Prepared: May 29, 2018

University of California, San Francisco

CURRICULUM VITAE

Name: Mickie H Cheng, MD, PhD

Position: Associate Adjunct Professor, Step 2
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Mickie Cheng 9/13/18

EDUCATION

1990 - 1994	Princeton University	AB	Cum laude, Princeton, New Jersey Molecular Biology
1994 - 2002	University of Texas Southwestern Medical School	MD, PhD	Genetics & Dallas, Texas Dev. Biology
2002 - 2004	University of Texas Southwestern Medical Center Residency	Internal Medicine Dallas, Texas	
2004 - 2008	University of California, San Francisco	Fellowship	Endocrinology San Francisco, California

LICENSES, CERTIFICATION

2004	Licensure, Medical Board of California, Certificate No. A88309.
2005	Board Certification in Internal Medicine. Recertified 10/20/2016.
2007	Board Certification in Endocrinology, Diabetes and Metabolism. Recertified 11/17/2017.

PRINCIPAL POSITIONS HELD

07/2004 - 06/2008	University of California, San Francisco	Fellow	Endocrinology
06/2008 - 09/2008	University of California, San Francisco	Clinical Instructor Endocrinology	
09/2008 - present	University of California, San Francisco	Assoc. Adjunct Prof Endocrinology	

OTHER POSITIONS HELD CONCURRENTLY

06/2014 - 10/2016	Sutter Medical Group of the Redwoods; Santa Rosa, CA	Physician (0.5 FTE)	Endocrinology
11/2016 - present	Marin Endocrine Care and Research	Physician (0.5 FTE)	Endocrinology

HONORS AND AWARDS

1994	Medical Scientist Training Program fellow	
2006	UCSF Diabetes Education & Research Center Poster Award	
2008	Endocrine Society's ENDO 08 Trainee Poster Competition Award	
2010	Associate Scientific Advisor to Science Translational Medicine (journal)	Science Translational Medicine (journal)

KEYWORDS/AREAS OF INTEREST

Endocrine autoimmunity, Type 1 diabetes, premature ovarian failure, autoimmune polyglandular syndrome, ovarian autoimmunity, immune tolerance, genomic medicine

CLINICAL ACTIVITIES

CLINICAL ACTIVITIES SUMMARY

Attending, Diabetes Clinic, UCSF: From November of 2008 to June 2013, I volunteered my service once a month in the Diabetes Clinic, seeing patients as well as precepting residents and medical students. From July 2013 to July 2015, I began seeing patients on a weekly basis while continuing to precept residents, students and fellows. In June of 2014, I began working part-time in a community-based endocrinology practice as I began winding down my faculty practice. From June 2014 to October 2016, I served as an endocrinologist in a private multi-specialty physician medical group (Sutter Medical Group of the Redwoods). Since November 2016, I have been practicing as an endocrinologist at Marin Endocrine Care & Research, a small single specialty group practice that is affiliated with Marin County under the Marin Healthcare District.

PROFESSIONAL ACTIVITIES

MEMBERSHIPS

2005 - present	Endocrine Society
2009 - present	Rachel's Well Inc. (nonprofit organization promoting awareness about primary ovarian insufficiency)
2016 - present	American College of Physicians

SERVICE TO PROFESSIONAL PUBLICATIONS

2004 - 2004	Ad hoc referee for Journal of Clinical Endocrinology and Metabolism (1 paper in the past 3 years) and Journal of Experimental Medicine (1 paper in the past 3 years).
2009 - 2009	Ad hoc referee for Journal of Perinatology (1 paper in 2009)

INVITED PRESENTATIONS - INTERNATIONAL

2010	International Congress of Reproductive Immunology (ICRI); Cairns, Australia	Invited Speaker
2013	Annual European Congress of Rheumatology 2013 (EULAR 2013); Madrid, Spain	Invited Speaker

