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CURRICULUM VITAE

Date of Revision: February 22, 2013

Name:

Toby C. Chai, M.D.

Proposed for...

Professor of Urology at the Yale University School of Medicine

Education

B.A., Natural Sciences, Johns Hopkins University May 1985

M.D., Indiana University School of Medicine May 1989

Career/Academic Appointments:

Resident in General Surgery June 1989- June 1991
University of Michigan Medical Center
Ann Arbor, MI

Resident in Urological Surgery July 1991- June 1994
University of Michigan Medical Center
Ann Arbor, MI

Postdoctoral American Foundation for Urological Diseases Aug 1995- Aug 1997
(AFUD) Research Fellow
Department of Urology and Neuroscience
University of Virginia, Charlottesville, VA

Visiting Professorships

1. Cleveland Clinic Foundation Urological Institute, Section of Voiding Dysfunction and Female Urology, October 18-19, 2001.
2. Dnipropetrovsk Medical Academy, Department of Urology, Department of Obstetrics and Gynecology, Dnipropetrovsk, Ukraine, March 29 – April 1, 2004.
3. Taipei Veterans General Hospital, Taipei, Taiwan, August 23, 2005.
4. Taichung Veterans General Hospital, Taichung, Taiwan, August 24, 2005.
5. Tri-Service General Hospital, Taipei, Taiwan, August 25, 2005.
6. Brown University, Providence, RI, Division of Urology, May 2011.
7. University of Alabama Birmingham, Division of Urology, June 2011.
8. University of Nevada Reno, Reno, NV, Department of Physiology, June 2012.

Positions:

Chief of Urology Salem VAMC Salem, VA	Jul 1994- Aug 1995
Research Instructor Department of Urology University of Virginia, Charlottesville, VA	Aug 1996- Aug 1997
Assistant Professor Department of Surgery, Division of Urology University of Maryland School of Medicine	Sept 1997- Jun 2002
Associate Professor with Tenure Department of Surgery, Division of Urology University of Maryland School of Medicine	Jul 2002- Jun 2007
John D. Young Professor with Tenure Department of Surgery, Division of Urology University of Maryland School of Medicine	Jul 2007-Dec 2012
Vice Chair of Research Co-Director of Female Pelvic Medicine and Reconstructive Surgery Department of Urology Yale School of Medicine	Jan 2013 - Present

Board Certification

Diplomate, NBME	Apr 1989
Diplomate, American Board of Urology	Feb 1998- Feb 2018

Medical Licensures

State of Michigan	Jun 1991- Jan 1995
State of Virginia	Jul 1994- Jul 1998
State of Maryland Number (b) (6)	Sept 1997- Sept 2014

Professional Honors & Recognition

- | | | |
|----|---|--------------------|
| 1) | AUAVictor A. Politano Award
(outstanding work in treatment of urinary incontinence
and innovations in bladder research) | May 2013 |
| 2) | 2 nd Prize Poster, SUFU Annual Meeting | Feb 2011 |
| 3) | Best Doctors | Jul 2011- Jul 2012 |
| 4) | <u>Journal of Urology</u> Best Reviewer Award | May 2009 |

- 5) [Redacted] (b) (6) [Redacted]
- 6) [Redacted] [Redacted] [Redacted]
- 7) Honorable Mention Jan 2009
 Basic Science Poster
 NIDDK New Research Directions in UI Symposium
 Bethesda, MD
- 8) First Prize Winner (*Mentee:* [Redacted] (b) (6)) [Redacted] (b) (6)
 [Redacted] (b) (6)
- 9) John D. Young, Jr. Endowed Professorship Jul 2007
 University of Maryland School of Medicine
- 10) Best Basic Science Poster Feb 2007
 Society for Urodynamics and Female Urology Annual Meeting
 San Diego, CA
- 11) Third Prize Winner (*Mentee:* [Redacted] (b) (6)) [Redacted] (b) (6)
 [Redacted] (b) (6)
- 12) Honorable Mention (*Mentee:* [Redacted] (b) (6)) [Redacted] (b) (6)
 [Redacted] (b) (6)
- 13) First Prize Winner (*Mentee:* [Redacted] (b) (6)) [Redacted] (b) (6)
 [Redacted] (b) (6)
- 14) First Prize Winner (*Mentee:* [Redacted] (b) (6)) [Redacted] (b) (6)
 [Redacted] (b) (6)
- 15) *Journal of Urology* Best Reviewer Award May 2005
- 16) Paul Zimskind Award Feb 2005
 For Continuing Excellence and Leadership
 In Field of Voiding Dysfunction
 Society for Urodynamics and Female Urology
- 17) Honorary Member of Academic Council Apr 2004
 Dnipropetrovsk State Medical Academy
 Dnipropetrovsk, Ukraine
- 18) Second Prize (*Mentee:* [Redacted] (b) (6)) [Redacted] (b) (6)
 [Redacted] (b) (6)

- 19) Second Prize (*Mentee:* (b) (6)) (b) (6)
- 20) (b) (6) (b) (6)
- 21) First Prize (*Mentee:* (b) (6)) (b) (6)
- 22) Young Investigator Award May 2001
Society for Basic Urologic Research
- 23) Second Alternate, May 2001
American Urological Association – European Urological Assoc.
Scholar Exchange Program
- 24) First Prize Winner, Basic Science Category May 2001
Society for Urodynamics and Female Urology (SUFU) Annual Meeting
Anaheim, CA
- 25) Winner May 2001
Pfizer International Cardura Competitive Awards Program
- 26) Honorable Mention May 2001
Annual Jack Lapidus Essay Contest in Neurourology
Anaheim, CA
- 27) Second Prize Poster Apr 1999
International Bladder Symposium
Washington, DC
- 28) Third Prize Poster Mar 1999
Society of Uroradiology Annual Meeting
New Orleans, LA
- 29) Second Prize, AUA CIRCON-ACMI May 1997
Basic Science Prize Essay Contest
American Urological Association Annual Meeting
New Orleans, LA
- 30) NIH Mentored Clinical-Scientist Career Aug 1996
Development Award (K08 Series Award)
- 31) American Foundation for Urologic Diseases (AFUD) Aug 1995
Research Scholar Award
(Mentors: (b) (6))
- 32) First Prize, Michigan Urological Society's Residents' Day Apr 1991
- 33) First Runner Up, Medical Student Research Day Mar 1986
University of Maryland, Baltimore
- 34) Representative of USA June 1981
International Symposium on Sciences and Humanities
London, England
- 35) Honors Group Apr 1981
Westinghouse Science Talent Search

Grant/Clinical Trials History:

Active Grant Support

Consultant (PI: Tar, Moses) 9/1/11-8/31/13
Gene transfer to treat urinary urgency, frequency, nocturia & incontinence
NIH-NIDDK R44-DK093279

Principal Investigator (10% effort) 7/1/11-6/30/13

(b) (4)

(b) (4)

(b) (4)

(b) (4)

(b) (4)

Past Grant Support

Principal Investigator (20% effort) No 9/1/06-6/30/12
Human Bladder Urothelial Cell Structure and Function in Bladder Hypersensation
NIH-NIDDK R01-DK75728
Total Direct Cost: \$1,139,700
Total Indirect Cost: \$ 541,620
TOTAL COSTS: \$1,681,320

Principal Investigator (10% effort) 9/1/01-9/29/11
"Baltimore Continence Treatment Center"
NIH-NIDDK U01-DK060397
Total Direct Costs Awarded: \$1,115,838
Total Indirect Costs Awarded: \$260,126
TOTAL COSTS: \$1,375,964

Principal Investigator (10% effort) 10/1/10-9/30/12
University of Maryland Baltimore Interdisciplinary Research Center in Benign Urology

NIH-NIDDK P20-DK090985-01
Total Direct Cost: \$400,000
Total Indirect Cost:\$115,810
TOTAL COSTS: \$515,810

Principal Investigator (25% effort) 6/15/01-6/31/07
“Effects of stretch on IC and Normal Urothelia
NIH-NIDDK R01-DK059441-05
Total Direct Costs Awarded: \$925,000
Total Indirect Costs Awarded: \$428,013
TOTAL COSTS: \$1,353,013

Principal Investigator (25% effort) 9/1/03 – 2/28/08
Interstitial Cystitis Clinical Research Network
NIH-NIDDK U01-DK65271-04
Total Direct Costs Awarded: \$1,280,564
Total Indirect Costs Awarded: \$311,886
TOTAL COSTS: \$1,592,450

Principal Investigator (1% effort) 3/1/05-2/28/08
Interstitial Cystitis Clinical Research Network – Ancillary Study 2
NIH-NIDDK U01-DK65271S2
Total Direct Costs Awarded: \$89,929
Total Indirect Costs Awarded: \$23,282
TOTAL COSTS: \$113,311

Principal Investigator (2% effort) 9/30/04-2/28/08
Interstitial Cystitis Clinical Research Network – Ancillary Study 1
NIH-NIDDK U01-DK65271S1
Total Direct Costs Awarded: \$292,956
Total Indirect Costs Awarded: \$76,170
TOTAL COSTS: \$369,126

Principal Investigator (1% effort) 3/1/05-2/28/08
Interstitial Cystitis Clinical Research Network – Ancillary Study 3
NIH-NIDDK U01-DK65271S3
Total Direct Costs Awarded: \$113,211
Total Indirect Costs Awarded: \$29,436
TOTAL COSTS: \$142,647

Principal Investigator (0% effort – Administrative Supplement) 7/15/09-8/31/10
Human Bladder Urothelial Cell Structure and Function in Bladder Hypersensation
Administrative Supplement NOT-OD-09-060 “Recover Act Funds for Administrative
Supplements Providing Summer Research Experiences for Students and Science Educators”.
Total Direct Cost: \$9,424
Total Indirect Cost:\$4,712
TOTAL COSTS: \$14,136

