

RÉSUMÉ

CHIN, LI-TE

Home Address:

9F-5., No. 12, Lane 175, Wu-Ling Rd., Hsin-Chu 300, Taiwan, R. O. C.

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Personal Data:

Birth date — January 20, 1963

Birthplace — Taichung, Taiwan, R. O. C.

Citizenship — Taiwan, R. O. C

Educational Background:

Doctor of Philosophy in Engineering (September, 1994)

Dept. of Immunotechnology, Lund University, Lund, Sweden (October 1990—September 1994)

<i>Advisor</i>	Prof. Carl A. K. Borrebaeck
<i>Dissertation</i>	Li-Te Chin (in English), <i>Site-directed in vitro immunization - A model of sequential antigen-specific activation of human B cells</i> . University Press, ISBN 91-628-1237-8

Master of Science (June 1987)

Sec. of Microbiology, Institute of Medical Biomorphics, Graduate School, National Defense Medical Center, Taipei, Taiwan, R. O. C. (July 1985 - June 1987)

<i>Advisor</i>	Prof. Ching-Liang Meng and Prof. Shou-Hwa Han
<i>Thesis</i>	Li-Te Chin (in Chinese), <i>Establishment of Human Stomach Cancer Cell Line and Production of monoclonal Antibodies</i> .

Bachelor of Science (June 1985)

Dept. of Biology, School of Science and Technology, Fu-Jen Catholic University, Taipei, Taiwan, R. O. C. (September 1981 - June 1985)

Working Experience:

Aug 2009	Associate Professor, Department of Microbiology & Immunology, National Chayi University, Chayi, Taiwan, ROC., Taiwan, ROC
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2008	Ethical Committee Member, Tri-Service General Hospital, Taipei, Taiwan, ROC
2008-2009	Scientific Specliest, General Clinical Research Center, Tri-Service General Hospital, Taipei, Taiwan, ROC
Aug 2006	Adjunct Associate Professor, Graduate Institute of Medical Sciences, National Defense Medical Center, Taipei, Taiwan, ROC.
2005-2007	Committee Member, Advisory Committee for the Center of Drug, Device and Diagnostic Development, Hsinchu Biomedical Science Park, Taiwan, ROC.
2004-2007	Adjunct Associate Professor, Dept. of Medical Technology, China Medical University, Taichung , Taiwan, ROC.
2004-2007	CEO, HumOrigin Biotechnology Corp., Hsin-Chu, Taiwan, ROC
2001-2004	Principle Investigator and Manager of the R & D Department, Apex Biotechnology Corp., Hsin-Chu, Taiwan, R.O.C. Bayer Project Director. (Collaborator in Bayer: Dr. Alan McCleary)
1999-2001	Principle Investigator, Director of the R & D Department and IPO Project Director, General Biologicals Corp., Hsin-Chu, Taiwan,R.O.C.
1998-1999	Principle Investigator and Director of the R & D Department, Chinese Blood Services Foundation, Taipei, Taiwan, R.O.C.
1997-1998	Technical and Quality Supervisor, The Blood Bank of NCKU University Hospital
1996-1999	Director, Immunohematology Research Laboratory, Department of Medical Technology, National Cheng-Kung University, Tainan, Taiwan, R.O.C. (Transfusion Medicine). Assistant Professor, quality controls and teaching in Blood Banking,Biology and Molecular Immunology
1996-1999	Technical Consultant, Tainan Blood Center, Chinese Blood Services Foundation, Tainan, Taiwan, R.O.C.
Mar 1996	Adjunct Associate Professor, Graduate Institute of Life Science, School of Science and Technology, Fu-Jen Catholic University
1996-1997	Associate Investigator, Research Department, Chinese Blood Services Foundation, Taipei, Taiwan, R.O.C.
1995-1996	Associate Investigator and Director, Research Department, Chinese Blood Services Foundation, Taipei, Taiwan, R.O.C. (Clinical Immunology, Hematology, Immunoassay Evaluation)
1990-1994	Graduate Research Assistant, Dept. of Immunotechnology, Lund University, Lund, Sweden. Guest Researcher, Dept. of Virology, Swedish Institute of Infectious Disease Control, Stockholm, Sweden and Dept. of Human Antibodies, BioInvent International AB, Lund, Sweden. (human hybridoma techniques, the inventor of site-directed <i>in vitro</i> immunization, phage display and library construction for high

	affinity, <i>in vitro</i> generated antibody fragments)
1987-1990	Assistant Researcher, Institute of Preventive Medicine, National Defense Medical Center, Taipei, Taiwan, R. O. C. (serology, techniques in molecular biology)
1985-1987	Graduate Research Assistant, Laboratory of Immunology Research, Tri-Service General Hospital, Taipei, Taiwan, R. O. C. (primary cell culture, murine hybridoma techniques, biochemical analyses)

