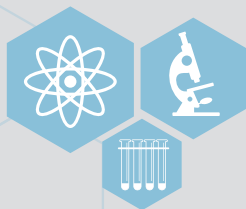


109外科癌症臨床試驗

計畫主持人訓練課程

Surgical Oncology Clinical Trial Investigator Training Courses



議程手冊

2020

10/24 六

台北馬偕紀念醫院平安樓15樓階梯講堂
台北市中山區中山北路二段92號



中華民國癌症醫學會
Taiwan Oncology Society

MEMO



中華民國癌症醫學會
Taiwan Oncology Society

109外科癌症臨床試驗 計畫主持人訓練課程

Surgical Oncology Clinical Trial Investigator Training Courses

2020

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台北馬偕紀念醫院
平安樓15樓階梯講堂
台北市中山區中山北路二段92號

Time	Topic	Instructor
08:30-09:00	Registration	
09:00-09:10	Opening Remarks	陳立宗 理事長 中華民國癌症醫學會
09:10-09:50	Surgical Oncologist in the Era of Precision Oncology	查岱龍 校長 國防醫學院
09:50-10:30	Innovative Cancer Research Network—Surgeon's Role	沈延盛 院長 成功大學醫學院
10:30-10:45	Break	
10:45-11:25	IRB and Human Research-related Regulation	王志嘉 理事長 台灣醫事法律學會
11:25-12:05	由GCP查核談臨床試驗主持人的職責	王正旭 董事長 財團法人癌症希望基金會
12:05-13:10	Lunch	
13:10-13:50	Statistical Design and Analysis on Early Clinical Trials	簡戊鑑 博士 三軍總醫院醫學研究室
13:50-14:30	Explore novel predictive markers for response to guide immune-directed therapy for gastrointestinal cancers: Integrating bioinformatics, molecular biological and clinicopathological research	葉俊男 主任 林口長庚紀念醫院外科部
14:30-14:45	Break	
14:45-15:25	Taiwan Biobank: current status and future perspectives for surgeons in investigation	梁啟銘 客座特聘講座 中研院臺灣人體生物資料庫
15:25-16:05	AI在醫學領域與臨床試驗的應用：以人工智慧來探究生命奧秘	林仲彥 研究員 中研院資訊科學研究所
16:05-16:30	Closing	葉大森 理事長 台灣外科醫學會

主辦單位：



中華民國癌症醫學會



台灣外科醫學會



國家衛生研究院癌症研究所



馬偕紀念醫院人體研究倫理審查委員會

繼續教育積分（預計申請）：

中華民國癌症醫學會A類、腫外學員訓練學分、研究倫理課程時數、台灣外科醫學會、台灣醫學會西醫師、台灣消化系外科醫學會、中華民國大腸直腸外科醫學會、台灣肝癌醫學會、台灣乳房醫學會、公務人員終身學習時數、台灣胸腔及心臟血管外科學會、台灣內視鏡外科醫學會

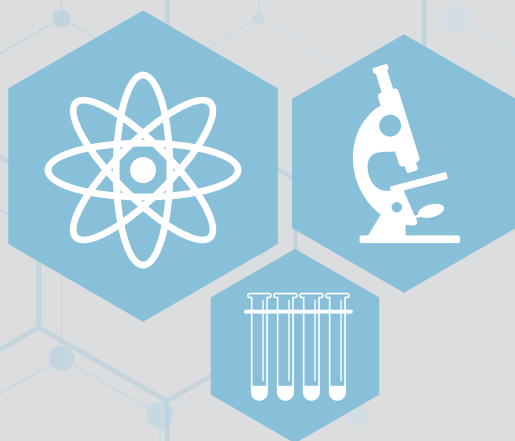
計畫主持人訓練課程

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109外科癌症臨床試驗

計畫主持人訓練課程

Surgical Oncology Clinical Trial Investigator Training Courses



09:10-09:50

Surgical Oncologist in the Era of Precision Oncology

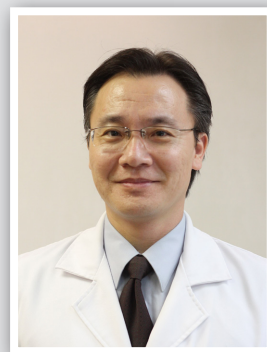
Instructor: 查岱龍 校長
國防醫學院

查岱龍

現在住址：(100) 北市中正區富水里9鄰汀州路三段34號3樓

電話號碼：(O) 02-87923157

傳真號碼：(O) 02-87923177



學歷：

國防醫學院醫學系畢業〔1983/7-1990/8〕

美國德州大學安德森癌症中心(分子細胞腫瘤學系博士)〔2000/8-2005/8〕

經歷：

- 三軍總醫院外科部住院醫師〔1992年8月－1997年6月〕
- 三軍總醫院外科部住院總醫師〔1997年7月－1998年7月〕
- 三軍總醫院外科部主治醫師〔1998年8月－2000年7月〕
- 美國德州大學安德森癌症中心(分子細胞腫瘤學系博士)〔2000年8月－2005年8月〕
- 三軍總醫院外科部泌尿外科陸軍中校〔2005年8月14日生效〕
- 三軍總醫院外科部泌尿外科教育訓練官〔2006年1月－2006年7月〕
- 95年度第33屆國軍軍醫學術研討會現場論文分組審查委員
- 國防醫學院醫學系骨科學科教師〔2006年11月16日生效〕
- 國防醫學院外科學科助理教授〔2006年11月－2009年8月〕
- 民診處任務編組33病房主任〔2006年8月6日-2009年2月29日〕
- 國防部核定國防醫學院外科學科中校教師兼任三軍總醫院泌尿外科主任〔2010年5月1日〕
- 國防部核定國防醫學院外科學科上校教師兼任三總泌尿外科主任〔2010年8月1日〕
- 國防部核定國防醫學院外科學科上校教師外科部主任〔2016年1月16日〕
- 三軍總醫院教學副院長暨國防醫學院醫學系系主任〔2016年8月1日〕
- 國防醫學院副院長兼三軍總醫院執行官暨國防醫學院醫學系系主任〔2017年8月1日-2018年3月31日〕
- 後勤指揮部軍醫處少將處長〔2018年4月1日任職 7月1日授階〕
- 國防醫學院少將院長〔2019年6月1日任職至今〕

專長：

腫瘤學、泌尿生殖、泌尿科學

歷年勳獎：

- 研究論著榮登Science獎 (2005/11/11)
- 95年度優良軍醫 (2006/11/24)
- 優良研究論著個人績效獎 (2006/11/24)
- 男性醫學會論文獎 第一名 (2006/3)
- 國際外科醫學會研究論文 第一名 (2006/1)
- 94-98年度台灣癌症基金會「獎助醫療機構之醫事人員從事臨床研究」獎助醫師
- 榮獲97年度【台灣泌尿科醫學會雜誌論文團體第3名】
- 榮獲98年度【台灣泌尿科醫學會雜誌論文團體第1名】
- 榮獲98年度第16屆台灣泌尿科醫學會主辦-默沙東研究論文獎-基礎組
- 榮獲本院98年度優良軍醫
- 擔任98年度「第36屆國軍軍醫學術研討會」現場論文展示評審委員
- 榮獲99年度醫師節暨軍醫大會「優良論著第五名」
- 榮獲國軍100年優良醫護人員
- 榮獲101年國防醫學院優良導師
- 榮獲105年第13屆國家新創獎(學研新創類)
- 榮獲106年醫師公會杏林獎

