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# ATP release during cystometry in women with detrusor overactivity and painful bladder syndrome: contribution to 'urgency'?

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# ATP release during cystometry in women with detrusor overactivity and painful bladder syndrome: contribution to 'urgency'?

## **Abstract**

ATP is an important signalling molecule whose release from the bladder urothelium in response to stretch is thought to stimulate afferent nerves and thus convey information about bladder fullness (and the sensation of urgency). Our aim was to measure the release of ATP during urodynamic filling of bladders of women with idiopathic detrusor overactivity (DO), painful bladder syndrome (PBS) and stress incontinence (controls), in order to test the hypothesis that ATP release might play a role in bladder function and/or dysfunction.

## **Keywords**

cystometry, during, atp, release, women, contribution, urgency, detrusor, overactivity, painful, bladder, syndrome

## **Disciplines**

Medicine and Health Sciences

## **Authors**

Elizabeth Burcher, Kylie J. Mansfield, W Allan, C Walsh, Kate H. Moore, and Ying Cheng

<b>07:30 - 08:30</b>		<b>Satellite Symposium Sponsored by Ferring International</b> <b>Location: Hall B</b>
<b>08:00 - 08:30</b>		<b>Welcome to the ICS</b> <b>Location: Room 2007</b>
<b>08:30 - 09:00</b>		<b>Opening Ceremony</b> <b>Location: Hall A</b>
<b>09:00 - 10:30</b>		<b>Session 1 (Podium) - Surgery for Stress Incontinence</b> <b>Location: Hall A</b> <b>Chairs: Mark C Slack (United Kingdom), Mary P Fitzgerald (United States)</b>
09:00	1	WOMEN'S EXPERIENCES OF STRESS INCONTINENCE SURGERY <i>Loane K, Tooze-Hobson P, Hicks C</i>
09:15	2	PROCEDURE SPECIFIC CONSENT FORMS IMPROVE THE PROCESS OF INFORMED CONSENT IN PATIENTS UNDERGOING SURGERY FOR STRESS INCONTINENCE BY UROLOGISTS <i>Sinclair A, Kujawa M, Thompson A</i>
09:30	3	RESULT FROM A NATIONAL INCONTINENCE REGISTRY: TVT IS A BETTER SURGICAL PROCEDURE FOR TREATING STRESS INCONTINENCE, COMPARED TO TVT-O AND TOT <i>Kulseng-Hanssen S, Dyrkorn O A, Sandvik L</i>
09:45	4	RETROPUBIC TVT VS TRANSOBTURATOR OUTSIDE-IN TOT AND INSIDE-OUT TVT-O – ONE-YEAR RESULTS FROM OUR PROSPECTIVE RANDOMIZED STUDY <i>Scheiner D, Betschart C, Werder H, Fink D, Perucchini D</i>
10:00	5	A PROSPECTIVE MULTICENTER RANDOMIZED STUDY OF 'U' AND 'H' APPROACH OF TVT-SECUR PROCEDURE FOR THE TREATMENT OF FEMALE STRESS URINARY INCONTINENCE: ONE-YEAR FOLLOW-UP <i>Lee K, Lee Y, Seo J T, Na Y G, Seo J H, Lee J G, Choo M, Kim J C, Yoon J M, Kim D Y, Yoo E S, Lee J Z</i>
10:15	6	PRE AND POST-OPERATIVE PREDICTORS OF SATISFACTION FOLLOWING SURGICAL TREATMENT OF STRESS URINARY INCONTINENCE <i>Trabuco E, Klingele C, McGree M, Gebhart J</i>
<b>10:30 - 11:00</b>		<b>Coffee Break / Poster &amp; Video Viewing / Exhibition</b>
<b>10:30 - 11:00</b>		<b>ICS Press Conference</b> <b>Location: Press Centre</b>
<b>11:00 - 11:30</b>		<b>State of the Art 1: Pelvic Floor Biomechanics: Imaging, Modelling, Insight and Change</b> <b>Location: Hall A</b> <b>Chair: Karl Kreder (United States)</b> <b>Speaker: John O. L. DeLancey (United States)</b>
<b>11:30 - 12:30</b>		<b>Session 2 (Podium) - Pelvic Organ Prolapse</b> <b>Location: Hall A</b> <b>Chairs: Linda Brubaker (United States), Douglas Gordon Tincello (United Kingdom)</b>
11:30	7	DEFINING "SUCCESS" AFTER SURGERY FOR PELVIC ORGAN PROLAPSE <i>Barber M, Brubaker L, Nygaard I, Wheeler T, Schaffer J, Chen Z, Spino C</i>
11:45	8	DO OAB SYMPTOMS IMPROVE AFTER SURGERY FOR POP? <i>de Boer T, Vierhout M</i>
12:00	9	COMPLICATIONS OF MESH KITS FOR PELVIC ORGAN PROLAPSE: A REVIEW OF MANUFACTURER AND USER FACILITY DEVICE EXPERIENCE (MAUDE) DATABASES <i>Ismail S</i>
12:15	10	A RANDOMIZED CONTROLLED TRIAL ON PROPHYLACTIC ANTIBIOTICS AND PELVIC ORGAN PROLAPSE SURGERY <i>Weincke M O, Sakse A E, Olsen T, Troelstrup A, Westh B</i>
<b>11:30 - 12:30</b>		<b>Session 3 (Podium) - Neurourology I</b> <b>Location: Hall B</b> <b>Chairs: Clare Juliet Fowler (United Kingdom), Sender Herschorn (Canada)</b>
11:30	11	THE EFFECT OF ACUTE AND CHRONIC STRESS AND ANXIETY-LIKE BEHAVIOUR ON BLADDER MOTOR AND SENSORY FUNCTION <i>Smith A L, Leung J, Harper S K, Zhang R, Raz S, Rodriguez L V</i>
11:45	12	URETHRAL NEUROMUSCULAR INJURY FOLLOWING SIMULATED CHILDBIRTH INJURY IN A RAT MODEL <i>Kong W, Lin D, Kinley B, Kerns J, Damaser M</i>
12:00	13	NORADRENERGIC REGULATION OF MOTONEURONS INNERVATING THE URETHRAL SPHINCTER <i>Yashiro K, Thor K, Burgard E</i>
12:15	14	PUDENDAL NERVE STIMULATION IS A VIABLE ALTERNATIVE TO SACRAL NERVE STIMULATION FOR VOIDING DYSFUNCTION <i>Peters K, Killinger K, Boguslawski B</i>
<b>12:30 - 12:35</b>		<b>Promotion ICS/IUGA 2010 Toronto</b> <b>Location: Hall A</b> <b>Chairs: Harold P Drutz (Canada), Sender Herschorn (Canada)</b>

