

## CURRICULUM VITAE

### PERSONAL INFORMATION

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### EDUCATION AND PROFESSIONAL TRAINING

Gynecologic Oncology fellowship, Tri-Service General Hospital, National Defense, Medical Center, Taipei, Taiwan, R.O.C. 1993-1994  
Chief residency, Obstetrics & Gynecology, Tri-Service General Hospital, Taiwan, R.O.C. 1993-1994  
Predoctoral Research Fellow, Program of Molecular Biology, Memorial Sloan-Kettering Cancer Center, U.S.A. 1988-1992  
Doctor of Philosophy, Cornell University, Graduate School of Medical Sciences, Program of Cell Biology & Genetics, New York, U.S.A. 1987-1992  
Medical Oncology Basic Science Training, Physician Recognition Award of the American Medical Association, George Washington University Medical Center 1987  
Residency, Obstetrics and Gynecology, Tri-Service General Hospital, Taiwan, R.O.C. 1983-1987  
Internship, Tri-Service General Hospital, Taipei, Taiwan, R.O.C. 1982-1983  
Medical Bachelor, National Defense Medical Center, Taiwan, R.O.C. 1976-1983

### LICENSURE AND PROFESSIONAL EXPERIENCE

Professor, Graduate Institute of Medical Science, Tzu Chi University, Taiwan, R.O.C. 2014-2017  
Professor and the founder, Graduate Institute of Medical Sciences, Tzu Chi University, Taiwan, R.O.C. 2010-2014  
Professor and the founder, Graduate Institute of Clinical Medicine, Tzu Chi University, Taiwan, R.O.C. 2007-2010  
Professor, Department of Medicine, Tzu Chi University, Taiwan, R.O.C. 2005-2010  
Chief, Department of Research, Buddhist Tzu Chi Medical Center, Twiwan, R.O.C. 2005-2009  
Chief, Department of Obstetrics and Gynecology, Buddhist Tzu Chi Medical 2005-2020

Center, Taiwan, R.O.C.

Professor and Dean, Graduate Institute of Medical Sciences, National Defense Medical Center, Taiwan, R.O.C. 2001-2005

Professor, Department of Obstetrics and Gynecology, National Defense Medical Center, R.O.C. 1999-2005

Adjunct Associate Professor, Department of Obstetrics and Gynecology, National Taiwan University Medical College, Taiwan, R.O.C. 1999-2000

Chief, Section of Gynecology, Department of Obstetrics and Gynecology, Tri-Service General Hospital, Taiwan, R.O.C. 1997-2005

Chairman, Joint Research Center, National Defense Medical Center, Taiwan, R.O.C. 1994-1999

Director, Laboratory of Molecular Oncology, National Defense Medical Center, Taiwan, R.O.C. 1994-2000

Attending Staff, Department of Obstetrics and Gynecology, Tri-Service General Hospital, Taiwan, TR.O.C. 1994-1996

Associate Professor, Department of Obstetrics and Gynecology, National Defense Medical Center, Taiwan, R.O.C. 1993-1999

Chief, Section of Obstetrics and Gynecology, and Department of Civilian Service, Army 802 Hospital, Kingmen, R.O.C. 1992-1993

Teaching Assistant, Department of Obstetrics and Gynecology, National Defense Medical Center, Taiwan, R.O.C. 1983-1987

Certified Doctor of Hospice Palliative Medicine, Taiwan, R.O.C. 2004-

Certified Gynecologic Oncologist, Taiwan, R.O.C (founding member) 2003-

Licensed Physician, Taiwan, R.O.C., 1983-

Certified, Educational Commission for Foreign Medical Graduates 1984

Certified Obstetrician and Gynecologist, Taiwan, R.O.C. 1986-

## **PUBLIC AND PROFESSIONAL SERVICES**

台灣癌症基金會顧問 2018-

科技部專題研究計畫婦產學門複審委員 2019

Taiwan Biosiganture 學術審查委員 2015-2018

衛生福利部癌症研究計畫學術審查委員 2014-2018

衛生署食品藥物化粧品審查委員會藥品諮議小組委員 2010

台灣婦產科醫學會學術研究委員會、雜誌編輯委員會、人力規劃委員會委員 2007-

衛生署藥品諮詢委員會審查專家 2007-2011

Founder, Scientific Chair, Education Committee Chair, Liason, Asian-Oceanic Organization of Gynecologic Infection and Neoplasm (AOGIN) 2009-

