

Stanford



Amy D. Dobberfuhl, MD, MS

Assistant Professor of Urology

CLINICAL OFFICES

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Bio

CLINICAL FOCUS

- Urology

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

- 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 Retractable 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, Western Section American Urological Association (2018 - present)
- Member, American Urological Association (2011 - present)
- Member, Society of Women in Urology (2011 - present)
- Member, GLMA (2014 - present)
- Member, WPATH (2015 - present)
- Member, International Continence Society (2016 - present)
- Education Committee, International Continence Society (2016 - present)

PROFESSIONAL EDUCATION

- 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)

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. Dobberfuhr joined the Department of Urology and her practice includes both a clinical and research focus.

Dr. Dobberfuhr's current clinical practice includes: Pelvic Reconstruction, Neurourology, and Voiding Dysfunction. A large proportion of Dr. Dobberfuhr's Voiding Dysfunction practice includes Bladder Pain Syndrome (BPS) and Pelvic Floor Dysfunction (PFD).

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

Dr. Dobberfuhr's clinical research focus includes: Interstitial Cystitis / Bladder Pain Syndrome (IC/BPS), Sex differences in lower urinary tract dysfunction, Radiation cystitis, Overactive (OAB) and Underactive Bladder (UAB).

Dr. Dobberfuhr's current IRB approved prospective clinical research for which she may invite her patients to enroll include:

1. WHSDM Study (Funding: Women's Health & Sex Differences in Medicine & NIH LRPCR 1L30DK115056-01). This is a prospective observational cohort of men and women enrolled by Dr. Dobberfuhr (PD/PI) and her collaborators (Dr. Bertha Chen, Dr. Elizabeth Kidd). The goal of this research is to study gender related differences in bladder function that occur in men and women with lower urinary tract dysfunction. The conditions we are studying in Aim 1 include: overactive bladder, underactive bladder, urinary retention, urgency incontinence, recurrent urinary tract infection (UTI), interstitial cystitis / bladder pain syndrome (IC/BPS), prostatitis, and radiation cystitis. In Aim 2 we assess changes in bladder function which occur over time in women with cervical or endometrial cancer treated with radiotherapy. Eligible women and men with the above conditions are invited to participate.

2. SUFU Clinical trial of transvaginal onabotulinumtoxinA for refractory overactive bladder (Funding: Society of Urodynamics, Female Pelvic Medicine and Urogenital Reconstruction). This is a SUFU Foundation investigator initiated clinical trial (PD/PI Dr. Dobberfuhr) of a novel approach to deliver botulinum toxin to the bladder without the need for a cystoscope, in women who have refractory overactive bladder (OAB). Eligible women who have failed 1st and 2nd line OAB treatment are invited to participate.

3. CYSTONET Study (Funding: National Institutes of Health, PI: Joseph Liao): Dr. Dobberfuhr is a co-investigator for an IRB approved study titled "Development of Cystoscopy Database for Bladder Disease Prediction" sponsored by a research grant from the NIH. Dr. Dobberfuhr is conducting Specific Aim 2: "To train CystoNet to identify flat bladder cancer including carcinoma in situ (CIS) while excluding cancer-mimicking benign bladder diseases". Dr. Dobberfuhr is enrolling patients with likely benign bladder disease for the CYSTONET cystoscopy neural network. Eligible women and men undergoing routine cystoscopy are invited to participate.

Teaching

STANFORD ADVISEES

Med Scholar Project Advisor

Jacky Chu

Postdoctoral Faculty Sponsor

Ashu Mohammad

Postdoctoral Research Mentor

Ashu Mohammad

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Epidemiology (Masters Program)

Publications

PUBLICATIONS

- **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., Dobberfuhr, A. D.
2021
- **Trigone as a diagnostic and therapeutic target for bladder-centric interstitial cystitis/bladder pain syndrome.** *International urogynecology journal*
Dobberfuhr, 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*
Dobberfuhr, 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., Dobberfuhr, 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., Dobberfuhr, 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*
Dobberfuhr, 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*
Dobberfuhr, 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*
Dobberfuhr, 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*
Dobberfuhr, 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*
Dobberfuhr, 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., Dobberfuhr, 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 chemodervation** *INVESTIGATIVE AND CLINICAL UROLOGY*
Syam, R., Briggs, M. A., Olivas, J. C., Srivastava, S., Comiter, C., Dobberfuhr, 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., Dobberfuhr, 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., Dobberfuhr, 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*
Dobberfuhr, 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*
Dobberfuhr, A. D., Comiter, C. V.
2017; 18 (3): 18-?
- **Chapter 9: Uterosacral Ligament Vaginal Vault Suspension** *Native Tissue Repair for Incontinence and Prolapse*
Dobberfuhr, 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., Rehfuess, A., Khakoo, N. S., Falke, L. L., Dobberfuhr, 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*
Dobberfuhr, 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., Dobberfuhr, A. D.
2016; 57 (1): 3-13
- **Initial Evaluation and Management of Acute Urinary Retention** *AUA Update Series*
Dobberfuhr, 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*
Dobberfuhr, 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*
Dobberfuhr, 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., Dobberfuhr, 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*
Dobberfuhr, A. D., Oti, T., Sakamoto, H., Marson, L.
2014; 11 (3): 664-677
- **Evaluation & Treatment of Overactive Bladder** *AUA University: Core Curriculum*
Dobberfuhr, 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)