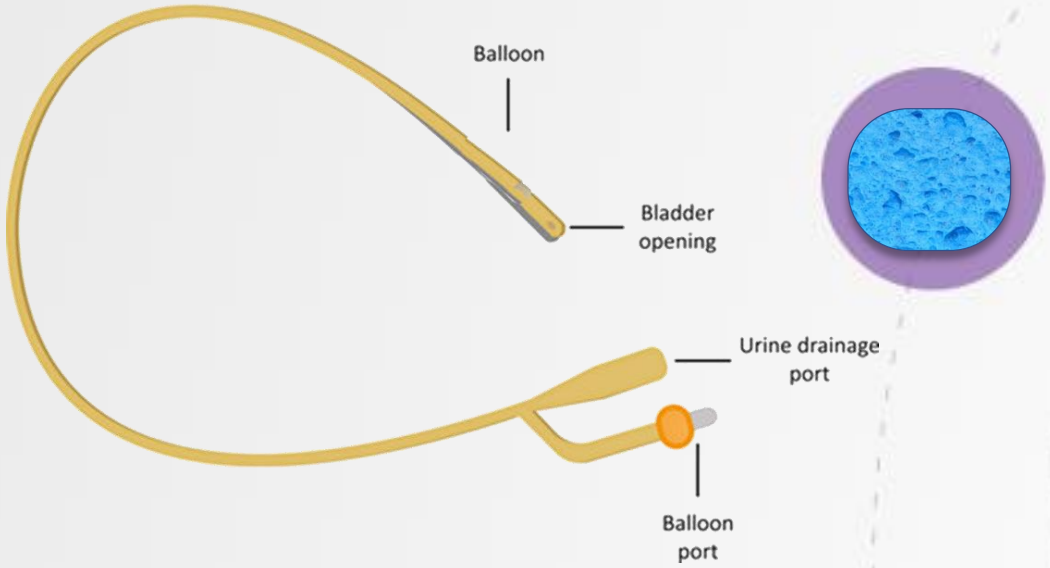
URINARY TRACT TREATMENTS LTD



Back To Life

URINARY TRACT TREATMENTS LTD

The Problem – Lingering Urinary Diseases

Urinary tract Diseases affect over 60% of individuals throughout their lifetime. an estimate for 2018 was that >**2.5 billion women and men** were affected by 1+ urinary diseases - including Cancer, Bacterial Infections, Incontinence, Inflammations and more.

Some of the diseases are life-threatening, some of them are painful and seriously reduce quality of life for lingering durations.

Most medications have non-optimal bioavailability due to ineffective delivery:

- Oral drugs have poor absorption in the bladder.
- Topical drugs are washed out of the bladder shortly after instillation.

UTT will dramatically enhance the efficacy of bladder medications by providing solutions for prolonged topical exposure to the bladder tissue

Bladder Disorders

- Prostate Cancer
- Bladder Cancer
- Urinary tract inflammation
- incontinence
- Overactive Bladder – OAB
- Interstitial Cystitis - IC

URINARY TRACT TREATMENTS LTD

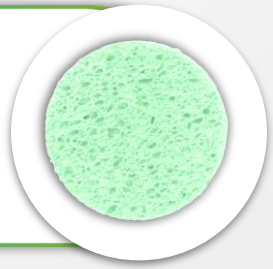
Our Solutions – for Lingering Urinary Diseases

UTT Ltd. is offering 3 proprietary innovations technologies for fast relief of bladder disorders:

1. A sponge for converting drugs to prolonged topical release application
2. A non-surgical chemo-ablation treatment for prostate cancer
3. An incontinence-management magnetic device

UTT objective is to offer:

- A paradigm change in topical drug treatments.
- A 1st dignified incontinence-control device



URINARY TRACT TREATMENTS LTD

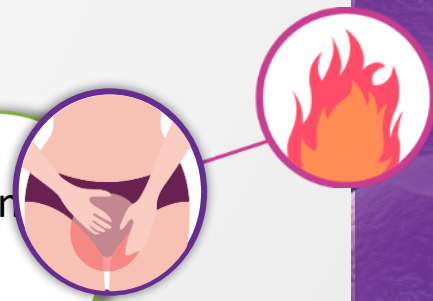
The Problem – Inflammations

Urinary tract infection (UTI), Interstitial Cystitis (IC) and Overactive Bladder (OAB) are primarily due to bacterial infection of the urinary tract. Symptoms include frequent and persistent urge to urinate, burning sensation, and lower abdominal pain. Complications may include abscesses, sepsis - even renal failures

Bladder Inflammations affect, in common, over 60% of women and over 20% of men all over the world . They are treated by antibiotics and/or hormone replacements: orally, for a short course - in simple cases, or IV and longer course - for complicated cases.

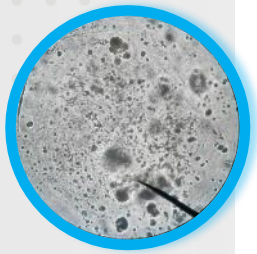
Over 50% world wide population suffers from urinary tract inflammation

Low bioavailability limits the effect of systemic antibiotics.



