
BIOGRAPHICAL SKETCH

NAME in English Err-Cheng Chan	POSITION TITLE Professor, Department of Medical Biotechnology and Laboratory Science, Chang Gung University		
NAME in Chinese 詹爾昌			
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
University of Texas	M.S.	08/84	Chemistry
Purdue University	Ph.D.	05/88	Biotechnology
Purdue University	Postdoctoral	09/89	Carbohydrate Chemistry

A. Positions and Honors

Positions and Employment

1989-1993	Associate research fellow, Division of Microbiology, Development center for biotechnology, Taipei, Taiwan
1993-2001	Associate Professor, Department of Medical Biotechnology and Laboratory Science, Chang Gung University, Taoyuan, Taiwan
2001-	Professor, Department of Medical Biotechnology and Laboratory Science, Chang Gung University, Taoyuan, Taiwan
2004-2007	Vice manager, Medical Technology Division, Formosa Biomedical Technology Corp., Taiwan

Other Experience and Professional Memberships

1993-	Member, Chinese Association for Clinical Biochemistry
1996	Reviewer, Journal of Science and Engineering, DAYEH University, Taiwan
1996	Reviewer, European Journal of Gastroenterology & Hepatology, Official Journal of the European Association for Gastroenterology and Endoscopy
1996	Reviewer, Sixteenth "Wang Min Ning Award" Outstanding Ph.D. Paper Award, Wang Min Ning Foundation, Taiwan

Honors

B. Selected Peer-reviewed Publications (2005-2010) (in chronological order)

1. Tsao, K.C., Huang, C.G., Kuo, Y.B., Chang, T.C., Sun, C.F., Chang, C.A., Yang, S.L., *Chan, E.C.
Prevalence of human papillomavirus genotypes in northern Taiwanese women. J Med Virol, (2010) 82: 1739-45.
2. Chen J.S., Chen K.T., Fan C.W., Han C.L., Chen Y.J., Yu J.S., Chang Y. S., Chien C.W., Wu C.P., Hung R. P., *Chan E.C. Comparison of membrane fraction proteomic profiles of normal and cancerous human

