Chunmei Cheng M.D. Ph.D.

Expertise

- Human Pathology
- Cellular Immunology
- Molecular Biology

Research Interests

- Pathogenesis and immunogenesis of cancers and inflammatory/infectious diseases
- Vaccine development and innovation of immuno-therapeutics

Education

Ph.D. in Pathology	Toyama Medical & Pharmaceutical University, Toyama, Japan	*Mar 2004*
M.S. in Otology	Norman Bethune College of Medicine, Jilin University, Jilin, China	*Mar 1999*
M.D. in Medicine	Norman Bethune College of Medicine, Jilin University, Jilin China	*Jul 1994*

Certifications

ECFMG Certified, Educational Commission for Foreign Medical Graduate *June 24, 2014*
United States Medical License Exams, all steps passed *June 25, 2015*

Memberships and Committee Assignments

- Member, American Association of Immunologists (AAI)
- Member, American Association for the Study of Liver Diseases (AASLD)
- Member, American Society for Microbiology (ASM)
- Member, American Society for Investigative Pathology (ASIP)

Professional Experiences

Chapman University, School of Pharmacy *Irvine, CA*
Senior Research Associate *Jun 2016 to present*

University of California, Irvine - *Dept. of Surgery, Medical Center* *Orange, CA*
Assistant Project Scientist *Sep 2015 to Jun 2016*

University of California, Irvine - *Dept. of Pathology and Laboratory Medicine* *Irvine, CA*
Assistant Specialist *Jul 2007 to Jun 2013*

University of California, Davis - *Division of Rheumatology, Allergy & Immunology* *Davis, CA*
Postdoctoral Scholar *Apr 2005 to Jun 2007*

Toyama Medical & Pharmaceutical University - *Dept. of First Pathology* *Toyama, Japan*
Postdoctoral Scholar -21st Center of Excellence (COE) Program *Apr 2004 to Mar 2005*
Residency training in Anatomic Pathology *Apr 2000 to Mar 2005*
Ph.D. Graduate Scholar *Apr 2000 to Mar 2004*

Kitasato University - *Otolaryngology-Head and Neck Surgery* *Sagamihara, Japan*
Visiting Physician *Apr 1999 to Mar 2000*

First Affiliated Hospital, Norman Bethune College of Medicine, Jilin University - *Dept. of Otolaryngology-Head & Neck Surgery* *Jilin, China*
Resident Physician *Jul 1994 to Mar 1999*

Scientific Publications

30. **Cheng C**, Pal S, Tifrea D, Jia Z, de la Maza LM. A vaccine formulated with combination of a TLR-2 and a TLR-9 adjuvants and the recombinant major outer membrane protein elicits a robust immune response and significant protection against a *Chlamydia trachomatis* challenge. ***Microbes and Infection***, 2014; 16: 244-52.

29. **Cheng C**, Jain P, Pal S, Tifrea D, Sun G, Teng AA, Liang X, Felgner PL, de la Maza LM. Assessment of the role in protection and pathogenesis of the *Chlamydia muridarum* V-type ATP synthase subunit A (AtpA) (TC0582). ***Microbes and Infection***, 2014; 16: 123-33.

28. Teng A, Cruz-Fisher MI, **Cheng C,** Pal S, Sun G, Ralli-Jain P, Molina DM, Felgner PL, Liang X, de la Maza LM. Proteomic identification of immunodominant chlamydial antigens in a mouse model. ***J Proteomics,*** 2012; 21: 176-86.

27. **Cheng C**, Jain P, Bettahi I, Pal S, Tifrea D, de la Maza LM. A TLR2 agonist is a more effective adjuvant for a Chlamydia major outer membrane protein vaccine than ligands to other TLR and NOD receptors. ***Vaccine,*** 2011; 29: 6641-9.

26. **Cheng C**, Pal S, Bettahi I, Oxford K.L, Barry P.A, de la Maza L.M. Immunogenicity of a vaccine formulated with the Chlamydia trachomatis serovar F, native major outer membrane protein in a nonhuman primate model. ***Vaccine***, 2011; 29: 3456-64.

25. **Cheng C**, Cruz-Fisher M.I., Tifrea D, Pal S, Wizel B, de la Maza L.M. Induction of protection in mice against a respiratory challenge by a vaccine formulated with Chlamydia major outer membrane protein adjuvanted with IC31®. ***Vaccine***, 2011; 29:2437-43.