URINARY TRACT TREATMENTS LTD

The Problem - Urinary Incontinence



Urinary Incontinence (UI) combines several types of mixed disorders that may cause urge and/or stress to void and involuntary urine escape. UI may be caused by a weakened bladder support tissue, weak urethral sphincter or damage to the nerve system. Lifestyle and behavioral factors (smoking, obesity, etc.) may contribute to symptoms' severity.

Incontinence issues when coughing, sneezing or exercising are very common – affecting up to **75% of women > 65 years.**

Between absorbent pads and surgery – UI is mainly treated by medicines with unpleasant side effects and limited efficacy.

Urinary Incontinence is a wide-spread disorder. Current treatments leave patients with discomfort and social distancing.

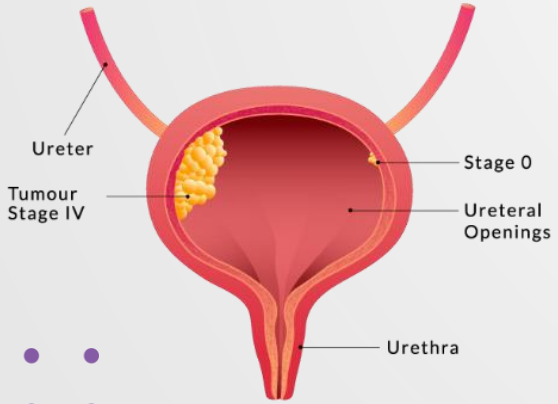
URINARY TRACT TREATMENTS LTD

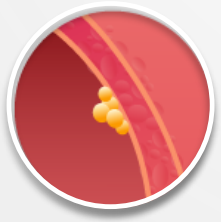
The Problem - Bladder Cancer

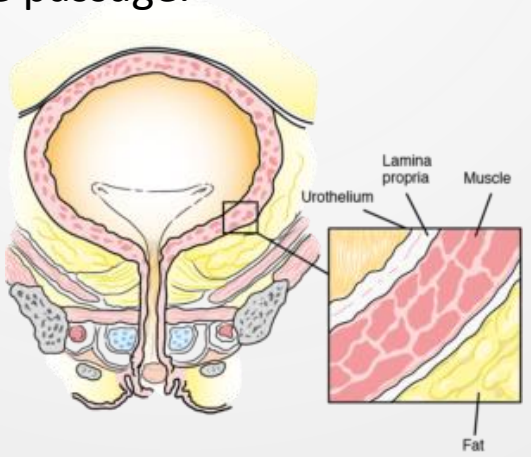
Bladder Cancer (BC) affects 800,000 patients in the USA only , 80% are males, 80% are smokers - causing 17,000 deaths/yr. Most tumors grow on the bladder inner layer. Those that grow into the deeper bladder layers may progress to invade the bladder wall and are harder to treat.

Diagnosed tumors are surgically removed (endoscopic resection) and then treated with cycles of topical drugs, to prevent cancer progression. Alternatively, cycles of intravesical chemotherapy can remove all tumors.

Invasive tumors may be treated with chemotherapy and radiation after resection. In most cases partial or total removal of the bladder (cystectomy) are necessary and require solutions for urine passage.







It can amount to two critical issues:

- Progression is the problem! BC is life threatening when it becomes muscle invasive.
- Recurrence is the problem! The risk of progression, the adverse effects and the costs - all grow with each treatment

URINARY TRACT TREATMENTS LTD

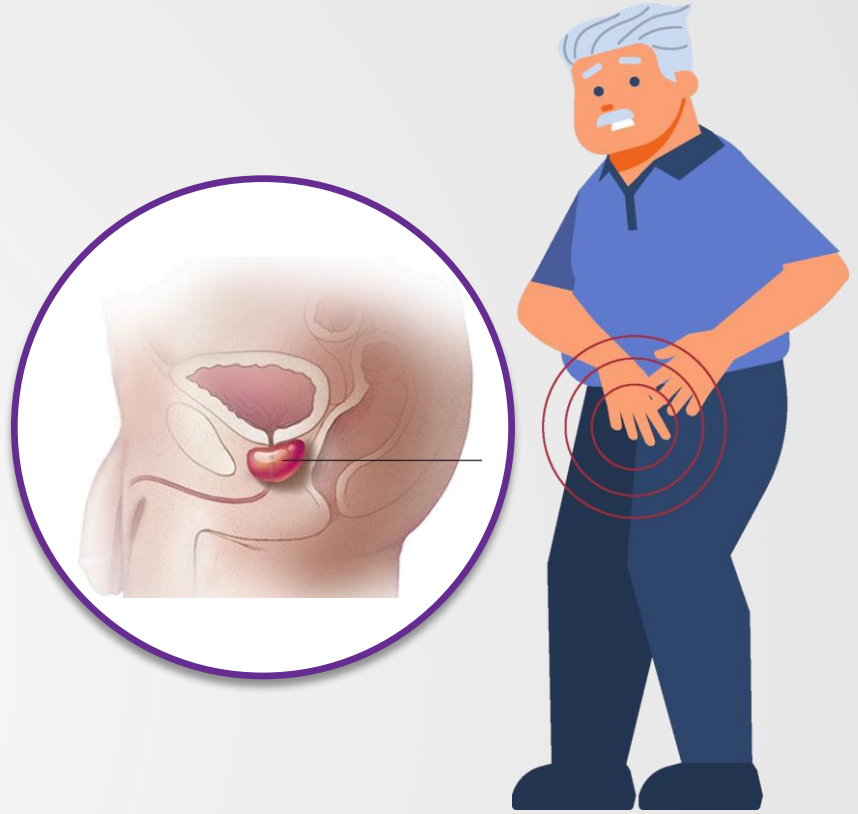
The Problem - Prostate Cancer

Prostate cancer is a male-only cancer, with annual ~300,00 new cases in the USA, with >50% of patients over 65 years. It is the 2nd leading deadly cancer in the US.