Principal Investigator (0% effort) 8/1/09-5/31/10
Human Bladder Urothelial Cell Structure and Function in Bladder Hypersensation
NIH-NIDDK R01-DK75728 Administrative Supplement ARRA for Equipment
Total Direct Cost: \$79,100
Total Indirect Cost:\$0
TOTAL COSTS: \$79,100

Principal Investigator (50% effort) 2/1/96-1/31/01
“Neuroplasticity of The Aging Bladder” (peer-reviewed)
NIH-NIA K08AG-000698
Total Direct Costs Awarded: \$469,800
Total Indirect Costs Awarded: \$34,060
Total Costs: \$503,860

Invited Speaking Engagements, Presentations, Symposia & Workshops Not Affiliated With Yale:

Community Service / Patient Support Group Presentations

7. “*Urological Issues in Patients with Spinal Cord Dysfunction*”. American Syringomyelia & Chiari Alliance Project 2008 Annual Conference.
6. “*Treatment of IC – Anything New?*” ICA Regional Meeting, Alexandria, VA, September 25, 2005.
5. “*Chronic Pelvic Pain Syndrome AKA Chronic Prostatitis*”. ICA 20th Anniversary Meeting, Old Town Alexandria, VA, November 1, 2003.
4. “*Interstitial Cystitis, a Hypersensory Pelvic Disorder*”. Interstitial Cystitis Association (ICA) Regional Support Group Meeting, Maryland City Public Library, Laurel, MD, October 19, 2003.
3. “*Effect of Prostate Cancer Treatments on Bladder Function*”, Us Too, Prostate Cancer Support Group Meeting, University of Maryland Hospital, Baltimore, MD, March 15, 2001.
2. “*Surgical Management of Interstitial Cystitis*”, Interstitial Cystitis Association Maryland Chapter Meeting, Columbia, MD, April 17,2001.
1. “*Urinary Incontinence*”, American Foundation for Urologic Diseases Bladder Health Week, University of Maryland Hospital, Baltimore, MD, November 17, 1999.

Peer-Reviewed Presentations & Symposia Given at Meetings Not Affiliated With Yale

93. Nager C, Brubaker L, Litman H, Zyczynski H, Varner RE, Amundsen C, Sirils L, Norton P, Arisco A, **Chai T**, et al. A Randomized Trial on the Effect of Urodynamic Testing Versus Office Evaluation Only Before Stress Urinary Incontinence on Outcomes. American Urological Association Annual Meeting, Atlanta, GA (2012).
92. Sterling K, Roth J, Laaris N, **Chai T**, Sun Y. Rat and human bladder urothelial cells have decreased ATP-evoked increase in intracellular calcium with knockdown of P2Y2 receptor. American Urological Association Annual Meeting, Atlanta, GA (2012).
91. Laaris N, Sun Y, **Chai T**. Characterization of resting membrane potential in rat and human bladder urothelial cells. American Urological Association Annual Meeting, Atlanta, GA (2012).
90. Goldmark E, Heuer M, **Chai TC**. Ileal loop urinary diversion for non-bladder cancer indications – long-term outcomes and complications. Joint Mid-Atlantic New England AUA Meeting, Orlando, FL (2011).

89. Albo ME, Richter HE, Zyczynski H, Kenton K, Norton P, Sirls LT, Kraus SR, **Chai TC**, Lemack GE, Litman HJ, Gormley EA, Kusek J. Trial of retropubic and transobturator midurethral slings (TOMUS): 24 month outcomes. American Urological Association Annual Meeting, Washington, DC (2011).
88. Richter HE, Brubaker L, Stoddard A, Xu Y, Zyczynski H, Norton P, Sirls LT, Kraus SR, **Chai TC**, Zimmern P, Gormley EA, Kusek JW, Albo M. Baseline and time-varying factors associated with long-term continence outcomes after surgery for stress urinary incontinence. American Urological Association Annual Meeting, Washington, DC (2011).
87. Kraus S, Lemack G, **Chai T**, Leng W, Albo M, Mueller E, Sirls L, Wilson T, Huang L, Litman H. Urodynamic changes 12 months after retropubic and transobturator midurethral slings. American Urological Association Annual Meeting, Washington, DC (2011).
86. Hsu Y, Sun Y, **Chai TC**. Vimentin is uniquely expressed by rat bladder urothelium (BU) and rat cultured urothelial cells (BUC) but not by human BU and human BUC. American Urological Association Annual Meeting, Washington, DC (2011).
85. **Chai T**, Kenton K, Gormley EA, Zyczynski H, Sirls L, Wilson T, Hsu Y, Whitcomb E, Rahn D, Xu Y. Effects of Concomitant Surgeries during Mid-Urethral Slings (MUS) on Post-operative Complications, Voiding Dysfunction, Continence Outcomes and Urodynamic Variables. American Urological Association Annual Meeting, Washington, DC (2011).
84. Brubaker L, Norton P, **Chai T**, Albo M, Dandreo KJ, Lemack G, Lowder K, Lloyd L, Sirls A., Arisco A., Kusek JW for UITN. Adverse Events in TOMUS Trial. Society for Gynecologic Surgery 37th Annual Meeting, San Antonio, TX (2011).
83. Nygaard I, Brubaker L, **Chai T**, Markland A, Menefee S, Sirls L, Stukin G, Zimmern P, Arisco A., Huang L, Tennstedt S., Stoddard A for UITN. Risk Factors for UTI After SUI Surgery. American Urogynecologic Society Meeting, Long Beach, CA (2010).
82. Dyer K, Brubaker L, Nygaard I, Rahn D, Markland A, Stoddard A, **Chai T**, Lukacz for the UITN. Minimum important difference for validated instruments in women with urgency incontinence. American Urogynecologic Society Meeting, Long Beach, CA (2010).
81. Dyer K, Brubaker L, Nygaard I, Rahn D, Markland A, Stoddard A, **Chai T**, Lukacz for the UITN. Minimum important difference for validated instruments in women with urgency incontinence. International Continence Society Meeting, Toronto, Canada (2010).
80. Sirls L, Tennstedt S, Albo M, **Chai T**, Kenton K, Huang L, Stoddard AM, Arisco A, Gormley EA for UITN. Factors associated with quality of life in women undergoing surgery for stress urinary incontinence. American Urological Association Annual Meeting, San Francisco, CA (2010).
79. Sanses T, Brubaker L, Xu Y, Kraus S, Lowder J, Lemack G, Norton P, Tennstedt S, **Chai T**. Preoperative symptom of hesitating urinary stream with associated with surgical failure and postoperative voiding dysfunction following Burch colposuspension or pubovaginal rectus fascial sling surgery. American Urological Association Annual Meeting, San Francisco, CA (2010).
78. **Chai T**, Huang L, Kenton K, Richter H, Kraus S, Baker J, Litman H. Clinical and demographic variables associated with static urethral pressure profilemetry in patients undergoing mid urethral sling surgery. American Urological Association Annual Meeting, San Francisco, CA (2010).
77. Sun Y, **Chai TC**. The role of m3 muscarinic signaling bladder urothelial cancer cell proliferation and apoptosis. American Urological Association Annual Meeting, San Francisco, CA (2010).
76. Li M, Sun Y, Tomiyia N, Hsu Y, Lee YC, **Chai TC**. Elevated polyamine levels in bladder urothelial cells from subjects with overactive bladder (OAB) mediate oxotremorine (OXO) evoked intracellular calcium increase and acetylcholine release. American Urological Association

Annual Meeting, San Francisco, CA (2010).

75. Christiaansen CE, Sun Y, Hsu Y, **Chai TC**. Stretch-induced expression of HIF-1 α , HIF-2 α and VEGF in bladder urothelial cells (BUC) from subjects with overactive bladder (OAB). American Urological Association Annual Meeting, San Francisco, CA (2010).

74. Sanses T, Brubaker L, Xu Y, Kraus S, Lowder J, Lemack G, Norton P, Tennstedt S, **Chai T**. Preoperative symptom of hesitating urinary stream with associated with surgical failure and postoperative voiding dysfunction following Burch colposuspension or pubovaginal rectus fascial sling surgery. Society for Urodynamics and Female Urology (SUFU) Annual Meeting, St. Petersburg, FL (2010).

73. Nager CW, Kraus SR, Kenton K, Sirls L, **Chai TC**, Wai C, Sutkin G, Leng W, Litman H, Huang L, Tennstedt S, Richter HE. Urodynamics, the supine empty bladder stress test, and incontinence severity. American Urogynecological Association Annual Meeting, Hollywood, Florida (2010).

72. Wolf-Johnston AS, Sun Y, **Chai TC**, Birder LA. Bladder urothelial cells from patients with overactive bladder exhibit alterations in mechano- and chemosensitivity. Society for Neuroscience Annual Meeting, Chicago, IL (2009).

71. Kusakabe AO, **Chai TC**. Novel Reconstructive Repair of Ileal Loop Stomal Stenosis or Left Ureteroileal Anastomotic Stricture with a New Segment of Ileum. MidAtlantic AUA Annual Meeting, Williamsburg, VA (2009).

70. Sanses T, Brubaker L, Kraus S, Lowder J, Lemack G, Norton P, Tennstedt S, **Chai T**. Preoperative urinary hesitancy is associated with surgical failure and postoperative voiding dysfunction following Burch colposuspension or pubovaginal rectus fascial sling surgery. International Continence Society (ICS) Annual Meeting, San Francisco, CA (2009).

69. Richter HE, Nygaard I, Huang L, Kraus S, Kenton K, **Chai T**, Whitcomb E, Sirls L, Lemack G, Dandreo K, Stoddard A. Characteristics of obese, overweight and normal (healthy) weight women seeking surgical treatment for stress urinary incontinence. International Continence Society (ICS) Annual Meeting, San Francisco, CA (2009).

68. Tully BT, Sun Y, Berkowitz J, Li M, **Chai TC**. Defects in muscarinic receptor cell signaling in a bladder cancer cell line. MidAtlantic AUA Annual Meeting, Cambridge, Maryland (2008).