Regional Representative, Asian-Oceanic Organization of Gynecologic Infection and Neoplasm (AOGIN) 2005-

台灣婦產科醫學會婦女癌症教育委員 2005-2006

國立陽明大學醫學院臨床醫學研究所、傳統醫學研究所及急重症研究所評鑑委員會委員 2004

Associate Editor, Journal of Medical Science 醫學研究雜誌副主編 2004-2005

台灣安寧緩和醫學會會員	2004-2011
國家基因型鑑定實驗室執行委員會委員	2002-2010
慈濟醫學雜誌編輯委員	2005-
台灣婦產科醫學會雜誌副主編	2002-2010
醫學研究雜誌 (Journal of Medical Sciences) 編輯委員	2000-present
國科會專題研究計畫婦產學門複審委員	1997,2001,2002, 2004-2011
國家衛生研究院台灣臨床腫瘤合作組織婦癌委員	2000-2008
衛生署委託子宮頸抹片暨陰道境品質提升委員會委員	2000-2004
台灣婦科醫學會理事	1999-2016
台灣婦科腫瘤醫學會理事、常務理事、學術委員會委員	1998-present
中華民國婦癌醫學會理事、常務理事、學術委員會召集人	1992-2018
台灣臨床腫瘤醫學會會員	1992-2000
台灣婦產科醫學會會員	1986-
Active Member, International Gynecologic Cancer Society	2000-
Active Member, American Association of Cancer Research	1998-

## **AWARDS AND HONORS**

慈濟醫院 2011-2015 年研究績效卓越獎

慈濟醫學雜誌 2009 年最佳綜論論文獎

慈濟醫學雜誌 2008 年最佳原著論文獎

Distinguished Paper Award (three prizes), 15<sup>th</sup> Joint Conference of Cancer (jointed by seven cancer-related societies in Taiwan), Taipei, Taiwan, R.O.C., 2010

Distinguished Paper Award (one prize), 14<sup>th</sup> Joint Conference of Cancer (jointed by seven cancer-related societies in Taiwan), Taipei, Taiwan, R.O.C., 2009

Distinguished Paper Award (three prizes), 13<sup>th</sup> Joint Conference of Cancer (jointed by seven cancer-related societies in Taiwan), Taipei, Taiwan, R.O.C., 2008

Distinguished Paper Award (three prizes), 12<sup>th</sup> Joint Conference of Cancer (jointed by seven cancer-related societies in Taiwan), Taipei, Taiwan, R.O.C., 2007

First Grade Honorary Award, National Defense Medical Center, Taipei, Taiwan, R.O.C., 2005/9/8

Distinguished Paper Award (two prizes), 9<sup>th</sup> Joint Conference of Cancer (jointed by seven cancer-related societies in Taiwan), and 3<sup>rd</sup> Cross-Strait Oncology Conference, Taipei, Taiwan, R.O.C., 2004

Army Medal of R.O.C. “景風甲種獎章”, 2003

IJGO (International Journal of Gynecology & Obstetrics) Prize Paper Award – Best Clinical Research Article, 2002.

Distinguished Paper Award. 7<sup>th</sup> Joint Conference of Cancer, Taiwan, R.O.C. (jointed by seven cancer-related societies in Taiwan), 2002.

Award of Distinguished Teaching of Special Credit, Ministry of National Defense, R.O.C., 2002

Award of Distinguished Paper, 5<sup>th</sup> International Conference of the Asian Clinical Oncology Society, ACOS and 6<sup>th</sup> Joint Conference of Cancer, Taiwan, R.O.C. (jointed by seven cancer-related societies in Taiwan), Taipei, 2001