- colorectal tissues with gel-assisted digestion and iTRAQ labeling mass spectrometry. FEBS Journal. (2010) 277:3028-3038.
3. Chen J.S., Chou Y.P., Chen K.T., Hung R.P., Yu J.S., Chang Y.S., *Chan E.C. Detection of annexin A autoantibodies in sera from colorectal cancer patients. Journal of Clinical Gastroenterology. (2010) Doi:10.1097/MCG.0b013e3181e880ee
 4. Kuo Y.B., Chang C.A., Wu Y.K., Hsieh M.J., Tsai C.H., Chen K.T., Chen C.Y., *Chan E.C. Identification and clinical association of anti-cytokeratin 18 autoantibody in COPD. Immunology Letters. (2010) 128:131-136.
 5. Chen J.S., Chen K.T., Fan W.C., Yu J.S., Chang Y.S. and *Chan E.C. Combined analysis of survivin autoantibody and carcinoembryonic antigen biomarkers for improved detection of colorectal cancer. Clinical Chemistry and Laboratory Medicine. (2010) 48:719-725.
 6. Chan C.C., Fan C.W., Kuo Y.B., Chen Y.H., Chang P.Y., Chen K.T., Hung R.P., *Chan E.C. Multiple serological biomarkers for colorectal cancer detection. International Journal of Cancer. (2009). 126: 1683 – 1690.
 7. Chuang, C.-L., Chen, C.-M., Wong, W.-S., Tsai, K.-N., Chan, E.-C., Jiang, J.-A. A robust correlation estimator and nonlinear recurrent model to infer genetic interactions in *Saccharomyces cerevisiae* and pathways of pulmonary disease in *Homo sapiens*. BioSystems. (2009) 98: 160-175.
 8. Tsai K.N., Chan E.C., Tsai T.Y., Chen K.T., Chen C.Y., Hung K. and Chen C.M. Cytotoxic effect of recombinant mycobacterium tuberculosis CFP-10/ESAT-6 protein on the crucial pathways of WI-38 cells. Journal of Biomedicine and Biotechnology. 2009. DOI: 10.1155/2009/917084. **Co-first author**
 9. Wu Y.K., Chen K.T., Kuo Y.B., Huang Y.S., *Chan E.C. Quantitative detection of survivin in malignant pleural effusion for the diagnosis and prognosis of lung cancer. Cancer Letters. (2009). 273: 331-335.
 10. Cheng, M.-L., Ho, H.-Y., Lin, J.-F., Chen, Y.-C., Chan, E.-C., Chiu, D.T.-Y. Clinical relevance of plasma homocysteine levels in Taiwanese patients with coronary artery disease. BioFactors, (2008) 34 : 125-134.
 11. Zhao D., Liu T.Z., Chan E.C., Fein H., Zhang X. A novel enzymatic method for determination of homocysteine using electrochemical hydrogen sulfide sensor. Frontiers in bioscience. (2007). 12: 3774-3780. **Co-first author**
 12. Liu, S.-J., Chi, P.-S., Lin, S.-S., Ueng, S.W.-N., Chan, E.-C., Chen, J.-K. Novel solvent-free fabrication of biodegradable poly-lactic-glycolic acid (PLGA) capsules for antibiotics and rhBMP-2 delivery. International Journal of Pharmaceutics, (2007) 330 : 45-53.
 13. Ueng, S.W.N., Lee, M.S., Lin, S.-S., Chan, E.-C., Liu, S.-J. Development of a biodegradable alginate carrier system for antibiotics and bone cells. Journal of Orthopaedic Research, (2007) 25, 62-72.
 14. Luo J.D., Chan E.C., Shih C.L., Chen T.L., Liang Y., Hwang T.L., Chiou C.C. Detection of rare mutant K-ras DNA in a single-tube reaction using peptide nucleic acid as both PCR clamp and sensor probe. Nucleic Acids Research. (2006). 34:1-7. **Co-first author**
 15. Chen K.T., Lin J.D., Liou M.J., Weng H.F., Chang C.A., *Chan E.C. An aberrant autocrine activation of the platelet-derived growth factor α -receptor in follicular and papillary thyroid carcinoma cell lines. Cancer Letters. (2006). 231:192-205.
 16. Liu S.J., Tsai Y.E., Ueng S.W.N., Chan E.C. A novel solvent-free method for the manufacture of biodegradable antibiotic-capsules for a long-term drug release using compression sintering and ultrasonic welding techniques. Biomaterials. (2005). 26:4662-4669.
 17. Chan E.C., Chang P.Y., Wu T.L., Wu J.T. Enzymatic assay of homocysteine on microtiter plates or a TECAN analyzer using crude lysate containing recombinant methionine γ -lyase. Annals of Clinical and Laboratory Science. 2005. 35:155-160.

C. Research Support

Ongoing Research Support

NMRPD170573

08/01/08-07/31/11

Study of signal transduction and bacterial pathogenesis in host cells treated with secretory proteins derived from *Mycobacterium tuberculosis*.

The goal of this study is to investigate the cause of lung diseases by secreted proteins from *Mycobacterium tuberculosis*.

Role: PI

NCRPD19P011

06/01/10 - 05/31/11

Development of autoantibody detecting kits for colorectal cancer in serum.

The goal of this study is to develop an immunoassay with a multiple antigen panel of 3 above-mentioned membrane proteins in clinical screening of patient's serum.

Role: PI

CMRPD180272

09/01/09 - 08/31/11

Study of the association of Anti-cytokeratin 18 autoantibodies and Toll-like receptor in COPD

The goal of this study is to discover the role of Anti-cytokeratin 18 autoantibodies and Toll-like receptor in the pathogenesis of COPD.

Role: PI

[Completed Research Support \(2006-2010\)](#)

CMRPD160262

08/01/07-07/31/09

The correlation of COPD patients with serum anti-elastin autoantibodies and disease severity.

The goal of this study is to investigate the role of anti-elastin autoantibodies in the pathogenesis of COPD.

Role: PI

NMRPD150832

08/01/06 - 07/31/08

The secreted antigen ESAT-6/CFP-10 from *Mycobacterium tuberculosis* effect on WI-38 lung fibroblast cells.

The goal of this study is to investigate the role of ESAT-6/CFP-10 in the pathogenesis of tuberculosis.

Role: PI

CMRPD150201

06/01/06 -05/31/07

The study associated the serum autoantibodies from COPD patients.

The goal of this study is to estimate the serum autoantibodies from COPD patients.

Role: PI