Symptoms include urination trouble, blood in urine or semen, bone pain and fever.

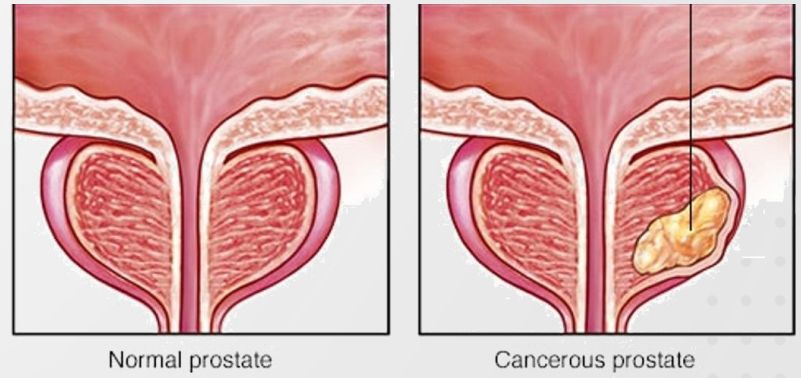
When diagnosed early, prostate cancer is mostly local or regional and is highly curable. If tumors spread beyond the prostate, survival rates fall (5-yr. survival is reduced to 1 in 3 for distant spread).

Primary therapy is a complete surgical removal of the prostate. Surgery may damage nearby organs and cause infections, incontinence, erectile dysfunction and impotence.



The two main prostate cancer problems:

- Older age of most patients;
- Side effects of surgical removal of the prostate

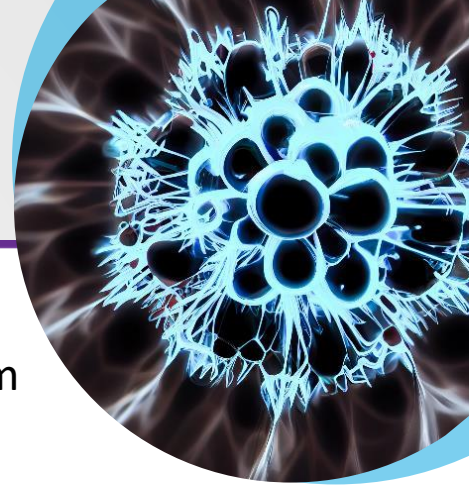


Current Treatment - Urinary Incontinence

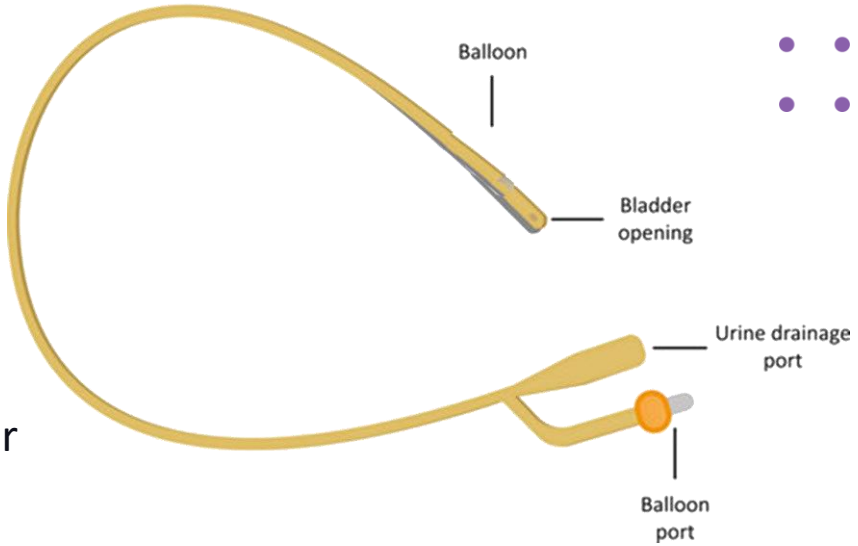
Standard therapy:	Downside:
Medication (Anticholinergics, Mirabegron, etc.)	Medication and topical treatment have a small % yield, take longer to treat, and aren't very effective. Side effects include dry mouth, constipation, blurred vision, dizziness, confusion , and nephrotoxicity
Topical (Cream, ring, pessary, or patch)	Urethral inserts are temporary and need to be removed in order to urinate
Urethral insert	Surgery is invasive and affects the quality of life
Surgery	Diapers can cause discomfort and sham
Diapers, pads, and absorbent underwear +	