Awards:

2008	Award for contribution for conducting clinical researches, Department of Health
2007	Project director, Evaluation of complete human monoclonal antibody. Ministry of Economy
2005-2006	Project director, Production of complete human monoclonal antibody. Ministry of Economy
1997-1998	Project director, Production of anti-fibrin human monoclonal antibody. National Science Council 87-2316-B006-005 M42
1996-1999	Project director, Entrusted Programs for Human Monoclonals Production by Takara Shuzo (Japan) and General Biologicals Corp (Taiwan)
1995-1996	Project director, Production of anti-HIV V3 human antibody fragments via primary site-directed <i>in vitro</i> immunization and phage display technology. National Science Council 85-2331-B210-001 BC
1995	Certificate of merit, 1995 Prize for Young Scientists (by Science and Pharmacia)
1990-1994	1989 ROC National Scholarship for European Studies in Molecular Immunology

Research Capabilities

Immunology	Immunopharmacology, <i>ex vivo</i> and <i>in vitro</i> humoral responses, immunological diagnostics, construction of immunogens for vaccination and immunization
Hematology	lymphocyte differentiation and development, <i>in vitro</i> T- and B-cell maturation, transfusion, plasma fractionation
Cell Biology	cell culture, hybridoma techniques, oncology, signal transduction pathways
Virology	Retroviruses, Herpes virus, Flaviviruses
Molecular Biology	PCR-designed cDNA library, phage display, affinity determination by BIACORE systems
Diagnostics	Bioensor development and validation
Biotech IPO	Initial public offering for stock market of two biotech companies in Taiwan

Monoclonal antibodies are an increasingly important component of various treatments; the worldwide MAb therapeutic market is expected to expand at a compound annual growth rate (CAGR) of more than 30% through 2010 to \$30.3 billion. The industry predicts, and the fact shows, the development focus is moving away from murine and chimeric antibodies, to humanized and, in particular, fully human technologies. A wave of fully human products is expected to launch from 2007 onwards, accounting for 12 of the 20 launches between 2007 and 2010. My mission is to establish unique huMAbs for supply to the global scientific community in the hope that it might further extend and enhance the lives of patients. We have reached the stage where its first result is now being assayed and documented in peer-reviewed biotechnology journals.

Adjunct Teaching Experience:

學校	系(所)別	內容	年月(時數)	兼職名稱
陽明大學	微生物免疫學所	抗體分子學	八十四年三月(4)	兼任副教授
陽明大學	醫事技術學系	試管免疫	八十四年六月(2)	兼任副教授
中台醫專	醫事技術學科	HIV檢驗	八十四年十月(2)	特別講座
台灣大學	生醫電子研習營	電化學生物晶片	九十六年一月起	特別講座
台灣大學	應用力學研究所	生醫血糖及蛋白質量測技術	九十五年八月起	兼任副教授
國科會	跨領域科技教育平台-生醫領域	ISO15197	九十四年八月起	特別講座
中國醫藥大學	醫事技術學系	檢驗新技術	九十三年八月至九十六年八月止	兼任副教授
台灣大學	土木工程研究所	高科技廠房設計	九十七年十月(4)	特別講座
輔仁大學	生命科學研究所	生技技術	八十五年三月起	兼任副教授
國防醫學院	醫學科學研究所	免疫藥理學	九十五年八月起	兼任副教授
中研院	台灣國際博士研究生；The Taiwan International Graduate Program	細胞分子免疫學	九十八年三月起	兼任副教授

Scientific Publication:

