# Stanford



# Amy D. Dobberfuhl, MD, MS

**Assistant Professor of Urology** 

## **CLINICAL OFFICE (PRIMARY)**

• Urology Clinic

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# Bio

#### **CLINICAL FOCUS**

• Female Pelvic Medicine and Reconstructive Surgery

#### ACADEMIC APPOINTMENTS

- · Assistant Professor University Medical Line, Urology
- Member, Maternal & Child Health Research Institute (MCHRI)

# ADMINISTRATIVE APPOINTMENTS

• Member, Education Committee, International Continence Society, (2016- present)

#### HONORS AND AWARDS

- Top 10 Basic Science Abstract (Peripheral circadian rhythms of bladder in patients with nocturia), SUFU 2023 Annual Meeting, Nashville, TN (2023 (03/08))
- Best Poster Award (Novel Technique Pelvic Floor Trigger Point Injections Electrical Stimulation), SWIU 2023 Annual Meeting, Phoenix, AZ (2023 (01/27))
- Basic Science Poster Award (Poster #BS20 Intradetrusor iPSC pSMC Treatment Rat Radiation Cystitis), SUFU 2019 Annual Meeting, Miami, FL (2019 (02/26))
- 3rd Place in Category Prize (Poster Session 1 #15 Targeting Bladder Trigone in Cadaver), WSAUA 2018 Annual Meeting, Maui, HI (2018 (10/28))
- Visiting Lecture (Management of Acute and Late Stage Complications of Radiation on Bladder), Cancer Diagnosis and Treatment Peak Forum, Tongji Medical College, Wuhan, Hubei, China (2018 (10/13))
- Best in Category Prize (S23 Podium #443 Large Capacity Bladder after Prolapse Repair), ICS 2018 Annual Meeting, Philadelphia, PA (2018 (08/30))
- Best Poster (MP33-12 Voiding Efficiency Following Correction Bladder Outlet Obstruction in Women), AUA 2018 Annual Meeting, San Francisco, CA. (2018 (05/19))
- Early-Career Investigators Showcase (Pelvic Irradiation Induces Two Phenotypes OAB vs UAB), AUA 2018 Annual Meeting, San Francisco, CA. (2018 (05/19))
- Research Travel Award (Radiation Induced Bladder Dysfunction in the Rat), Basic Sciences Symposium. AUA 2017 Annual Meeting. Boston, MA. (2017 (05/12))
- Best Clinical Research Award (Isometric Detrusor Reserve Predicts Spontaneous Void after TURP), Congress of Urologic Research and Education on Aging Underactive Bladder (CURE-UAB), Washington D.C. (2017 (03/09))
- Travel Scholarship. CURE-UAB 2017 Meeting., Congress of Urologic Research and Education on Aging Underactive Bladder (CURE-UAB), Washington D.C. (2017 (03/09))

- Spectrum KL2 Scholar, Stanford Clinical and Translational Science Award (2016-2018), Stanford University School of Medicine, Stanford, CA (2016 (07/01))
- Best Resident Research Award (2014 2015), Albany Medical Center, Div. of Urology, Albany, NY (2015 (06/19))
- 1st Place National Chief Resident Debate (Bladder Exstrophy: Argument for Modern Staged Repair), American Urological Association, 2015 Annual Meeting, New Orleans, LA (2015 (05/17))
- Best Resident Teaching Award (2013 2014), Albany Medical Center, Div. of Urology, Albany, NY (2014 (06/20))
- 2nd Place Resident Debate (Orchiopexy Retractile Testicle: Argument for Surgery), Northeast Section American Urological Association, 65th Annual Meeting, Saratoga Springs, NY (2013 (11/02))
- 2nd Place Prize Essay Contest (Model of pelvic floor dysfunction after pelvic floor stimulation), Northeast Section American Urological Association, 65th Annual Meeting, Saratoga Springs, NY (2013 (11/01))
- Best Resident Research Award (2012 2013), Albany Medical Center, Div. of Urology, Albany, NY (2013 (06/21))
- 3rd Place Basic Science Competition (Loss renal protein phosphatase obstructive uropathy), 18th Annual Urology Resident Research Day, Skaneateles, NY (2013 (04/20))
- 1st Place Prize Essay Contest (PPM1A and TGF-beta/SMAD signalling obstructive uropathy), Northeast Section American Urological Association, 64th Annual Meeting, Niagara Falls, Ontario (2012 (09/14))
- 1st Place Resident Debate (Acute versus Delayed Prosthesis after Priapism), 17th Annual Urology Resident Research Day, Skaneateles, NY (2012 (04/21))

#### BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, American Urological Association (2011 present)
- Member, Society of Women in Urology (2011 present)
- Member, Gay and Lesbian Medical Association (2014 present)
- Member, World Professional Association for Transgender Health (2015 present)
- Member, International Continence Society (2016 present)
- Education Committee, International Continence Society (2016 present)
- Member, Western Section American Urological Association (2018 present)
- Member, Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction (2018 present)

## PROFESSIONAL EDUCATION

- Board Certification, Female Pelvic Medicine and Reconstructive Surgery (2022)
- Board Certification, The American Board of Urology (2021)
- Master of Science, Stanford University Division of Epidemiology, CA (2018)
- Fellowship: Stanford University Dept of Urology (2017) CA
- Residency: Albany Medical College Urologic Surgery Residency (2015) NY
- Residency: Albany Medical College General Surgery Residency (2011) NY
- Medical Education: University of North Carolina School of Medicine (2010) NC
- Bachelor of Science, North Carolina State University, NC (2004)

#### **LINKS**

• Dobberfuhl Lab: https://med.stanford.edu/dobberfuhl-lab.html

# Research & Scholarship

#### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Dr. Amy Dobberfuhl, received a B.S. in Mechanical Engineering from North Carolina State University in 2004 and her M.D. from the University of North Carolina at Chapel Hill School of Medicine in 2010. She completed her residency training in Urology at Albany Medical College in New York in 2015. She then completed an ACGME fellowship in FPMRS (Female Pelvic Medicine & Reconstructive Surgery) with a special emphasis on Neurourology & Voiding Dysfunction, in the

Department of Urology at Stanford University in 2017. Dr. Dobberfuhl was also awarded the KL2 component of the Stanford Clinical and Translation Science Award to Spectrum (NIH 5KL2TR001083) and completed an M.S. in Epidemiology and Clinical Research from Stanford University in 2018. Following fellowship in 2017 Dr. Dobberfuhl joined the Department of Urology and her practice includes both a clinical and laboratory research focus.

Dr. Dobberfuhl's clinical practice includes: Pelvic Reconstruction, Neurourology, and Voiding Dysfunction. Dr. Dobberfuhl's clinical research focus includes: Interstitial Cystitis / Bladder Pain Syndrome (IC/BPS), Nocturia, Urinary tract infection (UTI), Sex differences in lower urinary tract dysfunction, Radiation cystitis, and Overactive (OAB).

Dr. Dobberfuhl's laboratory basic science and translational research focus includes: IC/BPS, Nocturia, Pelvic floor ischemia, Effect of estrogen on lower urinary tract, Animal models of voiding dysfunction, Urinary biomarkers and molecular mechanisms implicated in lower urinary tract dysfunction (WHSDM LUTS Cohort).

