

# HAU LIU, M.D., M.B.A, M.P.H., M.S.

## CURRICULUM VITAE

<b>Current Affiliation</b>	Senior Director, Clinical Content <i>Castlight Health</i>
<b>Academic Title</b>	Clinical Assistant Professor of Medicine <i>Stanford University</i>  Adjunct Associate Center for Primary Care and Outcomes Research <i>Stanford University</i>
<b>Contact Information</b>	685 Market Street, Suite 300 San Francisco, CA 94105 Phone: (408) 472 1361 Email: <a href="mailto:hauli@stanford.edu">hauli@stanford.edu</a>
<b>Citizenship</b>	United States of America
<b>Date of Birth</b>	March 23, 1972
<b>Education</b>	
1990 – 1995	Harvard University, Cambridge, MA <b>Bachelor of Arts</b> , Department of East Asian Studies
1993 – 1994	Nanjing University, Nanjing, China Department of Foreign Students
1995 – 2000	Columbia University, New York, NY <b>Doctor of Medicine</b> , College of Physicians and Surgeons <b>Master of Public Health</b> , The Mailman School of Public Health
1998 – 2000	Columbia University, New York, NY <b>Master of Business Administration</b> , Columbia Business School
2005 – 2007	Stanford University, Stanford, CA <b>Master of Health Service Research</b>

**Work Experience and Training**

6/99 – 8/99	Deloitte Consulting, East Brunswick, NJ Health Care Practice Senior Consultant
6/00 – 6/01	Booz-Allen and Hamilton, New York, NY World Commercial Business Practice Associate
7/01 – 6/02	Stanford University Hospital, Stanford, CA Intern, Internal Medicine
7/02 – 6/03	Stanford University Hospital, Stanford, CA Resident, Internal Medicine
7/03 – 6/07	Stanford University Hospital, Stanford, CA Fellow, Endocrinology, Gerontology, and Metabolism
7/04 – 6/07	Stanford University Hospital, Stanford, CA Fellow, Center for Primary Care and Outcomes Research
2/04 – 2007	Kaiser-Permanente, Milpitas, CA Urgent Care Clinic Pool Physician
5/05 – 6/11	Camino Medical Group, Sunnyvale, CA HMR Weight Management Program Physician
8/07 – 12/08	Santa Clara Valley Medical Center, San Jose, CA Division of Chronic Care Management Co-Director
8/07 – 8/11	Santa Clara Valley Medical Center, San Jose, CA Division of Endocrinology and Metabolism Associate Chief
1/09 – 8/11	Santa Clara Valley Medical Center, San Jose, CA Division of Chronic Care Management Director
9/11 – present	Castlight Health, San Francisco, CA Senior Director

**Academic Appointments**

- 9/07 – present                      Stanford University School of Medicine, Stanford, CA  
Clinical Assistant Professor of Medicine
- 9/07 – present                      Stanford University  
Center for Primary Care and Outcomes Research  
Adjunct Associate

**Licensure & Certification**

- 2002                                      Completed: USMLE Parts 1, 2, & 3
- 2002                                      California Medical License (A79893)  
DEA License (BL7990472)
- 2004                                      Board Certification  
American Board of Internal Medicine  
Internal Medicine (8/04)
- 2005                                      Thyroid Ultrasound and FNA Biopsy Accreditation  
American Association of Clinical Endocrinology
- 2005                                      Bone Mass Measurement Certification  
The International Society for Clinical Densitometry
- 2006                                      Board Certification  
American Board of Internal Medicine  
Endocrinology, Diabetes, and Metabolism (10/06)

**Personal Honors & Awards**

- 1990 National Merit Scholarship, Semi-Finalist
- 1993 - 1994 Harvard Yenching Institute, Cambridge, MA  
Harvard-Yenching Institute Fellow
- 1995 Harvard University, Cambridge, MA  
John Harvard Scholarship
- 1995 Harvard University, Cambridge, MA  
Bachelor of Arts, *Cum Laude*
- 1996 American Medical Student Association Foundation  
AMSA Foundation Research Grant
- 1999 National Medical Honor Society  
Alpha Omega Alpha (AOA)
- 2005 GlaxoSmithKline Endocrinology Scholar Award  
American Federation for Medical Research  
Carmel, CA
- 2005 Lee Lusted Prize  
Society for Medical Decision Making Annual Meeting  
San Francisco, CA
- 2007 Genentech Clinical Fellows Travel Grant  
Endocrine Society Annual Meeting  
Toronto, Canada
- 2010 Employee of the Month - November  
Santa Clara County  
San Jose, CA