24. Cruz-Fisher MI, **Cheng C**, Sun G, Pal S, Teng A, Molina DM, Kayala MA, Vigil A, Baldi P, Felgner PL, Liang X, de la Maza LM. Identification of immunodominant antigens by probing a whole Chlamydia ORFome microarray using sera from immunized mice. ***Infect Immun***. 2011; 79:246-57.

23. Ralli-Jain P, Tifrea D, **Cheng C**, Pal S, de la Maza L.M. Enhancement of the protective efficacy of a Chlamydia trachomatis recombinant vaccine by combining systemic and mucosal routes for immunization. ***Vaccine.*** 2010; 28: 7659-66.

22. **Cheng C**, Bettahi I, Cruz-Fisher M.I., Pal S, Jain P, Jia Z, Holmgren J, Harandi A.M., de la Maza L.M. Induction of protective immunity by vaccination against Chlamydia trachomatis using the major outer membrane protein adjuvanted with CpG oligodeoxynucleotide coupled to the nontoxic B subunit of cholera toxin. ***Vaccine,*** 2009; 27:6239-46.

21. Takeuchi A, Yamamoto Y, Tsuneyama K, **Cheng C**, Yonekura H, Watanabe T, Shimizu K, Tomita K, Yamamoto H, Tsuchiya H. Endogenous secretory receptor for advanced glycation end-products as a novel prognostic marker in chondrosarcoma. ***Cancer***. 2007;109 (12): 2532-40.

20. Zheng H, Tsuneyama K, **Cheng C**, Takahashi H, Cui Z, Murai Y, Nomoto K, Takano Y. Maspin expression was involved in colorectal adenoma-adenocarcinoma sequence and liver metastasis of tumors. ***Anticancer Res***. 2007; 27 (1A): 259-65.

19. Zheng H, Tsuneyama K, **Cheng C**, Takahashi H, Cui Z, Murai Y, Takano Y. Expressions of KAI1 and tenascin, microvessel density were closely correlated with liver metastasis of gastrointestinal adenocarcinoma. ***J Clin Pathol***. 2007 Jan; 60(1): 50-6.

18. Oertelt S, Lian ZX, **Cheng CM**, Chuang YH, Padgett KA, He XS, Ridgway WM, Ansari AA, Coppel RL, Li MO, Flavell RA, Kronenberg M, Mackay IR, Gershwin ME. Anti-mitochondrial antibodies and primary biliary cirrhosis in TGF-beta receptor II dominant-negative mice. ***J Immunol***. 2006;177(3):1655-60.

17. Irie J, Wu Y, Wicker LS, Rainbow D, Nalesnik MA, Hirsch R, Peterson LB, Leung PS, **Cheng C**, Mackay IR, Gershwin ME, Ridgway WM. NOD.c3c4 congenic mice develop autoimmune biliary disease that serologically and pathogenetically models human primary biliary cirrhosis. ***J Exp Med.*** 2006; 203 (5): 1209-19.

16. Lan RY *, **Cheng C***, Lian ZX, Tsuneyama K, Yang GX, Yuki Moritoki Y, Chuang YH, Nakamura T, Saito S, Shimoda S, Tanaka A, Bowlus CL, Takano Y, Ansari AA, Coppel RL, Gershwin ME. Liver-targeted and peripheral blood alterations of regulatory T-cells in primary biliary cirrhosis. ***Hepatology***. 2006; 43 (4): 729-37. (* Lan RY and Cheng C contributed equally to this work.)

15. Kainuma M, Fujimoto M, Sekiya N, Tsuneyama K, **Cheng C**, Takano Y, Terasawa K, and Shimada Y. Cholesterol-fed rabbit as a unique model of nonalcoholic, nonobese, non-insulin-resistant fatty liver disease with characteristic fibrosis. ***J Gastroenterol***. 2006; 41(10): 971-80.

14. **Cheng C**, Tsuneyama K, Zheng H, Oya T, Cui Z, Loreto B. Feril LB Jr, and Takano Y. Enhanced scavenging of lipid substances is a possible effect of corticosteroids in the treatment of cholesterol crystal embolism. ***Pathol Res Pract***. 2006; 202(8): 591-8.