67. Li M, Sun Y, **Chai TC**. Increased responsiveness of non-neurogenic OAB bladder urothelial cells to capsaicin and heat stimuli – role for the TRPV1 receptor in OAB pathogenesis. AUA Annual Meeting, Orlando, Florida (2008).

66. Sun Y, Li M, Christ GJ, Melman A, **Chai TC**. New insight into non-neurogenic OAB Pathogenesis – the role of BK channel in bladder urothelial cells. AUA Annual Meeting, Orlando, Florida (2008).

65. Kraus SR, Lemack GE, **Chai T**, Richter H, Albo M, Brubaker L, Sirls L, Litman H, Norton P, Leng W. Urodynamic changes 24 months after Burch colposuspension and autologous fascia pubovaginal sling. AUA Annual Meeting, Orlando, Florida (2008).

64. Kraus SR, Lemack GE, Brubaker L, **Chai T**, Albo M, Litman H, Leng W, Sirls L, Lloyd K, Norton P. Urodynamic changes associated with successful stress urinary incontinence surgery: a little tension is a good thing? AUA Annual Meeting, Orlando, Florida (2008).

63. Gary Lemack, Stephen Kraus, Heather Litman, MaryPat Fitzgerald, **Toby Chai**, Charles Nager, Larry Sirls, Halin Zyczynski, Jan Baker, Keith Lloyd, William Steers. Preoperative urodynamic testing does not predict postoperative voiding dysfunction among women undergoing surgery for SUI: results from a prospective randomized trial comparing Burch versus pubovaginal sling. Society for Urodynamics and Female Urology Annual Meeting, Miami, Florida (2008) and AUA Annual Meeting, Orlando, Florida (2008).

62. L.L. Subak, L. Brubaker, **T. Chai**, J. Creasman, A. Diokno, P. S. Goode, S. Kraus,

J.W. Kusek, W. Leng, E.S. Lukacz, S. Tennstedt, for the Urinary Incontinence Treatment Network. High “costs” of urinary incontinence among women electing surgery to treat stress incontinence. American Urogynecological Association Annual Meeting, Hollywood, Florida (2007).

61. Holly E. Richter, Ananias Diokno, Kimberly Kenton, Peggy Norton, Michael Albo, Stephen Kraus, Pamela Moalli, **Toby Chai**, Philippe Zimmern, Heather Litman and Sharon Tennstedt for the Urinary Incontinence Treatment Network. Predictors of treatment failure 24 months after surgery for stress urinary incontinence. American Urogynecological Association Annual Meeting, Hollywood, Florida (2007).

60. H. Zyczynski, A. Stoddard, G. Lemack, M. FitzGerald, C. Nager, J. Baker, L. Sirls, **T. Chai**, K. Lloyd, S. Kraus, and W. Steers for the Urinary Incontinence Treatment Network. Preoperative urodynamic stress incontinence predicts continence outcomes after Burch or pubovaginal sling procedures. American Urogynecological Association Annual Meeting, Hollywood, Florida (2007).

59. S. Kraus, L. Sirls, M. FitzGerald, C. Nager, **T. Chai**, A. Stoddard, K. Lloyd, H. Zyczynski, G. Lemack, J. Baker, and W. Steers for the Urinary Incontinence Treatment Network. Preoperative detrusor overactivity is a poor predictor of continence outcomes after Burch or pubovaginal sling procedures. American Urogynecological Association Annual Meeting, Hollywood, Florida (2007).

58. C. Nager, **T. Chai**, K. Lloyd, M. FitzGerald, G. Lemack, J. Baker, L. Sirls, S. Kraus, A. Stoddard, H. Zyczynski, and W. Steers for the Urinary Incontinence Treatment Network. Valsalva leak point pressures do not predict continence outcomes after Burch or pubovaginal sling procedures. American Urogynecological Association Annual Meeting, Hollywood, Florida (2007).

57. **Toby C. Chai**, Michael E. Albo, Holly E. Richter, Peggy Norton, Kimberly J. Dandreo, Kimberly Kenton, Jerry L. Lowder, Marlene M. Corton, Robert A. Starr and Anne M. Stoddard for the UITN. Adverse events from the Stress Incontinence Surgical Treatment Efficacy Trial (SISTER). American Urogynecological Association Annual Meeting, Hollywood, Florida (2007).

56. Ananias Diokno, Holly E. Richter, Kimberly Kenton, Peggy Norton, Michael Albo, Stephen Kraus, Pamela Moalli, **Toby Chai**, Philippe Zimmern, Heather Litman and Sharon Tennstedt for the Urinary Incontinence Treatment Network. Predictors of treatment failure 24 months after surgery for stress urinary incontinence. International Continence Society Annual Meeting, Rotterdam, Netherlands (2007).

55. **Toby C. Chai**, Michael E. Albo, Holly E. Richter, Peggy Norton, Kimberly J. Dandreo, Kimberly Kenton, Jerry L. Lowder, Marlene M. Corton, Robert A. Starr and Anne M. Stoddard for the UITN. Adverse events from a randomized trial for the surgical treatment of stress urinary incontinence. International Continence Society Annual Meeting, Rotterdam, Netherlands (2007).

54. P Norton, H Richter, **T Chai**, M Albo, M FitzGerald, A Stoddard, P Zimmern for the Urinary Incontinence Treatment Network. Voiding symptoms are common in women planning continence surgery. American Urological Association Annual Meeting, Anaheim, CA (2007).

53. Gopal Gupta, Shao-gong Lu, Yan Sun, Michael Gold, **Toby C. Chai**. Evidence for Increased Sensitivity of Bladder Urothelial Cell to Carbachol, Based on Changes in [Ca]_i in Patients with Overactive Bladder (OAB). American Urological Association Annual Meeting, Anaheim, CA (2007).

52. Gopal Gupta, Shao-gong Lu, Yan Sun, Michael Gold, **Toby C. Chai**. Increased efficacy and potency of carbachol in inducing increases in intracellular calcium ([Ca²⁺]_i) and outward potassium currents (I_O) in interstitial cystitis (IC) bladder urothelial cells (BUC) : Evidence of persistent phenotypic alteration of cultured human IC BUC. American Urological

Association Annual Meeting, Anaheim, CA (2007).

51. Yan Sun, Susan Keay, **Toby C. Chai**. Anti-proliferative Factor's (APF) Effect on Purinergic Signaling in Normal Human Bladder Urothelial Cells. American Urological Association Annual Meeting, Anaheim, CA (2007).

50. Michael E. Albo, Holly E. Richter, Linda Brubaker, Peggy A. Norton, Stephen Kraus, Philippe Zimmern, **Toby Chai**, Halina Zcysynski, Ananias C. Diokno, Charles Nager, L. Keith Lloyd, MaryPat Fitzgerald, Gary E. Lemack, Harry Johnson, Wendy Lang, Veronica T. Mallett, Sharon Tennstedt, Anne M. Stoddard, John W. Kusek, Leroy M. Nyberg, William D. Steers. Results of the SISTER Randomized Surgical Trial Comparing the Autologous Rectus Fascia Sling to the Burch Colposuspension. American Urological Association Annual Meeting, Anaheim, CA (2007).

49. Yan Sun, Todd Lehrfeld, Susan Keay, **Toby C. Chai**. Link Between Cytokine Expression and Purinergic Signaling in Bladder Urothelial Cells (BUC). Society for Urodynamics and Female Urology, San Diego, CA (2007).

48. Gupta G, Lu SG, Sun Y, Gold M, **Chai TC**. Increased Efficacy and Potency Of Carbachol In Inducing Increases In Intracellular Calcium ($[Ca^{2+}]_i$) In Overactive Bladder (OAB) and Interstitial Cystitis (IC) Bladder Urothelial Cells (BUC). Mid-Atlantic AUA Meeting, Washington, DC (2006).

47. Graham ES, Sun Y, Ahn J, **Chai TC**. Changes In M2 Receptor Expression On Human Bladder Urothelial Cells (BUC) In Response To Carbachol and Tolterodine. Mid-Atlantic AUA Meeting, Washington, DC (2006).

46. Kraus S, Markland A, **Chai T**, Stoddard A, FitzGerald MP, Leng W, Mallet V and Tennstedt, S for UITN. Race/Ethnic Differences in Symptoms and Impacts of Urinary Incontinence in Women Undergoing Stress Urinary Incontinence Surgery. International Continence Society Meeting, Christchurch, New Zealand (2006)

45. Kraus S, Markland A, **Chai T**, Stoddard A, FitzGerald MP, Leng W, Mallet V and Tennstedt, S for UITN. Race/Ethnic Differences in Symptoms and Impacts of Urinary Incontinence in Women Undergoing Stress Urinary Incontinence Surgery. American Urogynecological Society Meeting, Palm Springs, California (2006).

44. Albo M, Baker J, Brubaker L, **Chai T**, Dandreo K, Diokno A, Goode P, Kraus S, Kusek J, Lowder J, Steers W, Wruck L. Correlation of MESA and VLPP With Other Measures of Urinary Incontinence Severity. Society for Urodynamics and Female Urology International Society of Pelvic Neuromodulation 2006 Winter Meeting, Grand Bahamas (2006).

43. Lemack GE, Brubaker L, Nager C, Sirls L, **Chai TC**, Moalli PA, Kraus S, Kerr L, Xu Y. Demographic and Urodynamic Baseline Predictors of Valsalva Leak Point Pressure. American Urological Association Annual Meeting, Atlanta, GA (2006).

42. Lehrfeld TJ, Sun Y, **Chai TC**. Link Between Cytokine Expression and Augmented Purinergic Signaling in Interstitial Cystitis (IC) Bladder Urothelial Cells (BUC). American Urological Association Annual Meeting, Atlanta, GA (2006).

41. Holton MR Van Zijl PS, Chen M, Sun Y, Simard JM, **Chai TC**. Effect Of Muscarinic Agonists On Outward Current In Bladder Urothelial Cells. Mid-Atlantic AUA Meeting, Phoenix, AZ (2005).