**Selected Teaching Experience**

1993 – 1994	San Jiang University, Nanjing, China English Language Instructor
2004 – 2005	Division of Endocrinology & Metabolism, Stanford University Fellows' Journal Club Organizer
2005, 2006	Stanford University School of Medicine Practice of Medicine Patient Interview Preceptor
2006	Stanford University School of Medicine Endocrinology Physiology Laboratory Endocrine Preceptor
2010 – present	Santa Clara Valley Medical Center Internal Medicine Residency Program Co-Director, Resident Research Pathway

**Memberships**

Member, American College of Physicians  
Member, Endocrine Society  
Member, American Association of Clinical Endocrinologists  
Member, American Society for Bone and Mineral Research

**Research and Professional Interests**

Diagnostic and Treatment Strategies for Osteoporosis  
Endocrinology and Anti-Aging Therapies  
Diagnostic Strategies for Hypercortisolism  
Chronic Disease Management  
Health Services Research: Meta-Analysis and Cost-Effectiveness

**Languages**

English (native), Mandarin Chinese (spoken)

**Additional Skills**

Microsoft Office Applications  
SPSS: Statistical Package  
RevMan: Meta-Analytic Software  
EndNote: Manuscript Referencing Software

## Grants and Funding

- 2007 - 2009      **Preventing Heart Attacks and Stroke Everyday (PHASE)**  
Funding Source: Kaiser Permanente  
Role: Lead Investigator  
Amount: \$400,000  
Time Frame: 12/07 to 12/09
- 2008              **Post-Fragility Fracture Osteoporosis Treatment Rates at a Public Academic Medical Center**  
Funding Source: Proctor and Gamble  
Role: Lead Investigator  
Amount: \$15,000  
Time Frame: 7/08 to 7/09
- 2008              **Clinic of the Future: Silver Creek Clinic**  
Funding Source: California Health Care Foundation  
Role: Co-Investigator  
Amount: \$25,000  
Time Frame: 10/08 to 3/09
- 2009              **Valley Health Center Sunnyvale**  
Funding Source: El Camino Hospital  
Role: Participant  
Amount: \$1,236,000  
Time Frame: 2009
- 2009 - 2011      **Preventing Heart Attacks and Stroke Everyday (PHASE)**  
Funding Source: Kaiser Permanente  
Role: Lead Investigator  
Amount: \$300,000  
Time Frame: 12/09 to 12/11
- 2010              **Population Screening for Osteoporotic Risk**  
Funding Source: Foundation for Osteoporosis Research and Education  
Role: Lead Investigator  
Amount: \$5,000  
Time Frame: Summer, 2010

## **Affiliated Honors & Awards**

- 2008                    **California Association of Public Hospitals**  
Quality Leaders Awards  
Top Honors  
Coordinated Systems of Care  
Silver Creek Primary Care Redesign
- 2009                    **National Association of Public Hospitals**  
Quality Improvement  
Safety Net Award Honorable Mention  
Silver Creek Primary Care Redesign
- 2010                    **Kaiser Permanente**  
James A. Vohs Award for Quality  
ALL/PHASE Community Implementation and  
Translation Project

## **Conferences and Symposia**

- 2009                    **Chronic Care Symposium:**  
**Strategies for a Healthier Tomorrow**  
Santa Clara Valley Health and Hospital System  
Symposium Director and Organizer
- 2010                    **Chronic Care Symposium:**  
**New Models of Care**  
Santa Clara Valley Health and Hospital System  
Symposium Director and Organizer
- 2011                    **Chronic Care Symposium:**  
**Healthcare Reform and Chronic Care**  
Santa Clara Valley Health and Hospital System  
Symposium Director and Organizer