著作：

A. 期刊論文

PUBLICATION

1. Hou TY, Chen MR, Chou YC, Kan PC, Tsai YT, **Cha TL**. **Impact of Enhancer of Zeste Homolog 2 on T Helper Cell-Mediated Allergic Rhinitis**. Front Immunol. 2017 Jul 10;8:790.
2. Xiang-Me Lai, Shu-Yu Liu, Yi-Ta Tsai, Guang-Huan Sun, Sun-Yran Chang, Shih-Ming Huang and **Tai-Lung Cha**. **HAF mediates the evasive resistance of anti-angiogenesis TKI through disrupting HIF-1 α and HIF-2 α balance in renal cell carcinoma**. Oncotarget, Advance Publications 2017. Oncotarget SCI: 5.168(44 / 217)
3. Tsai CH, Tzeng SF, Chao TK, Tsai CY, Yang YC, Lee MT, Hwang JJ, Chou YC, Tsai MH, **Cha TL**, Hsiao PW. **Metastatic Progression of Prostate Cancer Is Mediated by Autonomous Binding of Galectin-4-O-Glycan to Cancer Cells**. Cancer Res. 2016 Oct 1;76(19):5756-5767. SCI:9.122

4. 專利名稱: 用於治療癌症之醫藥組合物、其方法及篩選藥物之生物標記。發明人:查岱龍等五人證書號碼: US 9,393,234 B2 國別:美國。專利期限:2016年7月19日至2033年5月27日止
5. 專利名稱: 用於治療癌症之醫藥組合物、其方法及篩選藥物之生物標記。發明人:查岱龍等五人證書號碼:I510239號 國別:中華民國。專利期限:2015年12月1日至2033年5月27日止
6. Chin-Yu Liu, Yu-Ching Chou, Jane C. -J. Chao, Chien-Yeh Hsu, **Tai-Lung Cha**, Chih-Wei Tsao. **The Association between Dietary Patterns and Semen Quality in a General Asian Population of 7282 Males.** PLOS ONE .July 28, 2015(IF:3.234, R/C: 8/55)
7. Chin-Li Chen, Chin-Yu Liu , **Tai-Lung Cha**, Chien-Yeh Hsu, Yu-Ching Chou, Sheng-Tang Wu, En Meng, Guang-Huan Sun, Dah-Shyong Yu, Chih-Wei Tsao. **Does radical cystectomy outperform other bladder preservative treatments in elderly patients with advanced bladder cancer?** The Journal of medical association(IF: 0.845, R/C: 96/156)
8. Yi-Ta Tsai, Mei-Jen Chuang, Shou-Hung Tang, Sheng-Tang Wu, Yu-Chi Chen, Guang-Huan Sun1, Pei-Wen Hsia, Shih-Ming Huang, Hwei-Jen Lee,Cheng-Ping Yu, Jar-Yi Ho, Hui-Kuan Lin, Ming-Rong Chen, Chung-Chih, Lin, Sun-Yran Chang, Victor C. Lin, Dah-Shyong Yu and **Tai-Lung Cha**. **Novel Cancer Therapeutics with Allosteric Modulation of The Mitochondrial C-Raf/DAPK Complex by Raf Inhibitor Combination Therapy.** Cancer Research 2015 (IF=9.329, R/C=11/211)
9. **Tai-Lung Cha**, Mei-Jen Chuang, Shou-Hung Tang, Sheng-Tang Wu, Kuang-Hui Sun,Tzu-Ting Chen, Guang-Huan Sun, Sun-Yran Chang, Cheng-Ping Yu, Jar-Yi Ho, Shu-Yu Liu,Shih-Ming Huang and Dah-Shyong Yu. **Emodin Modulates Epigenetic Modifications and Suppresses Bladder Carcinoma Cell Gr** .MOLECULAR CARCINOGENESIS 54:167–177 (2015) (IF=4.770, R/C=62/291)
10. Chih-Wei Tsao, Chin-Yu Liu, Yu-Ching Chou, **Tai-Lung Cha**, Shih-Chang Chen, Chien-Yeh Hsu. **Exploration of the Association between Obesity and Semen Quality in a 7630 Male Population.** PLOS ONE. March 30, 2015 (IF=3.534, R/C=8/55)
11. HSIN CHUNG LIN, HERNG SHENG LEE, TZONG SHI CHIUH, YU CHIEH LIN, HSIN AN LIN, YU CHUN LIN, **TAI LUNG CHA** and EN MENG. **Histopathological assessment of inflammation and expression of inflammatory markers in patients with ketamine-induced cystitis.** MOLECULAR MEDICINE REPORTS 11: 2421-2428, 2015(IF=1.484, R/C=86/124)
12. Chih-Wei Tsao , Ching-Yu Liu, **Tai-Lung Cha** , Sheng-Tang Wu , Guang-Huan Sun, Dah-Shyong Yu, Hong-I Chen, Sun-Yran Chang, Shih-Chang Chen , Chien-Yeh Hsu. **Artificial neural network for predicting pathological stage of clinically localized prostate cancer in a Taiwanese population.** Journal of medical association 77(2014)513-518. (IF=1.172,R/C=5/7)



13. C.-W. Tsao, C.-Y. Liu, **T.-L. Cha**, S.-T. Wu, S.-C. Chen & C.-Y. Hsu. **Exploration of the association between chronic periodontal disease and erectile dysfunction from a population-based view point.** Andrologia 2014, xx, 1–6(IF=1.172,R/C=5/7)
14. Shou-Hung Tang, Hsu-Shan Huang, Hong-Ui Wu, Yi-Ta Tsai, Mei-Jen Chuang, Cheng-Ping Yu, Shih-Ming Huang, Guang-Huan Sun, Sun-Yran Chang, Pei-Wen Hsiao, Dah-Shyong Yu, and **Tai-Lung Cha**. **Pharmacologic Down-regulation of EZH2 Suppresses Bladder Cancer in vitro and in vivo .** Oncotarget, Advance Publications 2014(SCI:6.627),

Surgical Oncologist in the Era of Precision Oncology

Tai-Lung Cha, MD, Ph.D.

Division of Urology, Department of Surgery

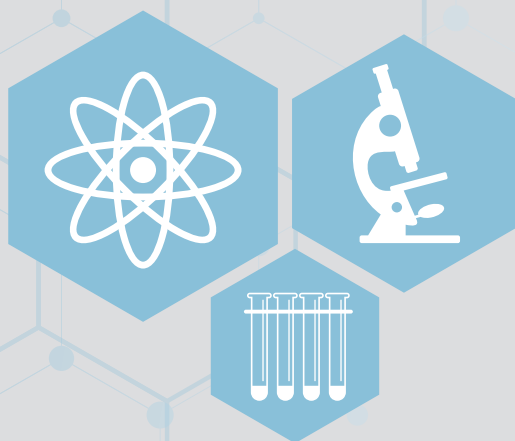
Tri-Service General Hospital, National Defense Medical Center

Cancer is a major burden of disease worldwide. Each year, tens of millions of people are diagnosed with cancer around the world, and more than half of the patients eventually die from it. Although surgery is the only way to eradicate the devastating disease in early stage, yet certain portions of localized cancer eventually progress to metastases with being unable to access surgical treatment for life-threatening and disabling conditions. In addition, emergence of the heterogeneity of cancer leads to individual approach toward precision cancer medicine. Precision medicine is a phrase that is often used to describe how genetic or epigenetic information about a person's disease is being used to diagnose or treat their disease. Instead of a "one size fits all" approach, precision medicine drills down to the tiniest of details when it comes to examining molecular and genomic information. The aim is to identify changes and patterns in individual cancers that may influence therapeutic outcomes. This form of research can yield treatment options for those patients whose cancer is not responding favorably to standard therapy. Surgery does not deal with the basic molecular foundation of disease. It is a mechanical approach to a biologic problem. Looking beyond surgery alternate ways to cancer are emerging, and we, as surgeons, providers of health care, must more fully recognize and understand the molecular mechanisms involved in cancer metastasis biology in dealing with our cancer patients. Cancer metastasis is an evolutionary process. However, whether general mediator involved in cancer metastasis remains unknown. By using genome-wide gene expression databases, clinical outcomes, multiple animal models and multiple cancer cell lines, we have identified a novel G protein-coupled receptor, Meta1 with its ligand (LigZ) and interacting protein X to mediate cancer metastasis evolution of multiple cancer types. Meta1 activates downstream G α q-Rho signaling pathway to enhance invasion phenotypes *in vitro* and metastases *in vivo*. We also elucidate the fundamental molecular mechanisms how cancer cell evolves from paracrine to autocrine signaling regulation through the expression of Meta1, its ligand and interacting protein.

