Supporting Information

The criteria below were established and reported by the MAPP Research Network in Landis *et al.*, BMC Urology 2014, 14:58 as below.

Participants were recruited through Urology/Urogynecology clinics at each of the clinical sites as described [2]. Inclusion criteria for UCPPS participants were: 1) a diagnosis of IC/BPS or CP/CPPS with symptoms present a majority of the time during any 3 of the past 6 months(CP/CPPS) or the most recent 3 months (IC/BPS); 2) an age of at least 18 years; 3) report of a nonzero score for bladder/prostate or pelvic region pain, pressure, or discomfort during the last 2 weeks, and 4) consent given to provide a blood or cheek swab sample. Exclusion criteria included symptomatic urethral stricture, on-going neurological conditions affecting Healthy control participants were required to have no pain in the pelvic or bladder region and chronic pain was limited to at most one non-urologic body region. Positive controls needed to qualify for irritable bowel syndrome, chronic fatigue syndrome, or fibromyalgia as assessed by the Complex Symptom Inventory, a 41-item symptom checklist of past year illness specific to functional syndromes.

UCPPS Inclusion criteria

Inclusion criteria for UCPPS participants were: 1) a diagnosis of IC/BPS or CP/CPPS, with urologic symptoms present a majority of the time during any 3 of the past 6 months (CP/CPPS) or the most recent 3 months IC/BPS); 2) at least 18 years old; 3) reporting a non-zero score for bladder/prostate and/or pelvic region pain, pressure or discomfort during the past 2 weeks; and 4) consented to provide a blood or cheek swab sample to test DNA for genes related to the main study goals.

UCPPS exclusion criteria

Exclusion criteria for UCPPS consisted of the following symptomatic urethral stricture, on-going neurological conditions affecting the bladder or bowel, active autoimmune or infectious disorders, history of cystitis caused by tuberculosis or radiation or chemotherapies, history of non-dermatologic cancer, current major psychiatric disorders, or severe cardiac, pulmonary, renal, or hepatic disease. In addition, males diagnosed with unilateral orchalgia without pelvic symptoms, and males with a history of microwave thermotherapy, trans-urethral or needle ablation or other specified prostate procedures were excluded.

Eligibility criteria for controls

The screening and enrollment process utilized one in-clinic baseline study visit for informed consent and eligibility confirmation. This baseline visit was structured so that essential information, such as brief symptoms analogous to those used in previous UCPPS clinical studies (e.g., pain, pressure, discomfort and sex-specific symptom criteria) and a urine sample dipstick could be acquired prior to the conduct of more intensive, invasive and time-consuming procedures. Persons meeting initial eligibility were then invited to complete the Trans-MAPP EP Study assessments, and were enrolled only after a negative 48-hour urine culture report. Eligible participants then

underwent extensive baseline characterization using the standardized battery of urologic and non-urologic assessment instruments described previously. Biosamples, QST, and neuroimaging was also collected concurrently with the self-report information at baseline. Healthy controls, as well as "positive" controls (i.e., individuals with one or more non-urologic associated syndromes of primary interest were also enrolled but only underwent a single phenotyping assessment and biosample collection at baseline identical to that of participants with UCPPS.

Table S1. Coefficients of Variation (CV) and Intraclass Correlation Coefficients (ICCs) for duplicates of candidate proteins

Protein	CV0.837	ICC
MMP-2	118.2%	0.837
MMP-9	25.9%	0.990
MMP-9/NGAL	74.4%	0.972
NGAL	26.2%	0.971
VEGF	23.5%	0.980
VEGF-R1	57.3%	0.793
Total Protein	7.2%	0.997

Tables S2. The lower limits of detection (LODs) and maximum detectable limits (MDL) are shown in the below table.

Protein	LOD	MDL
MMP-2	0.014 ng/mL	50 ng/mL
MMP-9	0.156 ng/mL	20 ng/mL
MMP-9/NGAL	0.002 ng/mL	20 ng/mL
NGAL	0.03 ng/mL	100 ng/mL
VEGF	5.0 pg/mL	2000 pg/mL
VEGF-R1	1.5 pg/mL	2000 pg/mL