**HAU LIU, M.D., M.B.A, M.P.H., M.S.****BIBLIOGRAPHY****Peer-Reviewed Publications**

1. Aviv JE, **Liu H**, Parides M, Kaplan ST, Close LG, Laryngopharyngeal Sensory Deficits in Patients with Laryngopharyngeal Reflux and Dysphagia. *Ann Otol Rhinol Laryngol* 2000; 109:1000-1006.
2. Bravata DM, McDonald K, Owens DK, Buckeridge D, Haberland C, Rydzak C, Schleinitz M, Smith WM, Szeto H, Wilkening D, Musen M, Duncan BW, Nouri B, Dangiolo MB, **Liu H**, Shofer S, Graham J, Davies S. Bioterrorism preparedness and response: use of information technologies and decision support systems. *Evid Rep Technol Assess (Summ)*. 2002 Jun;(59):1-8.
3. Bravata DM, McDonald KM, Owens DK, Wilhelm ER, Brandeau ML, Zaric GS, Holty JEC, **Liu H**, Sundaram V. Regionalization of Bioterrorism Preparedness and Response. *Evid Rep Technol Assess (Summ)*. 2004 Apr;(96):1-7.
4. **Liu H** and Crapo L, Update on the Diagnosis of Cushing's Syndrome, *The Endocrinologist*, May/June 2005, 15:165-79.
5. **Liu H**, Bravata DM, Cabaccan J, Raff H, Ryzen E, Elevated Late Night Salivary Cortisol Levels in Elderly Male Type 2 Diabetic Veterans, *Clin Endocrinol (Oxf)*. 2005 Dec; (63)6: 642-9
6. Holty J-EC, Bravata DM, **Liu H**, Wilhelm ER, McDonald KM, Owens DK. 100 Years of Inhalational Anthrax: A Systematic Review of Cases from 1900 to 2001. *Ann Intern Med*. 2006 Feb 21;144(4):270-80.
7. Nayak S, Olkin I, **Liu H**, Grabe M, Gould MK, Allen E, Owens DK, Bravata DM, Meta-analysis: accuracy of quantitative ultrasound for identifying patients with osteoporosis. *Ann Intern Med*. 2006 Jun 6;144(11):832-41.
8. **Liu H**, Michaud K, Nayak S, Karpf D, Owens D, Garber A, The Cost-effectiveness of Therapy With Teriparatide and Alendronate in Women With Severe Osteoporosis. *Arch Intern Med*. 2006 Jun 12;166(11):1209-17.
9. Bravata DM, Wang E, Holty J-E, Lewis R, Wise PH, Nayak S, **Liu H**, McDonald KM, Owens DK. Pediatric Anthrax: Implications for Bioterrorism Preparedness. Evidence Report/Technology Assessment No. 141. (Prepared by Stanford University—UCSF Evidence Based Practice Center under Contract No. 290-02-0017.) *AHRQ Publication No. 06-E013*. Rockville, MD: Agency for Healthcare Research and Quality. August 2006.



10. **Liu H**, Bravata DM, Olkin I, Nayak S, Roberts B, Garber A, Hoffman AR. Systematic Review: The Safety and Efficacy of Growth Hormone in the Healthy Elderly. *Ann Int Med*. 2007 Jan 16; 146(2):104-15.
11. **Liu H**, Paige N, Goldzweig, et al. Screening for Osteoporosis in Men: A Systematic Review for an American College of Physicians Guideline, *Ann Intern Med*, 2008 May 6:148(9); 685-701.
12. **Liu H**, Bravata DM, Olkin I, et al. Systematic Review: The Effects of Growth Hormone on Athletic Performance, *Ann Intern Med*, 2008 May 20; 148(10);747-58. Epub 2008 Mar 17.
13. Salpeter SR, Buckley NS, **Liu H**, et al. The Cost-Effectiveness of hormone therapy in younger and older post-menopausal women, *Am J Med*, 2009 Jan; 122(1):42-52
14. **Liu H**, Cheung K, Bravata DM. Yes we can? Can all Americans join the imminent electronic health care revolution? A survey of patients receiving care at a public hospital, *Arch Int Med*, 2009, 169 (16):1535-6
15. Valentine A, Raff H, **Liu H**, et al. Salivary Cortisol Increases After Bariatric Surgery in Women, *Horm Metab Res*, epub ahead of print, 2011.