109外科癌症臨床試驗

計畫主持人訓練課程

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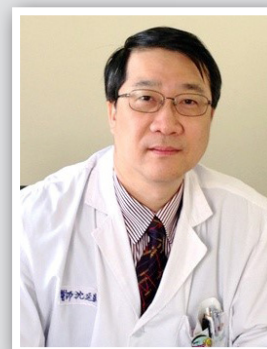
09:50-10:30

Innovative Cancer Research Network— Surgeon's Role

Instructor: 沈延盛 院長
成功大學醫學院

Yan-Shen Shan, M.D., Ph.D.

沈延盛



Office Address: Room 6016, 6F, No. 138, Sheng-Li Road,
Tainan 70403, Taiwan

Tel: 886-6-2353535 ext 3105

E-mail: yssshan@mail.ncku.edu.tw

Specialty (專長) and Study Field: Gastrointestinal Medicine, Surgical Oncology,
Cancer biology (tumor microenvironment),
Regeneration medicine (liver and pancreas regeneration),
Traumatology, Surgical nutrition and infection.

Current Position

- 2019.08- Dean, College of Medicine, National Cheng Kung University (NCKU)
- 2016.08- Distinguished Professor, Institute of Clinical Medicine, NCKU
- 2016.08- Distinguished Professor, Department of Surgery, NCKU

Education

- 2006.11-2007.08 Visiting Scholar of University of Pennsylvania, USA
- 1998.09-2004.06 Ph.D., Clinical Medicine, National Cheng Kung University
- 1988.09-1993.06 M.D., School of Medicine, National Cheng Kung University
- 1981.09-1985.06 B.D., Department of Rehabilitation Medicine, National Taiwan University

Research and Professional Experiences

- 2019.07- Convener of pancreatic cancer, Ministry of Health and Welfare Phase III Cancer Research Grant
- 2017.08-2019.07 Chief, Institute of Clinical Medicine, NCKU
- 2016.08-2019.07 Director, Department of Clinical Medical Research, NCKUH
- 2012.08-2016.07 Professor, Institute of Clinical Medicine, NCKU
- 2012.08-2016.07 Professor, Department of Surgery, NCKU
- 2010.08-2016.06 Chief of Division of Trauma, Department of Surgery, NCKUH



- 2010.10-2018.07 Convener of UGI Cancer, NCKUH
2010.08-2012.07 Associate professor, Institute of Clinical Medicine, NCKU
2008.08-2012.07 Clinical Associate professor, Department of Surgery, NCKU
2002.08-2008.07 Clinical Assistant professor, Department of Surgery, NCKU
1998.08- Visiting Surgeon, Department of Surgery, National Cheng Kung University Hospital (NCKUH)

Professional Membership (Active)

1. Asian-Oceanic Pancreatic Association (AOPA) (member of a council)
2. Formosan Association of Surgery
3. Taiwan Surgical Society of Gastroenterology (member of a council)
4. Taiwan Pancreas Society (member of a council)
5. Taiwan Society of Endoscopic Surgery
6. Taiwan Neuroendocrine Tumor Society (TNET, member of a council)
7. 中華民國癌症醫學會
8. 腫瘤外科專科醫師及指導醫師
9. 台灣代謝及減重外科醫學會
10. The American Society of Clinical Oncology

Awards and Honors (after 2015)

- 2019 Annual conference of American 2019 Academic Surgical Congress (ASC), Invited Representative Speaker of Taiwan Surgery Society (AAS international guest), Houston USA (受台灣外科醫學會推薦，為美國外科醫學會受邀發表學術演講)
- 2019 IGCC invited moderator, Prague, Czech Republic
- 2019 APHPBA Invited speaker and moderator. Seoul Korea
- 2019 WCGH, invited Keynote Speaker and Moderator, London UK
- 2018-2019 Invited speaker and moderator of TDDW, Taiwan
- 2017-2019 The best teacher for PGY resident in NCKUH. (成大醫院PGY最佳指導老師獎)
- 2017-2019 Organizer of Surgical Oncology Section in Annual Surgical Meeting
- 2003-2019 Speaker and moderator of Annual Meeting in Taiwan Surgical Society, Pancreas Society, Gastrointestinal Surgical Society
- 2018 Outstanding cancer research award, 中華民國癌症醫學會徐千田傑出研究獎, Taiwan
- 2018 The best post award, 2018 Pancreas, Baltimore, Maryland.

- 2018 Post award, 中華民國癌症醫學會annual meeting, Taiwan.
- 2018 The Best Paper Award of Cheng-Hsing Medical Foundation, Taiwan.
- 2018 The 2016 annual best paper of clinical medicine, College of Medicine, NCKU.
- 2018 Keynote Speaker, Cell Signal conference in Philadelphia, USA
- 2018 Invited speaker of JPS
- 2017 The Best Paper Award of International College of Surgeons (2017), 1st.
- 2017 Invited speaker of Wakayama University, Japan
- 2016 Invited speaker and moderator of JPS/AOPA/APS
- 2015 Invited speaker of EAES
- 2015 Invited speaker of JPS

Selected Publications (more than 160 papers, selected since 2011)

Book

Ying-Jui Chao, **Yan-Shen Shan***. Laparoscopic Pancreaticoduodenectomy. *Innovation and diagnosis for pancreatic cancer*. Hiroki Yamaue (ed.), Chap 10; page: 129-145. Springer Singapore 2017.

Papers

1. Nai-Jung Chiang, Kelvin K. Tsai, Chin-Fu Hsiao, Shih-Hung Yang, Hui-Hua Hsiao, Wen-Chi Shen, Chiun Hsu, Yu-Lin Lin, Jen-Shi Chen, **Yan-Shen Shan***, Li-Tzong Chen*. A multicenter, phase I/II trial of biweekly S-1, leucovorin, oxaliplatin and gemcitabine in metastatic pancreatic adenocarcinoma-TCOG T1211 study. *European Journal of Cancer* 2020 Jan;124: 123-130. (IF: 6.700)
2. Shan YS, Chen LT, Wu JS, Chang YF, Lee CT, Wu CH, Chiang NJ, Huang HE, Yen CJ, Chao YJ, Tsai HJ, Chen CY, Kang JW, Kuo CF, Tsai CR, Weng YL, Yang HC, Liu HC, Chang JS. Validation of Genome-Wide Association Study-Identified Single Nucleotide Polymorphisms in a Case-Control Study of Pancreatic Cancer From Taiwan. *J Biomed Sci.* 2020 May 26;27(1):69. (IF:5.732)
3. Priya Gopinathan, Nai-Jung Chiang, Shin-Ren Huang, Anirban Sinha, Wen-Yen Huang, Shang-Cheng Hung, **Yan-Shen Shan***, and Gwo-Bin Lee. Exploring circulating tumor cells in cholangiocarcinoma using a novel glycosaminoglycan probe on a microfluidic platform. *Advanced Healthcare Materials* 2020 May;9(10):e1901875. (IF: 6.27)
4. Li-Yun Ding, Ya-Chin Hou, I-Ying Kuo, Ting-Yi Hsu, Tsung-Ching Tsai, Hsiu-Wei Chang, Wei-Yu Hsu, Chih-Chieh Tsao, Chung-Chen Tian, Po-Shun Wang, Hao-Chen Wang,