- 12:35 - 13:30 Lunch Break / Poster & Video Viewing / Exhibition**
- 12:35 - 13:30 ICS Meetings Committee**  
**Location: Meeting Room 2**
- 12:35 - 13:30 Meet the Experts 1: Pelvic Prolapse and Pelvic Reconstruction**  
**Location: Room 2002**  
**Experts: Linda Cardozo (United Kingdom), Christopher R Chapple (United Kingdom)**
- 12:35 - 13:30 Meet the Experts 2: Physiotherapy and Faecal Incontinence**  
**Location: Room 2002**  
**Experts: Kari Bø (Norway), Christine Norton (United Kingdom)**
- 13:30 - 15:30 Session 4 (Podium Video) - Videos - Surgical Techniques I**  
**Location: Hall A**  
**Chairs: Sigurd Kulseng-Hanssen (Norway), Ann Gormley (United States)**
- 13:30 15 TRANSRECTALTRANSSPHINCTERIC REPAIR OF RECTOURINARY FISTULA WITH DARTOS FLAP  
*Kim J, Smith A L, Baxter C, Staack A, Raz S*
- 13:40 16 ADVANTAGES ON URINARY CONTINENCE USING THE CAPIO RP SUTURING DEVICE FOR VESICO-URETHRAL ANASTOMOSIS AFTER RADICAL RETROPUBIC PROSTATECTOMY  
*Perugia G, Teodonio S, Di Viccaro D, Bova G, Balla J, Zanza C, Chinazzi A, Liberti M*
- 13:50 17 THE ADJUSTABLE MALE SLING CAN BE SUCCESSFULLY IMPLANTED BY TRANSOBTURATOR APPROACH FOR TREATING POST-PROSTATECTOMY URINARY INCONTINENCE. SURGICAL TECHNIQUE AND EARLY RESULTS OF A MULTICENTER TRIAL  
*Romano S V, Hubner W, Trigo Rocha F, Muller V, Nakamura F*
- 14:00 18 OPTIMIZING RESULTS OF SUBURETHRAL SLING OPERATIONS AMONG MALES USING SUBURETHRAL HYALURONIC ACID INJECTIONS  
*Neymeyer J, Abdul-Wahab Al-Ansari W, Wei Long L, Gang L, Kassin S, Beer M*
- 14:10 19 TRANSPOSITION OF DISTAL URETHRA IN FEMALE PATIENTS WITH RECURRENT LOWER UTI ASSOCIATED WITH SEXUAL INTERCOURSE  
*Pushkar D, Sumerova N, Dyakov V, Gvozdev M*
- 14:20 20 SUPRAMEATAL URETHROLYSIS WITH MARTIUS FLAP  
*Smith A L, Kim J, Staack A, Baxter C, Rodriguez L V, Raz S*
- 14:30 21 URETHROVAGINAL FISTULA REPAIR WITH MARTIUS FLAP  
*Smith A L, Kim J, Staack A, Baxter C, Rodriguez L V, Raz S*
- 14:40 22 SINGLE-PORT TRANSVESICAL EXCISION OF FOREIGN BODIES  
*Ingber M, Firoozi F, Goldman H, Moore C, Vasavada S, Rackley R*
- 14:50 23 SURGICAL PROCEDURE WITH LOCAL ANESTHESIA FOR THE TREATMENT OF STRESS URINARY INCONTINENCE: A SINGLE INCISION TOT  
*Baya G, Janin P, Navazo R*
- 15:00 24 ROBOTIC-ASSISTED LAPAROSCOPIC RETROPUBIC URETHROLYSIS FOR INTRADETRUSOR TVT SLING  
*Gilleran J, Lowe G*
- 15:10 25 SOLYX SIS SYSTEM: PROCEDURAL VIDEO  
*Serels S*
- 15:20 26 NOVEL RECTUS CROSSOVER FOR ENHANCED CONTINENCE OF CATHETERIZABLE URINARY DIVERSION  
*Baxter Z, Kim J, Smith A L, Staack A, Rodriguez L V, Raz S*
- 13:30 - 15:30 Session 5 (Poster) - Neurourology (Clinical)**  
**Location: Hall B**  
**Chairs: John P Lavelle (United States), John PFA Heesakkers (Netherlands)**
- 14:10 27 ASSOCIATION BETWEEN STIMULATION PARAMETERS AT THE TIME OF IMPLANTATION OF SACRAL NERVE STIMULATOR AND EXPLANTATION AFTER SUCCESSFUL IMPLANTATION  
*Ghazwani Y, Elkelini M, Hassouna M*
- 14:15 28 PATIENT AGE PREDICTS SUCCESS IN PATIENTS UNDERGOING SACRAL NEUROMODULATION FOR VOIDING DYSFUNCTION  
*Powell C, Takacs E, Kreder K*
- 14:20 29 RESULTS OF SACRAL NERVE MODULATION FOR THE TREATMENT OF BLADDER DYSFUNCTIONS IN MULTIPLE SCLEROSIS PATIENTS  
*Andretta E, Ostardo E, Simeone C, Signorello D, Pastorello M, Campo C, Limido L, Bastianello P*
- 14:25 30 IMPACT OF CONVENIENCE VOID IN BLADDER DIARY WHICH INVOLVES SELF-REPORTED URINARY PERCEPTION TO ASSESS BLADDER SENSITIVITY  
*Honjo H, Ukimura O, Kawauchi A, Kitakoji H, Nakao M, Miki T*
- 14:30 31 ATTITUDES OF WOMEN WITH MULTIPLE SCLEROSIS WHEN QUESTIONED ABOUT GENITAL TOUCHING AND CONTINENCE DEVICE PLACEMENT  
*McClurg D, Hagen S*
- 14:35 32 THE POSSIBLE ROLE OF OPIATES IN WOMEN WITH URINARY RETENTION- OBSERVATIONS FROM A PROSPECTIVE CLINICAL STUDY  
*Panicker J, Khan S, Kessler T, Gonzales G, Haslam C, Elneil S, Fowler C*
- 14:40 33 EFFICACY OF BOTULINUM TOXIN A INJECTION FOR NEUROGENIC DETRUSOR OVERACTIVITY AND URINARY INCONTINENCE – A RANDOMIZED DOUBLE-BLIND TRIAL  
*Herschorn S, Gajewski J, Ethans K, Corcos J, Carlson K, Bailly G, Bard R, Valiquette L, Baverstock R, Radomski S, Carr L*
- 14:45 34 CAN 100 UNITS OF BOTULINUM TOXIN A PRESERVE THE ABILITY OF VOLUNTARY VOIDING AND IMPROVE OVERACTIVE BLADDER SYMPTOMS IN PATIENTS SUFFERING FROM MULTIPLE SCLEROSIS?  
*Birzele J, Mehnert U, Reuter K, Schurch B*