INVITED PRESENTATIONS - NATIONAL

1998	Cold Spring Harbor Laboratory (CSHL) Conference on Translational Control; Cold Spring Harbor, New York (poster)	
1999	40th Annual Drosophila Research Conference; Seattle, Washington (poster)	
1999	1st Salk Institute Cell Cycle Meeting; La Jolla, California (oral presentation)	
2007	Federation of Clinical Immunologic Societies (FOCIS); San Diego, California (oral presentation)	
2008	Keystone Symposium on Tolerance in Transplantation and Autoimmunity; Keystone, Colorado (poster)	
2008	Endocrine Society ENDO 08 annual meeting; San Francisco, California (poster- recipient of poster award)	
2009	Federation of Clinical Immunologic Societies (FOCIS); San Francisco, California (2 posters)	
2011	American Society of Reproductive Immunology (ASRI); Salt Lake City, Utah	Invited Speaker (President□s Symposium)

INVITED PRESENTATIONS - REGIONAL AND OTHER INVITED PRESENTATIONS

2005	UCSF Diabetes Update and Advances in Endocrinology and Metabolism (case presenter & panel moderator)
2006	UCSF Diabetes Endocrinology Research Center (DERC) Retreat (poster)
2007	UCSF Diabetes Endocrinology Research Center (DERC) Retreat (oral presentation)

2009	UCSF Endocrine Grand Rounds (oral presentation), "Translating AIRE-dependent Tolerance to Endocrine Autoimmune Disease"	
2012	UCSF Diabetes Update and Advances in Endocrinology and Metabolism course	Faculty Speaker
2014	UCSF Diabetes Update and Advance in Endocrinology and Metabolism course	Faculty Speaker
2015	Grace Wilsey Foundation Conference 2015 March 20, 2015; Palo Alto, CA	Speaker
2015	UCSF Diabetes Update and Advance in Endocrinology and Metabolism course	Faculty Speaker

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT ACTIVITIES

2005	UCSF Diabetes Update and Advances in Endocrinology and Metabolism
2006	UCSF Diabetes Update and Advances in Endocrinology and Metabolism
2007	UCSF Diabetes Update and Advances in Endocrinology and Metabolism
2011	Introductory Thyroid Ultrasound Workshop; Endocrine Society Meeting 2011
2015	Advanced Thyroid Ultrasound Workshop; Endocrine Society Meeting 2015; March 4, 2015; San Diego, CA
2015	Mayo Clinic Internal Medicine Recertification course; March 9-11, 2015, San Francisco, CA
2015	UCSF Diabetes Update and Advances in Endocrinology and Metabolism; April 30-May2, 2015; San Francisco, CA

UNIVERSITY AND PUBLIC SERVICE

SERVICE ACTIVITIES SUMMARY

My university service has been comprised primarily of assistance in interviewing candidates for the endocrine fellowship program as well as providing letters of reference regarding the teaching skills of faculty members eligible for advancement. Outside the formal university setting, I previously was involved in a university-sponsored student singing group which draws participants from multiple schools at UCSF as well as local community members.

I have also been honored to be invited as a member of the private, non-profit foundation, Rachel's Well, which is an organization focused on improvement of women's health by raising awareness, removing barriers to care, and stimulating research. The foundation's efforts currently center on areas of menstrual health and ovarian insufficiency, providing a network of for patients, doctors, researchers, and lawmakers to participate in research and advocacy. As a member, I have participated in advisory board meetings regarding such projects as well as in board elections. The foundation is committed to a model of community-based participatory research as a way to build bridges between patient needs, clinical care, and basic research.

SCHOOL OF MEDICINE

2005 - 2008	Ad hoc reviews for faculty advancement	3 in 2005, 2 in 2006, 1 in 2007, 1 in 2008

DEPARTMENTAL SERVICE

2005 - 2015	Ad hoc interviewer for Endocrine fellowship applicants	1-4 applicants per year, participating several years from 2005-2015

COMMUNITY AND PUBLIC SERVICE

2005 - 2007	UCSF Vocal Chords singing group	co-director, musical director
2009 - present	Rachel's Well, Inc.	member

TEACHING AND MENTORING

TEACHING SUMMARY

As an attending in the Diabetes Clinic, I have had the opportunity to supervise and precept both medical students and fellows in an informal setting, discussing the evaluation and treatment of patients. I am continuing formal teaching activities by serving again as a small group facilitator for the Endocrine section of the Metabolism and Nutrition course within the Medical School. Moreover, I have provided informal mentoring to Endocrine fellows both within and outside of the clinic setting with regard to career development and mentor selection.