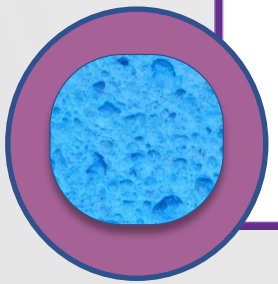
URINARY TRACT TREATMENTS LTD

Our Solution – A drug retention sponge



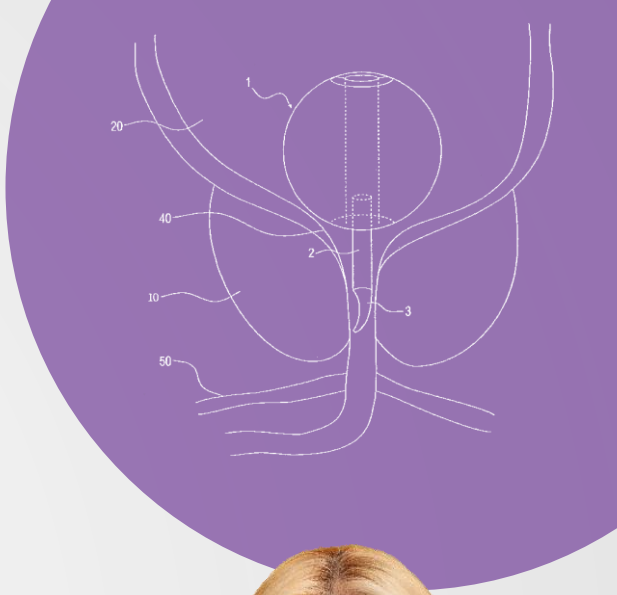
- UTT's proprietary sponge enables the topical use of known drugs for fast and long term relief of urinary diseases – such as inflammations, incontinence and cancer.
- UTT's biodegradable sponge is inserted via a catheter into the bladder, and expands there. A target drug is then inserted and is absorbed by the sponge - for prolonged retention that greatly increases the clinical efficacy. The sponge is biodegradable and is naturally evacuated after several days.
- This novel treatment modality enables the use of potent drugs while avoiding systemic side effects. It is adaptable for the treatment of **bladder cancer** (using chemotherapy), **urinary inflammation** using antibiotics, **Urinary incontinence** using antidepressants (to relax muscles), antimuscarinics (to dry) or mirabegron (to desensitize).
- Studies show early indication that Botox can similarly be used for denervation of voiding signals and stop leakage.





URINARY TRACT TREATMENTS LTD

Our Solution – Urinary Leakage-Control Device



- UTT Ltd patented a revolutionary leakage-control device (ULC) – a magnetic floating buoy that is inserted into the bladder and is compressed against the bladder sphincter to provide a urine leakage barrier. The ULC is pulled by a magnetic pad, worn in the underpants. As the underpants are naturally removed, the buoy floats and voiding occurs naturally. The buoy compression level is easily adjustable via the magnetic pad.
- The device is comfortable, minimally invasive, reversible, and adaptable to the specific anatomy and condition.
- The ULC will greatly improve the quality of life for millions of incontinent women and reduce the costs of incontinence.

