



PILOT EXPERIMENTAL ANALYSIS OF MEATUS CONFORMATION AND DEVELOPMENT OF NOVEL MEASUREMENTS FOR ABERRANT URINARY STREAM IN 3D PRINTED URETHRAS DERIVED FROM CADAVERIC MODEL (MP60-04)

Andrew J Cohen¹, German Patino², Seyed Mirramezani³, Sudarshan Srirangapatanam⁴, Anas Tresh⁴, Bhagat Cheema⁴, Jenny Tai⁵, Dylan Romero⁵, Anthony Enriquez⁴, Shawn Shadden³, Benjamin N Breyer^{4,6}

1: Brady Urological Institute, Johns Hopkins Bayview Medical Center 2: Hospital Universitario San Ignacio, Bogota 3: University of California, Berkeley, Department of Mechanical Engineering 4: Department of Urology, University of California San Francisco 5: Makers Lab Library, University of California San Francisco 6: Department of Biostatistics and Epidemiology, University of California San Francisco

Introduction:



Methods:





Results:



Future Directions:

Validate spray meter and developed metrics Next generation, flexible urethral models Leverage fluid dynamic data to understand Pathophysiology of urethral strictures and recurrence

O Outline- Area of spray, increasing size corresponds to greater sprauy^a • Solid circles – Increasing size corresponds to increasing flowrate ^a Normalized to unaltered, normal scenario at coordinates 0,0 Q max= 22 ml/sec and spray area 38.6 cm²