Prior to my appointment as faculty, I had several opportunities in my fellowship training to participate in both formal and informal teaching opportunities. Formal teaching consisted chiefly of facilitating small discussion groups for first and second year medical students as part of the Metabolism & Nutrition course and Obesity AIMS session. Informal instruction of medical students and residents in the clinic and inpatient consult settings comprised a large portion of my fellowship teaching experience in addition to the preparation of weekly case conferences. In my final year of fellowship, I also had the pleasure of mentoring an undergraduate student as part of the UCSF Summer Research Training Program within the lab of my mentor, Mark Anderson.

FORMAL TEACHING

	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size

	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
	1996 - 1996	University of Texas Southwestern Medical School, Cell Biology course (teaching assistant). Led 6-8 hours of histology lab per week as part of this 8 week course (2.0 credits) for first year medical students in addition to participation in weekly course teaching meetings, preparation and holding of course review sessions for students, and administration of the final histology exam.			
	2015 - 2015	IDS 103; Metabolism & Nutrition	Discussion Group Leader (2 two-hour sessions)		13
	2013 - 2013	IDS 103; Metabolism & Nutrition	Discussion Group Leader (4 two-hour sessions)		12
	2010 - 2011	IDS 103; Metabolism & Nutrition	Discussion Group Leader (4 two-hour sessions)		13
	2009 - 2010	IDS 103; Metabolism & Nutrition	Discussion Group Leader (4 two-hour sessions)		13
	2008 - 2009	IDS 103; Metabolism & Nutrition	Discussion Group Leader (4 two-hour sessions)		13
	2007 - 2008	IDS 103; Metabolism & Nutrition	Discussion Group Leader (1 of 4 two-hour sessions)		14
	2006 - 2007	IDS 112; Obesity AIMS (Intersession April 2007)	Discussion Group Leader		12
	2006 - 2007	IDS 103; Metabolism & Nutrition	Discussion Group Leader (2 of 4 two-hour sessions)		14
	2005 - 2006	IDS 106; Metabolism & Nutrition	Discussion Group Leader(4 two-hour sessions)		15

INFORMAL TEACHING

1994 - 1995 University of Texas Southwestern's Adopt-a-school program; Dallas, Texas (Instructor).

2004 - 2005 Clinical Fellow, Endocrinology. Superivision and teaching of residents and medical students on inpatient consult service rounds and outpatient clinics. Weekly preparation of case conferences for attendings and other residents or students on the Endocrine service.

2008 - 2009 Supervised and precepted medical students and fellows (4 students, 1 fellow) in the UCSF Diabetes clinic.

2008 - 2009 Assisted in the teaching of scientific investigation to visiting students, medical students and rotating graduate students in the laboratory.

2009 - 2012 Anticipate continued participation in precepting students and fellows in the Diabetes clinic as well as mentoring students and colleagues in the laboratory.

PREDOCTORAL STUDENTS SUPERVISED OR MENTORED

Dates	Name	Program or School	Mentor Type	Role	Current Position
2008 - 2008	Catherine Tan	Undergraduate; UCSF Summer Research Training Program participant		Supervised summer research	Graduate student; Harvard University.
2008 - 2009	Jennifer Giampaolo	MSTP student; UCSF		Precepted student in Diabetes clinic. Informal mentoring in laboratory setting.	Resident in Psychiatry
2008 - 2009	James M. Gardner	MSTP student; UCSF		Precepted student in Diabetes clinic. Informal mentoring in laboratory setting.	MSTP student; UCSF

POSTDOCTORAL FELLOWS AND RESIDENTS MENTORED

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2008 - 2009	Denis Glenn	Postdoctoral fellow, Diabetes Center, UCSF		Informal career advisor	Adjunct Assistant Professor

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2008 - 2009	Anthony Shum	Clinical Fellow, Pulmonary division, UCSF		Informal career and research advisor	Assistant Professor
2014 - 2015	Sahar Hindi	Clinical fellow, Endocrinology		Informal advising on mentor selection	Clinical fellow, Endocrinology
2014 - 2015	Ada Lee	Clinical fellow, Endocrinology		Informal career advising	Clinical fellow, Endocrinology

