel solution phase detection of Hg ²⁺ ions in spiked cosmetic (skin whitening) samples by using 2,5-Dimercapto-1,3,4-thiadiazole (DMcT) functionalized silver shelled iron oxide (Fe ₃ O ₄ @Ag-DMcT) nanoparticles (NPs). Fe ₃ O ₄ @Ag NPs are the magneto-plasmonic SERS enhancers, and DMcT work as the Hg ²⁺ reporter. The samples mixed with the SERS probe were sealed in a capillary tube and placed on a magnet under the Raman spectroscope. Unknown samples spiked with low (10-M), and high (10-4M) concentrations of Hg ²⁺ could be successfully detected with ~ 35 %, and 14.6 % error in measured intensities, respectively. We estimate a limit of detection (LoD) for Hg ²⁺ in real cosmetic sample as 1 nM (~0.2 ppb).
生物醫學暨工程學院	生物醫學工程學系	鍾次文	第一作者	Developing photothermal-responsive and anti-oxidative silk/dopamine nanoparticles decorated with drugs which were incorporated into silk films as a depot-based drug delivery	International J. Biological Macromolecules	2021/06	6.953	6.82% (6/88)	1. 首創並製備出具熱感應及抗氧化之載藥的 silk/dopamine 奈米粒子及與蠶絲材料組合成具短期抗凝血之藥物儲存及控制釋放系統。 2. 載藥的 silk/dopamine 奈米粒子具高生物相容性且可由 IR 光照觸發控制其承載藥物釋放速率。 3. 應用於傷口癒合治療上具很好的潛力。