#### **CLINICAL TRIALS**

- Transvaginal Botulinum Toxin A Chemodenervation for Overactive Bladder, Not Recruiting
- Transvaginal Botulinum Toxin A for Interstitial Cystitis / Bladder Pain Syndrome, Not Recruiting

# **Teaching**

#### STANFORD ADVISEES

Med Scholar Project Advisor

Jacky Chu, Shada Sinclair

Postdoctoral Faculty Sponsor

Ashu Mohammad

Postdoctoral Research Mentor

Ashu Mohammad

# GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

• Epidemiology (Masters Program)

## **Publications**

#### **PUBLICATIONS**

- Utilization and Cost of Gender-affirming Surgery in the United States from 2012-2019. Annals of surgery Chu, J., Nagpal, M., Dobberfuhl, A. D. 2024
- Mechanisms of oxidative stress in interstitial cystitis/bladder pain syndrome. Nature reviews. Urology Mohammad, A., Laboulaye, M. A., Shenhar, C., Dobberfuhl, A. D. 2024
- Long-term effects of vaginal surgery and endogenous ovarian hormones on the vagina and bladder. Sexual medicine Ho, T., Zhang, J., Wen, Y., Guo, S., Dobberfuhl, A. D., Chen, B. 2023; 11 (6): qfad063
- The Potential Role of Persister Cells in Urinary Tract Infections. Current urology reports
   Durrani, B., Mohammad, A., Ljubetic, B. M., Dobberfuhl, A. D.

   2023
- Pathophysiologic Insights into the Transition from Asymptomatic Bacteriuria to Urinary Tract Infection. Current urology reports

Ljubetic, B. M., Mohammad, A., Durrani, B., Dobberfuhl, A. D. 2023

 Our 11 year experience with percutaneous tibial nerve stimulation (PTNS) in men and women for the treatment of interstitial cystitis / bladder pain syndrome (IC/BPS). Urology

Abdalla, A. S., Berquist, S. W., Mohammad, A., Dobberfuhl, A. D.

• Urodynamic and urethral pressure profilometry findings in women with voiding phase dysfunction treated with surgical urethrolysis. Canadian Urological Association journal = Journal de l'Association des urologues du Canada

Dobberfuhl, A. D., Comiter, C. V., Deb, S.

2023

• Outcomes of Aquablation in men with acute and chronic urinary retention. Urology

Burton, C. S., Dobberfuhl, A. D., Comiter, C. V.

2023

• FUNCTIONAL AND HISTOLOGIC CHANGES OF THE VAGINA IN A RODENT MODEL FOR ANTERIOR VAGINAL PROLAPSE

Chen, B., Guo, S., Ho, D., Wen, Y., Zhang, J., Dobberfuhl, A.

WILEY.2023: S42-S43

• UTILIZATION OF GENDER-AFFIRMING SURGERY IN THE UNITED STATES FROM 2012-2019

Chu, J., Nagpal, M., Dobberfuhl, A. D.

WILEY.2023: S177-S179

• A NOVEL TECHNIQUE OF ADMINISTERING PRECISE PELVIC FLOOR TRIGGER POINT INJECTIONS WITH ELECTRICAL STIMULATION FEEDBACK

Burton, C. S., Herbert, A., Dobberfuhl, A. D.

WILEY.2023: S152-S153

• SPONTANEOUS VOIDING IN MEN WITH AND WITHOUT URINARY RETENTION UNDERGOING AQUABLATION

Burton, C. S., Dobberfuhl, A. D., Comiter, C. V.

WILEY.2023: S275-S276

• PERIPHERAL CIRCADIAN RHYTHMS OF THE BLADDER IN PATIENTS WITH NOCTURIA

Mohammad, A., Han, S., Berquist, S. W., Beachy, P. A., Dobberfuhl, A. D.

WILEY.2023: S11-S13

Pathophysiology, assessment, and treatment of overactive bladder symptoms in patients with interstitial cystitis/bladder pain syndrome. Neurourology and urodynamics

Dobberfuhl, A. D.

2022

• The evolution of incontinence into resolved, refractory and de novo urgency urinary incontinence following sling placement at time of prolapse repair in a large urodynamic cohort. Investigative and clinical urology

Zhang, X., Shaffer, R. K., Dobberfuhl, A. D.

2021

• Trigone as a diagnostic and therapeutic target for bladder-centric interstitial cystitis/bladder pain syndrome. *International urogynecology journal* Dobberfuhl, A. D., van Uem, S., Versi, E.