1. Wu, S.-Y., Chin, L.-T., Chen, L.-M. and Chen, H.-M. (2008) Direct visualization of fluorescent signals in protein gels using a backlit blue light plate. *Proteomics* 8:3382-3388. (doi: 10.1002/pmic.200701013)
2. Chin, L.-T., Chu, C., Chen, H.-M., Wang, D.-W. and Liao, S.-K. (2008) Immune intervention with monoclonal antibody targeting to CD152 (CTLA-4) for autoimmune and malignant diseases. *Chang Gung Med J* 31(1):1-15.
3. Meng, C.-L., Chin, L.-T., Chen, J.-H. Chu, C.-H. and Cheng, J.-Y. (2007) Preventing and Ameliorating 7,12-Dimethylbenz[a]anthracene (DMBA)-induced DNA adducts formation by garlic in cultured human endometrial cells. *J Biomed Lab Sci* 19:131-139.
4. Chin, L.-T., Chu, C., Chen, H.-M., Hsu, S.-C. Weng, B.-C. and Chu, C.-H. (2007) Site-directed in vitro immunization leads to a complete human monoclonal IgG4 λ that binds specifically to the CDR2 region of CTLA-4 (CD152) without interfering the engagement of natural ligands. *BMC Biotechnology* 7:51 (doi:10.1186/1472-6750-7-51; Epub ahead of print)
5. Leu, I., Huang, C.-T., Chen H.-M., Chin, L.-T., He, C.-C. and Chu, C. (2004) Evaluation of a Device for Self-Monitoring of Blood Glucose. *J Biomed Lab Sci* 16:57-66.
6. Chin, L.-T., Cheng, J.-Y., Lu, S.-C., Chang, A. C.-H., Chu, C.-H. and Meng, C.-L. (2001) Establishment and evaluation of mouse-human heteromyeloma cell lines obtained by electrofusion for immortalizing human immunoglobulins. *J Biomed Lab Sci* 13:117-123.
7. Lu, S.-C., Kao, C.-L., Chin, L.-T., Chen, J.-W., Yang, C.-M., Chang J.-H., Hsu S.-C., Chang, A.-C., Chen, B.-H. (2001) Seroprevalence and demographic characteristics of HTLV-I among blood donors in Taiwan: 1996-1999. *Int J Hematol* 74:333-7.
8. Lu, S.-C., Kao, C.-L., Chin, L.-T., Chen, J.-W., Yang, C.-M., Chang. A.-C., Chen, B.-H. (2001) Intrafamilial transmission and risk assessment of HTLV-I among blood donors in southern Taiwan. *Kaohsiung J Med Sci* 17:126-32.
9. Lu, S.-C., Chin, L.-T., Wu, F.-M., Hsieh, G.-J., Haung, S.-P., Chen, J.-C., Chang, A. C.-H. and Chen, B.-H. (1999) Seroprevalence of CMV antibodies in a blood donor population and premature neonates in the South-central Taiwan. *Kaohsiung J Med Sci* 15:603-610.
10. Chen, J.-W., Chin, L.-T., Yang, C.-M., Lin, G.-C., Lin, W.-S, Lu, S.-C., Yang, B.-S. and Lin, K.-S. (1998) Evaluation of screening kits for the detection of antibodies to human T-lymphotropic virus type I and type II. *J Biomed Lab Sci* 10:29-38.
11. Dueñas, M., Casavilla, R., Malmberg, A.-C., Chin L.-T., Ohlin, M. and Borrebaeck CAK (1997) The SAP as a homogenous and kinetic based selection system for active proteins in combinatorial libraries. *Biotec. Aplicada* 14, 51-52.
12. Dueñas, M., Chin, L.-T., Malmberg, A.-C., Casavilla, R. & Borrebaeck, C. A. K. (1996) *In vitro* immunization of naive human B cells yields high affinity immunoglobulin G as illustrated by phage display. *Immunology* 89: 1-7.
13. Chin, L.-T., Yang, B.-S., Chen, J.-W., Yang, C.-M., Chou, C.-C., Li, L., Hung, C.-M., Lin Tsai, S.-J. and Lin, K.-S. (1995) Evaluation of screening kits for the detection of anti-human immunodeficiency virus type 1 and 2 (HIV-1/2) antibodies. *Chinese J Microbiol Immunol* 28:179-192.
14. Chin, L.-T., Malmberg, A.-C., Kristensson, K., Hinkula, J. & Borrebaeck, C. A. K. (1995)