- Chung-Ta Lee, Yi-Ching Wang, Sheng-Hsiang Lin, Michael Warren Hughes, Woei-Jer Chuang, Pei-Jung Frank Lu, **Yan-Shen Shan***, Po-Hsien Joseph Huang*. Epigenetic silencing of AATK in acinar to ductal metaplasia in murine model of pancreatic cancer. *Clinical Epigenetics* 2020 Jun 17;12(1):87. (IF: 5.430)
5. Nai-Jung Chiang, Ming-Huang Chen, Shih-Hung Yang, Chiun Hsu, Chia-Jui Yen, Hsiao-Hui Tsou, Jen-Shi Chen*, **Yan-Shen Shan***, Li-Tzong Chen*. A Multicenter, Phase II Study of Gemcitabine and S-1 in Patients with Advanced Biliary Tract Cancer: TCOG T1308 Study. *Liver International* 2020 May 28. doi: 10.1111/liv.14538. (IF: 5.175)
 6. Ya-Chin Hou, Ying-Jui Chao, Min-Hua Hsieh, Hui-Ling Tung, Hao-Chen Wang, **Yan-Shen Shan***. Low CD8⁺ T Cells Infiltration and High PD-L1 Expression Are Associated with Level of CD44⁺/CD133⁺ Cancer Stem Cells and Predict an Unfavorable Prognosis in Pancreatic Cancer. *Cancers*. 2019 Apr 15; 11(4). pii: 541; doi:10.3390/cancers11040541.(IF:6.1)
 7. Hao-Chen Wang, Chin-Wang Chen, Chia-Lung Yang, I-Min Tsai, Ya-Chin Hou, Chang-Jung Chen, **Yan-Shen Shan***. Tumor-Associated Macrophages Promote Epigenetic Silencing of Gelsolin through DNA Methyltransferase 1 in Gastric Cancer Cells. *Cancer Immunol Res*. 2017, Oct; 5(10):885-897. (IF: 8.728)
 8. Po-Hsien Huang*, Pei-Jung Lu, Li-Yun Ding, Po-Chen Chu, Chih-Chieh Tsao, Wei-Yu Hsu, Bo-Heng Chen, Pei-Rong Gu, Chung-Ta Li, *OSU-NCKU pancreatic cancer study group*, Sally E. Henderson, Samuel, K. Kulp, **Yan-Shen Shan***, Ching-Shih Chen*. TGF β promotes mesenchymal phenotype of pancreatic cancer cells, in part, through epigenetic activation of VAV1. *Oncogene* 2017 Apr 20; 36(16):2202-2214. (IF: 7.971)
 9. Hao-Chen Wang, Tzu-Ying Li, Ying-Jui Chao, Ya-Chin Hou, Yuan-Shuo Hsueh, Kai-Hsi Hsu, **Yan-Shen Shan***. KIT exon 11 codons 557-558 deletion mutation promotes liver metastasis through the CXCL12/CXCR4 axis in gastrointestinal stromal tumors. *Clin Cancer Res*. 2016 Jul 15; 22(14): 3477-87. (IF: 10.107)
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Innovative Cancer Research Network—Surgeon's Role

Yan-Shen Shan 沈延盛 教授
成大醫院外科部

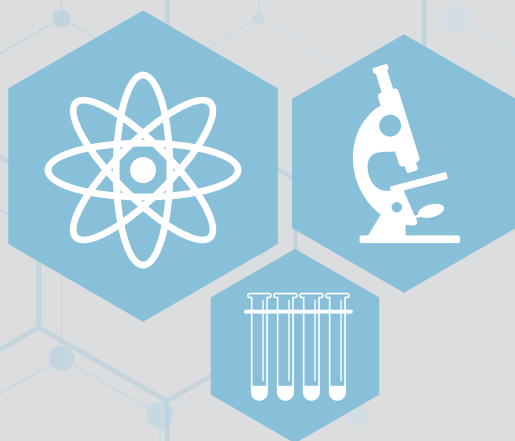
Surgeon's role is forced to changing as medicine progress. Initially, surgical resection of malignancy is the mainstay of treatment after advocated by Halstead. As the progress of chemotherapy, neoadjuvant therapy combined surgical approach in advanced disease and postoperative adjuvant therapy was developed in management of breast and colorectal cancers. This idea spreads to different surgeons gradually. Now, in the era of immunotherapy/target therapy and genomic medicine, the concept of innovative cancer research network was proposed and team work is necessary to improve patient survival. Therefore, the new role of surgeon in the innovative cancer research network should be changed. In this presentation, I will discuss the new surgeon's role in the different working place and essential ability the surgeon should have.

MEMO

109外科癌症臨床試驗

計畫主持人訓練課程

Surgical Oncology Clinical Trial Investigator Training Courses



10:45-11:25

IRB and Human Research-related Regulation

Instructor: 王志嘉 理事長
台灣醫事法律學會

Wang Chih-Chia, MD, LLM, PhD

王志嘉

家庭暨社區醫學部主治醫師



現職

三軍總醫院家庭暨社區醫學部主治醫師、教學型主治醫師

國防醫學院醫學系副教授兼醫學人文教育中心主任

三軍總醫院IRB委員兼行政管理中心主任、審議會第三分組主席

台灣醫事法律學會(TSLM)理事長

台灣醫病和諧推廣協會(TAHM)常務理事

教育部性別平等師資人才庫師資 - 實務領域師資

勞動部勞資爭議仲裁委員

【醫療爭議處理相關】

衛生福利部生產事故救濟審議會委員

衛生福利部醫糾鑑定初鑑醫師、種子師資、醫審會專家

台北市衛生局醫療爭議調處小組委員、醫師懲戒委員會委員

桃園市衛生局醫審會委員(至2018年止)、醫師懲戒委員會委員

台北地院、桃園地院、台灣高等法院調解委員

台北市醫師公會醫療糾紛委員會委員兼副召集委員

三軍總醫院院外醫鑑定小組委員、醫療爭議關懷小組委員

學歷

東吳大學法律研究所刑法組 法學博士

東吳大學法律研究所碩士

台灣大學醫學士

專長

家庭醫學專科醫師、安寧緩和醫學專科醫師

醫學倫理、醫療法律、性別與健康、醫學人文教育

家庭醫學、預防性健康照護、社區醫學

長期照護、安寧療護



IRB and Human Research-related Regulations

Wang Chih-Chia, MD, LLM, PhD (王志嘉)

Family Medicine, Tri-Service General Hospital, National Defense Medical Center

本節演講，將介紹研究倫理常見的法規與相關適用，並介紹IRB的審查實務，預計大綱如下，演講內容，詳見簡報檔案。

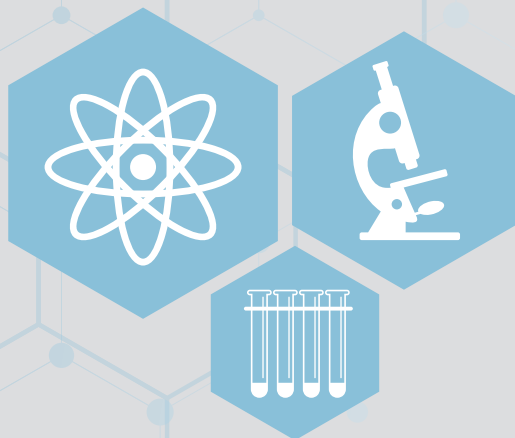
- 研究的屬性(定位)與法規適用——人體研究、人體試驗、臨床試驗的倫理與法律異同
- 研究倫理審查階段的倫理與法規
- 研究倫理執行階段的倫理與法規
- IRB審查實務與經驗分享
- 相關爭議案件與法律責任

MEMO

109外科癌症臨床試驗

計畫主持人訓練課程

Surgical Oncology Clinical Trial Investigator Training Courses



11:25-12:05

由GCP查核談臨床試驗 主持人的職責

Instructor: 王正旭 董事長
財團法人癌症希望基金會

王正旭 醫師

學歷

國立陽明大學公共衛生研究所 博士

中國醫藥學院醫學系 學士

現職

長庚醫療財團法人長庚紀念醫院 教授

財團法人癌症希望基金會 董事長

基隆市醫師公會 理事長

經歷

長庚醫療財團法人基隆長庚紀念醫院醫學教育委員會 主席

長庚醫療財團法人基隆長庚紀念醫院內科部 部長

長庚醫療財團法人基隆長庚紀念醫院癌症中心 主任

長庚醫療財團法人基隆長庚紀念醫院血液腫瘤科 主任

長庚醫療財團法人基隆長庚紀念醫院臨床試驗中心 主任

榮譽

榮獲「第五屆國家公益獎團體獎」

癌症防治績優醫院暨醫師表揚，榮獲「卓越人員貢獻獎」

榮獲「105年度優秀器官勸募人員」

榮獲「醫療典範獎」



由GCP查核談臨床試驗主持人的職責

王正旭醫師

基隆長庚醫院血液腫瘤科教授
前長庚醫療機構IRB醫療執行祕書
癌症希望基金會董事長

臺灣實施GCP查核作業始於1997年7月1日，主要目的在於確保藥品臨床試驗品質與試驗結果的可信度，進而保障受試者之權利、安全及福祉。透過建立嚴謹的GCP查核制度，尤其對於國內參與供查驗登記用藥品全球臨床試驗，具有重大意義。