No more pads or stains

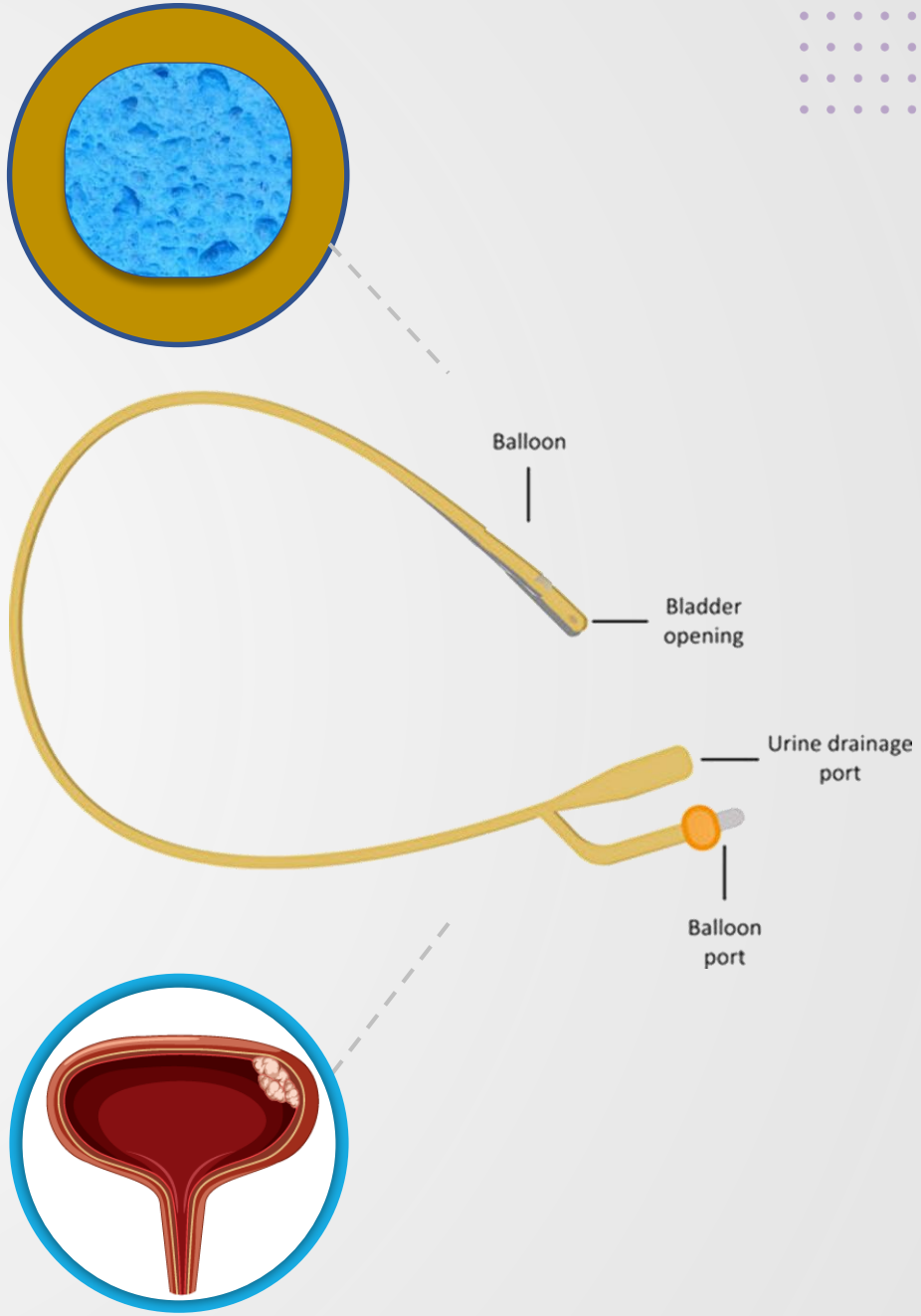
URINARY TRACT TREATMENTS LTD

Our Solution - Bladder Cancer

The UTT novel sponge enables chemo-ablation of bladder tumors by direct, prolonged exposure of the bladder tissue to chemotherapy.

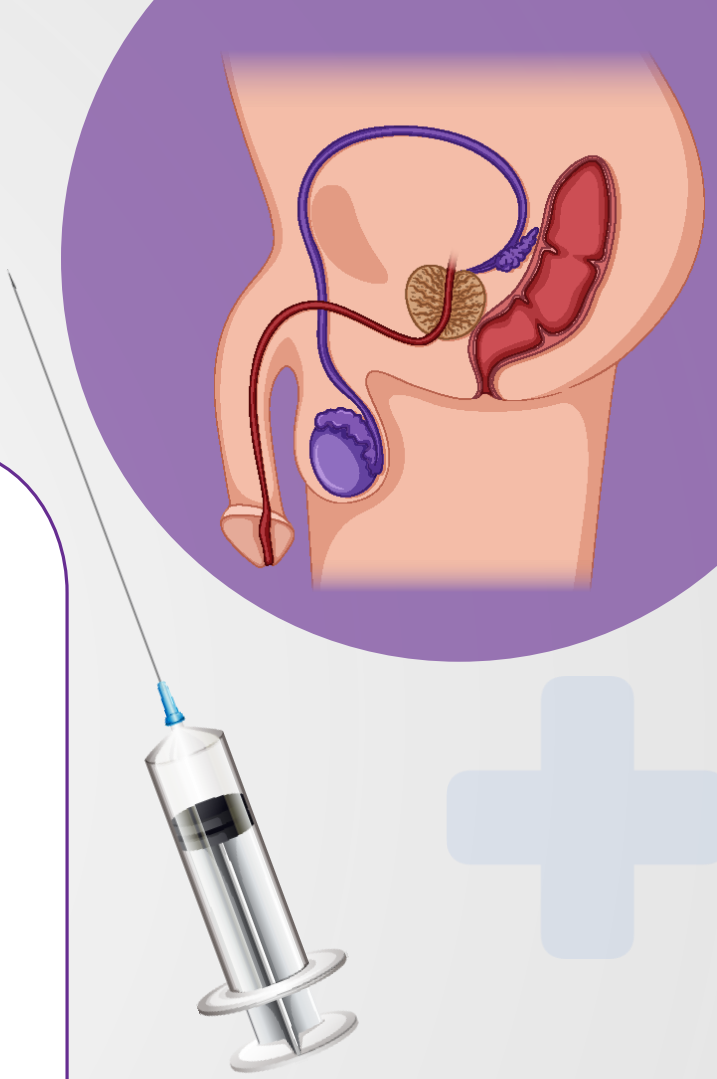
Chemoablation was already proven as an alternative to surgical resection of Non-Muscle Invasive Bladder Cancer (NMIBC). The UTT sponge will provide a longer drug dwell time that will enhance efficacy and may enable eradication of in-growing tumors (CIS) – that are the main cause for cancer progression.

Longer exposure time replaces the need for higher drug dosage, thus the known systemic and topical adverse effects of chemotherapy will be minimal and patient's compliance will be high.



URINARY TRACT TREATMENTS LTD

Our Solution - Prostate Cancer



UTT intends to treat prostate tumors non-surgically by using slow-release chemotherapy for chemo-ablation. The chemotherapy agent will be dissolved into a proprietary liquid gel and then injected into the prostate. The gel will release the chemotherapy agent continuously over the duration of several days. The direct exposure of the prostate tumors to the chemotherapy gel will eradicate the cancerous cells.

Eliminating the need for surgery and its risk of severe adverse events, may be dramatic: Today the “watchful wait” strategy is common and prostate surgery is delayed for as long as possible. With UTT’s Chemo-Gel – patients compliance will be enhanced – probably saving lives.