- 14:50 35 EFFECTS OF REPEATED BOTULINUM TOXIN A INJECTION THERAPY IN PATIENTS WITH SYMPTOMATIC NEUROGENIC DETRUSOR OVERACTIVITY – A 3-YEAR FOLLOW UP  
*Malmberg L, Karadzic V*
- 14:55 36 THE EFFECT OF DEEP BRAIN STIMULATION ON VOIDING DYSFUNCTION IN PARKINSON'S DISEASE AND ESSENTIAL TREMOR  
*Vishwajit S, Patel B, Herco M, Siddiqui M, Cartwright M, Badlani G*
- 15:00 37 THE INCIDENCE OF VOIDING DIFFICULTY AND CONSTIPATION IN PATIENTS WITH ESSENTIAL TREMOR COMPARED TO PARKINSON'S DISEASE  
*Vishwajit S, Patel B, Herco M, Siddiqui M, Cartwright M, Badlani G*
- 15:05 38 IS EARLY PROPHYLACTIC INTERVENTION BENEFICIAL FOR THE MANAGEMENT OF THE LOWER URINARY TRACT DYSFUNCTION IN CHILDREN WITH SPINA BIFIDA?  
*Ichino M, Igawa Y, Ogawa T, Seki S, Ishizuka O, Nishizawa O*
- 15:10 39 VOIDING DYSFUNCTION IN PATIENTS WITH DYSAUTONOMIA  
*Shridharani A, Guralnick M, Barboi A, Jaradeh S, Prieto T, Yellick M, O'Connor R C*
- 15:15 40 EVALUATION OF RENAL FUNCTION BY SERUM CYSTATIN C FOR THE PATIENT WITH NEUROGENIC BLADDER HAVING A CENTRAL NERVE SYSTEM DISORDER  
*Ken-ichi M, Noguchi M, Hatada T, Takahashi H, Matsuo M*
- 15:20 41 DO PATIENTS WITH A SMALL PROSTATE VOLUME DIFFER URODYNAMICALLY FROM THOSE WITH A LARGER PROSTATE VOLUME?  
*Cho S, Kang M, Yi J, Oh S*
- 15:25 42 URETHRAL INNERVATION BETTER IN CONTINENT WOMEN THAN STRESS INCONTINENT WOMEN  
*Kenton K, Brubaker L, Mueller E*
- 13:30 - 15:30 Session 6 (Poster) - Quality of Life & Epidemiology**  
**Location: Hall C**  
**Chairs: Steinar Hunskaar (Norway), J. Quentin Clemens (United States)**
- 14:10 43 HYSTERECTOMY DOES NOT IMPAIR INCONTINENCE – A SWEDISH QUALITY REGISTER STUDY  
*Kjaeldgaard A*
- 14:15 44 PREDICTORS OF THE EFFICACY OF NON-DRUG LIFESTYLE MODIFICATIONS FOR THE MANAGEMENT OF NOCTURIA  
*Soda T, Masui K, Okuno H, Terai A, Ogawa O, Yoshimura K*
- 14:20 45 FECAL INCONTINENCE: A POPULATION BASED STUDY OF SEVERITY AND QUALITY OF LIFE  
*Grahn S, Varma M, Schembri M, Thom D, Van Den Eeden S, Brown J*
- 14:25 46 MENOPAUSE AND ITS IMPACT ON PELVIC FLOOR DISORDERS, STRESS AND DEPRESSION  
*Nguyen A, Aschkenazi S, Gamble T, Du H, Vu M, Secco A, Robert K, Botros S, Sand P, Goldberg R*
- 14:30 47 CHARACTERIZATION OF PELVIC FLOOR SYMPTOMS IN WOMEN OF NORTHEASTERN LIBERIA  
*Bowling C B, Munoz O, Gerten K A, Mann M, Taryor R, Norman A M, Szychowski J M, Richter H E*
- 14:35 48 A NEW CATHETER-RELATED QUALITY OF LIFE INSTRUMENT FOR LONG-TERM URINARY CATHETER USERS  
*Wilde M, Brasch J, Getliffe K, McMahon J, Anson E, Tu X*
- 14:40 49 VALIDATION OF THE GERMAN VERSION OF THE "ICIQ VAGINAL SYMPTOMS QUESTIONNAIRE" (THE ICIQ-VS GERMAN): THE GERMAN TRANSLATION OF THE ICIQ-VS- AN OBSERVATIONAL STUDY  
*Banerjee C, Banerjee M, Hellmich M, Sachse K, Noé K*
- 14:45 50 RESPONSIVENESS OF THE PFDI-20 AND PFIQ-7, 12 MONTHS FOLLOWING VAGINAL PROLAPSE REPAIR AUGMENTED BY MESH AND A VAGINAL SUPPORT DEVICE  
*Sikirica V, Zyczynski H, Subramanian D, Slack M, Hinoul P, Robinson D, Gauld J, Urquhart C, Ilie B, Carey M*
- 14:50 51 COMPARISON OF SF-12 DATA ON QUALITY OF LIFE IN NOCTURIA PATIENTS WITH US NORMS  
*Holm-Larsen T, Weiss J, Daneshgari F*
- 14:55 52 EFFECT OF CHILDBIRTH VERSUS PARENTING PRESSURE ON SEXUAL FUNCTION  
*Nguyen A, Aschkenazi S, Gamble T, Vu M, Secco A, Du H, Kuo R, Botros S, Sand P, Goldberg R*
- 15:00 53 DOES LONG-TERM TREATMENT OF OVERACTIVE BLADDER RESULT IN CLINICALLY MEANINGFUL IMPROVEMENT IN HEALTH RELATED QUALITY OF LIFE IN REAL WORLD CLINICAL PRACTICE?  
*Basra R, Khullar V, Kelleher C*
- 15:05 54 DOES THE USE OF SLEEP QUESTIONNAIRES ADD TO OUR KNOWLEDGE ABOUT THE IMPACT OF NOCTURIA?  
*Ancoli-Israel S, Klein B M, Holm-Larsen T*
- 15:10 55 A QUALITATIVE STUDY OF THE IMPACT OF CARING FOR A PERSON WITH URINARY INCONTINENCE  
*Noimark D, Steventon N, Wagg A*
- 15:15 56 IMPACT OF 'DRY DAYS' ON QUALITY OF LIFE IN PATIENTS WITH 'WET' OVERACTIVE BLADDER: RESULTS OF A POOLED ANALYSIS OF THREE PHASE III STUDIES WITH DARIFENACIN  
*Newman D, Larson-Peters A, Seifu Y, Aronstein W, Mongay L*
- 15:20 57 THE BRINDLEY BLADDER STIMULATOR IMPROVES QUALITY OF LIFE AND CLINICAL OUTCOMES IN SPINAL CORD INJURED PATIENTS AS COMPARED TO A MATCHED CONTROL GROUP  
*den Hollander P, Snoek G, Martens F, Koldewijn E, van Kerrebroeck P, Heesakkers J*
- 15:25 58 NEUROPHYSIOLOGICAL MODIFICATION OF PELVIC FLOOR PARAMETERS DURING SACRAL NERVE NEUROMODULATION  
*Andretta E, Zuliani C, De Biaggi L, De Santo T, Ostardo E*