國際間GCP查核的類型和啟動模式不完全相同，但常見為常規性(Routine)查核和機動性(For Cause)查核。常規性查核有試驗機構普查，或是依據特定條件查核，如隨機選定樞紐性試驗計畫或試驗中心來進行查核。機動性查核則是因試驗執行偏差，或與試驗執行過程或單一試驗中心有顯著之關聯而啟動。

常規查核機構選擇的面向包括：(1)安全性考量，如死亡及受試者退出之數目、不良反應事件(AE/SAE)之通報；(2)療效考量，如受試者收納人數最多，對試驗結果具決定性影響；(3)科學性不當行為，如數據造假可能性、試驗偏差或偏離或違反的通報數目等。

一般而言，臨床試驗主持人的職責包括：(1)確保有足夠之資源(人員、時間、設施)執行研究及受試者保護工作；(2)對所屬研究人員做適當之分工、授權與監督；(3)監督研究計畫之實施；(4)依人體試驗倫理委員會核可之計畫書實施研究；(5)維護受試者之隱私個資保密；(6)依規定向人體試驗倫理委員會、研究委託者或主管機構通報不良事件或非預期問題；(7)依規定向人體試驗倫理委員會申報財務利益；(8)依規定完成教育訓練；(9)遵守倫理規範、法令規定等。

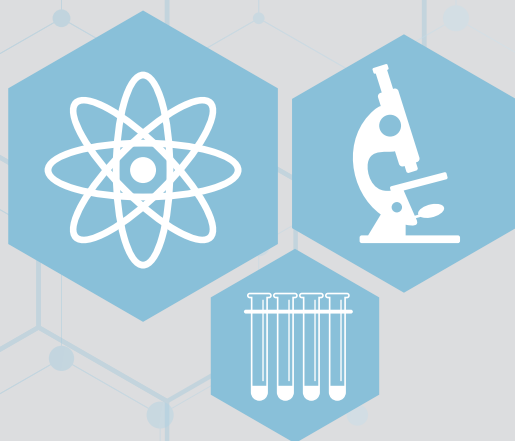
臨床試驗之執行有賴試驗主持人及其團隊、CRO、試驗監測人員及試驗機構內含IRB等單位的多方合作與監督，當主管機關進行查核時，將逐一檢視臨床試驗主持人之職責，若出現缺失，則須確認責任歸屬，以為懲處之依據。總之，臨床試驗主持人必須善盡職責，才能順利完成GCP查核。

MEMO

109外科癌症臨床試驗

計畫主持人訓練課程

Surgical Oncology Clinical Trial Investigator Training Courses



13:10-13:50

Statistical Design and Analysis on Early Clinical Trials

Instructor: 簡戊鑑 博士
三軍總醫院醫學研究室

Wu-Chien Chien

簡戊鑑 博士



現職

三軍總醫院系統分析師(研究員)

三軍總醫院資料分析管理中心(兼任主任)

國防醫學院生命科學研究所合聘教師(副教授)

國防醫學院公共衛生學系暨研究所兼任副教授

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學歷

美國Johns Hopkins大學公共衛生學院訪問學者(2008年5月-2008年8月)

國防醫學院生命科學研究所博士 (2000年7月-2004年6月)

國立台灣大學醫院管理碩士學分班 (1999年2月-2000年6月)

國防醫學院公共衛生學研究所碩士 (1992年8月-1994年7月)

國防醫學院公共衛生學士 (1984年8月-1988年7月)

主要經歷

三軍總醫院醫學研究室(2015年1月--迄今)

國防部軍醫局 (2014年3月-2015年12月)

臺北市政府衛生局(疾病管制處) (2012年8月-2014年2月)

國防醫學院公共衛生學系助理教授、副教授 (2007年7月-2012年7月)

陸軍及聯勤所屬單位軍醫幹部、馬祖野戰醫院院長 (1988年7月-2007年6月)

學術論文著作 (簡戊鑑 Chien WC)

1. Huang CC, Huang CC, Lin SY, Chang Cherry YY, Lin WC, Chung CH, Lin FH, Tsao CH, Lo CM, Chien WC* (2020) Association between Hypertensive Pregnancy Disorders and Future Risk of Stroke in Taiwan: A Nationwide Population-based Retrospective Case-control Study. *BMC Pregnancy and Childbirth*, 2020, 20:217: 1-10. DOI: 10.1186/s12884-020-02898-9. (SCI IF=2.413, Obstetric & Gynecology 38/83=36.14%)
2. Lee KC, Wu YT, Chen LC, She CH, Chung CH, Chien WC*, Shieh YS* (2019) Should surgery be offered for the first episode of primary spontaneous pneumothorax: A

Nationwide Population-based Cohort Study. *Video-Assisted Thoracic Surgery*, 2019, 12(5): 5487-5496. DOI: 10.1111/nyas.14216. (SCI IF=4.295, Multidisciplinary Sciences 14/69=20.28%)

3. Hung CH, Chiang CP, Chung CH, Tsao CH, Chien WC*, Wang WM* (2019) Increased risk of cardiovascular comorbidities in hidradenitis suppurativa: A nationwide, population-based, cohort study in Taiwan. *Journal of Dermatology*, 2019, 46:867-873. DOI: 10.1111/1346-8138.15038. (SCI IF=3.377, Dermatology 14/66=21.21%)
4. Tzeng NS, Yeh HW, Chung CH, Chang HA, Kao YC, Chiang WS, Chien WC* (2019) Risk of Psychiatric Morbidity in Psychosexual Disorders in Male Patients: A Nationwide, Cohort Study in Taiwan. *American Journal of Men's Health*, 2019, 1-11. DOI: 10.1177/1557988319842985. (SCI IF=3.396, Clinical Neurology 63/197=31.97%)
5. Tzeng NS, Chung CH, Chang HA, Chang CC, Lu RB, Yeh HW, Chiang WS, Kao YC, Chang SY, Chien WC* (2019) Obstructive Sleep Apnea in Children and Adolescents and the Risk of Major Adverse Cardiovascular Events - A Nationwide Cohort Study in Taiwan. *Journal of Clinical Sleep Medicine*, 2019, 15(2):275-283. DOI: 10.5664/jcsm.7632. (SCI IF=3.396, Clinical Neurology 63/197=31.97%)
6. Lin CE, Chun CH, Chen LF, Chien WC* (2019) Does compulsory admission prevent inpatient suicide among patients with schizophrenia? A nationwide cohort study in Taiwan. *Suicide and Life-Threatening Behavior*, 2019, 49(4):966-979. DOI: 10.1111/sltb.12497. (SSCI IF=3.252, Psychiatry 31/139=22.30% ; Psychology Multidisciplinary 18/129=13.95%)
7. Tzeng NS, Chung CH, Lin FH, Yeh CB, Huang SY, Lu RB, Chang HA, Kao YC, Yeh HW, Chiang WS, Chou YC, Tsao CH, Wu YF, Chien WC* (2019) Risk of dementia of attention-deficit hyperactivity disorder adults: a nationwide, population-based cohort study in Taiwan. *Journal of Attention Disorders*, 2019, 23(9): 995-1006. (SCI IF=3.384, Psychiatry 42/142=29.58% ; SSCI IF=3.384, Psychology, Developmental 12/69=17.39% ; Psychiatry 25/139=17.98%)
8. Tzeng NS, Chang HA, Chung CH, Kao YC, Chang CC, Yeh HW, Chiang WS, Chou YC, Chang SY, Chien WC* (2018) Increased Risk of Psychiatric Disorders in Allergic Diseases: A Nationwide, Population-Based, Cohort Study. *Frontiers in Psychiatry*, 2018, 9(133):1-11. DOI: 10.3389/fpsyt.2018.00133. (SCI IF=3.432, Psychiatry 41/142=28.87% ; SSCI IF=3.432, Psychiatry 25/139=17.98%)
9. Tzeng NS, Chung CH, Liu FH, Chiang CP, Yeh CB, Huang SY, Lu RB, Chang HA, Kao YC, Yeh HW, Chiang WS, Chou YC, Tsao CH, Wu YF, Chien WC* (2018) Antiherpetic Medications and Reduced Risk of Dementia in Patients with Herpes Simplex Virus Infections -A Nationwide, Population-Based Cohort Study in Taiwan. *Neurotherapeutics*,