URINARY TRACT TREATMENTS LTD

UTT Solutions for bladder diseases

UTT is offering 3 solutions for prolonged topical drug release:

1. UTT Sponge - enables the use of existing medications to topical delivery.

   UTT will implement sponge-based topical drug treatments for bladder inflammations, overactive bladder, urinary incontinence and bladder cancer

2. Chemo-Gel - injectable gel, loaded with chemotherapy for prolonged release.

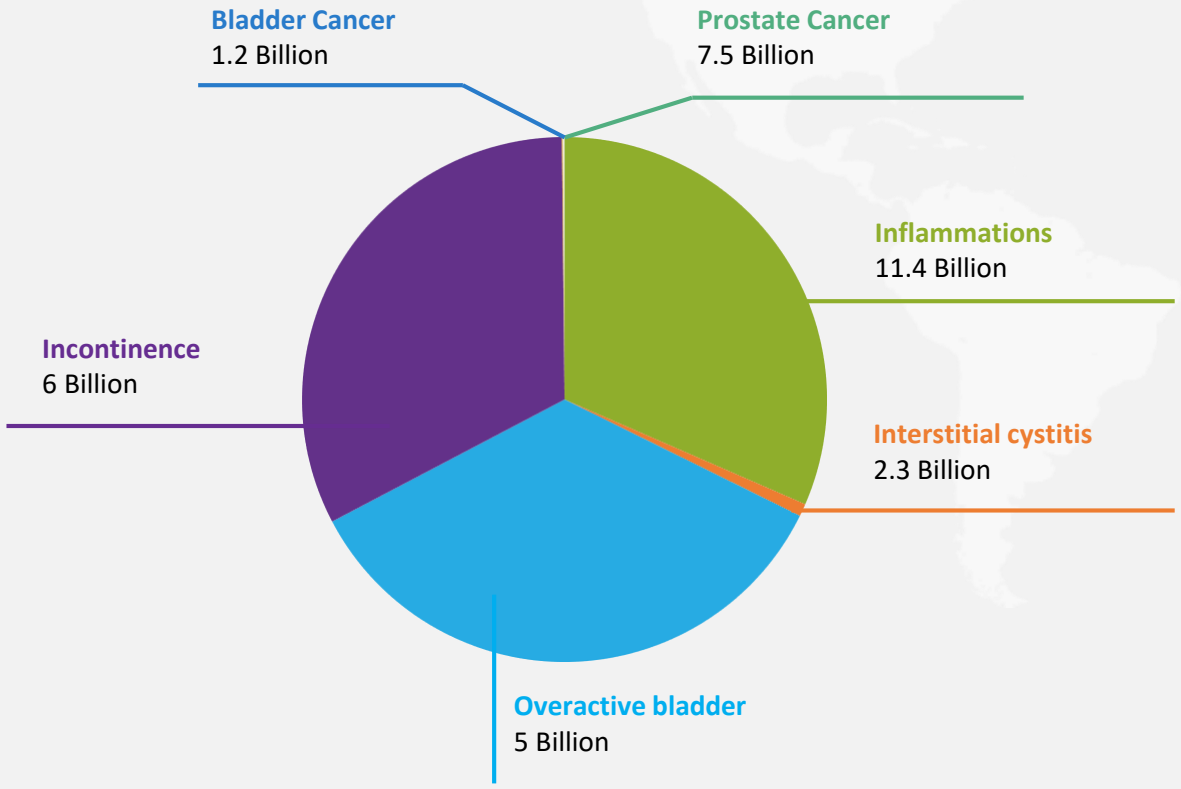
   UTT will implement the Chemo-Gel for a minimally-invasive, non-surgical treatment of prostate cancer.

3. Leakage-Control Device (ULC) – an in-dwelling magnetic bladder buoy.

   Floating and exerting pressure on the sphincter for incontinence control.