- 13:30 - 15:30**     **Session 7 (Poster) - LUTS in Women I**  
**Location: Hall D**  
**Chairs: J LH Ruud Bosch (Netherlands), Peggy Norton (United States)**
- 14:10     59     EXPECTATIONS OF URGE INCONTINENCE TREATMENT AND THEIR RELATIONSHIP TO OUTCOMES  
*DuBeau C, Fitzgerald M P, Johnson H, Kraus S, Lemack G, Mallett V, Stoddard A, Tennstedt S, Zyczynski H*
- 14:15     60     LONG-TERM USE OF ANTIMUSCARINIC MEDICATION IN THE REAL WORLD: RESULTS OF A COMMUNITY-BASED PROSPECTIVE STUDY OF PATIENTS WITH OVERACTIVE BLADDER  
*Basra R, Khullar V, Kelleher C*
- 14:20     61     THE RELATIONSHIP BETWEEN FEMALE OVERACTIVE BLADDER AND METABOLIC SYNDROME  
*Kinjo M, Yoshimura Y, Sekiguchi Y, Higashihara E*
- 14:25     62     VALIDATION OF THE URGENCYMETRY 1.0 – QUANTIFICATION OF THE URINARY URGENCY IN FEMALES  
*Svihra J, Luptak J, Kliment J, Vasil J, Brenisin P, Kovacik V, Macko L, Skladany L*
- 14:30     63     RELATIONSHIP BETWEEN OVERACTIVE BLADDER SYMPTOM SEVERITY, CYSTOMETRIC BLADDER CAPACITY AND DETRUSOR OVERACTIVITY  
*Blaivas J, Liang L, Weiss J, Somaroo C, Amirian M*
- 14:35     64     COMPARISON OF SELF-REPORTED DAYTIME VOIDING FREQUENCY AND NOCTURIA BETWEEN CONTROLS AND WOMEN REPORTING STRESS, URGE OR MIXED URINARY INCONTINENCE  
*Wyndaele M, Wyndaele J J*
- 14:40     65     EFFICACY OF TAMSULOSIN 0.2MG AND TAMSULOSIN 0.2MG PLUS TOLTERODINE 2MG FOR TREATMENT OF WOMEN WITH LOWER URINARY TRACT SYMPTOMS  
*Kim D Y, Park C H, Jung H C, Yoo E S*
- 14:45     66     EFFECTS OF AGE ON THE PREVALENCE AND BOTHERSOMENESS FOR OAB SYMPTOMS IN FEMALE PATIENTS VISITING TO PRIMARY CARE DOCTORS  
*Yoshida M, Inadome A, Masunaga K, Otani M, Matsumoto K, Yono M*
- 14:50     67     SCREENING TOOLS FOR VOIDING DIFFICULTIES IN WOMEN: A COMPARISON OF THE ICIQ-FLUTS AND THE MODIFIED IPSS QUESTIONNAIRES  
*Cartwright R, Cox P, Cardozo L, Srikrishna S, Robinson D*
- 14:55     68     AFFECT OF DIABETES ON THE PREVALENCE OF LOWER URINARY TRACT SYMPTOMS (LUTS) IN WOMEN  
*Van Remoortere K C, Doshi A, Schembri M, Thom D, Van Den Eeden S, Brown J*
- 15:00     69     URINARY FREQUENCY IN WOMEN: ARE THERE MULTIPLE FACTORS AT PLAY?  
*Steele S, Gajewski J*
- 15:05     70     A NOVEL EXTERNALLY APPLIED NEUROMUSCULAR STIMULATOR FOR THE TREATMENT OF STRESS URINARY INCONTINENCE– A PILOT STUDY  
*Maher R, Crowe L, Caulfield B*
- 15:10     71     THE ROLE OF INTROITAL ULTRASONOGRAPHY IN TREATING LOW URINARY TRACT SYMPTOMS COMPLICATING SUB-URETHRAL TAPE PLACEMENT  
*Mouracade P, Ej-jennane A, Lang H, Jacqmin D, Saussine C*
- 15:15     72     RELATIONSHIP OF THE SEVERITY OF URGENCY ACCORDING TO THE DEGREE OF STRESS URINARY INCONTINENCE  
*Bae J H, Kim H J, Choi J B, Yeo J K, Choi H, Kim K H, Oh M M, Lee J G*
- 15:20     73     URODYNAMICS IN WOMEN FROM MENOPAUSE TO OLDEST AGE: WHICH MOTIVE? WHICH DIAGNOSIS?  
*Valentini F, Robain G, Marti B, Nelson P*
- 15:25     74     ARE URINARY TRACT INFECTIONS AND URINARY INCONTINENCE IN WOMEN ASSOCIATED WITH EACH OTHER?  
*Platte R, Minassian V, Wood C, Parekh M, Poplawsky D*
- 15:30 - 16:00**     **Coffee Break / Poster & Video Viewing / Exhibition**
- 15:30 - 16:00**     **ICS & IUGA 2010 Scientific Committee Pre-liminary Meeting**  
**Location: Meeting Room 3**
- 16:00 - 17:30**     **Session 8 (Poster) - Pelvic Floor**  
**Location: Hall B**  
**Chairs: Kate Moore (Australia), Chris E Constantinou (United States)**
- 16:30     75     EFFECT OF “THE KNACK” ON THE PELVIC FLOOR: EVALUATED BY 2D REAL TIME ULTRASOUND AND IMAGE PROCESSING METHODS  
*Lovegrove Jones R, Peng Q, Humphrey V, Stokes M, Payne C, Constantinou C E*
- 16:35     76     PELVIC FLOOR MUSCLE TRAINING IN TREATMENT OF PELVIC ORGAN PROLAPSE - A SINGLE BLIND RANDOMISED CONTROLLED TRIAL  
*Brækken I H, Majida M, Ellström Engh M, Bo K*
- 16:40     77     INTRAVAGINAL PRESSURE MEASUREMENTS PROVIDE A VALID REPRESENTATION OF THE CHANGES IN URETHRAL PRESSURE THAT OCCUR DURING MAXIMUM VOLUNTARY CONTRACTIONS AND DURING COUGHING  
*Madill S, McLean L*
- 16:45     78     WOMEN WITH AND WITHOUT STRESS URINARY INCONTINENCE SHOW AGE-RELATED CHANGES IN THE RISE TIME AND THE PEAK OF THE INTRAVAGINAL PRESSURE PRODUCED DURING COUGHING  
*McLean L, Madill S, Harvey M*
- 16:50     79     A HIGH RESOLUTION 3D STUDY OF THE FEMALE PELVIS REVEALS IMPORTANT ANATOMICAL AND PATHOLOGICAL DETAILS OF THE PELVIC FLOOR  
*Wallner C, Wallace C, Maas C, Lange M, Lahaye M, Moayeri N, Groen G, Dabhoiwala N, Bleys R, Lamers W, DeRuiter M*