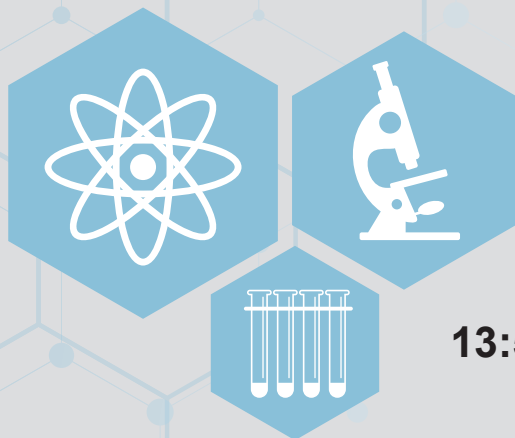
2018, 15(2):417-429. DOI: 10.1007/s13311-018-0611-x (SCI IF=5.166, Clinical Neurology 24/194=12.37% ; Neurosciences 37/259=14.28 % ; Pharmacology & Pharmacy 22/257=8.56%) (Accept)

10. Wang ID, Liu YL, Peng CK, Chung CH, Chang SY, Tsao CH, Chien WC* (2018) Non-apnoea sleep disorder increases the risk of subsequent female infertility- a nationwide population-based cohort study. *Sleep Research Society Foundation*, 2018, 41(1):1-14. DOI: 10.1093/sleep/zsx186 (SCI IF=5.135, Clinical Neurology 23/197=11.67% ; Neurosciences 43/261=16.47%)
11. Liang CS, Chung CH, Tsai CK, Chien WC* (2018) Superior anti-suicidal effects of electroconvulsive therapy in unipolar disorder and bipolar depression. *Bipolar Disorder*, 2018, 20:539-546. DOI: 10.1111/bdi.12589. (SCI IF=4.531, Clinical Neurology 30/194=15.46% ; Psychiatry 24/142=16.90%)
12. Huang YJ, Huang TW, Lin FH, Chung CH, Tsao CH, Chien WC* (2017) Radiation Therapy for Invasive Breast Cancer Increased the Risk of Second Primary Lung Cancer: A Nationwide Population-based Cohort Analysis. *Journal of Thoracic Oncology*, 2017, 12(5):782-790. DOI: 10.1016/j.jtho.2017.01.021 (SCI IF=6.595, Respiratory System: 6/59=10.16% ; Oncology: 23/217=10.59%)

109外科癌症臨床試驗

計畫主持人訓練課程

Surgical Oncology Clinical Trial Investigator Training Courses



13:50-14:30

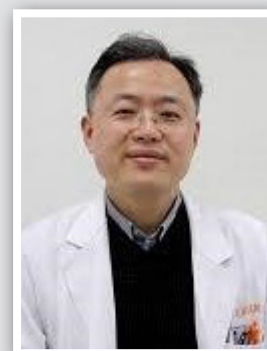
Explore novel predictive markers for response to guide immune-directed therapy for gastrointestinal cancers: Integrating bioinformatics, molecular biological and clinicopathological research

Instructor: 葉俊男 主任

林口長庚紀念醫院外科部

Chun-Nan Yeh

葉俊男



Education:

1987/9 - 1993/6 Taipei Medical College

Postgraduate education:

1993/6 - 1994/6	Intern, Department of Surgery, Chang Gung Memorial Hospital
1994/9 - 1998/7	Resident, Department of Surgery, Chang Gung Memorial Hospital
1998/8 - 1998/7	Chief resident, Department of Surgery, Chang Gung Memorial Hospital
1999/8 - now	Attending Staff, Department of Surgery, Chang Gung Memorial Hospital
2002/7 - 2004/6/30	Lecturer, Department of Surgery, Chang Gung Memorial Hospital
2003/1/1-2003/12/31	Research fellow, Department of Pathology, Johns Hopkins University, USA
2003/1/1-2003/12/31	Observer, Department of Surgery, Johns Hopkins University, USA
2004/7/1-2010/6/30	Assistant professor, Department of Surgery, Chang Gung Memorial Hospital
2010/7/01-2014/6/30	Associate professor, Department of Surgery, Chang Gung Memorial Hospital
2014/7/01-until now	Professor, Department of Surgery, Chang Gung Memorial Hospital

Bibliography:

1. Lee JC, Chen CH, Chen TC, **Yeh CN***, Yeh TS*. (Corresponding author) (2019)
Preoperative tyrosine kinase inhibitors risks bowel anastomotic healing in patients with advanced primary and recurrent/metastatic gastrointestinal stromal tumors--- A rose has its thorns. Eur J Surg Oncol. 2019 Feb;45(2):153-159
2. Chiang KC, Huang ST, Wu RC, Huang SC, Yeh TS, Chen MH, Hsu JT, Chen LW, Kuo SF, Chueh HY, Juang HH, Hung SI, **Yeh CN***, Pang JS*. (2019)
Interferon α -inducible protein 27 is an oncogene and highly expressed in cholangiocarcinoma patients with poor survival. Cancer Manag Res. 2019 Feb 28;11:1893-1905.

3. Wang SY, Wu CE, Lai CC, Chen JS, Tsai CY, Cheng CT, Yeh TS, **Yeh CN***.
Prospective Evaluation of Neoadjuvant Imatinib Use in Locally Advanced Gastrointestinal Stromal Tumors: Emphasis on the Optimal Duration of Neoadjuvant Imatinib Use, Safety, and Oncological Outcome. *Cancers (Basel)*. 2019 Mar 25;11(3). pii: E424. doi: 10.3390/cancers11030424.
4. Wu CE, Tzen CY, Wang SY, **Yeh CN***.
Clinical Diagnosis of Gastrointestinal Stromal Tumor (GIST): From the Molecular Genetic Point of View. *Cancers (Basel)*. 2019 May 16;11(5). pii: E679. doi: 10.3390/cancers11050679.
5. **Yeh CN**, Tan KT (共同第一), Chang YC, Cheng JH, Fang WL, Yeh YC, Wang YC, Hsu DS, Wu CE, Lai JI, Chang PM, Chen MH, Lu ML, Chen SJ, Chao Y, Hsiao M, Chen MH.
PRKDC: new biomarker and drug target for checkpoint blockade immunotherapy. *J Immunother Cancer*. 2020 Mar;8(1). pii: e000485. doi: 10.1136/jitc-2019-000485.
6. Wu CE, Chou WC, Hsieh CH, Chang JW, Lin CY, **Yeh CN***(共同指導), Chen JS*.
Prognostic and predictive factors for Taiwanese patients with advanced biliary tract cancer undergoing frontline chemotherapy with gemcitabine and cisplatin: a real-world experience. *BMC Cancer*. 2020 May 14;20(1):422. doi: 10.1186/s12885-020-06914-1.
7. Yi-Ru Pan, Chiao-En Wu, Yu-Chao Wang, Yi-Chen Yeh, Meng-Lun Lu, Yi-Ping Hung, Yee Chao, Da-Wei Yeh, Chien-Hsing Lin, Jason Chia-Hsun Hsieh, Ming-Huang Chen*, **Chun-Nan Yeh***.
Establishment of a novel gene panel as a biomarker of immune checkpoint inhibitor response. *Clinical & Translational Immunology* 2020; e1145. doi: 10.1002/cti2.1145.
8. Hung YL, Chen HW, Fu CY, Tsai CY, Chong SW, Wang SY*, Hsu JT, Yeh TS, **Yeh CN***(共同指導), Jan YY.
Surgical Outcomes of Patients with Maintained or Removed Percutaneous Cholecystostomy Before Intended Laparoscopic Cholecystectomy. *J Hepatobiliary Pancreat Sci*. 2020 Apr 13. doi: 10.1002/jhbp.740. [Epub ahead of print].
9. Hu CH, **Yeh CN***, Chen JS, Tsai CY, Wang SY, Cheng CT, Yeh TS.
Regorafenib treatment outcome for Taiwanese patients with metastatic gastrointestinal stromal tumors after failure of imatinib and sunitinib: A prospective, non-randomized, single-center study. *Oncology Letters* [Epub ahead of print]