40. Lehrfeld T, Sun Y, **Chai TC**. Normalization Of Epidermal Growth Factor (EGF) Mediated Alterations In Interstitial Cystitis (IC) Bladder Urothelial Cells (BUC) Correlate With Normalization Of Adenosine Triphosphate (ATP) Alterations. Mid-Atlantic AUA Meeting, Phoenix, AZ (2005).

39. Holton M, van Zijl PS, Sun Y, Chen M, Simard JM, **Chai TC**. The effect of carbachol on Kir2. conductance in bladder urothelial cells. American Urological Association Annual Meeting, San Antonio, TX (2005).

38. van Zijl PS, Sun Y, Chen M, Simard JM, **Chai TC**. The effect of epidermal growth factor (EGF) on inward potassium rectifying currents in bladder urothelial cells. American Urological Association Annual Meeting, San Antonio, TX (2005).
37. van Zijl PS, Chen M, Sun Y, Simard M, **Chai TC**. The effect of epidermal growth factor (EGF) on Kir2.1 Channel in Bladder Urothelial Cells. Mid-Atlantic AUA Meeting, Cambridge, MD (2004).
36. Atiemo HO, Wynes J, Chuo J, Nipkow L, Sklar GN, **Chai TC**. Effect of botulinum toxin on overactive bladder contractions induced by intravesical ATP and capsaicin in the rat model. American Urological Association Annual Meeting, San Francisco, CA (2004).
35. Sun Y, **Chai TC**. Extracellular adenosine triphosphate (ATP) stimulates more ATP release from interstitial cystitis bladder urothelial cells compared to control cells. American Urological Association Annual Meeting, San Francisco, CA (2004).
34. Lowentritt BH, Sun Y, Chen M, Simard JM, **Chai TC**. Altered membrane ion channel properties in human bladder urothelial cells from interstitial cystitis patients: insights into basic urothelial cell function. American Urological Association Annual Meeting, San Francisco, CA (2004).
33. Sun Yan, **Chai Toby**. Extracellular ATP Stimulates More ATP Release from Interstitial Cystitis Bladder Urothelial Cells Compared to Control Cells. International Continence Society Meeting, Florence, Italy (2003).
32. Atiemo Humphrey, Chuo James, Nipkow Lisa, Sklar Geoffrey N, **Chai Toby**. Effect of Botulinum Toxin on ATP-induced Bladder Contractions in Rat Bladders. Mid-Atlantic AUA Meeting, Boca Raton, MD (2003).
31. Wynes Jacob, Sun Yan, **Chai Toby C**. Effect of Potassium Chloride on Adenosine Triphosphate (ATP) Release by Cultured Bladder Uroepithelial Cells from Interstitial Cystitis (IC) and Control Patients. American Urological Association Annual Meeting, Chicago, IL (2003).
30. Sun Yan, **Chai Toby C**. Upregulation of ATP P2X3 Receptor in Bladder Urothelial Cells from Interstitial Cystitis (IC) Patients Induced by In Vitro Cell Stretch Suggesting Paracrine Function for Extracellular ATP. American Urological Association Annual Meeting, Chicago, IL (2003).
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27. Sun Yan, MaLossi Jennifer, Jacobs Stephen C., **Chai, Toby C**: Effect of Doxazosin on Stretch-Activated ATP Release in Bladder Urothelial Cells Obtained from BPH Patients. American Urological Association Annual Meeting, Orlando, FL (2002).
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25. MaLossi Jennifer, Sun Yan, Jacobs Stephen C., **Chai Toby C**: Evidence for Increased Stretch-Activated ATP Release from Bladder Epithelial Cells Obtained from BPH Patients. Annual Mid-Atlantic AUA Meeting, Hot Springs, VA (2001).
24. Sun Yan, DeDeyne Patrick, **Chai Toby C**: Stretch Activated Release of ATP by Bladder Uroepithelia is Augmented in Interstitial Cystitis. American Urological Association Annual Meeting, Anaheim, CA (2001).
23. Sun Yan, Keay Susan, DeDeyne Patrick, **Chai Toby C**: Stretch Activated Release of

ATP by Bladder Uroepithelia is Augmented in Interstitial Cystitis. International Bladder Symposium, Washington, DC (2001).

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21. Sun Yan, DeDeyne Patrick, **Chai Toby C**: Stretch Activated Release of ATP by Bladder Uroepithelia is Augmented in Interstitial Cystitis. Annual Mid-Atlantic AUA Meeting, Rio Mar, Puerto Rico (2000).

20. **Chai Toby C**, Wong Jade, Berman Jennifer R: Pilot Study on Effectiveness of Viagra for Treatment of Female Sexual Dysfunction: Physiologic Predictor for Success. American Urological Association Annual Meeting, Atlanta, GA (2000).

19. **Chai Toby C**, Zhang Chen-Ou, Warren John W., Keay Susan: Percutaneous S3 Nerve Root Stimulation Decreases Symptoms and Normalizes Urinary HB-EGF and APF Activity in IC Patients. American Urological Association Annual Meeting, Atlanta, GA (2000).

18. **Chai Toby C.**, Zhang Chen-Ou, Warren John W., Keay Susan: Percutaneous S3 Neuromodulation Decreases Symptoms and Normalizes Urinary HB-EGF and APF Activity in IC Patients. InterStim Symposium sponsored by Medtronic, Scottsdale, AZ, January 22, 2000.

17. **Chai Toby C.**, Zhang Chen-Ou, Warren John W., Keay Susan: Percutaneous S3 Neuromodulation Decreases Symptoms and Normalizes Urinary HB-EGF and APF Activity in IC Patients. 1999 International Bladder Symposium. November 4-7, 1999, Washington, D.C.

16. Berman JR, Wong J, **Chai TC**: Pilot Study on Effectiveness of Viagra for Treatment of Female Sexual Dysfunction: Physiologic Predictor for Success. New Perspectives in the Management of Female Sexual Dysfunction. October 22-34, 1999, Boston, MA.

15. Wong, JC, Berman J, **Chai T**: Doppler evaluation of the effect of Sildenafil citrate on perineal blood flow in women. Society of Uroradiology Annual Meeting, New Orleans, LA (1999).

14. Berman J, Goldstein I, Werbin T, Wong J, Jacobs S, **Chai T**: Double Blind Placebo Controlled Study with Crossover to Assess Effect of Sildenafil on the Female Sexual Response. American Urological Association Annual Meeting, Dallas, TX (1999).

13. **Chai TC**, Zhang CO, Shoenfelt JL, Warren JW, Keay S: Bladder Overdistention Decreases Urine Antiproliferative Activity and Increases Urine HB-EGF Levels in Patients with Interstitial Cystitis. American Urological Association Annual Meeting, Dallas, TX (1999).

12. Gemalmaz H, **Chai T**, Andersson KE, Tuttle JB, Steers WD: Mechanisms Underlying Hyperactive Voiding After Relief of Obstruction. American Urological Association Annual Meeting, San Diego, CA (1998).

11. **Chai TC**, Tuttle JB, Steers WD: Neuroplasticity of the Aged Bladder: Evidence for Altered Neurotrophic Interactions. American Urological Association Annual Meeting, San Diego, CA (1998).

10. **Chai TC**, Gray ML, Steers WD: Detection of a spinal reflex in patients with bladder outlet obstruction using ice water cystometry. Urodynamics Society Annual Meeting, New Orleans, LA (1997).

9. **Chai TC**, Baker LA, Gomez AR, Tuttle JB, Steers WD: Hyperactive voiding in rats secondary to obstruction: expression of a novel gene encoding for protein D123. American Urological Association Annual Meeting, New Orleans, LA (1997).

8. **Chai, TC**, Steers, WD, Tuttle JB: Altered neural control of micturition in the aged F344 rat. American Urological Association Annual Meeting, New Orleans, LA (1997).

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5. **Chai TC**, Belville WB, Faerber, GJ: Compliance and compliance of clean intermittent catheterization in SCI population. Urodynamics Society Meeting, San Francisco, CA (1994).
4. **Chai TC**, Belville WD, Faerber GJ: Compliance and complications of clean intermittent catheterization in spinal cord injured patients. North Central AUA Meeting, Boca Raton, FL (1994).
3. **Chai TC**, Ohl DA: Laparoscopic varicocelectomy for treatment of male infertility. North Central AUA Meeting, Milwaukee, WI (1993).
2. **Chai TC**, Belville WD, McGuire EJ, Nyquist L: Comparison of voiding symptom scores in age matched males and females. North Central AUA Meeting, Cerromar, Puerto Rico (1992).
1. Townsend RR, **Chai TC**, Lee YC: Processing of d,beta-diaspartamide of TRIS (beta-lactosyloxamethyditrislac-6,aminohexamidino)-methane by isolated hepatocytes. Society of Complex Carbohydrates, Chicago, IL (1984).