- 16:55 80 DEVELOPMENT OF A TOOL FOR VISUAL INSPECTION OF PELVIC FLOOR MUSCLE COORDINATION  
*Sadowy A, Hollman J, Angela B, Danica F, Kirstin H, Heidi J*
- 17:00 81 MODELLING FETAL HEAD MOTION AND ITS MECHANICAL INTERACTION WITH THE PELVIC FLOOR DURING CHILDBIRTH  
*Li X, Kruger J, Nash M, Nielsen P*
- 17:05 82 DYNAMIC ASSESSMENT OF THE VAGINAL HIGH PRESSURE ZONE USING HIGH DEFINITION MANOMETRY, 3-DIMENSIONAL ULTRASOUND & MAGNETIC RESONANCE IMAGING OF THE PELVIC FLOOR  
*Raizada V, Bhargava V, Jung S, Karsten A, Pretorius D, Krysal P, Mittal R*
- 17:10 83 EVIDENCE FOR THE NON-EUCLIDEAN NATURE OF THE PLANE OF MINIMAL DIMENSIONS  
*Kruger J, Heap S, Murphy B, Dietz H P*
- 17:15 84 SMOOTH MUSCLE ANCHORS THE PELVIC ORGANS TO THE PELVIC FLOOR  
*Wallner C, Dabhoiwala N, DeRuiter M, Lamers W*
- 17:20 85 REAL 3D BIOMECHANICAL MODELS OF PELVIS AND PELVIC FLOOR AS THE WAY TO IMPROVE KNOWLEDGE ABOUT INCONTINENCE  
*Grill R, Baca V, Horak Z, Otcenasek M, Smrzova T, Kachlik D, Dzupa V*
- 17:25 86 WOMEN WHO CANNOT CONTRACT THEIR PELVIC FLOOR MUSCLES- AVULSION OR DENERVATION? THE PELVIC FLOOR NEUROANATOMY STUDY  
*Sarma S, Hersch M, Siva S, Dietz H P, Moore K H*
- 16:00 - 17:30 Session 9 (Poster) - Male Incontinence**  
**Location: Hall C**  
**Chairs: Laurence Stewart (United Kingdom), Craig Vance Comiter (United States)**
- 16:30 87 BEHAVIORAL THERAPY WITH OR WITHOUT BIOFEEDBACK AND PELVIC FLOOR ELECTRICAL STIMULATION FOR PERSISTENT POST-PROSTATECTOMY INCONTINENCE – A RANDOMIZED CONTROLLED TRIAL  
*Goode P, Burgio K, Johnson T, Roth D, Clay O, Burkhardt J, Lloyd L K*
- 16:35 88 PILOT-TESTING OF A THEORY-BASED PELVIC FLOOR TRAINING INTERVENTION FOR RADICAL PROSTATECTOMY PATIENTS  
*Robinson J, Weiss R, Avi-Itzhak T, McCorkle R*
- 16:40 89 PREOPERATIVE PAD WEIGHT AND PAD NUMBER AS A PREDICTOR OF FAILURE OF SINGLE CUFF ARTIFICIAL URINARY SPHINCTER  
*Zafirakis H, Alba F, Westney O L*
- 16:45 90 OUTCOMES FOLLOWING TRANS CORPORAL PLACEMENT OF AN ARTIFICIAL URINARY SPHINCTER  
*Zafirakis H, Alba F, Shapiro A, Westney O L*
- 16:50 91 CORRELATION OF PENILE SHAFT AND URETHRAL GIRTH MEASUREMENTS: IMPLICATIONS FOR ARTIFICIAL URINARY SPHINCTER CUFF PLACEMENT  
*Schlomer B, Valadez C, Dugi D, Morey A*
- 16:55 92 SEVERE BLADDER NECK CONTRACTURE AND STRESS URINARY INCONTINENCE IN PATIENTS STATUS POST PROSTATECTOMY, RADIATION AND CRYOTHERAPY: SUCCESSFUL MANAGEMENT USING A TWO-STAGED APPROACH  
*Kanagarajah P, Caruso D, Gousse A*
- 17:00 93 THE INSIDE-OUT TRANSOBTURATOR SLING FOR THE SURGICAL TREATMENT OF POST-RADICAL PROSTATECTOMY URINARY INCONTINENCE: INTERIM RESULTS OF A PROSPECTIVE, OBSERVATIONAL STUDY AFTER A 1-YEAR MINIMUM FOLLOW-UP  
*Waltregny D, Leruth J, de Leval J*
- 17:05 94 URODYNAMIC AND CLINICAL RESULTS OF ADJUSTABLE SLING FOR MALE URINARY INCONTINENCE - 32 MONTHS FOLLOW UP - ARGUS® IS EFFECTIVE ALSO IN SEVERE CASES  
*Hind A, Pini G, Viola D, Martino F, Rossi R, Leoni S*
- 17:10 95 OPTIMIZING ADVANCE™ SLING OUTCOMES VIA INTRAOPERATIVE URETHROSCOPIC CONFIRMATION OF SLING POSITIONING  
*Schlomer B, Valadez C, Dugi D, Morey A*
- 17:15 96 CONTINENCE CARE FOR MEN HAVING PROSTATE SURGERY: ADVICE AND CARE BEFORE AND AFTER RADICAL PROSTATECTOMY AND TRANSURETHRAL RESECTION OF PROSTATE  
*Hagen S, Glazener C, Cochran C, Campbell L*
- 17:20 97 DECLINED URETHRAL SPHINCTER FUNCTION RELATED TO AGING CONTRIBUTES TO URINARY INCONTINENCE AFTER RADICAL PROSTATECTOMY  
*Matsukawa Y, Hattori R, Komatsu T, Funahashi Y, Mizutani K, Gotoh M*
- 17:25 98 TRANSRECTAL ULTRASOUND-GUIDED IMPLANTATION OF THE PROACT™ SYSTEM IN PATIENTS WITH POST-RADICAL PROSTATECTOMY STRESS URINARY INCONTINENCE: CLINICAL RESULTS AFTER A MEAN FOLLOW UP OF 2 YEARS  
*Gregori A, Romànò A L, Pietrantonio F, Salvaggio A, Granata A, Incarbone P, Scieri F, Gaboardi F*
- 16:00 - 17:30 Session 10 (Poster) - Neurourology (Basic Science)**  
**Location: Hall D**  
**Chairs: Masayuki Takeda (Japan), Michael Chancellor (United States)**
- 16:30 99 TRPV1 EXPRESSION IN THE BLADDER IS ESSENTIAL FOR NGF-INDUCED DETRUSOR OVERACTIVITY  
*Charrua A, Pinto R, Frias B, Cruz C D, Cruz F*
- 16:35 100 RHO-KINASE INHIBITION IMPACTS NEUROGENIC DETRUSOR OVERACTIVITY IN CHRONIC SPINALIZED RATS  
*Broquères-You D, Behr-Roussel D, Oger S, Compagnie S, Caisey S, Denys P, Chartier-Kastler E, Giuliano F*
- 16:40 101 COLLAGEN AND ELASTIC SYSTEM CHANGES INDUCED BY DETRUSOR OVERACTIVITY IN RABBITS. THE ACTION OF OXYBUTYNIN  
*Amaro J, Polido Jr A, Da Costa J, Munhoz T, Cardoso L E, Sampaio F*
- 16:45 102 ROLE OF SUPRASPINAL AND SPINAL A1-ADRENERGIC RECEPTOR SUBTYPES IN THE MICTURITION REFLEX IN CONSCIOUS RATS  
*Yoshizumi M, Matsumoto-Miyai K, Yonezawa A, Kawatani M*