Explore novel predictive markers for response to guide immune-directed therapy for gastrointestinal cancers: Integrating bioinformatics, molecular biological and clinicopathological research

Chun-Nan Yeh

Department of General Surgery,
Chang Gung Memorial Hospital and University, Taiwan

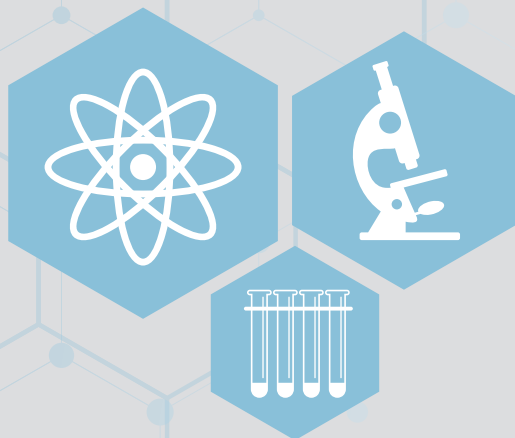
Immunologic checkpoint blockade with antibodies targeting the cytotoxic T-lymphocyte-associated protein 4 (CTLA-4) or programmed cell death protein 1 pathway (PD-1/PD-L1) have demonstrated a promising progress in a variety of malignancies. However, the treatment response rates of these immunologic checkpoint blockades are relative low (around 20%) in different cancer types. Thus, identifying predictive biomarkers for response to assist appropriate patient selection for immune-directed therapy have become a priority in both clinical and research settings. Currently, several potential biomarkers have been proposed, including mutation load, microsatellite instability (MSI) status, neoepitope load, PDL1 expression, CD8+ T cell density, and interferon gamma 6 gene signatures. Among these, only MSI status can precisely predict patients who might benefit from immunotherapy, but the incidence of MSI-H is very low (4%) in metastatic GI cancers, limiting its clinical utility.

In this presentation, I will demonstrate our team identify PRKDC (one of the DNA repair gene) is not only a predictive biomarker but also a drug target for immune checkpoint inhibitors (ICIs). Furthermore, our team establish a DNA repair gene panel as a novel and reliable tool for predicting the response to ICIs in cancer patients and guide the appropriate administration of ICIs in clinical practice. All the above work is an example of collaboration between surgeon, medical oncologist, biomedical informatics, and basic scientists.

109外科癌症臨床試驗

計畫主持人訓練課程

Surgical Oncology Clinical Trial Investigator Training Courses



14:45-15:25

Taiwan Biobank: current status and future perspectives for surgeons in investigation

Instructor: 梁啟銘 客座特聘講座
中研院臺灣人體生物資料庫

Dr. Chi-Ming Liang

梁啟銘 博士



CHRONOLOGY OF EMPLOYMENT:

2018/8/1-present	Distinguished Visiting Chair, Academia Sinica, Taiwan (中研院客座講座)
2009-2018	Distinguished Research Fellow, Genomics Research Center, Academia Sinica, Taiwan (中研院特聘研究員)
2009-2018	Chief Executive Officer, Biotechnology Incubation Center, Genomics Research Center, Academia Sinica, Taiwan (中研院育成中心執行長)
2009-2013	Director, Office of Public Affairs, Academia Sinica, Taiwan (中研院公共事務主任)
2006-2018	Adjunct Professor, National Chung Hsing University (中興大學合聘教授)
2006-2009	Distinguished Investigator & Secretary General, National Health Research Institutes, Taiwan (國家衛生研究院特聘研究員兼主任秘書及總辦事處處長)
2006-2013	Senior Advisor, President Office, Academia Sinica, Taiwan (中研院院長資深顧問)
1997-2006	Research Fellow, Institute of Biological Chemistry, Academia Sinica, Taiwan (中研院研究員)
1994-1997	Scientific Director, Assayland, Inc., Bethesda, MD 20817
1990-1994	Director of Molecular Immunology, Oncologix Inc. Gaithersburg, MD 20878
1987-1990	Acting Chief, Immunology Section, Retrovirology Branch, Division of Blood & Blood Products, FDA, Bethesda, MD
1986-1987	Senior Scientist, Biogen Research Corp. Cambridge, MA
1982-1986	Head of Immunology, Biogen S.A., Geneva, Switzerland
1980-1982	Senior Staff Fellow in the Biochemical Genetics Laboratory of Dr. Marshall Nirenberg (Nobel Laureate) at NIH

EDUCATION:

1966-1970	B.S. in Pharmacy, National Taiwan University, Taiwan
1971-1973	M.S. in Chemistry, National Taiwan University, Taiwan
1973-1977	Ph.D. in Pharmacology, University of Arkansas for Medical Sciences



HONORS:

國立臺灣大學藥學系傑出系友獎97年6月
中央研究院模範公務人員100年7月
國立彰化中學傑出校友獎 107年4 月
中華民國二等服務獎章107年11月

SERVICES:

1. 財團法人中華景康藥學基金會榮譽董事長
2. 台灣技術經理人協會前理事長
3. 國家生技醫療產業策進會理事
4. 中華民國生物產業發展協會理事
5. 財團法人亞太智慧財產權發展基金會董事
6. 台灣生技醫藥發展基金會董事
7. 社團法人台灣抗體協會常務監事
8. 台灣人體生物資料庫醫學主管

PATENTS: 30 U.S. GB, AU, CA, TW

PUBLICATIONS: 85 SCI papers

NUMBER OF CITATION:

Total number:

2460 (8 papers have been cited more than 100 times, respectively; H Index value 31):

The most cited 10 papers (times/journal, year of publication):

- | | |
|-------------------------------------|--------------------------------|
| 1. 170/ Am. J. Resp. Cell Mol. 1999 | 2. 161/Int. J. Cancer 1994 |
| 3. 135/Int. J. Cancer 1994 | 4. 133/Cancer Res 1991 |
| 5. 133/EMBO J. 1985 | 6. 126/J. Biol. Chem. 1991 |
| 7. 113/J. Immunol. 1986 | 8. 109/J. Biol. Chem. 1991 |
| 9. 80/Biochem. J. 1993 | 10. 79/Free Radical Biol. 2000 |

Taiwan Biobank: current status and future perspectives for surgeons in investigation

Chi-Ming Liang 梁啟銘

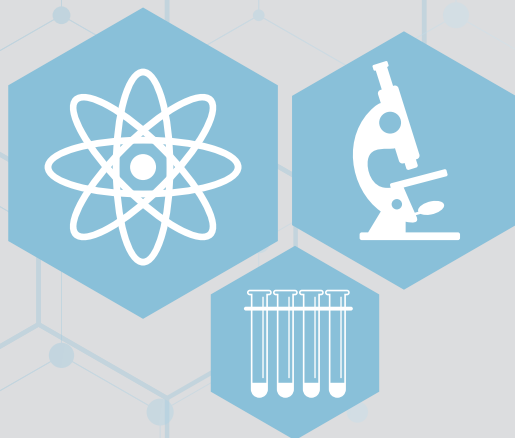
Academia Sinica 中央研究院

二十一世紀是生醫科技的時代，誰能善用生醫的發現，尤其是人體生物資料庫的大數據去取得智慧財產權，並盡速加以轉譯、推廣、開發運用、銷售上市，對全世界人類福祉、國家競爭力、生醫研發量能提升及研發人個人權益都會有很大的幫助。反之，則會事倍功半或甚至徒勞無功，而受人予取予求。我自1997年回國協助推動智慧財產權管理授權推廣至今已20多年，這個演講主要就是希望讓醫學院同仁能更進一步了解如何去取得並保護生醫相關智慧財產權來增進你們對台灣量能的貢獻。