Scholarship of Medical Research, Academia Sinica, R.O.C., 2000  
 Research Fellowship, National Science Council, 2000  
 Award of Distinguished Research Paper, Chien-Ten Hsu's Foundation of Cancer Prevention, 2000  
 The 1999 Merck Foundation Research Award, Taiwan Association of Gynecology, 1999  
 Award of Medical Research Report, National Defense Medical Center, 1999  
 The First Prize of Annual Research Report, Tri-Service General Hospital, 1999  
 Research Fellowship, National Science Council, 1999  
 Best Clinical Research Article, International Journal of Gynecology and Obstetrics, IJGO Prize Paper Award, 1999  
 Medal of Distinguished Service, 忠勤勳章 Government of Republic of China, 1998.  
 Medal of Scholarship, Ministry of National Defense, Executive Yuan, R.O.C., 1997.  
 Award of Distinguished Teacher, 1997, Ministry of National Defense, Executive Yuan, R.O.C., 1997.  
 Award of Distinguished Physician, Ministry of National Defense, Executive Yuan, R.O.C., 1996.  
 Scholarship of Medical Research, Academia Sinica, R.O.C., 1996.  
 Medal of Noble Star, 一星寶星獎章, the Army of R.O.C., 1994.  
 Medal of Scholarship, Ministry of National Defense, Executive Yuan, R.O.C., 1992.  
 Award of Academic Achievement, Memorial Sloan-Kettering Cancer Center, New York, U.S.A., 1992.  
 Fellowship of Oversea Graduate Study, Department of National Defense, R.O.C. 1987-1992.  
 The Third Graduate Prize, Department of Medicine, National Defense Medical Center, Taiwan, R.O.C. 1983

## **PUBLICATIONS**

\* Correspondence

1. Wu NY, Fang C, Huang HS, Wang J, Chu TY. Natural history of ovarian high-grade serous carcinoma from time effects of ovulation inhibition and progesterone clearance of p53-defective lesions. *Mod Pathol.* 2020 Jan;33(1):29-37. doi: 10.1038/s41379-019-0370-1. Epub 2019 Sep 26.
2. Chang YH, Chu TY, Ding DC. Human fallopian tube epithelial cells exhibit stemness features, self-renewal capacity, and Wnt-related organoid formation. *Biomed Sci.* 2020 Feb 8;27(1):32. doi: 10.1186/s12929-019-0602-1.
3. Hsu CF, Huang HS, Chen PC, Ding DC, Chu TY\* IGF-axis confers transformation and regeneration of fallopian tube fimbria epithelium upon ovulation. *EBioMedicine.* 2019 Mar;41:597-609..
4. Chang YH, Ding DC, Chu TY. Estradiol and Progesterone Induced Differentiation and Increased Stemness Gene Expression of Human Fallopian Tube Epithelial Cells. *J Cancer.* 2019 Jun 2;10(13):3028-3036. doi: 10.7150/jca.30588. eCollection 2019.
5. Wu NY, Huang HS, Chao TH, Chou HM, Fang C, Qin CZ, Lin CY, Chu TY\*, Zhou HH\*. Progesterone Prevents High-Grade Serous Ovarian Cancer by Inducing Necroptosis of p53-Defective Fallopian Tube Epithelial Cells. *Cell Rep.* 2017 Mar 14;18(11):2557-2565
6. Chang YH, Chu TY\*, Ding DC\*. WNT/ $\beta$ -Catenin signaling pathway regulates