- Mimicking the humoral immune response *in vitro* results in antigen-specific isotype switching by autologous T helper cells. *Eur. J. Immunol.* 25:657-663.
15. Chin, L.-T., Dueñas, M., Levi, M., Hinkula, J., Wahren, B. & Borrebaeck, C. A. K (1995) Molecular characterization of an anti-HIV 1 human monoclonal antibody reveals a CD26 motif. *Immunol. Letters* 44:25-30.
 16. Chin, L.-T. (1994) Site-directed *in vitro* immunization - A model of sequential antigen-specific activation of human B cells. University Press, ISBN 91-628-1237-8
 17. Chin, L.-T., Ifversen, P., Kristensson, K., Carlsson, R., Wahren, B. & Borrebaeck, C. A. K. (1994) Human Th0-type T helper cell clone supports antigen-specific immunoglobulin production in *scid/beige-hu* mice. *Scand. J. Immunol.* 40:529-534.
 18. Chin, L.-T., Hinkula, J., Levi, M., Ohlin, M., Wahren, B. & Borrebaeck, C. A. K. (1994) Site-directed primary *in vitro* immunization: Production of HIV-1 neutralizing human monoclonal antibodies from sero-negative donors. *Immunology* 81: 428-434.
 19. Cheng, J.-Y., Meng, C.-L., Lin, J.-C., Tzeng, C.-C., Chin, L.-T. & Shen, K.-L. (1990) Characterization of four newly established human colorectal adenocarcinoma cell lines from chinese patients. *J. Sur. Onco.* 44:260-267.
 20. Chin, L.-T. & Meng, C.-L. (1989) The potential efficacy of adjuvants. *Bull. Sch. Den. NDMC* 19:111-5.
 21. Chin, L.-T., Meng, C.-L., Han, S.-H., Din, M.-C., Chang, T.-M., Chen, V. T.-K., & Shen, K.-L. (1987) A study on production of monoclonal antibodies using SC-M1 cell as immunogen. *Med. Research* 8:15-24.
 22. Chin, L.-T., Meng, C.-L., Chang, T.-M., Chen, V. T.-K., & Shen, K.-L. (1987) Establishment and characterization of human gastric cancer cell line. *J. Sur. Asso. R.O.C.* 19:27.

Abstracts Present on International Scientific Meetings:

1. Chin, L.-T. (2009; the 4th Samonella meeting) High mobility group box 1 (HMGB1) protein as the therapeutic target for severe sepsis and septic shock
2. Chin, L.-T., Chu, C., Hsu, S.-C., Liao, S.-K. (2005; the 4th CSCO) Induction and Clinical Potentials of a Complete Human Anti-CD152 Monoclonal Antibody
3. Chin, L.-T. (1999; the 10th Asia-Pacific Regional Congress of the International Society of Blood Transfusion) Establishment of a multiplayer safeguard system for blood centers in Taiwan.
4. Lu, S.-C., Chang, A. C.-H., Chin, L.-T., Chen, J.-W., Chang, I.-E. and Lin, K.-S. (1997; the 8th Asia-Pacific Regional Congress of the International Society of Blood Transfusion) Seroprevalence of anti-cytomegalovirus antibodies in a Taiwanese donor population in the mid-southern region.
5. Lu, S.-C., Chang, A. C.-H., Chin, L.-T., Yang, C.-M., Chen, J.-W., Chang, I.-E. and Lin, K.-S. (1997; the 8th Asia-Pacific Regional Congress of the International Society of Blood Transfusion) Preparation and application of human sera for quality control in the screening laboratory of a blood center.
6. Chen, J.-W., Chin, L.-T., Wu, T.-N., Chang, I.-E. and Lin, K.-S. (1997; the 8th Asia-

Pacific Regional Congress of the International Society of Blood Transfusion) HIV Seroprevalence in Taiwan.

7. Chin, L.-T., Chen, J.-W., Yang, C.-M., Lin, G.-C., Lin, W.-S., Yang, B.-S. and Lin, K.-S. (1996; the 26th Congress of the International Society of Haematology) Evaluation of screening kits for the detection of antibodies to human T-lymphotropic virus type I and type II (HTLV I/II)
8. Chin, L.-T., Ohlin, M., Hinkula, J., Wahren, B. and Borrebaeck, C. A. K. (1992; the Second International Conference on Human Antibodies and Hybridomas) The effect of heterotopes in *in vitro* immunization of human peripheral B lymphocytes.