RESEARCH AND CREATIVE ACTIVITIES

RESEARCH AND CREATIVE ACTIVITIES SUMMARY

CURRENT RESEARCH INTERESTS

My research interests have been guided by a longstanding interest in genetics and developmental biology, particularly with regard to reproductive biology, as well as the unique intersection of these interests with immunology in the study of endocrine autoimmunity. My earlier faculty research centered on investigations on autoimmune ovarian disease (AOD) by utilizing a novel mouse model of spontaneous autoimmune disease, the aire knockout mouse with an interest in translational studies to women with premature ovarian failure. Questions of ovarian function and endocrine autoimmunity remain a particular clinical interest as well.

Currently, my research interests have shifted to the application of advanced genomics and next generation in advancing the characterization of autoimmune endocrine disorders. Given the shift in my commitments to more clinical care, my research is much more translationally-oriented, partnering with other basic and translational scientists to address novel questions in endocrine autoimmunity.

RESEARCH AWARDS - CURRENT

1. 2014 Research Seed Grant for Autoimmune Polyglandular Syndrome Type 1 — Co-PI

   National Organization for Rare Disorders (NORD) — 01/01/2015 — 12/31/2016

   2014 Research Seed Grant for Autoimmune Polyglandular Syndrome Type 1 Title: Stem Cell Derived Thymus for the Study of APS1 — $ 50,000 direct/yr 1 — $ 100,000 total

RESEARCH AWARDS - PAST

1. 1. K08HD058599		Cheng (PI)
NIH/NICHD	2008-09-01	2013-08-31
Mentored Clinical Scientist Research Career Development Award (K08) Title: Antigen Identification in a Novel Model of Spontaneous Autoimmune Ovarian Disease	$ 112,750 direct/yr 1	$ 563,750 total

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2. 2010 Research Seed Grant for Autoimmune Polyglandular Syndrome Type 1 — Co-PI		
National Organization for Rare Disorders (NORD)	01/01/2011	12/31/2012
2010 Research Seed Grant for Autoimmune Polyglandular Syndrome Type 1 Title: Novel Translational Biomarkers in the Diagnosis and Management of APS 1	$ 50,000 direct/yr 1	$ 100,000 total

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3. 2012 Research Seed Grant for Autoimmune Polyglandular Syndrome Type 1 — Co-PI		
National Organization for Rare Disorders (NORD)	01/01/2013	12/31/2014
2012 Research Seed Grant for Autoimmune Polyglandular Syndrome Type 1 Title: Development of Pre-clinical Tools for the Diagnosis and Management of APS Type 1	$ 50,000 direct/yr 1	$ 100,000 total

PEER REVIEWED PUBLICATIONS

1. Pavan W.J., Mac S., Cheng M., Tilghman S.M. Quantitative trait loci that modify the severity of spotting in piebald mice. Genome Res. 1995 Aug; 5(1): 29-41.
2. Cheng M.H., Maines J.Z., Wasserman S.A. Biphasic subcellular localization of the DAZL-related protein Boule in Drosophila spermatogenesis. Dev Biol. 1998 Dec 15; 204(2): 567-76.
3. Rhim H., Dunn K.J., Aronzon A., Mac S., Cheng M., Lamoreux M.L., Tilghman S.M., Pavan W.J. Spatially restricted hypopigmentation associated with an Ednrbs- modifying locus on mouse chromosome 10. Genome Res. 2000 Jan; 10(1): 17-29.
4. **Cheng MH**, Shum AK, Anderson MS. What's new in the Aire? Trends Immunol. 2007 Jul; 28(7):321-7. PMID: 17556019
5. Zhang L, Barker JM, Babu S, Su M, Stenerson M, **Cheng M**, Shum A, Zamir E, Badolato R, Law A, Eisenbarth GS, Anderson MS. A robust immunoassay for anti-interferon autoantibodies that is highly specific for patients with autoimmune polyglandular syndrome type 1. Clin Immunol. 2007 Nov; 125(2):131-7. PMID: 17825626

6. **Cheng MH**, Fan U, Grewal N, Barnes M, Mehta A, Taylor S, Husebye ES, Murphy EJ, Anderson MS. Acquired autoimmune polyglandular syndrome, thymoma, and an AIRE defect. N Engl J Med. 2010 Feb 25; 362(8):764-6. PMID: 20181983

7. Otsuka N, Tong ZB, Vanevski K, Tu W, **Cheng MH**, Nelson LM. Autoimmune oophoritis with multiple molecular targets mitigated by transgenic expression of mater. Endocrinology. 2011 Jun; 152(6):2465-73. PMID: 21447630.