### **Selected Presentations and Abstracts**

1. **Liu H**, Basina M, Hoffman A. Life-Threatening Hypoglycemia in a Previously Healthy Woman. All California Chapter Meeting, American College of Physicians, Nov 1-3, 2002.
2. **Liu H**, Cabaccan J, Raff H, Findling J, Ryzen E. Late-night Salivary Cortisol as a Screening Test for Cushing's Syndrome in Male Obese Diabetic Veterans. Western Regional Meeting, Western American Federation for Medical Research, Carmel, CA, February 5, 2005 (oral presentation).
3. **Liu H**, Michaud K, Nayak S, Henne M, Garber A. The Cost-Effectiveness of Osteoporosis Treatment in High-Risk Osteoporotic Women. Third Annual Bay Area Health Care Quality and Outcomes Conference, Stanford, CA, May 26, 2005 (oral presentation).
4. **Liu H**, Cabaccan J, Ryzen E. Late-Night Salivary Cortisol as a Screening Test for Cushing's Syndrome in Male Obese Diabetic Veterans. The Endocrine Society Annual Meeting 2005, San Diego, CA, June 4th-7th, 2005.
5. **Liu H**, Michaud K, Nayak S, Karpf D, Owens D, Garber A. The Costs and Benefits of Osteoporosis Treatment. Palo Alto Medical Foundation, Palo Alto, CA, July 18<sup>th</sup> 2006.

6. **Liu H**, Michaud K, Nayak S, Karpf D, Owens D, Garber A. The Cost-Effectiveness of Alendronate and Parathyroid Hormone in High-Risk Osteoporotic Women. Society for Medical Decision Making, San Francisco, October 24<sup>th</sup>, 2005 (oral presentation).
7. **Liu H**, Bravata DM, Olkin I, Roberts B, Nayak S, Garber A, Hoffman A. The Safety and Efficacy of Growth Hormone in the Healthy Elderly: A Systematic Review. The Endocrine Society Annual Meeting 2006, Boston, MA, June 2006.
8. **Liu H**, Bauer D, Bhattacharya J, Looker AC, Karpf, D. Rates of Bone Turnover By Ethnicity, Gender, and Age: Urine N-Telopeptide and Serum Bone Specific Alkaline Phosphatase Levels in a Nationally-Representative Cohort. American Society for Bone and Mineral Research, 28<sup>th</sup> Annual Meeting, Philadelphia, PA, September 17<sup>th</sup>, 2006.
9. **Liu H**, Nayak S, Michaud K, Karpf D, Owens SK, Garber A. Generic Fosamax: The Effect of Price Reduction on the Cost-Effectiveness of Alendronate Therapy. The 28th Annual Meeting of the Society for Medical Decision Making, October 15-18, 2006, Boston, MA
10. **Liu H**. The Cost-Effectiveness of Osteoporosis Therapy in High Risk Postmenopausal Women. Geriatrics Clinical Seminar, VA Palo Alto Healthcare System, January 16<sup>th</sup>, 2007.
11. **Liu H**, Paige N, Goldzweig C, Wong E, Zhou A, Munjas B, Shekelle P. Screening Tests for Male Osteoporosis: A Systematic Review. 89<sup>th</sup> Annual Endocrine Society Meeting, Toronto, June 2<sup>nd</sup> – 5<sup>th</sup>, 2007.
12. Avula L, **Liu H**. A Rare Case of Metastatic Follicular Cancer to the Skull Base in a Young Woman. All California Chapter Meeting, American College of Physicians, Monterey, Dec 1st, 2007.
13. **Liu H**. Improving the Care of Patients with Chronic Disease in the Public Sector: The Santa Clara Valley Medical Center Experience. Santa Clara Medical Society, San Jose, Feb 9<sup>th</sup>, 2008.
14. Nayak S, Greenspan S, **Liu H**, Michaud K, Owens D, Roberts M. The Cost-Effectiveness for Osteoporosis Screening Strategies for Post-Menopausal Women. Society for General Internal Medicine, 31<sup>st</sup> Annual Meeting (*candidate for Hamolsky Award, April 10, 2008*)
15. **Liu H**, “Non-FDA Approved Indications for Growth Hormone”, Santa Clara Valley Health and Hospital Systems Medicine Grand Rounds, Oct 24<sup>th</sup>, 2008.
16. Tam J, **Liu H**, Tom A, Post-Fragility Fracture Treatment Rates of Osteoporosis at a Public Academic Medical Center. American Society for Bone and Mineral Research, 31<sup>st</sup> Annual Meeting, 2009 (poster).

