



Department of
UROLOGIC SCIENCES
UBC



**VANCOUVER
PROSTATE CENTRE**
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18th Annual Lorne D. Sullivan Lectureship and Research Day

Presented by:

DEPARTMENT OF UROLOGIC SCIENCES

with:

Visiting Professor and Keynote Speaker:

Dr. Alberto Briganti

Professor of Urology

Vita-Salute San Raffaele University

Date: Tuesday, June 18, 2024

Time: 8:00 am – 3:00 pm (PT)

Location: Paetzold Health Education Centre
(1st floor, Jim Pattison Pavilion, VGH, 855 West 12th Ave)

Objectives:

- To provide a forum for the discussion of new concepts in urologic biology and their relevance to clinical care.
- To review current concepts in urologic pathophysiology and therapy, and their application to clinical care.
- To share knowledge through interactive group discussion pertaining to the interpretation and design of basic and clinical studies.

Who should attend and participate?

- Scientists
- Clinical Investigators
- Fellows
- Nurses
- Urologists
- Residents
- Graduate Students
- Medical Students
- Clinical Research Assistants



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Call for Abstracts

We are requesting the submission of abstracts on any basic or clinical aspect of research in urology including basic science, clinical investigations, quality improvement studies, and clinical protocols.

Abstract Guidelines:

- Single-spaced using **Cambria 12-point size**.
- The title should be in block letters and bolded.
- Immediately after the title, the author's name and affiliations should appear. When listing authors from different affiliations, use reference numbers to organize.
- Underline the presenter's name.
- Indent all paragraphs.
- When using abbreviations, spell the first mention in full, followed by the abbreviation in parentheses.
- Abstract should be less than 300 words.

Please submit your abstract by **April 30, 2024**, to urology.research@ubc.ca

Please see the attached abstract example for reference.

INDWELLING URETERAL STENT PLACEMENT INDUCES APERISTALSIS, INJURY AND FIBROSIS

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Introduction and Objectives:

Ureteral stenting can cause symptoms including pain and discomfort in more than 80% of patients. Previous work suggested a role for the Gli family proteins and erythropoietin in regulating proper function of ureteral smooth muscle. We sought to investigate the effects of cellular signaling by Gli proteins and erythropoietin on stented porcine ureters.

Methods:

Pigs were stented for set time periods. They were evaluated for extent and timing of hydronephrosis, ureteral dilation, and rate of peristalsis. Tissues were examined for evidence of urinary system inflammation by a blinded pathologist. RNA and protein level experiments were used to evaluate expression of potential biomarkers. Ureteral contractile force was evaluated.

Results:

Stent placement triggers massive ureteral dilation, aperistalsis and moderate hydronephrosis within 48 hours of placement. Gli1 expression was increased in stented ureters as compared to contralateral unstented ureters. Similarly, increased expression of markers of kidney injury and fibrosis was noted. Erythropoietin did not improve peristalsis or contraction force but was noted to decrease non-purposeful spasming in stented ureters. Tamsulosin administration affects force of contraction but not rate of peristalsis in stented ureters.

Conclusions:

Regulation of peristalsis in stented ureters is multifactorial. Tamsulosin increases contractile force, consistent with previous theories on alpha blocker function in ureteral obstruction. Prophylactic erythropoietin may regulate ureteral stabilization in stretch induced spasming following stent placement. Stent placement causes kidney injury, potentially leading to Gli family activation and efforts at repair. Continuing work will elucidate the role of these agents in coordinating ureteral contractions and combatting stent-induced injury.