8. **Cheng MH**, Nelson LM. Mechanisms and models of immune tolerance breakdown in the ovary. Semin Reprod Med. 2011 Jul; 29(4):308-16. PMID: 21969265.

9. **Cheng MH**, Anderson MS. Monogenic autoimmunity. Annu Rev Immunol. 2012; 30:393-427. PMID: 22224765.

10. **Cheng MH**, Anderson MS. Insights into type 1 diabetes from the autoimmune polyendocrine syndromes. Curr Opin Endocrinol Diabetes Obes. 2013 Aug; 20(4):271-8. PMID: 23770732.

11. Shum AK, Alimohammadi M, Tan CL, **Cheng MH**, Metzger TC, Law CS, Lwin W, Perheentupa J, Bour-Jordan H, Carel JC, Husebye ES, De Luca F, Janson C, Sargur R, Dubois N, Kajosaari M, Wolters PJ, Chapman HA, Kämpe O, Anderson MS. BPIFB1 is a lung-specific autoantigen associated with interstitial lung disease. Sci Transl Med. 2013 Oct 9; 5(206):206ra139. PMID: 24107778.

12. Price JV, Haddon DJ, Kemmer D, Delepine G, Mandelbaum G, Jarrell JA, Gupta R, Balboni I, Chakravarty EF, Sokolove J, Shum AK, Anderson MS, **Cheng MH**, Robinson WH, Browne SK, Holland SM, Baechler EC, Utz PJ. Protein microarray analysis reveals BAFF-binding autoantibodies in systemic lupus erythematosus. J Clin Invest. 2013 Dec 2; 123(12):5135-45. PMID: 24270423.

13. Watkin LB, Jessen B, Wiszniewski W, Vece TJ, Jan M, Sha Y, Thamsen M, Santos-Cortez RL, Lee K, Gambin T, Forbes LR, Law CS, Stray-Pedersen A, **Cheng MH**, Mace EM, Anderson MS, Liu D, Tang LF, Nicholas SK, Nahmod K, Makedonas G, Canter DL, Kwok PY, Hicks J, Jones KD, Penney S, Jhangiani SN, Rosenblum MD, Dell SD, Waterfield MR, Papa FR, Muzny DM, Zaitlen N, Leal SM, Gonzaga-Jauregui C; Baylor-Hopkins Center for Mendelian Genomics, Boerwinkle E, Eissa NT, Gibbs RA, Lupski JR, Orange JS, Shum AK. COPA mutations impair ER-Golgi transport and cause hereditary autoimmune-mediated lung disease and arthritis. Nat Genet. 2015 Apr 20. doi: 10.1038/ng.3279. [Epub ahead of print] PMID: 25894502

14. Watkin LB, Jessen B, Wiszniewski W, Vece TJ, Jan M, Sha Y, Thamsen M, Santos-Cortez RL, Lee K, Gambin T, Forbes LR, Law CS, Stray-Pedersen A, Cheng MH, Mace EM, Anderson MS, Liu D, Tang LF, Nicholas SK, Nahmod K, Makedonas G, Canter DL, Kwok PY, Hicks J, Jones KD, Penney S, Jhangiani SN, Rosenblum MD, Dell SD, Waterfield MR, Papa FR, Muzny DM, Zaitlen N, Leal SM, Gonzaga-Jauregui C. COPA mutations impair ER-Golgi transport and cause hereditary autoimmune-mediated lung disease and arthritis. Nat Genet. 2015 Jun; 47(6):654-60. PMID: 25894502

15. Bluestone JA, Bour-Jordan H, Cheng M, Anderson M. T cells in the control of organ-specific autoimmunity. J Clin Invest. 2015 Jun; 125(6):2250-60. PMID: 25985270