13. Zheng H, Tsuneyama K, **Cheng C**, Takahashi H, Cui Z, Murai Y, Nomoto K, Takano Y. An immunohistochemical study of P53 and Ki-67 in gastrointestinal adenoma and adenocarcinoma using tissue microarray. ***Anticancer Res***. 2006; 26(3B): 2353-60.

12. Sistayanarain A, Tsuneyama K, Zheng H, Takahashi H, Nomoto K, **Cheng C**, Murai Y, Tanaka A, Takano Y. Expression of Aurora-B kinase and phosphorylated histone H3 in hepatocellular carcinoma. ***Anticancer Res***. 2006; 26(5A): 3585-93.

11. Hatta H, Tsuneyama K, Kumada T, Zheng H, **Cheng C**, Cui Z, Takahashi H, Nomoto K, Murai Y, Takano Y. Freshly prepared immune complexes with intermittent microwave irradiation result in rapid and high-quality immunostaining. ***Pathol Res Pract***. 2006; 202(6): 439-45.

10. Harashima A, Yamamoto Y, **Cheng C**, Tsuneyama K, Myint KM, Takeuchi A, Yoshimura K, Li H, Watanabe T, Takasawa S, Okamoto H, Yonekura H, Yamamoto H. Identification of mouse orthologue of endogenous secretory receptor for advanced glycation end-products: structure, function and expression. ***Biochem J***. 2006; 396(1): 109-15.

9. Nomoto K, Tsuneyama K, **Cheng C**, Takahashi H, Hori R, Murai Y, Takano Y. Intrahepatic cholangiocarcinoma arising in cirrhotic liver frequently expressed p63-positive basal/stem-cell phenotype. ***Pathol Res Pract***. 2006; 202 (2): 71-6.

8. Hong M, Murai Y, Kutsuna T, Takahashi H, Nomoto K, **Cheng CM**, Ishizawa S, Zhao QL, Ogawa R, Harmon BV, Tsuneyama K, Takano Y. Suppression of Epstein-Barr nuclear antigen 1 (EBNA1) by RNA interference inhibits proliferation of EBV-positive Burkitt's lymphoma cells. ***J Cancer Res Clin Oncol***. 2006;132(1):1-8.

7. Chuang YH, Lian ZX, **Cheng CM**, Lan RY, Yang GX, Moritoki Y, Chiang BL, Ansari AA, Tsuneyama K, Coppel RL, Gershwin ME. Increased levels of chemokine receptor CXCR3 and chemokines IP-10 and MIG in patients with primary biliary cirrhosis and their first degree relatives. ***J Autoimmun***. 2005; 25 (2):126-32.

6. Hori R, Murai Y, Tsuneyama K, Abdel-Aziz HO, Nomoto K, Takahashi H, **Cheng CM**, Kuchina T, Harman BV, Takano Y. Detection of JC virus DNA sequences in colorectal cancers in Japan. ***Virchows Arch***. 2005; 447 (4): 723-30.

5. **Cheng C**, Tsuneyama K, Kominami R, Shinohara H, Sakurai S, Yonekura H, Watanabe T, Takano Y, Yamamoto H, Yamamoto Y. Expression profiling of endogenous secretory receptor for advanced glycation end products in human organs. ***Mod Pathol***. 2005;18 (10):1385-96.

4. **Cheng C**, Tsuneyama K, Matsui K, Takahashi H, Ishizawa S, Takano Y. Cytoplasmic expression of c-erbB2 in non-small cell lung cancers. ***Virchows Arch***. 2005; 446 (6):596-603.

3. Li X, Yin J, **Cheng CM**, Sun JL, Li Z, Wu YL. Paraquat induces selective dopaminergic nigrostriatal degeneration in aging C57BL/6 mice. ***Chin Med J*** (Engl). 2005; 118 (16):1357-61.

2. **Cheng C**, Takahashi H, Yao K, Nakayama M, Makoshi T, Nagai H, Okamoto M. Cemento-ossifying Fibroma of Maxillary and Sphenoid Sinuses: Case Report and Literature Review. ***Acta Otolaryngol*** 2002; suppl 547: 118-122.

1. Okada E, Murai Y, Matsui K, Isizawa S, **Cheng C**, Masuda M, Takano Y. Survivin expression in tumor cell nuclei is predictive of a favorable prognosis in gastric cancer patients. ***Cancer Letters*** 2001; 163: 109-116.

