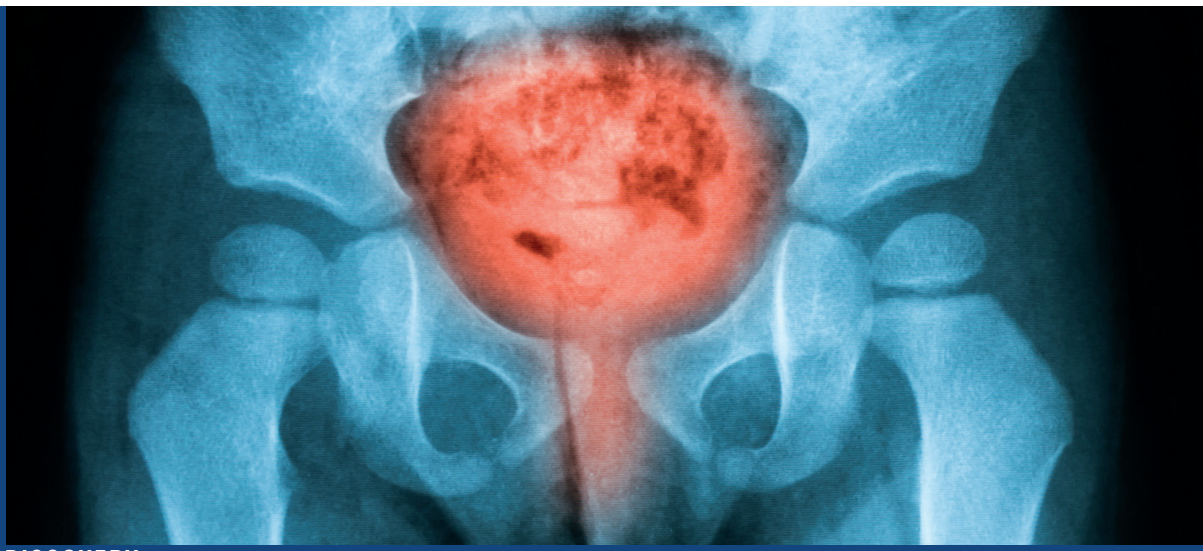
charles river

Summary
The Charles River ion channel portfolio includes over 120 targets which have been organized into Channel Panels® based on current scientific findings, proving a useful tool in guiding early screening and selectivity profiling.



DISCOVERY

Ion Channel Selectivity Profiling: Genitourinary

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Ion Channel Families:

- Potassium, calcium-activated (BK, IK and SK3)
- Purinergic receptors (P2X1 and P2X3)
- Transient receptor potential (TRPM8, TRPV1 and TRPV4)

Our Genitourinary Channel Panel® includes ion channels which have been linked to a variety of urinary disorders.

Selectivity Profiling

Identification of a compound's target specificity and potential for off-target effects is a critical step in the drug discovery process and often includes assessments against specific target class families, critical safety targets or by therapeutic area. In addition to our therapeutic area-specific Channel Panels®, we offer screening on a number of electrophysiology platforms. When required, our scientists can design customized panels to meet a client'sneeds. As pioneers in the field of ion channels, we are able to provide expert consultation to facilitate interpretation of results.

Genitourinary Channel Panel®

Ion Channels that control urinary bladder contractility and are targets for urinary incontinence treatment include calcium-activated potassium channels (BK and IK) and purinergic receptor channels (P2X1 and P2X3). BK agonists that promote relaxation have also been investigated for treatment of overactive bladder. TRPM8 channels expressed in bladder afferent nerves are potential targets for treatment of both overactive bladder and painful bladder syndrome. Transient receptor potential (TRP) channels expressed in afferent nerve endings have been investigated as potential targets for treatment of neurogenic bladder. Relaxation of the corpus cavernosum smooth muscle, essential for erectile function, is controlled by BK, and agonists are therapeutic targets for erectile dysfunction.

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EVERY STEP OF THE WAY