2021

Estrogen replacement is protective to the effect of in vitro hypoxia on female rabbit bladder and pelvic floor contractile response. Investigative and clinical urology

Dobberfuhl, A. D., Schuler, C., Leggett, R. E., De, E. J., Levin, R. M.

2020; 61 (4): 432-40

• Characterizing relaxin receptor expression and exploring relaxin's effect on tissue remodeling/fibrosis in the human bladder. BMC urology

Diaz, E. C., Briggs, M., Wen, Y., Zhuang, G., Wallace, S. L., Dobberfuhl, A. D., Kao, C., Chen, B. C.

2020; 20 (1): 44

• Optogenetic chronic neuromodulation of the diabetic cystopathy mouse model - functional effect

Wallace, S., Briggs, M., Wen, Y., Tran, D., Montgomery, K., Zhuang, G., Dobberfuhl, A., Delp, S., Chen, B.

WILEY.2020: S47-S48

 The mechanical stop test and isovolumetric detrusor contractile reserve are associated with immediate spontaneous voiding after transurethral resection of prostate INTERNATIONAL UROLOGY AND NEPHROLOGY

Dobberfuhl, A. D., Zhang, X., Comiter, C. V.

2020; 52 (2): 239-246

 Statewide Success of Staged Sacral Neuromodulation for the Treatment of Urinary Complaints in California (2005-2011). Female pelvic medicine & reconstructive surgery

Dobberfuhl, A. D., Mahal, A. n., Dallas, K. B., Choi, K. M., Comiter, C. V., Elliott, C. S.

2020; 26 (7): 437-42

 Spontaneous voiding is surprisingly recoverable via outlet procedure in men with underactive bladder and documented detrusor underactivity on urodynamics. Neurourology and urodynamics

Dobberfuhl, A. D., Chen, A., Alkaram, A. F., De, E. J.

2019

Evaluation and treatment of female stress urinary incontinence after pelvic radiotherapy NEUROUROLOGY AND URODYNAMICS

Dobberfuhl, A. D.

2019; 38: S59-S69

 Urodynamic factors associated with the large capacity bladder and incomplete emptying after prolapse repair (2009-2015) NEUROUROLOGY AND URODYNAMICS

Dobberfuhl, A. D., Shaffer, R. K., Goodman, S. N., Chen, B. H.

2019; 38 (5): 1322-31

- Are Fibroid and Bony Pelvis Characteristics Associated with Urinary and Pelvic Symptom Severity? American journal of obstetrics and gynecology Shaffer, R. K., Dobberfuhl, A. D., Vu, K., Fast, A. M., Dababou, S., Marrocchio, C., Lum, D. A., Hovsepian, D. M., Ghanouni, P., Chen, B. 2019
- Transvaginal ultrasound guided trigone and bladder injection: A cadaveric feasibility study for a novel route of intradetrusor chemodenervation INVESTIGATIVE AND CLINICAL UROLOGY

Syan, R., Briggs, M. A., Olivas, J. C., Srivastava, S., Comiter, C., Dobberfuhl, A. D.

2019; 60 (1): 40-45

 Peroxisome proliferator-activated receptor gamma agonist as a novel treatment for interstitial cystitis: A rat model. Investigative and clinical urology Mahal, A., Young-Lin, N., Dobberfuhl, A., Estes, J., Comiter, C. V.

2018; 59 (4): 257-62

 Peroxisome proliferator-activated receptor gamma agonist as a novel treatment for interstitial cystitis: A rat model INVESTIGATIVE AND CLINICAL UROLOGY

Mahal, A., Young-Lin, N., Dobberfuhl, A., Estes, J., Comiter, C.

2018; 59 (4): 257-62

 Statewide Success of Staged Sacral Neuromodulation for the Treatment of Urinary Complaints in California (2005-2011) Female pelvic medicine & reconstructive surgery

Dobberfuhl, A. D., Mahal, A., Dallas, K. B., Choi, K. M., Comiter, C. V., Elliott, C. S.