Professional Service

Peer Review Groups/Grant Study Sections

National Institutes of Health Grant Reviews and Writing Committees:

Member – NIH DDK-D Study Section for K-series grant applications	Oct 2012- Oct 2016
Ad Hoc Reviewer – NIH NIDDK Chair of SEP ZDK1 GRB-G (C4) Study Section Urologic Diseases in America Contract Review (b) (6) (b) (6)	Mar 2012
Ad Hoc Reviewer – NIH NIBIB Program Project (P01) Review, June 3, 2011 (b) (6)	Jun 2011
Ad Hoc Reviewer – NIH CSR Special Emphasis Panel 2011/05 ZRG1 DKUS-C (81) S March 10-14, 2011 (b) (6)	Mar 2011
Ad Hoc Reviewer – NIH CSR DIRH Ad hoc mail reviewer, Feb. 10, 2011 (b) (6)	Feb 2011
Ad Hoc Reviewer – NIH CSR UKGD Special Emphasis Panel Dec. 22, 2010 (b) (6)	Dec 2010
Ad Hoc Reviewer – NIH CSR Special Emphasis Panel 2011/05 ZRG1 DKUS-A (03) M (b) (6)	Dec 2010

Ad Hoc Reviewer – NIDDK Review Branch NIDDK KUH T32-Awards (b) (6)	Feb 2010
Ad Hoc Reviewer - NIDDK Review Branch NIDDK X01-Awards (ZDK1 GRB-S (J3)) Central Repositories, Non-Renewable Sample Access PAR 10-90 (b) (6)	Oct 2010
Ad Hoc Reviewer - NIH CSR R21-Awards (ZRG1 DKUS-G (80) S) Pilot Clinical Studies in Nephrology and Urology (b) (6)	Oct 2010
Ad Hoc Reviewer - NIDDK Review Branch NIDDK KUH K-Award Review (b) (6)	Dec 2010
Ad Hoc Reviewer - NIH CSR Special Emphasis Panel (ZRG1 DIRH-J (01)) (b) (6)	Dec 2010
Ad Hoc Reviewer - NIDDK Review Branch NIDDK KUH-F32 Fellowship Award Review (b) (6)	Feb 2010
Ad Hoc Reviewer - NIDDK Review Branch NIDDK CAMUS Research Network Review (b) (6)	Apr 2010
Ad Hoc Reviewer - NIH CSR Special Emphasis Panel (ZRG1-DKUS-B03M) (b) (6)	Feb 2010
Ad Hoc Reviewer - NIH CSR Special Emphasis Panel (ZRG1 DKUS (12) B) (b) (6)	Dec 2009
Ad Hoc Reviewer - NIDDK Review Branch NIDDK T-32 and K-Award Reviews (b) (6)	Nov 2009
Ad Hoc Reviewer - NIH CSR Special Emphasis Panel (ZRG1 DKUS-E) (b) (6)	Aug 2009
Ad Hoc Reviewer - NIH CSR Small Business Grant Review (ZRG1 DKUS-K(11))	Jul 2009

(b) (6)	
Standing Member NIH UKGD Study Section (b) (6)	Jan 2005- Jun 2008
Ad Hoc Reviewer – NIH CSR Special Emphasis Panel ZDK1 GRB-8 Ancillary Studies in Obesity Nov. 4, 2005 (b) (6)	Nov 2005
Ad Hoc Reviewer – NIH CSR SEP UKGD IRG (b) (6) July 2005	Jul 2005
Ad Hoc Reviewer – NIH CSR Special Emphasis Panel (SEP) ZRG1 RUS-D 50, 12 (b) (6) June 28, 2004	Jun 2004
Ad Hoc Reviewer – NIH CSR Special Emphasis Panel ZRG1 RUS-D (01) (b) (6) March 24, 2004	Mar 2004
Ad Hoc Reviewer – NIH Center for Scientific Review (CSR) Special Emphasis Panel ZRG1 SMB (05) NIH Center for Scientific Review	Aug 2002
Ad Hoc Reviewer – NIDDK Review Branch Special Study Section for NIH RFA DK02-026 "Alternative Therapies for Benign Prostate Symptoms"	Jul 2002
Writing Committee NIDDK Bladder Research Progress Review Group	Jul 2001
Ad Hoc Reviewer – NIDDK Review Branch Special Grants Review Committee DDK-D	1999-2000
Ad Hoc Reviewer - NIDDK Review Branch NIH RFA DK98-002 "The Effect of Diabetes on Urinary Bladder and Erectile Function"	1998

Non-NIH Grant Review Activity

Wellcome Trust (UK) Grant Reviewer	2010
American Urogynecologic Society Foundation Grant Reviewer	2008-10
American Urological Association Foundation Grant Reviewer	2007-08

Pfizer Detrol LA Research Grant Program	2004-11
American Foundation for Urologic Diseases Grant Reviewer	2004
Diabetes Endocrinology Research Center (DERA) University of Washington, Seattle Pilot and Feasibility Program Project Reviewer	2002
Research into Ageing (United Kingdom) Fellowship Grant Reviewer	2001
Interstitial Cystitis Association – Fishbein Family Foundation Research Awards Study Section	2001-05

Advisory Boards

Consultant Services

1. Advisory Board for InterStim – Medtronic, Inc. 2010
2. Consultant to Astellas for Mebegron – 2010
3. Consultant to Proctor & Gamble – 2007
4. Advisory Board for Overactive Bladder – Pfizer, Inc. 2007, 2008

Journal Service

Peer Reviewer – Journals

American Journal of Physiology – Renal
American Journal of Physiology – Regulatory, Integrative and Comparative
American Journal of Physiology – Cell Physiology
BJU International
Brain Research
Clinical Chemistry
European Urology
FASEB Journal
FEBS Letters
Journal of Biological Chemistry
Journal of Urology
Nature Clinical Practice Urology
Neurourology and Urodynamics
Neuroscience
Physiologic Genomics
PLoS ONE
Urology

Professional Service for Professional Organizations

American Urological Association (AUA)

Program Chair, Science of Female Pelvic Health Meeting	2012-13
Audio Visual Committee Consultant	2011-2012
Overactive Bladder Guidelines Panel Committee	2011

AUA Leadership Program Participant 2006-2007
 Meeting Abstract Reviewer 2005-2007

MidAtlantic Section of American Urological Association

(b) (6) [Redacted] [Redacted]
 Board of Directors 2007-2010
 Program Chair, 2008 Mid-Atlantic AUA Meeting 2007-2008

American Urological Association Foundation (AUAF)

Member, AUAF Research Council 2012-14
 Program Co-Chair AUAF/SBUR Summer Research Conference 2010
 On Urinary Incontinence

American Board of Urology (ABU)

Senior Editorial Consultant ABU/AUA EC 2009-2013
 Member of ABU/AUA Examination Committee (EC) 2005-2009

Society for Female Urology and Urodynamic

Winter Meeting Basic Science Program Chair 2010-2014
 Nominating Committee Member 2009-2012

American Urogynecologic Society (AUGS)

Faculty for AUGS Research Scholars 2011-2012
 Research Summit Panel 2010

Editorial Activity

Journal of Urology – Assistant Editor 2011-2015
Female Pelvic Med. and Reconstructive Surg. –Section Editor 2010-present
American Journal of Physiology – Renal - Editorial Board 2007-2011
Current Bladder Dysfunction Reports – Editorial Board 2006-present

Professional Memberships

American Urogynecologic Society (AUGS) 2010
 Fellow of American College of Surgeons (FACS) 2000
 Mid-Atlantic Section AUA 1998
 Society for Basic Urological Research (SBUR) 1997
 Society for Urodynamics and Female Urology (SUFU) 1995
 American Urological Association (AUA) 1993

Administrative Service

Institutional Service for Univ of MD School of Medicine

Search Committee for Chair of Dept. of Ob/Gyn 2010
 Dept. of Surgery Representative, SOM Faculty Council 2007-2008
 Medical Student Research Day Judge 2004
 Speaker for White Coat Ceremony for Class 2007 2003

Interviewer for Office of Admissions

2002-2006

Include elected offices held, committee memberships, leadership roles, and involvement in meeting planning. List from most recent to earliest with beginning and end dates.

Yale University Service:

List from most recent to earliest your service to Yale University. Separate committees into university, medical school, department and hospital.

Public Service

Community Service

[Redacted] (b) (6) [Redacted]

[Redacted]

Chair of Advisory Committee for Maryland Regional Junior Science and Humanities Symposium (JSHS) 2003-2005

Roundtable Leader “Science and Society” 2004
National Junior Science and Humanities Symposium
Hunt Valley Marriott

Medical Advisory Board, Interstitial Cystitis Association (ICA) 2004-2007

Judge at National Junior Science and Humanities Symposium 2010
Bethesda, MD (www.jshs.org)

Mentored Individuals in Laboratory and Clinical Research

MENTEE (location)	CURRENT POSITION (POSITION WHEN MENTORED)	YEARS MENTORED
[Redacted] (b) (6)	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]

(b) (6)

[REDACTED]	[REDACTED]	[REDACTED]

(b) (6)

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Reviews in Journals:

14. **Chai TC**, Kraus SR. Summary of Findings from the UITN (Urinary Incontinence Treatment Network) Regarding the Role of Urodynamics in the Evaluation of Stress Predominant Urinary Incontinence. *Curr Bladder Dyfunct Rep*. In Press
13. Sun Y, **Chai TC**. Role of Purinergic Signaling in Voiding Dysfunction. *Current Bladder Dysfunction Reports* 5(4):219-24 (2010).
12. Myers RP, Seki N, Gotoh M, **Chai TC**, et al. Fifth joint meeting of the American Urological Association and the Japanese Urological Association International Affiliate Society Meeting at the 105th Annual Meeting of the American Urological Association. *Int J Urol*. 2010 Aug;17(8):743-52.
11. **Chai TC**. Electrical Stimulation for Treatment of Non-neurogenic Overactive Bladder. *AUA Update Series*.
10. **Chai TC**. Future pharmacotherapy in chronic bladder hypersensory conditions. *Expert Opin Emerg Drugs* 12(2):187-90 (2007).
9. Graham ES, **Chai TC**. Dysfunction of Bladder Urothelium and Bladder Urothelial Cells in Interstitial Cystitis. *Current Urology Reports* 7(6):440-6 (2006).
8. Chai TC. Surgical Management of Failed Sling Procedures. *AUA News* 10(6):27-29 (2005).
7. Chai TC: Surgical Techniques of Sacral Implantation. *Urologic Clinics of North America*, in press for December 2004 publication.
6. Nipkow L, **Chai TC**. Interstitial Cystitis: Modern Tools for an Accurate Diagnosis. *Current Urology Reports* 4(5):381-384 (2003).
5. MaLossi J, **Chai TC**: Interstitial Cystitis- Diagnosis and Treatment Options. *Current Women's Health Reports* 2(4):298-304 (2002).
4. MaLossi J, **Chai TC**: Sacral neuromodulation for treatment of voiding dysfunction. *Current Urology Reports* 3(1):61-66 (2002).
3. **Chai TC**, Steers WD: Neurophysiology of micturition and continence in women. *Int Urogynecol J* 8:85-97 (1997).
2. **Chai TC**, Steers WD: Neurophysiology of micturition and continence. *Urology Clinics of North America* 23(2):221-36 (1996).
1. **Chai TC**, Steers WD, Broder SR, Rachenwald M, Tuttle JB: Characterization of laterality of innervation of the rat bladder. *Scand J Neph Urol* 30 (Suppl 179):87-92 (1996).