- 16:50 103 THE EFFECT OF INTRAVESICAL ELECTRICAL STIMULATION UPON THE RAT WHOLE BLADDER ACTIVITY: IN VIVO AFTER NERVE TRANSECTIONS AND IN VITRO AFTER TREATMENT WITH ATROPINE, ALPHA,BETA-METHYLATP AND TETRODOTOXIN  
*De Bock F, De Wachter S, Wyndaele J J*
- 16:55 104 APP441-1, A NOVEL TRPV4 AGONIST IS ABLE TO INDUCE BLADDER OVERACTIVITY IN RATS AND MICE  
*Everaerts W, Leten C, Appendino G, Voets T, Nilius B, De Ridder D*
- 17:00 105 HUMAN ALPHA-SYNUCLEIN TRANSGENIC MICE: A NOVEL ANIMAL MODEL OF LOWER URINARY TRACT DYSFUNCTION IN PARKINSON'S DISEASE  
*Kershen R, Vizzard M, Hamill R*
- 17:05 106 CHANGES IN URINARY PROSTAGLANDIN E2 EXCRETION IN WATANABE HERITABLE HYPERLIPIDEMIC RABBITS, A BLADDER ISCHEMIA MODEL  
*Yoshida M, Masunaga K, Satoji Y, Maeda Y, Nagata T, Inadome A*
- 17:10 107 THE EFFECT OF AGING ON NITRIC OXIDE AND NORADRENALINE RELEASE IN ISOLATED RABBIT PROSTATE  
*Ogawa S, Aikawa K, Kawashima Y, Shiomi H, Yoshida J, Chiba S, Shishido K, Yamaguchi O*
- 17:15 108 FUNCTIONAL ROLE OF THE TRPV4 CATION CHANNEL IN STRETCH-EVOKED CA<sup>2+</sup> INFLUX AND ATP RELEASE IN MOUSE UROHELIAL PRIMARY CULTURES  
*Mochizuki T, Araki I, Yoshiyama M, Takeda M*
- 17:20 109 INTRATHECAL BLOCKADE OF TRK RECEPTOR AND NEUROTROPHINS SEQUESTRATION REDUCES PAIN AND URINARY FREQUENCY IN AN ANIMAL MODEL OF CHRONIC BLADDER INFLAMMATION  
*Frias B, Charrua A, Pinto R, Allen S, Dawbarn D, Cruz F, Cruz C D*
- 17:25 110 FUNCTIONAL CHARACTERISATION OF TRP CHANNELS IN MOUSE UROTHELIUM: A MAJOR ROLE FOR TRPV4  
*Everaerts W, Owsianik G, Vriens J, Talavera K, Van Haute C, Nilius B, De Ridder D*

**16:00 - 17:30 Session 11 (Poster) - Gerontology & BPH****Location: Hall E****Chairs: Adrian Wagg (United Kingdom), Neil M Resnick (United States)**