REVIEW ARTICLES

1. Cheng M.H.*, Shum A.K.*, and Anderson M.S. What's New in the Aire? Trends Immunol. 2007 Jul; 28(7):321-7. (* these authors contributed equally to this work)
2. **Cheng M.H.** and Nelson L.M. Mechanisms and models of immune tolerance breakdown in the ovary. Semin Repord Med. 2011 Jul;29(4):308-16.
3. **Cheng MH**, Anderson MS. Monogenic Autoimmunity. Annu Rev Immunol. 2012 Mar 24.
4. **Cheng MH**, Anderson M.S. Insights into type 1 diabetes from the autoimmune polyendocrine syndromes. Curr Opin Endocrinol Diabetes Obes. 2013 Aug;20(4)271-8.
5. Adams Waldorf K.M., **Cheng.M.H.** and D.W. Branch. Autoimmune Disorders. In Artal, E, Lentz, GM, and Stenchever, M (Eds), Clinical Updates in Women's Health Care, 2014 Jan; Vol XIII, No 1. Washington, DC: American College of Obstetrics and Gynecology.
6. Bluestone JA, Bour-Jordan H, **Cheng M**, Anderson M. T cells in the control of organ-specific autoimmunity. J Clin Invest. 2015 Jun;125(6):2250-60. doi: 10.1172/JCI78089. Review.
   PMID: 25985270

BOOKS AND CHAPTERS

1. Cheng M.H. Calcium Homeostasis. and Adrenal Insufficiency. In: Katz, J.N., Patel, C.B, and Aslam M.K. ed. Parkland Manual of In-Patient Medicine: An Evidence-Based Approach. Philadelphia: F.A. Davis Company; 2006: 601-609, 609-615.

OTHER PUBLICATIONS

1. **Cheng M.H.** 1994. Thesis: Quantitative trait genetic analysis in *piebald* mice identifies the steel locus as a potential modifier of white spotting. Princeton University, Princeton, New Jersey.
2. **Cheng M.H.** 2000. Thesis: Molecular and genetic analysis of Boule, a regulator of meiotic entry in *Drosophila* spermatogenesis. University of Texas Southwestern, Dallas, Texas.

SIGNIFICANT PUBLICATIONS

1. **Cheng M.H.**, Fan U., Grewal N., Barnes M., Mehta A., Taylor S., Husebye E.S., Murphy E.J, Anderson M.S. Acquired Autoimmune Polyglandular Syndrome, Thymoma and an AIRE Defect. N Engl J Med. 2010 Feb 25;362(8):764-6.

   This article describes a novel case of acquired APS1 disease in a patient with a thymoma. The discovery of a defect in AIRE expression within the thymic tumor provides a potential mechanism for the development of the patient's disease. I authored the manuscript and generated the figures as well as the majority of the data of within the publication.

2. Otsuka N, Tong ZB, Vanevski K, Tu W, **Cheng MH***, Nelson LM. Autoimmune oophoritis with multiple molecular targets mitigated by transgenic expression of Mater. Endocrinology. 2011 Jun;152(6):2465-73. (*corresponding author)

   Invited by Dr. Nelson to write the manuscript for the research done chiefly by Drs. Otsuka and Tong. The manuscript describes the ability of transgenic expression of an ovarian protein and autoantigen to reduce development of ovarian autoimmune immune disease in a mouse model of disease. Drs. Otsuka and Tong generated the majority of the data and figures of the manuscript, and Dr. Tong wrote an initial draft of the methods. The remainder of the manuscript was written by me, and as such, I served as the corresponding author for this paper.

3. **Cheng M.H.**and Nelson L.M. Mechanisms and models of immune tolerance breakdown in the ovary. Semin Repord Med. 2011 Jul;29(4):308-16.

   Invited by Dr. Nelson to contribute a review on ovarian autoimmunity to discuss both the evidence in human patients as well as animal models that support mechanisms for the disease process. I authored the entire manuscript and generated the figures for the review with editorial input from Dr. Nelson.

4. **Cheng MH**, Anderson MS. Monogenic Autoimmunity. Annu Rev Immunol. 2012 Mar 24.