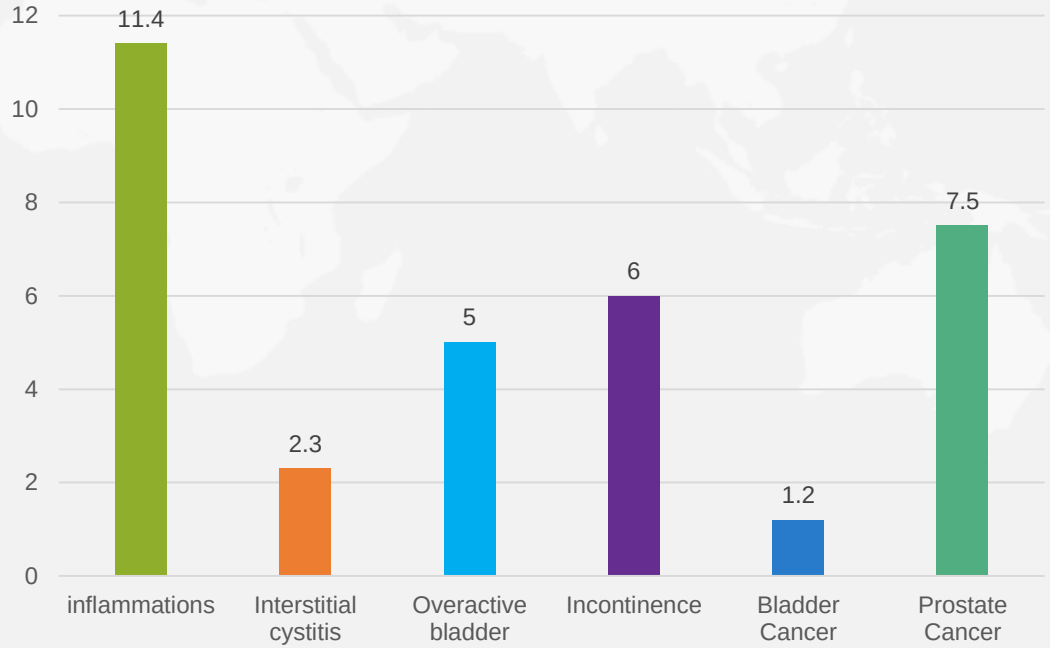
UTT Markets

WW Prevalence/ Deaths



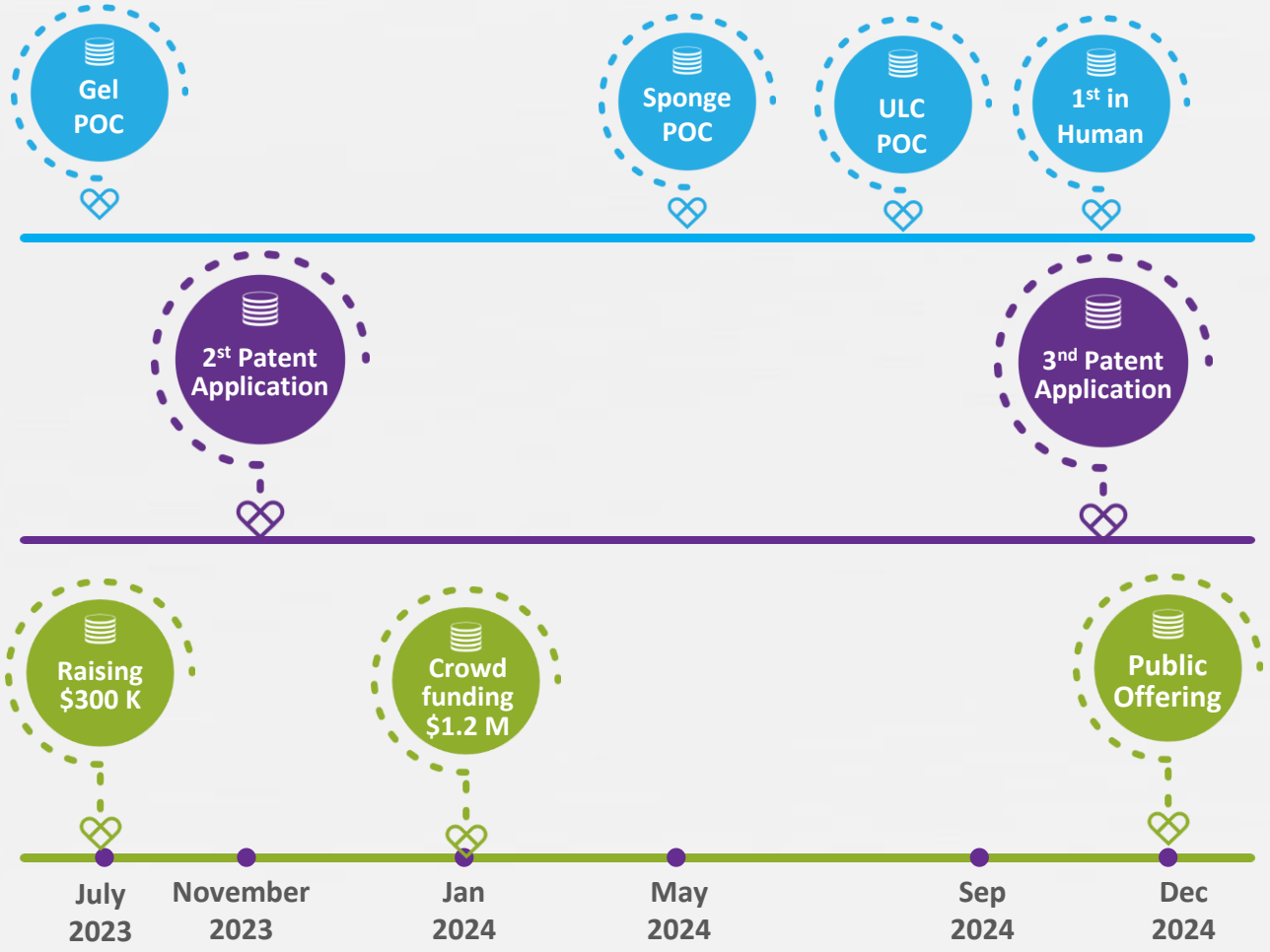
Market Size (@2030)

Billion $



URINARY TRACT TREATMENTS LTD

Aiming for fast success

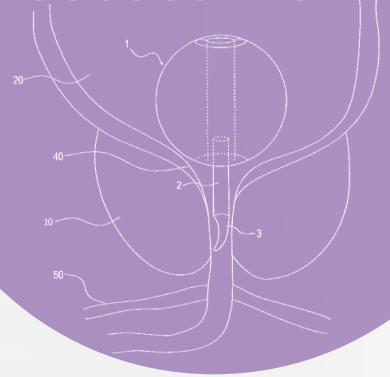


Product development

Patent Application

Raising Money

Granted USA patent US6589228B2



The Founders

Eli Ben Haroosh
CEO, Founder, and Director

Eli is a seasoned executive and entrepreneur with a proven track record of leading and growing successful businesses in various fields. He recently served as the President of Vonetize, a stock-exchange company that provides premium content and technology solutions. Before that, he was the VP and CEO of Premier – Dead Sea, a global leader in skincare products. He oversaw sales in 74 countries and nearly 1000 sales points, generating tens of millions of dollars a year. Eli currently serves as the director of several companies and as the president of Mariana Inc., a company that focuses on cannabis research and development.