109外科癌症臨床試驗

計畫主持人訓練課程

Surgical Oncology Clinical Trial Investigator Training Courses



15:25-16:05

AI在醫學領域與臨床試驗 的應用：以人工智慧來探 究生命奧秘

Instructor: 林仲彥 研究員
中研院資訊科學研究所

林仲彥

中央研究院資訊科學研究所 研究員(2020-)

台大生科院漁科所合聘教授&基因體學程合聘教授(2020-)

國家衛生研究院群體科學研究所合聘研究員(2020-)

日本產業技術總合研究所生命情報工學中心邀請訪問學人(2011-2012)

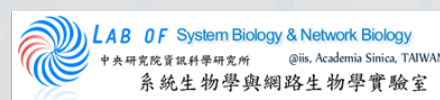
美國加州大學洛杉磯分校訪問學人(2010-2011)

高等考試水產養殖技師合格 (1991)



近期獲獎：

- 國家新創獎-學研新創獎/National Innovation Award (2018, 2019)
- 科技部未來科技突破獎/ MOST, Future Breakthrough Award (2018)
- 科技部延攬特殊優秀人才獎助(2014-2018)
- 國科會優秀年輕學者獎助(2011-2014)
- 美國微軟公司全球雲端開發計畫兩項獎助
(雲端電子記事本及全基因體甲基化雲端分析平台2011-2013)



實驗室網站：<http://eln.iis.sinica.edu.tw>

研究成果：<http://www.iis.sinica.edu.tw/pages/cylin/cindex.html>

E-mail：cylin@iis.sinica.edu.tw

畢業學校：臺灣大學動物學系學士、臺灣大學漁業科學所碩士、臺灣大學動物學博士

研究領域：基因體學、網路生物學、系統生物學及生物序列大數據演算法開發與定序分析平台建置，以深度學習(AI)來解析原有生物醫學問題

近期的研究計畫：

1. 中央研究院關鍵突破計畫-病毒現形高手：上呼吸道致病原之基因型智慧分群。中央研究院。2020-2021。
2. 建立人工智慧抗菌肽的快速鑑別及新穎設計之方法並建構線上預測平台。科技部。2020-2021。
3. 建構運用於細胞治療之多維體線上資料庫。科技部再生醫學旗艦計畫。2017-2021。
4. 運用多維體學策略來解析環境微生物與有機污染物如阻燃劑之動態降解機制。台大中研院合作計畫。2018-2020。

5. 生物資訊服務核心設施Taiwan Bioinformatics Institute (TBI, <http://www.tbi.org.tw>) --比較基因體及交互作用體學生物資訊核心) · 科技部 · 2015 - 2020。
6. 建構台灣鯛基因體育種分析整合平台以應用於抗病台灣鯛分子標誌輔助選育。行政院農委會 · 2019-2021。
7. 日本鰻人工繁殖之關鍵技術開發與整合-日本鰻人工繁殖之關鍵技術開發與整合。行政院農委會 · 2018-2020。

近期研究成果：

本研究團隊在五年(2015-2020)內共發表SCI論文21篇，除了以論文形式(Open Access Journal)發表外，也將研究成果轉化成多個網路資料庫及網站工具，以圖像化介面將研究成果推廣給生物醫學研究社群，並有多項系統被國際重要生物資訊網站所收集與推薦使用。摘錄其中七篇高影響力期刊論文如下：

1. Kun-Yang Lin, Wen-Der Wang, Chi-Hung Lin, Elham Rastegari, Yu-Han Su, Yi-Chieh Chang, Yu-Tzu Chang, Yung-Feng Liao, Haiwei Pi, Bo-Yi Yu, Shu-Hwa Chen, **Chung-Yen Lin**, Mei-Yeh Lu, Tsu-Yi Su, Fei-Yang Tzou, Chih-Chiang Chan, and Hwei-jan Hsu, "Piwi Reduction in the Aged Niche Eliminates Germline Stem Cells via Toll-GSK3 Signaling," **Nature Communications**, volume 11, pages 3147, June 2020, IF=11.88.
2. Sheng-Yao Su, I-Hsuan Lu, Wen-Chih Cheng, Wei-Chun Chung, Pao-Yang Chen, Jan-Ming Ho, Shu-Hwa Chen, Chung-Yen Lin, "An Intuitive Web-based Framework for Genome-wide DNA Methylation Analysis," **BMC Genomics**, volume 21(Suppl 3), pages 163, April 2020, Website: <http://symbiosis.iis.sinica.edu.tw/epimolas/molas.html>. 本人為通訊作者.
3. Shu-Hwa Chen, Wen-Yu Kuo, Sheng-Yao Su, Wei-Chun Chung, Jen-Ming Ho, Henry Horng-Shing Lu, **Chung-Yen Lin***. A Gene Profiling Deconvolution Approach to Estimate Immune Cell Composition from Complex Tissues. **BMC Bioinformatics**, 19:S4. May, **2018** (SCI, 10/57, Mathematical & Computational Biology). 本人為通訊作者.
4. Hsiao-Pei Lu, Po-Yu Liu, Yu-bin Wang, Ji-Fan Hsieh, Han-Chen Ho, Shiao-Wei Huang, **Chung-Yen Lin**, Chih-hao Hsieh, Hon-Tsen Yu. Functional characteristics of the flying squirrel' s cecal microbiota under a leaf-based diet, based on multiple meta-omic profiling. **Frontiers in Microbiology**, 8:2622. Jan., **2018** (SCI,26/125, MICROBIOLOGY).
5. Hangfei Qi, ..., Shu-Hua Chen, **Chung-Yen Lin**, Ting-Ting Wu, and Ren Sun, "Systematic identification of anti-interferon function on hepatitis C virus genome reveals p7 as an immune evasion protein," Proceedings of the National Academy of Sciences of the United States of America (**PNAS**), volume 114, number 8, pages 2018-2023, January **2017**. (SCI/ 9.4)

6. Sheng-Yao Su, Shu-Hwa Chen, I-Hsuan Lu, Yih-Shien Chiang, Yu-Bin Wang, Pao-Yang Chen, **Chung-Yen Lin***, "TEA: The Epigenome platform for Arabidopsis methylome study," **BMC Genomics**, volume 17(S13), pages 1027, December **2016**, Tea website: <http://tea.iis.sinica.edu.tw>, (SCI/ 4.4, BIOTECHNOLOGY & APPLIED MICROBIOLOGY/ Q1)
7. Anderson B. Mayfield, Yu-Bin Wang, Chii-Shiang Chen, Shu-Hwa Chen, and **Chung-Yen Lin***, "Dual-compartmental transcriptomic + proteomic analysis of a marine endosymbiosis exposed to environmental change," **Molecular Ecology**, volume 25, number 23, pages 5944-5958, November **2016**, The web database can be found at http://symbiont.iis.sinica.edu.tw/s_hystrix (SCI/ 5.98)



AI在醫學領域與臨床試驗的應用： 以人工智慧來探究生命奧秘

林仲彥

中央研究院資訊科學研究所
系統生物與網路生物學實驗室

本課程所涵蓋之課題如下：

1. 人工智慧簡介
2. AI協助醫學影像判讀
3. AI與醫療大數據的整合
4. 瞭解生物醫學語言的AI
5. 利用AI加速藥物開發、老藥新用與臨床試驗
6. 以AI來解析大量生物序列
7. 邁向以個人化醫學為導向的AI資料分析

MEMO





中華民國癌症學會

Taiwan Oncology Society

主辦單位：



中華民國癌症學會



台灣外科學會



國家衛生研究院癌症研究所



馬偕紀念醫院人體研究倫理審查委員會