   Invited by Dr. Anderson to co-author an authoritative review on monogenic autoimmunity, focusing on human genetic syndromes with defined mechanisms based on work in animal models. I authored 90% of the manuscript and was responsible for designing the figures. Following some initial input from Dr. Anderson, I was also responsible for developing the focus and direction of the manuscript.

5. Shum AK, Alimohammadi M, Tan CL, **Cheng MH**, Metzger TC, Law CS, Lwin W, Perheentupa J, Bour-Jordan H, Carel JC, Husebye ES, De Luca F, Janson C, Sargur R, Dubois N, Kajosaari M, Wolters PJ, Chapman HA, Kämpe O, Anderson MS. BPIFB1 is a lung-specific autoantigen associated with interstitial lung disease. Sci Transl Med. 2013 Oct 9; 5(206):206ra139. PMID: 24107778. PMCID: PMC3462012

   This article describes a novel lung antigen in the rare APS1 syndrome that is also shared with patients with autoimmune interstitial lung disease. This finding extended the concept that thymic targets of Aire-mediated autoimmunity are shared outside of the APS1 syndrome. I contributed to the writing and editing of this manuscript as well as discussion and critical reading of the manuscript with the lead author, Dr. Shum.

6. Adams Waldorf K.M., **Cheng.M.H.** and D.W. Branch. Autoimmune Disorders. In Artal, E, Lentz, GM, and Stenchever, M (Eds), Clinical Updates in Women's Health Care, 2014 Jan; Vol XIII, No 1. Washington, DC: American College of Obstetrics and Gynecology.

   Invited by Drs. Branch and Waldorf to contribute a section on Endocrine Autoimmunity and Premature Ovarian Insufficiency to the latest version of the monograph on Autoimmune Disorders for the American College of Obstetrics and Gynecology. I authored the two sections stated above, which comprised about 10% of the body of the text.

7. Watkin LB, Jessen B, Wiszniewski W, Vece TJ, Jan M, Sha Y, Thamsen M, Santos-Cortez RL, Lee K, Gambin T, Forbes LR, Law CS, Stray-Pedersen A, **Cheng MH**, Mace EM, Anderson MS, Liu D, Tang LF, Nicholas SK, Nahmod K, Makedonas G, Canter DL, Kwok PY, Hicks J, Jones KD, Penney S, Jhangiani SN, Rosenblum MD, Dell SD, Waterfield MR, Papa FR, Muzny DM, Zaitlen N, Leal SM, Gonzaga-Jauregui C; Baylor-Hopkins Center for Mendelian Genomics, Boerwinkle E, Eissa NT, Gibbs RA, Lupski JR, Orange JS, Shum AK. COPA mutations impair ER-Golgi transport and cause hereditary autoimmune-mediated lung disease and arthritis. Nat Genet. 2015 Apr 20. doi: 10.1038/ng.3279. [Epub ahead of print] PMID: 25894502

   This manuscript identifies a mutation in the COPA gene that is responsible for a novel human syndrome of autoimmunity characterized by lung disease and arthritis. This finding is noteworthy in that in linking mutation in a ubiquitous component of protein trafficking to organ-specific autoimmunity. I was involved in guidance in early stages of the genetic analysis as well as critical reading, discussions, and editing of the manuscript with the senior author Dr. Shum.

8. Bluestone JA, Bour-Jordan H, **Cheng M**, Anderson M. T cells in the control of organ-specific autoimmunity.
   J Clin Invest. 2015 Jun;125(6):2250-60. doi: 10.1172/JCI78089. Review. PMID: 25985270

   This article was an invited review and summarizes recent advances and concepts in the mechanisms of T cell mediated autoimmunity. I participated in the writing and editing of the article.

OTHER CREATIVE ACTIVITIES

1. **T1D-REDEEM Study Recruitment**
   I have begun a colloboration with Dr. Lawrence Fisher in leading recruitment of subjects in the Northern California Sutter system for enrollment in a study of distress in longterm management of Type 1 diabetes (T1D-REDEEM study). I will be assisting in identifying and recruiting participants from the Northern California region for this study and anticipate contributing to writing of the manuscript reporting the results of the study.