- non-tumorigenesis of human embryonic stem cells co-cultured with human umbilical cord mesenchymal stem cells. *Sci Rep*. 2017 Feb 3;7:41913.
7. Wang KH, Chu SC, Chu TY\*Loss of calponin h1 confers anoikis resistance and tumor progression in the development of high-grade serous carcinoma originating from the fallopian tube epithelium..*Oncotarget*. 2017 May 19;8(37):61133-61145.
  8. Ding DC, Liu HW, Chang YH, Chu TY\*Expression of CD133 in endometrial cancer cells and its implications.. *J Cancer*. 2017 Jul 15;8(11):2142-2153.
  9. Hong MK, Wang JH, Su CC, Li MH, Hsu YH, Chu TY\*Expression of Estrogen and Progesterone Receptor in Tumor Stroma Predicts Favorable Prognosis of Cervical Squamous Cell Carcinoma..*Int J Gynecol Cancer*. 2017 Jul;27(6):1247-1255
  10. Chu SC, Hsieh CJ, Wang TF, Hong MK, Chu TY\*Antiestrogen use in breast cancer patients reduces the risk of subsequent lung cancer: A population- based study..*Cancer Epidemiol*. 2017 Jun;48:22-28
  11. Hsieh CJ, Hong MK, Chen PC, Wang JH, Chu TY\*.Antiestrogen use reduces risk of cervical neoplasia in breast cancer patients: a population-based study. *Oncotarget*. 2017 Apr 25;8(17):29361-29369.
  12. Huang HS, Hsu CF, Chu SC, Chen PC, Ding DC, Chang MY, Chu TY\*.Haemoglobin in pelvic fluid rescues Fallopian tube epithelial cells from reactive oxygen species stress and apoptosis. *J Pathol*. 2016 Dec;240(4):484-494.
  13. Ding DC, Liu HW, Chu TY\*.Interleukin-6 from Ovarian Mesenchymal Stem Cells Promotes Proliferation, Sphere and Colony Formation and Tumorigenesis of an Ovarian Cancer Cell Line SKOV3. *J Cancer*. 2016 Aug 12;7(13):1815-1823.
  14. Yeh CH, Chen PC, Chen CH, Hsu CF, Huang RL, Ding DC, Chu TY\*.Platelet-Derived Growth Factor in the Ovarian Follicle Attracts the Stromal Cells of the Fallopian Tube Fimbriae. *PLoS One*. 2016 Jul 5;11(7):e0158266.
  15. Huang HS, Chu SC, Hsu CF, Chen PC, Ding DC, Chang MY, Chu TY\*. Mutagenic, surviving and tumorigenic effects of follicular fluid in the context of p53 loss: initiation of fimbria carcinogenesis. *Carcinogenesis*. 2015 Nov;36(11):1419-28.
  16. Wang KH, Lin CJ, Liu CJ, Liu DW, Huang RL, Ding DC, Weng CF, Chu TY\*.Global methylation silencing of clustered proto-cadherin genes in cervical cancer: serving as diagnostic markers comparable to HPV. *Cancer Med*. 2015 Jan;4(1):43-55.
  17. Huang TH, Chu TY\*.Repression of miR-126 and upregulation of adrenomedullin in the stromal endothelium by cancer-stromal cross talks confers angiogenesis of cervical cancer. *Oncogene*. 2014 Jul 10;33(28):3636-47
  18. Chu TY\*, Yang JT, Huang TH, Liu HW.Crosstalk with cancer-associated fibroblasts increases the growth and radiation survival of cervical cancer cells. *Radiat Res*. 2014 May;181(5):540-7.
  19. Ding DC, Shyu WC, Lin SZ, Liu HW, Chiou SH, Chu TY\*.Human umbilical cord mesenchymal stem cells support nontumorigenic expansion of human embryonic stem cells. *Cell Transplant*. 2012;21(7):1515-27.
  20. Chu TY\*, Hsiung CA, Chen CA, Chou HH, Ho CM, Chien TY, Chang HJ, Chou CY, Liou JD, Kan YY, Hsieh CY. Post-coital vaginal douching is risky for non-regression of low-grade squamous intraepithelial lesion of the cervix. *Gynecol Oncol*. 2011 Mar;120(3):449-53.
  21. Lin CJ, Lai HC, Wang KH, Hsiung CA, Liu HW, Ding DC, Hsieh CY, Chu TY\*.Testing for methylated PCDH10 or WT1 is superior to the HPV test in detecting

