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現任:

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學歷:

Ph.D.,Columbia University, USA (1976)

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經歷:

自 2016/05 至 2017/08	國家衛生研究院學術發展處處長
自 2011/03 至 2017/08	國家衛生研究院生醫資源中心召集人
自 2009/08 至 2017/08	國立清華大學統計學研究所兼任教授
自 2007/05 至 2011/02	國家衛生研究院生醫資源中心主任
自 2006/01 至 2017/08	國家衛生研究院生物統計與生物資訊研究組合聘研究員
自 2006/01 至 2017/08	國家衛生研究院癌症研究所研究員
自 2002/01 至 2017/08	國立中央大學數學研究所兼任教授
自 2000/09 至 2007/04	國家衛生研究院研究資源處處長
自 2000/09 至 2005/12	國家衛生研究院院長實驗室研究員
自 1989/09 至 1990/05	美國哥倫比亞大學統計系訪問教授
自 1983/08 至 1985/07	國立中央大學數學系及研究所系主任/所長
自 1982/08 至 2002/02	國立中央大學數學系及研究所教授
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Publications for the past 5 years

1. Ehret GB, Ferreira T, Chasman DI, Jackson AU, Schmidt EM, Johnson T,Thorleifsson G, Luan J, Donnelly LA, Chang IS, Chung RH, Hsiung CA, ...,Newton-Cheh C, Munroe PB. (2016). The genetics of blood pressure regulation and its target organs from association studies in 342,415 individuals . *Nature Genetics*. 48:1171-1184.
2. Machiela MJ, Zhou W, Karlins E, Sampson JN, Freedman ND, Yang Q, Hicks B,Dagnall C, Hautman C, Jacobs KB, Abnet CC, Aldrich MC, Amos C,Amundadottir LT, Arslan AA, Beane-Freeman LE, Berndt SI, Black A, Blot WJ, Bock CH, Bracci PM, Brinton LA, Bueno-de-Mesquita HB, Burdett L, Buring JE, Butler MA, Canzian F, Carreon T, Chaffee KG, Chang IS, Chatterjee N, ..., Yeager M, Chanock ST. (2016). Female chromosome X mosaicism is age-related and preferentially affects the inactivated X chromosome. *Nature Communications*. 7:Article number 11843.
3. Cheng CW, Hsiao JR, Fan CC, Lo YK, Tzen CY, Wu LW, Fang WY, Cheng AJ, Chen CH, Chang IS, Jiang SS, Chang JY, Lee AY. (2016). Loss of GDF10/BMP3b as a prognostic marker collaborates with TGFBR3 to enhance chemotherapy resistance and epithelial-mesenchymal transition in oral squamous cell carcinoma . *Molecular Carcinogenesis*. 25(3):620-629.
4. Wang Z, Seow WJ, Shiraishi K, Hsiung CA, Matsuo K, Liu J, Chen K, Yamji T, Yang Y, Chang IS, Wu C, Hong YC, Burdett L,..., Rothman N, Lan Q. (2016). Meta-analysis of genome-wide association studies identifies multiple lung cancer susceptibility loci in never-smoking Asian women . *Human Molecular Genetics*.

25(3):620-629.