Issued Patents:

In Republic of China

1. 生物氣體產生裝置 [發明人：朱紀實、崔若莒、金立德]
Apparatus for biogas production
M368658 (2009/11/11)
2. 可攜式經皮傳導裝置 [發明人：金立德、許淑菁]
Portable transdermal devices
M308755 (2007/04/01)
3. 製造具有生物受體協同劑、拮抗劑與/或反向協同劑性質之人類抗體製造方法 [發明人：金立德、許淑菁]
Method for producing human antibodies with properties of agonist, antagonist, or inverse agonist
I 267517 (2006/12/01)
4. 由冷凍血漿產製血纖維原、原血纖維酵素複體、第三抗凝血酵素、免疫球蛋白與白蛋白之流程 [發明人：傅貽平、許淑菁、李棟銘、金立德]
Procedure for preparation of fibrinogen, prothrombin complex, anti-thrombin III, immunoglobulin and albumin from frozen plasma
I 226333 (2005/01/11)
5. 由冷凍血漿產製病毒去活化之免疫球蛋白與白蛋白之流程 [發明人：金立德、許淑菁、傅貽平]
Procedure for preparation of virus-inactivated immunoglobulin and albumin from frozen plasma
577924 (2004/03/01)
6. 具有樣品前處理功能之電化學感測器 [發明人：沈家琳、劉宜中、林岳暉、黃英哲、沈承禹、金立德、沈燕士]
Electrochemical sensing device
573122 (2004/01/21)
7. 預存裝置 [發明人：金立德、林岳暉、沈承禹、沈燕士]
Device of reagent pre-storage
I 182892 (2003/07/21)
8. 體外免疫誘製人類單株型抗體方法及應用此法所誘製之抗人類免疫缺陷病毒之中和抗體 [發明人：金立德]
Method for in vitro immunization and the neutralizing anti-HIV-1 produced thereof
I 062901 (1993/07/01)

Foreign Issued Patents

9. Method for producing human antibodies to human CD152 with properties of agonist, antagonist, or inverse agonist (Li-Te Chin; Shu-Ching Hsu)
United States Patent 7,494,779 (2009/02/24)
10. 製造具有生物受體協同劑、拮抗劑與/或反向協同劑性質之人類抗體製造方法 [發明人：金立德、許淑菁]
China ZL 2004 1 0079889.3 (2009/02/20)

11. Methode zur Reduzierung der Messabweichung von amperometrischen Biosensoren (Yueh-Hui Lin; Ying-Che Huang; Bin Huang; Benjamin Cheng Shen; Li-Te Chin; Thomas Y. S. Shen)
Germany DE 60 2005 002 344 (2008/06/29)
12. Zusammensetzung und Reagenz für CTLA-4 und Verwendungen derselben (Li-Te Chin; Shu-Ching Hsu)
Germany DE 20 2008 000 834.4 (2008/05/29)
13. Un método para reducir la desviación de medición de biosensores amperimétricos (Yueh-Hui Lin; Ying-Che Huang; Bin Huang; Benjamin Cheng Shen; Li-Te Chin; Thomas Y. S. Shen)
Spain ES2293493 (2008/03/16)
14. 可攜式經皮傳導電子裝置 (Portable transdermal electronic devices) (Li-Te Chin; Shu-Ching Hsu)
China ZL 2006 2 0118081.6 (2007/11/28)
15. Tragbare transdermale Vorrichtung (Li-Te Chin; Shu-Ching Hsu)
Germany DE 20 2007 001 908.4 (2007/06/06)
16. Nieuwe uit memselijke kiemlijnsequenties gewonnen antilichaamstructuren (Li-Te Chin; Shu-Ching Hsu; Chishih Chu)
Netherland 1029605 (2007/04/02)
17. Aus humanen keimbahnsequenzen gewonnene antikörperstrukturen (Li-Te Chin; Shu-Ching Hsu; Chishih Chu)
Germany DE 20 2005 020 828.0 (2006/10/26)
18. Method for reducing measuring bias in amperometric biosensors (Yueh-Hui Lin; Ying-Che Huang; Bin Huang; Benjamin Cheng Shen; Li-Te Chin; Thomas Y. S. Shen)
European Patent EP1698891 (2006/09/06)