Original Work in Peer-Refereed Journals

80. Birder LA, Wolf-Johnson AS, Hanna-Mitchell AT, Sun Y, **Chai TC**. Increased responsiveness to capsaicin, but not acetylcholine in idiopathic overactive bladder urothelial cells. *Acta Physiologica* 2012 Jun 12 [Epub ahead of print].
79. Albo ME, Litman HJ, Richter HE, Lemack GE, Sirls LT, **Chai TC**, Norton P, Kraus SR,

Zyczynski H, Kenton K, Gormley EA, Kusek JW; Urinary Incontinence Treatment Network. Treatment success of retropubic and transobturator mid urethral slings at 24 months. *J Urol* 188(6):2281-7 (2012).

78. Richter HE, Brubaker L, Stoddard AM, Xu Y, Zyczynski HM, Norton P, Sirls LT, Kraus SR, **Chai TC**, et al. Patient Related Factors Associated with Long-Term Urinary Continence After Burch Colposuspension and Pubovaginal Fascial Sling Surgeries. *J Urol* 188(2):485-9 (2012).

77. Nager CW, Brubaker L, Litman HJ, Zyczynski HM, Varner RE, Amundsen C, Sirls LT, Norton PA, Arisco AM, **Chai TC**, et al. A randomized trial of urodynamic testing before stress-incontinence surgery. *N Engl J Med* 366(21):1987-97 (2012).

76. Sylvester T, Bond V, Johnson HW Jr, **Chai TC**. Radiologic images of retrograde ureterography before and after release of bilateral sacrospinous ligament fixation sutures. *Female Pelvic Med Reconstr Surg* 18(3):168-9 (2012).

75. **Chai TC**, Kenton K, Xu Y, Sirls L, Zyczynski H, Wilson TS, Rahn DD, Whitcomb EL, Hsu Y, Gormley EA. Effects of Concomitant Surgeries During Midurethral Slings (MUS) on Postoperative Complications, Voiding Dysfunction, Continence Outcomes, and Urodynamic Variables. *Urology* 79(6):1256-61 (2012).

74. **Chai TC**, Huang L, Kenton K, Richter HE, Baker J, Kraus S, Litman H; for the Urinary Incontinence Treatment Network (UITN). Association of Baseline urodynamic measures of urethral function with clinical, demographic, and other urodynamic variables in women prior to undergoing midurethral sling surgery. *Neurourol Urodyn* 31(4):496-501 (2012).

73. Fitzgerald MP, Payne CK, Lukacz ES, Yang CC, Peters KM, **Chai TC**, et al. Randomized multicenter clinical trial of myofascial physical therapy in women with interstitial cystitis/painful bladder syndrome and pelvic floor tenderness. *J Urol* 187(6):2113-8 (2012).

72. Brubaker L, Richter HE, Norton PA, Albo M, Zyczynski HM, **Chai TC**, Zimmern P, Kraus S, Sirls L, Kusek JW, Stoddard A, Tennstedt S, Gormley EA; Urinary Incontinence Treatment Network. 5-year continence rates, satisfaction and adverse events of burch urethropexy and fascial sling surgery for urinary incontinence. *J Urol* 187(4):1324-30 (2012).

71. Kraus SR, Lemack GE, Richter HE, Brubaker L, **Chai TC**, Albo ME, Sirls LT, Leng WW, Kusek JW, Norton P, Litman HJ; Urinary Incontinence Treatment Network. Changes in Urodynamic Measures Two Years After Burch Colposuspension or Autologous Sling Surgery. *Urology* 78(6):1263-8 (2011).

70. Kraus SR, Lemack GE, Sirls LT, **Chai TC**, Brubaker L, Albo M, Leng WW, Lloyd LK, Norton P, Litman HJ; Urinary Incontinence Treatment Network. Urodynamic Changes Associated with Successful Stress Urinary Incontinence Surgery: Is a Little Tension a Good Thing? *Urology* 78(6):1257-62 (2011).

69. Visco AG, Brubaker L, Richter HE, Nygaard L, Paraiso MF, Menefee SA, Wei J, **Chai T**, Janz N, Meikle S, Spino C. Anticholinergic versus Botulinum Toxin A Comparison Trial for the Treatment of Bothersome Urge Urinary Incontinence: ABC Trial. *Contemporary Clinical Trials* Epub 2011 Oct 8.

68. Brubaker L, Norton PA, Albo ME, **Chai TC**, Dandreo KJ, Lloyd KL, Lowder JL, Sirls LT, Lemack GE, Arisco AM, Xu Y, Kusek JW; Urinary Incontinence Treatment Network. Adverse events over two years after retropubic or transobturator midurethral sling surgery: findings from the Trial of Midurethral Slings (TOMUS) study. *Am J Obstet Gynecol* 205(5):498.e1-6 (2011).

67. Nygaard I, Brubaker L, **Chai TC**, Markland AD, Menefee SA, Sirls L, Sutkin G, Zimmern P, Arisco A, Huang L, Tennstedt S, Stoddard A. Risk factors for urinary tract infection following incontinence surgery. *Int Urogynecol J Pelvic Floor Dysfunc* 22(10):1255-65 (2011).

66. Guo S, Sun F, Guo Z, Li W, Alfano A, Chen H, Magyar CE, Huang J, **Chai TC**, Qiu S,

- Qiu Y. Tyrosine Kinase ETK/BMX Is Up-Regulated in Bladder Cancer and Predicts Poor Prognosis in Patients with Cystectomy. *PLoS One*. Mar 7;6(3):e17778 (2011).
65. Nager CW, Sirls L, Litman HJ, Richter H, Nygaard I, **Chai T**, Kraus S, Zyczynski H, Kenton K, Huang L, Kusek J, Lemack G. Baseline Urodynamic Predictors of Treatment Failure 1 Year after Midurethral Sling Surgery. *J Urol* 186(2):597-603, (2011).
64. Christaansen CE, Sun Y, Hsu Y, **Chai TC**. Alterations in Expression of HIF-1 α , HIF-2 α , and VEGF by Idiopathic Overactive Bladder Urothelial Cells During Stretch Suggest a Role for Hypoxia. *Urology* 77(5):1266.e7-11 (2011).
63. Li M, Sun Y, Simard JM, **Chai TC**. Increased Transient Receptor Potential Vanilloid Type 1 (TRPV1) Signaling in Idiopathic Overactive Bladder Urothelial Cells. *Neurourol Urodyn*. 30(4):606-11 (2011).
62. Sanses TV, Brubaker L, Xu Y, Kraus SR, Lowder JL, Lemack GE, Norton P, Litman HJ, Tennstedt SL, **Chai TC**. Pre-operative hesitating urinary stream is associated with post-operative voiding dysfunction and surgical failure following Burch colposuspension or pubovaginal rectus fascial sling. *Int J Urogyn*. 22(6):713-9 (2011).
61. Yang CC, Burks DA, Propert KJ, Mayer RD, Peters KM, Nickel JC, Payne CK, Fitzgerald MP, Hanno PM, **Chai TC**, Kreder KJ, Lukacz ES, Foster HE, Cen L, Landis JR, Kusek JW, Nyberg LM; Interstitial Cystitis Collaborative Research Network. Early termination of a trial of mycophenolate mofetil for treatment of interstitial cystitis/painful bladder syndrome: lessons learned. *J Urol*. 185(3):901-6 (2011).
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1. Chai TJ, **Chai T**: Bactericidal activity of cerumen. *Antimicrobial Agents and Chemotherapy* 18(4):638-41 (1980).

Books and Book Chapters:

9. Rickey LM, **Chai TC**. “Urinary Incontinence”. *Conn’s Current Therapy* 2013, Elsevier, 2012.

8. Swift S, **Chai T**, Bent A: “Painful conditions of the lower urinary tract including painful bladder syndrome. Chap 8, Ostergard’s Urogynecology and Pelvic Floor Dysfunction, Bent AE, Cundiff GW, Ostergaard DR, Swift SE editors, Lippincott Williams & Wilkins, 2007.

7. **Chai TC**: Surgical Techniques of Sacral Implantation. *Urologic Clinics of North America* 32:27-35, 2005.

6. **Chai TC**: “Abdominal Approaches for Female Incontinence”, Chapter 35 pp 293-299, Glenn’s Urologic Surgery, Sixth Edition, editors Sam D. Graham, James F. Glenn, Thomas E. Keane, Lippincott Williams & Wilkins, 2004.

5. **Chai TC**: “Interstitial Cystitis”, Chap 21 p 307-323 Ostergard’s Urogynecology and Pelvic Floor Dysfunction, Fifth Edition, Bent AE, Cundiff GW, Ostergaard DR, Swift SE editors, Lippincott Williams & Wilkins, 2003.

4. **Chai TC** :“Diagnosis of the painful bladder syndrome/interstitial cystitis”, p 250-258 Clinical Obstetrics and Gynecology 45(1), Sant GR, Sand PK editors, Lippincott Williams & Wilkins, 2002.

3. **Chai TC**: “Emerging indications for sacral nerve stimulation : Interstitial Cystitis”, Chap 19 p 227-229 New Perspectives in Sacral Nerve Stimulation, Jonas U, Grünewald V editors, Martin Dunitz Ltd., London, England, 2002.

2. **Chai TC**, Steers WD: “Role of Newer Agents and Combinations”, pages 197-204, in Narayan, P: Benign Prostatic Hyperplasia, Churchill Livingstone, Harcourt Publishers, Ltd, 2000.

1. Townsend RR, **Chai TC**: Premature intracellular ligand uncoupling from the Gal/GalNAc lectin increases the exocytosable pool. in Davidson, EA et al (eds): Glycoconjugates: Proceedings of the 8th International Symposium. Praeger Scientific, NY, p. 163, 1988.