- 16:30 111 ARE THE EFFECTS OF OXYBUTYRIN ON COGNITION DEPENDENT UPON THE ROUTE OF ADMINISTRATION – TOPICAL OR ORAL? A DOUBLE-BLIND PLACEBO CONTROLLED STUDY EMPLOYING SENSITIVE COGNITIVE AND PSYCHOMOTOR TESTING  
*Kay G, Staskin D, MacDiarmid S, McIlwain M, Dahl N*
- 16:35 112 IS THERE A RELATIONSHIP BETWEEN BALANCE OR LOWER EXTREMITY STRENGTH AND THE IMPACT AND/OR SEVERITY OF MIXED UI IN AGING COMMUNITY-DWELLING WOMEN?  
*Dumoulin C, Razavi S, Elliott V, Corriveau H*
- 16:40 113 PILOT OF THE ICIQ-OAB IN AN OUTREACH FALLS PREVENTION CLINIC FOR OLDER ADULTS  
*Hunter K, Freund-Heritage R, Chan L, Tilroe S, Lechelt K*
- 16:45 114 EVALUATION OF OUTCOME MEASURES FOR STRESS URINARY INCONTINENCE IN OLDER WOMEN  
*Sherburn M, Bo K, Galea M*
- 16:50 115 LOWER URINARY TRACT SYMPTOMS AND SLEEP DISORDERS IN ADULTS  
*Yoon H, Jun G M, Shim B S, Hong J Y*
- 16:55 116 EFFECT OF AGE ON CAVEOLAE-MEDIATED SIGNALING PATHWAYS IN BLADDER SMOOTH MUSCLE  
*Cristofaro V, Lowalekar S, Yalla S V, Sullivan M P*
- 17:00 117 THE BACKGROUND CHARACTERISTICS OF PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA WHO RECEIVED EARLY TREATMENT WITH ANTI-CHOLINERGICS AFTER UNDERGOING A TRANSURETHRAL RESECTION OF THE PROSTATE  
*Seki N, Nomura H, Kajjoka S, Shahab N, Takahashi R, Yamaguchi A, Naito S*
- 17:05 118 VARIABILITY OF THE POST VOID RESIDUALS AMONG THE PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA  
*Shishido K, Nomiya M, Honda K, Aikawa K, Yamaguchi O*
- 17:10 119 TAMUSULOSIN ALTERS STRUCTURE OF PROSTATIC URETHRA: OBSERVATION BY PROCESSED ENDOSCOPIC IMAGE  
*Nakamura K, Naya Y, Awa Y, Ichikawa T, Igarashi T*
- 17:15 120 THE CHANGE OF IPSS STORAGE SUB-SCORE AFTER LONG TERM MEDICAL THERAPY IN BPH PATIENTS  
*Kim S J, Kim S W, Lee D H, Kim H W, Kim C, Lee H M, Kim C I, Chung B H, Hwang T K, Lee J Y*
- 17:20 121 THE EFFICACY AND SAFETY OF PHOTOSELECTIVE VAPORIZATION OF THE PROSTATE (PVP) FOR THE TREATMENT OF BENIGN PROSTATE HYPERPLASIA (BPH) IN MEN WITH LARGE PROSTATES  
*Kim M, Park J H, Lee C J, Ko D W, Kim S W, Paick J, Yang S, Son H*
- 17:25 122 TWELVE-YEAR SYMPTOMATIC OUTCOME OF TRANSURETHRAL RESECTION OF THE PROSTATE FOR PATIENTS WITH LOWER URINARY TRACT SYMPTOMS BY PROSTATIC ENLARGEMENT COMPARED TO THE PREOPERATIVE URODYNAMIC FINDINGS  
*Masumori N, Furuya R, Tanaka Y, Furuya S, Ogura H, Tsukamoto T*

**17:30 - 18:30 Neurourology and Urdynamics Editorial Board Meeting****Location: Meeting Room 2****17:30 - 19:00 Nurses Forum****Location: Hall B****17:30 - 19:00 Satellite Symposium Sponsored by Astellas****Location: Hall A**