17. Elamin MB, Abu Elnour NO, Elamin KB, Murad MH, Fatourehchi MM, Alkatib AA, Almandoz JP, **Liu H**, Lane MA, Mullan RJ, Erwin PJ, Hensrud DD, Montori VM. Vitamin D supplementation and cardiovascular outcomes: A systematic review and meta-analysis. The American College of Preventive Medicine Annual Meeting Washington, DC Feb 2010. (Abstract)--oral presentation
18. Murad MH, Elamin KB, Abu Elnour NO, Elamin, MB, Alkatib AA, Fatourehchi MM, Almandoz JP, Mullan RJ, Lane, MA, **Liu H**, Erwin PJ, Hensrud DD, Montori VM. Interventions to raise Vitamin D level and functional outcomes: A systematic review and meta-analysis The American College of Preventive Medicine Annual Meeting, Washington, DC Feb 2010. (Abstract)—poster
19. Chang, K, **Liu H**, Liu V, Crapo L, Tom A, Underdiagnosis and Undertreatment of Recurrent Thyrotoxic Periodic Paralysis. Endocrine Society Meeting, Jun 2010, San Diego.

### Other Publications and Papers

1. **Liu H**. California Proposition 187: Undocumented Immigrants and the Healthcare Provider. American Medical Student Association Foundation, 1996.
2. **Liu H**, Abel G. The Academic Medical Center: History, Stresses and Challenges for the 21<sup>st</sup> Century. *P&S Medical Review*, Spring 2000 6(2):17-21; Winter 2000 7(1):9-13.

### Book Chapters

1. *Internal Medicine – Handbook for Clinicians*, 2<sup>nd</sup> Edition, Scrub Hill Press, Endocrinology Section Author (*in press*)
2. “Human Growth Hormone”, The World Book Encyclopedia

### Manuscripts in Progress or Review

1. Tam J, Tom A, **Liu H**. Post-Fragility Fracture Treatment Rates of Osteoporosis at a Public Academic Medical Center
2. Murad MH, Elamin KB, Montori VM, **Liu H**, et al. Interventions to raise Vitamin D level and functional outcomes: A systematic review and meta-analysis
3. Murad MH, Elamin KB, Montori VM, **Liu H**, et al. Interventions to raise Vitamin D level and cardiovascular outcomes: A systematic review and meta-analysis

4. Chang, K, **Liu H**, Liu V, Crapo L, Tom A, Underdiagnosis and Undertreatment of Recurrent Thyrotoxic Periodic Paralysis
5. Basina M, **Liu H**, Hoffman A, Feldman D, Successful Long-Term Treatment of Cushings Disease with Mifepristone (RU486)
6. Roey S, Ormiston T, Vollrath K, Ho C, Doorley S, **Liu H**, Kamal A, The Individualized Learning Pathways Curriculum: A Novel Curriculum Empowering Residents to Pursue Self-Directed Educational Goals

**Journal/Grant/Expert Peer Reviewer**

1. Journal of Clinical Endocrinology and Metabolism
2. Metabolism
3. Health Research Board, Ireland
4. Clinical Endocrinology
5. Technical Expert Panel Reviewer, Rand Corporation EPC
6. Expert Reviewer, AHRQ