2018

A Systematic Approach to the Evaluation and Management of the Failed Artificial Urinary Sphincter. Current urology reports

Dobberfuhl, A. D., Comiter, C. V.

2017; 18 (3): 18-?

• Chapter 9: Uterosacral Ligament Vaginal Vault Suspension Native Tissue Repair for Incontinence and Prolapse

Dobberfuhl, A. D., De, E. J.

Springer International Publishing.2017: 131-142

 Loss of expression of protein phosphatase magnesium-dependent 1A during kidney injury promotes fibrotic maladaptive repair FASEB JOURNAL Samarakoon, R., Rehfuss, A., Khakoo, N. S., Falke, L. L., Dobberfuhl, A. D., Helo, S., Overstreet, J. M., Goldschmeding, R., Higgins, P. J. 2016; 30 (10): 3308-3320

 A Novel Cystometric Model of Pelvic Floor Dysfunction After Rabbit Pelvic Floor Noxious Electrical Stimulation FEMALE PELVIC MEDICINE AND RECONSTRUCTIVE SURGERY

Dobberfuhl, A. D., Spettel, S., Schuler, C., Dubin, A. H., Levin, R. M., De, E. J. 2016; 22 (4): 248-253

The artificial urinary sphincter and male sling for postprostatectomy incontinence: Which patient should get which procedure? Investigative and clinical urology

Comiter, C. V., Dobberfuhl, A. D. 2016; 57 (1): 3-13

• Initial Evaluation and Management of Acute Urinary Retention AUA Update Series

Dobberfuhl, A. D., Comiter, C. V. 2016; 35: 95-104

 Noxious electrical stimulation of the pelvic floor and vagina induces transient voiding dysfunction in a rabbit survival model of pelvic floor dystonia. Korean journal of urology

Dobberfuhl, A. D., Spettel, S., Schuler, C., Levin, R. M., Dubin, A. H., De, E. J. 2015; 56 (12): 837-844

Female stress urinary incontinence and the mid-urethral sling: Is obstruction necessary to achieve dryness? WORLD JOURNAL OF UROLOGY
Dobberfuhl, A. D., De, E. J.

2015; 33 (9): 1243-1250

- Loss of tumour suppressor PTEN expression in renal injury initiates SMAD3-and p53-dependent fibrotic responses *JOURNAL OF PATHOLOGY* Samarakoon, R., Helo, S., Dobberfuhl, A. D., Khakoo, N. S., Falke, L., Overstreet, J. M., Goldschmeding, R., Higgins, P. J. 2015; 236 (4): 421-432
- Identification of CNS Neurons Innervating the Levator Ani and Ventral Bulbospongiosus Muscles in Male Rats JOURNAL OF SEXUAL MEDICINE
  Dobberfuhl, A. D., Oti, T., Sakamoto, H., Marson, L.
  2014; 11 (3): 664-677
- Evaluation & Treatment of Overactive Bladder AUA University: Core Curriculum

Dobberfuhl, A. D., De, E. J.

American Urological Association.2014

- Induction of renal fibrotic genes by TGF-beta 1 requires EGFR activation, p53 and reactive oxygen species CELLULAR SIGNALLING
  Samarakoon, R., Dobberfuhl, A. D., Cooley, C., Overstreet, J. M., Patel, S., Goldschmeding, R., Meldrum, K. K., Higgins, P. J.
  2013; 25 (11): 2198-2209
- Ureteral Obstruction-Induced Renal Fibrosis: An In Vivo Platform for Mechanistic Discovery and Therapeutic Intervention. *Cell & developmental biology* Dobberfuhl, A. D., Samarakoon, R., Higgins, C. E., Mian, B. M., Overstreet, J. M., Higgins, S. P., Kogan, B. A., Higgins, P. J. 2012; 1 (3)