5. Lin SC, Chou YT, Jiang SS, Chang J, Chung CH, Kao YR, Chang IS, Wu CW.(2016). Epigenetic Switch between SOX2 and SOX9 Regulates Cancer Cell Plasticity. *Cancer Research*. 76(23): 7036-7048.
6. Chen CH, Jiang SS, Hsieh LL, Tang R, Hsiung CA, Tsai HJ*, Chang IS*. (2016). DNA methylation identifies loci distinguishing hereditary nonpolyposis colorectal cancer without germ-line MLH1/MSH2 mutation from sporadic colorectal cancer. *Clinical and Translational Gastroenterology*. 7: Article number e208. (Co-Corresponding Author)
7. Seow WJ, Matsuo K, Hsiung CA, Shiraishi K, Song M, Kim HN, Wong MP, Hong YC, Dean Hosgood H 3rd, Wang Z, Chang IS, Ping Chung L, An SJ, Wang P, Zheng H, Yatabe Y, Zhang XC, Kim YT, Shu XO, Kim YC, Bassig BA, Chang J, Ho JC. (2017). Association between GWAS-identified lung adenocarcinoma susceptibility loci and EGFR mutations in never-smoking Asian women, and comparison with findings from Western populations. *Human Molecular Genetics*. 26(2):454-465.
8. Chang IS*, Jiang SS*, Yang JC*, Su WC, Chien LH, Hsiao CF, Lee JH, Chen CY, Chen CH, Chang GC, Wang Z, Lo FY, Chen KY, Wang WC, Chen YM, Huang MS, Tsai YH, Su YC, Hsieh WS, Shih WC, Shieh SH, Yang TY, Lan Q, Rothman N, Chen CJ, Chanock SJ, Yang PC, Hsiung CA. (2017). Genetic modifiers of progression-free survival in never-smoking lung adenocarcinoma patients treated with first-line TKIs. *American Journal of Respiratory and Critical Care Medicine*. 195(5):663-673. (*:Co-first Author)
9. Chien LH, Tseng TJ, Chen CH, Jiang HF, Tsai FY, Liu TW, Hsiung CA*, Chang IS*. (2017). Comparison of annual percentage change in breast cancer incidence rate between Taiwan and the United States—A Smoothed Lexis Diagram Approach. *Cancer Medicine*. 6(7): 1762-1775.
10. Chien LH, Tseng TJ, Tsai FY, Wang JH, Hsiung CA, Liu TW, Chang IS*. (2018). Patterns of age-specific socioeconomic inequalities in net survival for common cancers in Taiwan, a country with universal health coverage. *Cancer Epidemiology*. 53(1):42-48.
11. Wang JH, Pan CH, Chang IS, Hsiung CA. (2019). Penalized full likelihood approach to variable selection for Cox's regression model under nested case-control sampling. *Lifetime Data Analysis*. <https://doi.org/10.1007/s10985-019-09475-z>.
12. Wong JY, Zhang H, Hsiung CA, Shiraishi K, Yu K, Matsuo K, Wong MP, Hong YC, Wang J, Seow WJ, Wang Z, Song M, Kim HN, Chang IS, Chatterjee N, Hu W, Wu C, Mitsudomi T, Zheng W, Kim JH, Seow A, Caporaso NE, Shin MH, Chung LP, An SJ, Wang P, Yang Y, Zheng H, Yatabe Y, Zhang XC, Kim YT, Cai Q, Yin Z, Kim YC, Bassig BA, Chang J, Ho JCM, Ji BT, Daigo Y, Ito H, Momozawa Y, Ashikawa K, Kamatani Y, Honda T, Hosgood HD, Sakamoto H, Kunitoh H, Tsuta K, Watanabe SI, Kubo M, Miyagi Y, Nakayama H, Matsumoto S, Tsuboi M, Goto K, Shi J, Song L, Hua X, Takahashi A, Goto A, Minamiya Y, Shimizu K, Tanaka K, Wei F, Matsuda F, Su J, Kim YH, Oh IJ, Song F, Su WC, Chen YM, Chang GC, Chen KY, Huang MS, Chien LH, Xiang YB, Park JY, Kweon SS, Chen CJ, Lee KM, Blechter B, Li H, Gao YT, Qian B, Lu D, Liu J, Jeon HS, Hsiao CF, Sung JS, Tsai YH, Jung YJ, Guo H, Hu Z, Wang WC, Chung CC, Burdett L, Yeager M, Hutchinson A, Berndt SI, Wu W., *et al.* (2019). Tuberculosis infection and lung adenocarcinoma: Mendelian randomization and pathway analysis of genome-wide association study data from never-smoking Asian women. *Genomics*. 112 (2): 1223-1232.
13. Chien LH, Chen CH, Chen TY, Chang GC, Tsai YH, Hsiao CF, Chen KY, Su WC, Wang WC, Huang MS, Chen YM, Chen CY, Liang SK, Chen CY, Wang CL, Lee MH, Chung RH, Tsai FY, Hu JW, Katki HA, Chatterjee N, Chanock SJ, Rothman N, Lan Q, Yang PC, Chen CJ, Chang IS, Hsiung CA. (2020). Predicting lung cancer occurrence in never-smoking females in Asia: TNSF-SQ, a prediction model. *Cancer Epidemiology, Biomarkers and Prevention*. 29 (2): 452-459;
14. Kuo SC, Shih SM, Lauderdale TLY, Chang IS, Chen YC, Hsiung CA, Chang SC. (2020). Policy-driven revolution of prescription record in outpatient use of fluoroquinolones. *Journal of Microbiology, Immunology and Infection*. 53(1):133-140.