Asher Holzer , Ph.D
president, Founder

Asher is a serial entrepreneur and a senior executive in the medical equipment industry. He has over 30 years of experience in founding, leading, and taking several public companies that have created and marketed cutting-edge medical technologies and solutions. Some of his notable ventures include UroGen, InspireMD, BioSig, and TheraCoat. He holds a Ph.D. in nuclear physics from the Hebrew University and has a passion for innovation and excellence in the healthcare field.

The Advisory Board

Eng. Yosh Dollberg

Yosh is a founder and R&D manager of UroGen Pharma, a biotech company that develops novel solutions for rare cancers and urologic diseases. He is an expert in photoacoustic imaging, a technique, and has co-authored a publication on photoacoustic ocular imaging. Yosh is also a co-founder of Pontifax Group, a venture capital firm that invests in healthcare startups around the globe. He joined the UTT team as he believes UTT can drastically change the way bladder diseases and cancers are treated.

Prof. Lior Nesher
M.D. Director

Lior is the Director of the Infectious Disease Institute at Soroka University Medical Center (SUMC), a 1,100-bed referral hospital providing medical care for over 1,000,000 people in the southern part of Israel. Immunocompromised patients, especially cancer and transplant recipients, and antibiotic stewardship systemic interventions lead the COVID-19 response at SUMC.

Prof. Nesher is a tenured faculty member of the Faculty of Health Sciences, Ben-Gurion University of the Negev, a member of the European Society Clinical Microbiology, Infectious Disease (ESCMID), as well as an executive board member of the ESCMID study group on respiratory viruses (ESGREV).

Prof. David Margel,
M.D. PhD. MBA, Director

Dr. David Margel is a Professor of Surgery. Dr. Margel is currently the Medical Director of Raphael Hospital and founding director of Men's Health. As a surgeon-scientist, he founded the Rabin Medical prostate cancer focal treatment program and the male BRCA comprehensive research unit and clinic.
Dr. Margel's research program, which spans from bench to bedside, focuses on the biology and genetics of urological cancers and cardio-oncology.
He serves as the principal investigator for multiple clinical trials evaluating novel therapy technologies, genetics as well as other aspects to provide better care and less toxic treatments for patients.

URINARY TRACT TREATMENTS LTD

The Team

Dr. Zeev Schmelzer

Patent Advisor
Patent attorney in the field of mechanics, medical equipment, biology and medicine, with over 13 years of experience in the field.

Gad Benett
Patent Advisor

Patent Attorney & Managing Partner at Paulina Ben-Ami, Patent Attorneys
Paulina Ben-Ami is a boutique IP firm, serving hundreds of clients both nationally and internationally.
Before, Gad worked in business development and product management for innovative startups in Silicon Valley and elsewhere. Before, Gad was a software engineer.
Gad holds a Master's degree in Software Engineering from the University of Paris 2, and an MBA from the McCombs School of Business at the University of Texas at Austin.

Thank You!

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Disease burden and long-term trends of urinary tract infections: A worldwide report

- Xiaorong Yang, 1 Hui Chen, 1 Yue Zheng, 2 Sifeng Qu, 3 Hao Wang,corresponding author 4 , 5 , * and Fan Yicorresponding author 5 , *
- Front Public Health. 2022; 10: 888205.Published online 2022 Jul 27. doi: 10.3389/fpubh.2022.888205, PMCID: PMC9363895, PMID: 35968451

National prevalence of IC/BPS in women and men utilizing veterans health administration data

Jennifer T. Anger,corresponding author 1 , * , † Kai B. Dallas, 2 , † Catherine Bresee, 3 Amanda M. De Hoedt, 4 Kamil E. Barbour, 5 Katherine J. Hoggatt, 6 Marc T. Goodman, 7 Jayoung Kim, 7 , 8 and Stephen J. Freedland 4 , 7 , 8
Front Pain Res (Lausanne). 2022; 3: 925834.Pub. online 2022 Aug 24. doi: 10.3389/fpain.2022.925834 PMCID: PMC9448885 PMID: 36093391

Definition & Facts of Interstitial Cystitis

National Institute of diabetes and Digestive and Kidney Diseases

The prevalence of urinary incontinence

I Milsom, M Gyhagen PMID: 30572737 DOI: 10.1080/13697137.2018.1543263 https://pubmed.ncbi.nlm.nih.gov/30572737/

Worldwide prevalence estimates of lower urinary tract symptoms, overactive bladder, urinary incontinence and bladder outlet obstruction

Debra E. Irwin,Zoe Kopp,Barnabie Agatep,Ian Milsom,Paul Abrams
First published: 13 January 2011 https://doi.org/10.1111/j.1464-410X.2010.09993