Brief Communications and Editorials:

12. Chai TC. Are costs for robotic assisted sacrocolpopexy lower than those for open sacrocolpopexy? *J Urol* 187(2):644-5 (2012).

11. Chai TC. History and Future of Multi-Institutional Clinical Trials in Urinary Incontinence. *Curr Bladder Dysfunct Rep* 6(3):114-115 (2011).

10. Nygaard I, Chai TC, Cundiff GW, Delancey JOL, FitzGerald MP, Heit M, Moalli P, Richter HE, Subak L, Swift S. Summary of research recommendations from the inaugural American Urogynecologic Society Research Summit. *Female Pelvic Medicine & Reconstructive Surgery* 17(1):4-7 (2011).

9. Chai TC: Sacral Neuromodulation for Nonobstructive Urinary Retention—Is Success Predictable? [editorial] *J Urol* 178(1):199 (2007).

8. Chai TC: Treatment of men with lower urinary tract symptoms and overactive bladder. *JAMA* 297(11):1191-2 (2007).

7. Chai TC: Re: A simplified method of implanting a neuromodulator device [Letter] *J Urol* 170(4):1328 (2003).

6. Chai TC: Textbook of prostatitis [Book Review]. *Urology* 57(2):396 (2001).

5. Chai TC: Re: Percutaneous sacral nerve root neuromodulation for intractable interstitial cystitis [Letter]. *J Urol* 166(3):1009 (2001).

4. Chai TC: Re: Erosion of Woven Polyester Pubovaginal Sling [Letter]. *J Urol*

164(1):129 (2000).

3. Chai TC: Oral trazodone is not effective therapy for erectile dysfunction: a double-blind, placebo controlled trial [editorial]: J Urol 161:1819 (1999).

2. Chai TC: Clinical Crossroads: a 73-year-old man with symptomatic benign prostatic hyperplasia [Letter]. JAMA 279(14):1070 (1998).

1. Chai TC: New Insights into the Clinical Value of Oxybutynin [editorial]: J Urol 160(3):643 (1998).

Grand Rounds and Invited CME (Non-Promotional) Lectures - Regional

46. “Contribution of Bladder Urothelial Cell (BUC) to Pathophysiologic Bladder Function” University of Nevada Reno Department of Physiology Seminar, June 7, 2012.

45. “The 3 U’s: Urothelium, Urinary Incontinence, and the Urologist” University of Pennsylvania Department of Urology Grand Rounds, October 13, 2011.

44. “Bladder Cancer, The Good, The Bad and The Ugly” Eastern Shore Oncology Conference, Richard A. Henson Cancer Institute, Peninsula Regional Medical Center, November 11, 2010.

43. “Stress Urinary Incontinence AUA Practice Guidelines” MidAtlantic AUA Annual Meeting, Neamcolin, PA (2010).

42. “Point Counterpoint – Female Pelvic Reconstruction Urology vs. Female Pelvic Medicine” MidAtlantic AUA Annual Meeting, Williamsburg, VA (2009).

41. “Bladder Injuries during Hysterectomy: A Need for a Partnership Between the Urologist and the Gynecologist” Ob/GYN Conference, Peninsula Regional Medical Center, Salisbury, MD, December 16, 2008.

40. “Interstitial Cystitis – Disease of Syndrome?” The MidAtlantic Region of The Wound, Ostomy and Continence Nurses Society Annual Meeting, Oct. 26, 2007, Baltimore, MD.

39. “Urinary Incontinence” University of Maryland University of Maryland Family Medicine & Community Health, Grand Rounds, Oct. 17, 2007, Baltimore, MD

38. “Urinary Incontinence” University of Maryland Family Medicine & Community Health Departmental Annual Meeting, June 29, 2007, Ocean City, MD.

37. “Urinary Incontinence” Maryland Academy of Family Physicians Sprint Meeting, June 23, 2007, Annapolis, MD.

36. “Voiding Dysfunction and the Bladder Urothelium” MidAtlantic AUA Meeting, Washington DC, October 14, 2006.

35. “Urinary Incontinence 2006” 12th Annual Chesapeake Regional Osteopathic Scientific Conference, Primary Care Update. July 24, 2006.

34. “Hypersensitive Bladder Conditions: Overactive Bladder and Interstitial Cystitis”, Washington Urological Society Fall Meeting, Washington, DC, October 21, 2004.

33. “Overactive Bladder: Evolving Concepts”, Medicine Grand Rounds, Union Memorial Hospital, Baltimore, MD, October 7, 2004.

32. “Overactive Bladder: Evolving Concepts”, Medicine Grand Rounds, Upper Chesapeake Hospital, Bel Air, MD, October 6, 2004.

31. “Overactive Bladder: Evolving Concepts”, Medicine Grand Rounds, Franklin Square Hospital, Baltimore, MD September 30, 2004.

30. “Overactive Bladder: Form and Function”, Obstetrics and Gynecology Grand Rounds, St. Joseph Medical Center, Timonium, MD, September 9, 2004.

29. “Overactive Bladder: Form and Function”, Obstetrics and Gynecology Grand Rounds, Frederick Memorial Hospital, Frederick, MD August 2, 2004.

28. “Overactive Bladder: Evolving Concepts”, Medical Grand Rounds, Good Samaritan Hospital, Baltimore, MD, July 14, 2004.

27. “*Overactive Bladder: Evolving Concepts*”, Department of Internal Medicine Grand Rounds, Northwest Hospital Center, Timonium, MD, July 7, 2004.
26. “*Overactive Bladder: Evolving Concepts*”, 9th Annual Chesapeake Regional Osteopathic Scientific Conference, Primary Care Update: Ocean City, MD June 19, 2004.
25. “*Overactive Bladder: Evolving Concepts*”, Department of Medicine Grand Rounds, Harbor Hospital, Baltimore, MD June 11, 2004.
24. “*Overactive Bladder: Evolving Concepts*”, Department of Obstetrics and Gynecology Grand Rounds, Johns Hopkins Hospital, Baltimore, MD April 22, 2004.
23. “*Overactive Bladder: Form and Function*”, Department of Obstetrics and Gynecology Grand Rounds, University of Maryland Baltimore, February 6, 2004.
22. “*Intravesical Agents and Gene Therapy in Treatment of Overactive Bladder*” Panel Presenter, Mid-Atlantic AUA Meeting, Boca Raton, FL Oct. 29, 2003.
21. “*Surgery for Non-neoplastic Conditions of the Lower Urinary Tract*”, Annual American Kidney Stone Management, Inc. Meeting, Orlando, FL August 9, 2003.
20. “*Interstitial Cystitis*”, 8th Annual Chesapeake Regional Osteopathic Scientific Conference, Primary Care Update: Ocean City, MD June 20, 2003.
19. “*Modern Perspectives and Historical Footnotes on Surgery for Stress Incontinence*” – Mid-Atlantic AUA Meeting, October 7, 2002.
18. “*Prostate Cancer 2002: New Perspectives*” – Urinary Incontinence, Baltimore, MD September 26-28, 2002.
17. “*Overactive Bladder and Interstitial Cystitis*”, Montgomery General Hospital Grand Rounds, Olney, MD, September 5, 2002.
16. “*Stress Urinary Incontinence – The Need for Data*” Grand Rounds, Department of Family Medicine, University of Maryland School of Medicine, August 8, 2002.
15. “*Urinary Incontinence*”, 8th Annual Chesapeake Regional Osteopathic Scientific Conference, Primary Care Update: Medicine in 2003, Ocean City, MD June 30, 2002.
14. “*Management of UTIs and Interstitial Cystitis*”, Fall Regional Conference of the Maryland Academy of Family Physicians, Solomons Island, MD, November 3, 2001.
13. “*Urinary Incontinence – Need for Data*”, Department of Family Medicine Grand Rounds, University of Maryland School of Medicine, Baltimore, MD, October 4, 2001.
12. “*Pathophysiology of Stress Urinary Incontinence*”, Department of Obstetrics and Gynecology Grand Rounds, St. Agnes Hospital, Baltimore, MD, June 27, 2001.
11. “*Urinary Incontinence*”, Suburban Hospital Grand Rounds, Bethesda, MD, May 25, 2001.
10. “*InterStim Therapy: S3 Neuromodulation for Treatment of Voiding Dysfunction or The Bladder Matters*”, Society for Urologic Nursing Association Maryland Regional Meeting, Timonium, MD, April 21, 2001.
9. “*Stretch and the Bladder Urothelia: Why You Feel the Urge*”, Maryland Urologic Society Spring Meeting, Baltimore, MD, March 17, 2001.
8. “*Overactive Bladder and Urinary Incontinence*”, Fall Regional Conference of the Maryland Academy of Family Physicians, Rocky Gap, MD, October 22, 2000.
7. “*Interstitial Cystitis: A Boon to Understanding Basic Bladder Physiology?*”, Department of Obstetrics and Gynecology Grand Rounds, Greater Baltimore Medical Center, Baltimore, MD, October 6, 2000.
6. “*Workup and Treatment of Urinary Incontinence*”, Peninsula Regional Medical Center Surgical Scientific Educational Session, Salisbury, MD, May 16, 2000.
5. “*Surgical Management of Interstitial Cystitis?*”, Maryland Urologic Society Spring Meeting, Baltimore, MD, March 11, 2000.
4. “*Neurophysiology of Micturition and Continence*”, Department of Neurology Grand

Rounds, University of Maryland School of Medicine, Baltimore, MD, February 23, 2000.

3. “*Urinary Incontinence and Overactive Bladder*”, Franklin Square Hospital Grand Rounds, Baltimore, MD, March 8, 1999.
2. “*Neuroplasticity Diagnosed by Urodynamics*”, Maryland Urologic Society Spring Meeting, Baltimore, MD, February 6, 1999.
1. “*Overactive Bladder and Urinary Incontinence*”, Department of Family Medicine Grand Rounds, University of Maryland School of Medicine, Baltimore, MD October 21, 1998.