15. Wong JYY, Zhang H, Hsiung CA, Shiraishi K, Yu K, Matsuo K, Wong MP, Hong YC, Wang J, Seow WJ, Wang Z, Song M, Kim HN, Chang IS, Chatterjee N, Hu W, Wu C, Mitsudomi T, Zheng W, Kim JH, Seow A, Caporaso NE, Shin MH, Chung LP, An SJ, Wang P, Yang Y, Zheng H, Yatabe Y, Zhang XC, Kim YT, Cai Q, Yin Z, Kim YC, Bassig BA, Chang J, Ho JCM, Ji BT, Daigo Y, Ito H, Momozawa Y, Ashikawa K, Kamatani Y, Honda T, Hosgood HD, Sakamoto H, Kunitoh H, Tsuta K, Watanabe SI, Kubo M, Miyagi Y, Nakayama H, Matsumoto S, Tsuboi M, Goto K, Shi J, Song L, Hua X, Takahashi A, Goto A, Minamiya Y, Shimizu K, Tanaka K, Wei F, Matsuda F, Su J, Kim YH, Oh JJ, Song F, Su WC, Chen YM, Chang GC, Chen KY, Huang MS, Chien LH, Xiang YB, Park JY, Kweon SS, Chen CJ, Lee KM, Blechter B, Li H, Gao YT, Qian B, Lu D, Liu J, Jeon HS, Hsiao CF, Sung JS, Tsai YH, Jung YJ, Guo H, Hu Z, Wang WC, Chung CC, Burdett L, Yeager M, Hutchinson A, Berndt SI, Wu W., et al. (2020). Tuberculosis infection and lung adenocarcinoma: Mendelian randomization and pathway analysis of genome-wide association study data from never-smoking Asian women. *Genomics*. 112(2):1223-1232.
16. Wang JH, Pan CH, Chang IS, Hsiung CA. (2020). Penalized full likelihood approach to variable selection for Cox's regression model under nested case-control sampling. *Lifetime Data Analysis*. 26(2):292-314.
17. Li XH, Li ZL, Zhou HF, Gaynor SM, Liu YW, Chen H, Sun R, Dey R, Arnett DK, Aslibekyan S, Ballantyne CM, Bielak LF, Blangero J, Boerwinkle E, Bowden DW, Broome JG, Conomos MP, Correa A, Cupples LA, Curran JE, Freedman BI, Guo XQ, Hindy G, Irvin MR, Kardina SLR, Kathiresan S, Khan AT, Kooperberg CL, Laurie CC, Liu XS, Mahaney MC, Manichaikul AW, Martin LW, Mathias RA, McGarvey ST, Mitchell BD, Montasser ME, Moore JE, Morrison AC, O'Connell JR, Palmer ND, Pampana A, Peralta JM, Peyser PA, Psaty BM, Redline S, Rice KM, Rich SS, Smith JA, Tiwari HK, Tsai MCY, Vasan RS, Wang FF, Weeks DE, Weng ZP, Wilson JG, Yanek LR, Abe N, Abe N, Abecasis GR, Aguet F, Albert C, Almasy L, Alonso A, Ament S, Anderson P, Anugu P, Applebaum-Bowden D, Ardlie K, Arking D, Arnett DK, Ashley-Koch A, Aslibekyan S, Assimes T, Auer P, Avramopoulos D, Barnard J, Barnes K, Barr RG, Barron-Casella E, Barwick L, Beaty T, Beck G, Becker D, Becker L, Beer R, BeitelshjGees A, Benjamin E, Benos T, Bezerra M, Bielak LF, Bis J, Blackwell T, Blangero J, Boerwinkle E, Bowden DW, Bowler R, Brody J, Broeckel U, Broome *et al.* (2020). Dynamic incorporation of multiple in silico functional annotations empowers rare variant association analysis of large whole-genome sequencing studies at scale. *Nature Genetics*. 52(9):969-983.
18. Juang MJM, Huang YJ, Chang IS, Chen CYJ, Wu IC, Hsu CC, Chen TY, Tseng WT, Yeh SFS, Hsiung CA. (2020). Role of electrocardiographic early repolarization pattern in long-term outcomes of a community-based middle-aged and geriatric ambulatory population: A prospective cohort study. *Aging-U.S.* 12(24):26140-26187.
19. Blechter B, Wong JYY, Agnes Hsiung C, Hosgood HD, Yin Z, Shu XO, Zhang H, Shi J, Song L, Song M, Zheng W, Wang Z, Caporaso N, Burdette L, Yeager M, Berndt SI, Teresa Landi M, Chen CJ, Chang GC, Hsiao CF, Tsai YH, Chen KY, Huang MS, Su WC, Chen YM, Chien LH, Chen CH, Yang TY, Wang CL, Hung JY, Lin CC, Perng RP, Chen CY, Chen KC, Li YJ, Yu CJ, Chen YS, Chen YH, Tsai FY, Jie Seow W, Bassig BA, Hu W, Ji BT, Wu W, Guan P, He Q, Gao YT, Cai Q, Chow WH, Xiang YB, Lin D, Wu C, Wu YL, Shin MH, Hong YC, Matsuo K, Chen K, Pik Wong M, Lu D, Jin L, Wang JC, Seow A, Wu T, Shen H, Fraumeni JF, Yang PC, Chang IS, Zhou B, Chanock SJ, Rothman N, Chatterjee N, Lan Q. (2020). Sub-multiplicative interaction between polygenic risk score and household coal use in relation to lung adenocarcinoma among never-smoking women in Asia. *Environment International*. 147:Article number 105975.