2. **Grant and Manuscript writing assistance:**
   Based on my experience in my own grant and manuscript writing as well as editorial writing as a guest editor, I have developed expertise in medical and scientific writing. As such, I have been active in assisting various PIs in the Department of Medicine in writing of grant applications and manuscript preparation. Individual investigators include Dr. Mark Anderson, Dr. Anthony Shum, and Dr. Edward Hsiao. Additionally, I have worked in collaboration with Dr. Anderson in writing several grant applications with other collaborators, including multi-PI or program grants with Dr. Matthias Hebrok and Dr. Jeffrey Bluestone. I have also contributed to the editing and writing of portions of the recent NIH DERC grant spearheaded by Dr. Michael German and in various sundry promotional writing for the Diabetes Center (press releases, tweets, etc).

3. Other Publications:
   Editorials

   1. **Cheng MH.** Bones Break the News on Reproduction. Editors' Choice, Reproduction

[editorial]. Sci Transl Med 9 March 2011 3:73ec30. DOI:10.1126/scitranslmed.3002339
2. **Cheng MH**. Starve Now, Gain Later. Editors' Choice, Diabetes [editorial]. Sci Transl Med 6 April 2011 3:77ec46. DOI:10.1126/scitranslmed.3002455
3. **Cheng MH**. Fat Fans the Flames. Editors' Choice, Diabetes [editorial]. Sci Transl Med 4 May 2011 3:81ec63. DOI:10.1126/scitranslmed.3002569
4. **Cheng MH**. DPP4 Joins Weight Watchers. Editors' Choice, Obesity [editorial]. Sci Transl Med 1 June 2011 3:85ec80. DOI:10.1126/scitranslmed.3002685
5. **Cheng MH**. The Nerve of Those β Cells. Editors' Choice, Diabetes [editorial]. Sci Transl Med 29 June 2011 3:89ec98. DOI:10.1126/scitranslmed.3002798
6. **Cheng MH**. Bioinformatics Is □HIP□ in the Islets. Editors' Choice, Diabetes [editorial]. Sci Transl Med 27 July 2011 3:93ec116. DOI:10.1126/scitranslmed.3002931
7. **Cheng MH**. PTPN22: A Risky Business. Editors' Choice, Autoimmunity [editorial]. Sci Transl Med 24 August 2011 3:97ec134. DOI:10.1126/scitranslmed.3003064
8. **Cheng M**. Osteocytes Take Center Stage. Editors' Choice, Bone Model Remodeling [editorial]. Sci Transl Med 21 September 2011 3:101ec152. DOI:10.1126/scitranslmed.3003211
9. **Cheng M**. ARRESTINg Obesity. Editors' Choice, Energy Metabolism [editorial]. Sci Transl Med 19 October 2011 3:105ec168. DOI:10.1126/scitranslmed.3003303
10. **Cheng MH**. Suicide Genes Breathe New Life into Cell Therapies. Editors' Choice, Stem Cell Transplantation [editorial]. Sci Transl Med 16 November 2011 3:109ec184. DOI:10.1126/scitranslmed.3003414
11. **Cheng M**. Cushing□s Disease Escapes the Knife. Editors' Choice, Endocrinology [editorial]. Sci Transl Med 14 December 2011 3:113ec201. DOI:10.1126/scitranslmed.3003553
12. **Cheng MH**. Feeling SNP-y? Better Analysis Is the Cure. Editors' Choice, Human Genetics [editorial]. Sci Transl Med 18 January 2012 4:117ec8. DOI:10.1126/scitranslmed.3003694
13. **Cheng MH**. Sleepless and Diabetic. Editors' Choice, Diabetes [editorial]. Sci Transl Med 15 February 2012 4:121ec24. DOI:10.1126/scitranslmed.3003836

4. **Prior Significant Research Experience:**
1996-2000 University of Texas Southwestern Medical Center, doctoral research. Advisor: Steven A. Wasserman, PhD. Doctoral research on the regulation of meiotic entry in Drosophila spermatogenesis

2005- 2008 University of California San Francisco, Diabetes Center, fellowship research. Advisor: Mark S. Anderson, MD, PhD.Characterization of mechanisms of ovarian autoimmunity

5. 2006 FOCIS Advanced Course in Basic and Clinical Immunology, Scottsdale, AZ, Mar. 15-18.
2006 AAI Advanced Course in Immunology, Stanford University, Jul. 15-21.