Professional Presentations

14. Vinci A, Li S, Behnsen J, Jellbauer S, Raffatellu M, **Cheng C**, Stamos M.J, Pigazzi A. Bariatric Surgery reduces colonic inflammation and modulates intestinal microbiome in a murine model of IBD ACS Italy Chapter Conjoined Congress With The Italian Society For Surgery. Milan. Oct 2015

13. **Cheng C**, Pal S, Tifrea D, Jia Z, de la Maza L.M. More effective *Chlamydia* vaccine formulated by coordinating agonists of TLR2 and TLR9 as polyvalent adjuvants for *Chlamydia* major outer membrane protein with combination delivery routes. The American Association of Immunlogists (AAI) 99th Annual Meeting, Boston, MA, USA. May 2012

12. **Cheng C**. A novel Chlamydia vaccine with a combination of agonists of TLRs as adjuvants. Physiology and Biophysics Department RIP seminar, University of California, Irvine, Oct. 2011

11. **Cheng C**, Jain P, Bettahi I, Pal Sukumar, Tifrea D, de la Maza L.M. TLR and NOD agonists used as adjuvants enhance the protection elicited in mice by a vaccine formulated with the *Chlamydia trachomatis* MoPn rMOMP. The American Association of Immunlogists (AAI) 98th Annual Meeting, San Francisco, CA, USA. May 2011

10. **Cheng C**. Chlamydial vaccine formulated with native MOMP and IC31®. Physiology and Biophysics Department RIP seminar, University of California, Irvine, Oct. 2010

9. **Cheng C**, Cruz-Fisher M.I., Tifrea D, Pal S, Wizel B, de la Maza L.M. Induction of protection in mice against a respiratory challenge by a vaccine formulated with Chlamydia major outer membrane protein adjuvanted with IC31®. American Society for Microbiology (ASM) 110th General Meeting, San Diego, CA, USA. May 2010

8. Cruz-Fisher M, Jain P, **Cheng C**, de la Maza L, et al. Characterization of the antigenic ORFome of Chlamydia trachomatis (CT) mouse pneumonitis. Sixth Meeting of the European Society for Chlamydia Research, Aarhus, Denmark, Jul. 2008

7. Oertelt S, Lian ZX, **Cheng C,** Gershwin ME, et al. Biliary inflammation and high-titer anti-mitochondrial antibodies in the DNTGF-beta receptor II mouse. American Association for the Study Of Liver Diseases 2006, Boston, US, Oct. 2006
6. Lan RY *, **Cheng C***, Lian ZX, Tsuneyama K, Gershwin ME, et al. Liver Targeted and Peripheral Blood Alterations of Regulatory T-cells in PBC. American Association for the Study Of Liver Diseases 2005, San Francisco, US, Nov. 2005 (Lan RY and Cheng C contributed equally to this work)
5. **Cheng C**, Tsuneyama K, Gershwin ME, et al. Depletion of Foxp3-Positive Regulatory T and Increased Frequency of CD8-Positive T Cells around the Damaged Bile Ducts in Primary Biliary Cirrhosis. Digestive Disease Week 2005, Chicago, US, May 2005
4. **Cheng C**, Tsuneyama K, Matsui K, et al. Cytoplasmic expression of c-erbB2 in non-small cell lung cancers. 93' the Japanese Society of Pathology, Hokkaido, Japan. June 2004
3. **Cheng C**, Tsuneyama K, Matsui K, et al. Overexpression of c-erbB-2 in non-small cell lung cancers: Amplification & overexpression of c-erbB-2 in culture cell lines of non-small cell lung cancer. 92' the Japanese Society of Pathology, Fukuoka, Japan. Apr. 2003
2. **Cheng C**, Matsui K, Takahashi H, et al. Overexpression of c-erbB-2 in non-small cell lung cancers: Its relationship with smoking status and nodal involvement. 61' Annual Meeting of the Japan Cancer Association, Tokyo, Japan. Oct. 2002
1. **Cheng C,** Murai Y, Hayashi S, et al. Over expression of α-tubulin labeled by a novel antibody Y-49 correlate with progression of early stage of endometrial carcinoma. 91' the Japanese Society of Pathology, Yokohama, Japan. Apr. 2002