- severe neoplasms(CIN3 or greater) in the triage of ASC-US smear results. *Am J Obstet Gynecol.* 2011 Jan;204(1):21.e1-7.
22. Huang TH, Lai HC, Liu HW, Lin CJ, Wang KH, Ding DC, Chu TY\*.Quantitative analysis of methylation status of the PAX1 gene for detection of cervical cancer. *Int J Gynecol Cancer.* 2010 May;20(4):513-9
  23. Ding DC, Chiang MH, Lai HC, Hsiung CA, Hsieh CY, Chu TY\*.Methylation of the long control region of HPV16 is related to the severity of cervical neoplasia. *Eur J Obstet Gynecol Reprod Biol.* 2009 Dec;147(2):215-20.
  24. Wang KH, Liu HW, Lin SR, Ding DC, Chu TY\*.Field methylation silencing of the protocadherin 10 gene in cervical carcinogenesis as a potential specific diagnostic test from cervical scrapings. *Cancer Sci.* 2009 Nov;100(11):2175-80.
  25. Ding DC, Hsu HC, Huang RL, Lai HC, Lin CY, Yu MH, Chu TY\*.Type-specific distribution of HPV along the full spectrum of cervical carcinogenesis in Taiwan: an indication of viral oncogenic potential. *Eur J Obstet Gynecol Reprod Biol.* 2008 Oct;140(2):245-51.
  26. Huang YK, You SL, Yuan CC, Ke YM, Cao JM, Liao CY, Wu CH, Hsu CS, Huang KF, Lu CH, Twu NF, Chu TY\*.Long-term outcomes of high-risk human papillomavirus infection support a long interval of cervical cancer screening. *Br J Cancer.* 2008 Mar 11;98(5):863-9.
  27. Wei YC, Chou YS, Chu TY\*.Detection and typing of minimal human papillomavirus DNA in plasma. *Int J Gynaecol Obstet.* 2007 Feb;96(2):112-6.
  28. Ding DC, Huang RL, Chen CH, Chao CF, Chu TY\*.Novel germline and somatic mutations of the MSH2 gene in hereditary non-polyposis colorectal cancer. *Clin Genet.* 2007 Feb;71(2):190-2. No abstract available.
  29. Lai HC, Lin YW, Chang CC, Wang HC, Chu TW, Yu MH, Chu TY\*.Hypermethylation of two consecutive tumor suppressor genes, BLU and RASSF1A, located at 3p21.3 in cervical neoplasias. *Gynecol Oncol.* 2007 Mar;104(3):629-35.
  30. Duttlinger R, Manova K, Chu TY, Gyssler C, Zelenetz AD, Bachvarova RF, Besmer P.W-sash affects positive and negative elements controlling c-kit expression: ectopic c-kit expression at sites of kit-ligand expression affects melanogenesis. *Development.* 1993 Jul;118(3):705-17.
  31. Ray P, Higgins KM, Tan JC, Chu TY, Yee NS, Nguyen H, Lacy E, Besmer P.Ectopic expression of a c-kitW42 minigene in transgenic mice: recapitulation of W phenotypes and evidence for c-kit function in melanoblast progenitors. *Genes Dev.* 1991 Dec;5(12A):2265-73.
  32. Huang E, Nocka K, Beier DR, Chu TY, Buck J, Lahm HW, Wellner D, Leder P, Besmer P. The hematopoietic growth factor KL is encoded by the Sl locus and is the ligand of the c-kit receptor, the gene product of the W locus. *Cell.* 1990 Oct 5;63(1):225-33.
  33. Nocka K, Tan JC, Chiu E, Chu TY, Ray P, Traktman P, Besmer P. Molecular bases of dominant negative and loss of function mutations at the murine c-kit/white spotting locus: W37, Wv, W41 and W. *EMBO J.* 1990 Jun;9(6):1805-13.

## **MONOGRAM AND BOOK CHAPTER**

1. HPV 口袋書

2. 迪史卡佛瑞之 HPV：愛，從關心 HPV 開始. 作者：楊育正，王功亮，曾志仁，朱堂元，鄭文芳出版社：台視文化，出版日期：2006 年 06 月 12 日
3. 臨床內外科學：第 14-10 章[骨盆鬆弛]、第 14-11 章[子宮內膜增生]、第 14-12 章[骨盆腔炎症]、第 14-13 章[子宮肌瘤]、第 14-14 章[子宮外孕]、第 14-15 章[良性卵巢腫瘤]、第 14-18 章[卵巢癌]，第 1031-1057 及 1068-1071 頁，王先震編輯，合記圖書出版社，1998 年。
4. Chu TY (1992). Characterization of the proto-oncogene *c-kit* encoded at the murine *White Spotting* locus. (Ann Arbor, Michigan: U.M.I. Dissertation Information Service).