Invited Speeches – National/International (Non-Promotional)

41. “*Midurethral slings – Determinants of Success*” – Urology Update 2012, University of Toronto, Toronto, Ontario, Canada, Nov. 3, 2012.
40. “*Urodynamics in the workup in 2012 – Is it Necessary*” – Urology Update 2012 University of Toronto, Toronto, Ontario, Canada, Nov. 3, 2012.
39. “*Concept Creation; Collaboration, and Grant Submission: Opportunitites and Challenges – Clinical Trials Research*” – American Urological Association Research Day Meeting, Atlanta, GA, 2012.
38. “*Urothelial Biology and Overactive Bladder*” – American Urological Association Foundation / Society of Basic Urologic Research Annual Summer Research Conference, AUA Headquarters, Linthicum, MD, 2010.
37. “*Management of Male LUTS: How Optimized and Different Between Countries*” – Japanese Urological Association/American Urological Association Joint Meeting, Annual AUA Meeting, San Francisco, CA, 2010.
36. “*Basic Research Update in Overactive Bladder and Urge Urinary Incontinence*” – NIDDK New Research Directions in Urinary Incontinence Symposium, January 7, 2009, Bethesda, MD.
35. Overactive Bladder presentation to Singapore Primary Care Physicians, June 12, 2008, Singapore.
34. Overactive Bladder presentation to Pakistani gynecologists and Primary Care Physicians – Urogynae Day. June 9, 2008, Bangkok, Thailand.
33. Asian Network of Excellence in Urological Science (NEXUS): Building Overactive Bladder Awareness. June 7-8, 2008, Sapporo, Japan.
32. “*Take Home Message – Urinary Incontinence*”, American Urological Association Annual Meeting, Orlando, FL, May 22, 2008.
31. “*Interstitial Cystitis*” Clinical Reviewers’ Education Program – Women’s Health Update – Part 2, White Oak Conference Room, Food and Drug Administration, Silver Spring, MD November 16, 2007.
30. “*Update from the Urinary Incontinence Treatment Network (UITN): Work from Publications & Presentations (P&P) Committee*. Podium Lecture. Society for Urodynamics and Female Urology Annual Meeting. San Diego, CA, March 23, 2007.
29. “*Medical management of BPH*” Christian Medical and Dental Association’s (CMDA) Continuing Medical and Dental Education (CMDE) Conference, Chiangmai, Thailand, March 3, 2007.
28. “*Treatment of urinary incontinence*” Christian Medical and Dental Association’s (CMDA) Continuing Medical and Dental Education (CMDE) Conference, Chiangmai, Thailand, March 2, 2007.
27. “*Treatment of urethral strictures*” Christian Medical and Dental Association’s (CMDA) Continuing Medical and Dental Education (CMDE) Conference, Chiangmai, Thailand, March 2, 2007.
26. “*Surgical management of urolithiasis*” Christian Medical and Dental Association’s

(CMDA) Continuing Medical and Dental Education (CMDE) Conference, Chiangmai, Thailand, March 1, 2007.

25. “*Surgical management of erectile dysfunction*”. Christian Medical and Dental Association’s (CMDA) Continuing Medical and Dental Education (CMDE) Conference, Chiangmai, Thailand, February 28, 2007.
24. “*Relevant Surgical Pelvic Anatomy*” 12th Annual Paul Peters Urology Symposium, University of Texas Southwestern, Dallas, TX Jan. 20, 2006.
23. “*IC Therapy and Role of Neuromodulation*” 12th Annual Paul Peters Urology Symposium, University of Texas Southwestern, Dallas, TX Jan. 19, 2006.
22. “*The Overactive Bladder: More Options or Differences without Distinction*” Panel Discussion, MidAtlantic AUA Meeting, Phoenix, AZ (2005).
21. “*Update on mediators of bladder afferent activity*” Chronic Pelvic Pain/ Chronic Prostatitis Scientific Workshop, NIH-NIDDK, Linthicum, MD, October 19, 2005.
20. “*Bladder outlet obstruction (BOO) and Overactive Bladder (OAB) - Empiricism versus Science*”, Taiwan Urological Association Satellite Symposium, Ambassador Hotel, Kaoshiung, Taiwan, August 27, 2005.
19. “*Role of Bladder Urothelium in Bladder Sensation - From Bench to Bedside*” 27th Annual Congress of the Taiwan Urological Association, Kaoshiung, Taiwan, August 27, 2005.
18. “*Treatment of Lower Urinary Tract Symptoms (LUTS) in Men – Are We Treating BPH or Something Else?*” Tri-Service General Hospital Grand Rounds, Taipei, Taiwan, August 24, 2005.
17. “*Evidence Based Medicine (EBM) in Male LUTS - Review of NIH- Sponsored Clinical*” Urology Scientific Symposium, Splendor Hotel, Taichung, Taiwan, August 23, 2005.
16. “*Treatment of Lower Urinary Tract Symptoms (LUTS) in Men – Are We Treating BPH or Something Else?*” Taichung Veterans General Hospital Grand Rounds, Taichung, Taiwan, August 24, 2005.
15. “*Evidence Based Medicine (EBM) in Male LUTS - Review of NIH- Sponsored Clinical*” Urology Scientific Symposium, Formosa Regent Hotel, Taipei, Taiwan, August 23, 2005.
14. “*Treatment of Lower Urinary Tract Symptoms (LUTS) in Men – Are We Treating BPH or Something Else?*” Taipei Veterans General Hospital Grand Rounds, Taipei, Taiwan, August 23, 2005.
13. “*Management of Incontinence After Sling Procedure: Surgery vs. Drugs – Point Counterpoint*” American Urological Association Annual Meeting, Plenary Session, May 23, 2005, San Antonio, TX.
12. “*Role of Bladder Urothelium in Bladder Hypersensory Disease*”, International Bladder Symposium, Baltimore, MD., April 15-17, 2005.
11. “*Interstitial Cystitis – Translational Research*”, American Pain Society Annual Meeting, Symposium on Interstitial Cystitis, Boston, MA, March 30-April 2, 2005.
10. “*Role of bladder urothelial cell in sensory signal transduction using interstitial cystitis as a human model*”, Satellite Symposium, XXXV International Congress of Physiological Sciences, San Diego, CA, March 29, 2005.
9. “*Antiproliferative Involvement in Interstitial Cystitis*”, Understanding urothelial dysfunction: pathophysiology and novel therapies. Workshop, International Continence Society and International Urogynecological Association 1st Annual Combined Meeting, Paris, France, August 23, 2004.
8. “*ATP Sensitization*”, AUA/SBUR Summer Research Conference, McLean, VA, August 13-15, 2004.
7. “*Report on NIH Studies – Chronic Pelvic Pain Syndromes*”, Society for Urodynamics and Female Urology, First Annual Meeting, Phoenix, Arizona, February 28, 2004.

6. “*The Role of Bladder Urothelium in Sensory Transduction: Can IC Bladder Urothelial Cells be Hypersensitive?*”, Research Insights into Interstitial Cystitis: A Basic and Clinical Science Symposium, Presented by the NIH-NIDDK and ICA, Old Town Alexandria, VA October 31, 2003.
5. “*Basic Science and Translational Research in Female Pelvic Floor Disorders*” National Institutes of Health, Bethesda, MD November 14-15, 2002.
4. “*Advancing the Treatment of Fecal and Urinary Incontinence Through Research: Trial Design, Outcome Measures, and Research Priorities*”, Consensus Conference, International Foundation for Functional Gastrointestinal Disorders, Milwaukee, WI, November 3-5, 2002.
3. “*Neural Control of Bladder Function*”, 4th World Congress in Urologic Research, Tuscon, AZ, December 2, 2001.
2. “*Sacral Neuromodulation in Treatment of Voiding Dysfunction*”, Society for Basic Urologic Research, Annual Meeting Breakout Session, Anaheim, CA, June 2, 2001.
1. “*InterStim Therapy: S3 Neuromodulation for Treatment of Voiding Dysfunction*”, Taiwanese Incontinence Society, Taipei, Taiwan, January 13, 2001.

Regional and National Courses Taught

15. Translational Urology Research: Step-by-step How to Do it from Concepts to Getting Funded – Course Lecturer, 2011 American Urological Association Meeting, Washington, DC, 2011.
14. Advances and Controversies in Management of Overactive Bladder – Course Director, 2008 American Urological Association Meeting, Orlando, FL, May 20, 2008.
13. 2007 Maryland Urological Association Annual Meeting – Course Director, Davidge Hall, University of Maryland School of Medicine, March 24, 2007
12. Modern Treatment of Urinary Incontinence, American Urological Association Annual Meeting, San Francisco, CA May 5, 2004.
11. Modern Treatment of Urinary Incontinence, American Urological Association Annual Meeting, Chicago, IL, April 26 – May 1, 2003.
10. 20th Annual Houston Everett Course in Urogynecology, Johns Hopkins Hospital, Baltimore, MD, February 20-22, 2003.
9. Onsite Regional InterStim Training Course, Medtronic, Inc., Columbia, MD, October 5, 2002.
8. Prostate Cancer 2002: New Perspectives – Urinary Incontinence. Baltimore, MD, September 28, 2002.
7. Modern Treatment of Urinary Incontinence, American Urological Association Annual Meeting, Orlando, FL, May 25-30, 2002.
6. Onsite Regional InterStim Training Course, Medtronic, Inc., Columbia, MD, November 16, 2001.
5. Onsite Regional InterStim Training Course, Medtronic, Inc., Newton, MA, November 9, 2001.
4. Onsite Regional InterStim Training Course, Medtronic, Inc., Morristown, NJ, November 2, 2001.
3. Onsite Regional InterStim Training Course, Medtronic, Inc., Richmond, VA, August 29, 2001.
2. National InterStim Training Course, Medtronic Inc., Memphis, TN, July 13-14, 2001.
1. Pelvic Floor Dysfunction Course, Innovations in Medical Education and Training, University of Maryland, Baltimore, MD, May 10-12, 2001