- 07:30 - 08:30**     **Satellite Symposium Sponsored by Pfizer**  
**Location: Hall B**
- 08:30 - 10:30**     **Session 12 (Podium) - Epidemiology**  
**Location: Hall A**  
**Chairs: Bary Berghmans (Netherlands), Jeanette Sarah Brown (United States)**
- 08:30     123     THE ROLE OF INDUSTRY FUNDING IN RANDOMIZED CONTROLLED TRIALS OF ANTIMUSCARINIC MEDICATIONS FOR OVERACTIVE BLADDER  
*Clemens J Q*
- 08:45     124     ENVIRONMENTAL FACTORS VERSUS GENETICS IN WOMEN WITH FECAL INCONTINENCE: A CLASSICAL TWIN STUDY OF IDENTICAL AND NON-IDENTICAL TWINS  
*Nguyen A, Aschkenazi S, Gamble T, Vu M, Secco A, Kuo R, Du H, Botros S, Sand P, Goldberg R*
- 09:00     125     PREVALENCE OF URINARY INCONTINENCE DURING 10 YEARS IN A PROSPECTIVE COHORT OF MIDDLE AGED WOMEN  
*Jahanlu D, Hunskaar S*
- 09:15     126     HOW DOES WEIGHT GAIN DURING PREGNANCY AFFECT RISK OF URINARY INCONTINENCE?  
*Wesnes S L, Hunskaar S, Bo K, Rortveit G*
- 09:30     127     SMOKING IS INDEPENDENTLY ASSOCIATED WITH CERTAIN URINARY STORAGE SYMPTOMS: A POPULATION-BASED STUDY  
*Tikkinen K, Johnson T, Auvinen A, Cartwright R, Tammela T L J*
- 09:45     128     NATIONAL TRENDS IN THE USAGE AND SUCCESS OF SACRAL NEUROMODULATION  
*Cameron A P, Anger J T, Madison R, Saigal C S, Clemens J Q, Urologic Diseases in America Project U D A*
- 10:00     129     DOES GOOD ORGANISATIONAL STRUCTURE LEAD TO QUALITY CARE PROVISION FOR OLDER PEOPLE WITH INCONTINENCE ?  
*Wagg A, Lowe D, Peel P, Potter J*
- 10:15     130     IMPACT OF URINARY INCONTINENCE ON REHABILITATION OUTCOMES IN INPATIENT REHABILITATION FACILITIES IN THE UNITED STATES  
*Neville C, Mallinson T, Almagor O, Fitzgerald C, Heinemann A*
- 10:30 - 11:00**     **Coffee Break / Poster & Video Viewing / Exhibition**
- 11:00 - 12:30**     **Session 13 (Poster) - Physiology**  
**Location: Hall B**  
**Chairs: Marcus Drake (United Kingdom), Naoki Yoshimura (United States)**
- 11:30     131     **PRIZE AWARD: Best Basic Science Abstract**  
 ESTABLISHING A RODENT MODEL FOR CHARACTERIZATION OF NATURAL IN VIVO BLADDER REGENERATION  
*Burmeister D, AbouShwareb T, Andersson K, Christ G*
- 11:35     132     BONE MARROW MESENCHYMAL STROMAL CELLS DISPLAY A SMOOTH MUSCLE PHENOTYPE WHICH IS ENHANCED BY TGFB1: POTENTIAL USE TO TREAT SPHINCTERIC INCONTINENCE AND BLADDER WALL DEFECT  
*Loutochin O, Campeau L, Eliopoulos N, Galipeau J, Corcos J*
- 11:40     133     THE SPHINGOSINE-1-PHOSPHATE PATHWAY IS UPREGULATED IN RESPONSE TO PARTIAL URETHRAL OBSTRUCTION IN MALE RATS AND ACTIVATES RHOA/RHO-KINASE SIGNALING  
*Aydin M, Downing K, Villegas G, Zhang X, Chua R, Melman A, DiSanto M*
- 11:45     134     ALTERED CAMP-MEDIATED POTASSIUM CHANNEL CURRENTS IN DETRUSOR MYOCYTES FROM DIABETIC RATS  
*Zhao W, Brink P, Christ G*
- 11:50     135     INCREASED ATP MEDIATED CONTRACTION OF ISOLATED DETRUSOR CELLS OF PATIENTS WITH OUTFLOW OBSTRUCTION  
*Bishara S, Gao H, Malone-Lee M, Clark S, Lunawat R, Khan S, Khasriya R, King B, Malone-Lee J*
- 11:55     136     TRPV4 AS STRETCH-RECEPTOR; CO-LOCALIZATION BETWEEN TRPV4 AND ADHERENCE JUNCTIONS IN UROTHELIUM OF HUMAN KIDNEY, URETER & URINARY BLADDER  
*Janssen D A W, Jansen K C F J, Schalken J A, Heesakkers J*
- 12:00     137     TRPV4 AS A MECHANORECEPTOR IN THE HUMAN BLADDER; A CO-LOCALIZATION BETWEEN TRPV4 AND ADHERENCE JUNCTIONS THE UROTHELIUM  
*Janssen D A W, Jansen K C F J, Schalken J A, Heesakkers J*
- 12:05     138     STIMULATION OF COLD STRESS SKIN RECEPTOR: TRANSIENT RECEPTOR POTENTIAL MELASTATIN 8 (TRPM8) CAUSES SUDDEN URINARY FREQUENCY IN NORMAL CONSCIOUS RATS  
*Ishizuka O, Chen Z, Imamura T, Aizawa N, Kurizaki Y, Igawa Y, Nishizawa O, Andersson K*
- 12:10     139     OBSTRUCTION ENHANCES RHO-KINASE PATHWAY IN CARBACHOL-INDUCED CA<sup>2+</sup> SENSITIZATION IN ALPHA-TOXIN PERMEABILIZED GUINEA-PIG DETRUSOR SMOOTH MUSCLE  
*Shahab N, Kajioka S, Takahashi R, Seki N, Naito S*
- 12:15     140     HISTOLOGICAL EVIDENCE OF UBIQUITOUS OCCURRENCE OF CHRONIC CYSTITIS IN UROTHELIAL BIOPSIES FROM PATIENTS WITH SYMPTOMS OF OVERACTIVE BLADDER AND NORMAL URINANALYSIS  
*Lunawat R, Khasriya R, Bishara S, Maraj B, Falzon M, Malone-Lee J*
- 12:20     141     HOW IS THE BLADDER BEHAVIOUR INFLUENCED BY THE OSMOLARITY OF URINE?  
*Shiraiwa M, Shishido K, Nanri M, Kuniwa M, Yamaguchi O*
- 12:25     142     A THERAPEUTIC APPROACH FOR RHABDOSPHINCTER REGENERATION BY AUTOLOGOUS ADULT STEM CELLS  
*Baumann S, Feil G, Schäfer J, Schäfer R, Möhle R, Stenzl A, Sievert K*

**11:00 - 12:30 Session 14 (Poster) - Epidemiology****Location: Hall C****Chairs: Vatche Minassian (United States), Guri Rortveit (Norway)**

- 11:30 143 BLADDER CANCER IS NOT ASSOCIATED WITH IRRITATIVE LOWER URINARY TRACT SYMPTOMS  
*Idriz S, Gao H, Malone-Lee M, Lunawat R, Khan S, Khasriya R, Malone-Lee J, Bishara S*
- 11:35 144 INCIDENCE OF AND RISK FACTORS FOR CHANGES IN URINARY INCONTINENCE STATUS IN A PROSPECTIVE COHORT OF MIDDLE-AGED AND OLDER WOMEN  
*Thom D, Van Den Eeden S, Ragins A, Schembri M, Subak L, Brown J*
- 11:40 145 RELATIONSHIP BETWEEN NOCTURIA AND METABOLIC SYNDROME  
*Aoki Y, Kusukawa N, Maekawa M, Matsuta Y, Tanase K, Ito H, Oyama N, Miwa Y, Akino H, Yokoyama O*
- 11:45 146 ETHNICITY AND SOCIOECONOMIC STATUS ARE SIGNIFICANT INDEPENDENT RISK FACTORS FOR OBSTETRIC ANAL SPHINCTER INJURY  
*Cartwright R, Tikkinen K, Cardozo L*
- 11:50 147 HELP-SEEKING BEHAVIOUR FOR URINARY INCONTINENCE AMONG COMMUNITY-DWELLING WOMEN: A SYSTEMATIC REVIEW  
*Sande A K, O'Donnell M, Hunnskaar S*
- 11:55 148 THE EPIDEMIOLOGY OF NOCTURNAL POLYURIA (INCIDENCE AND PREVALENCE): A LONGITUDINAL COMMUNITY BASED STUDY IN MEN BETWEEN 50 AND 78 YEARS OF AGE  
*van Doorn B, Blanker M, Bosch R*
- 12:00 149 DIFFERENCES AND ASSOCIATIONS BETWEEN NIGHT-TIME FREQUENCY/NOCTURIA AND SLEEP DISORDERS  
*Yoshimura K, Oka Y, Kamoto T, Yoshimura K, Ogawa O*
- 12:05 150 THE ASSOCIATION BETWEEN SPECIFIC PARTURITION EVENTS AND URINARY INCONTINENCE IN LATER LIFE: RESULTS FROM A RETROSPECTIVE COHORT STUDY  
*Thom D, Van Den Eeden S, Ragins A, Creasman J, Subak L, Brown J*
- 12:10 151 PROGNOSTIC INDICATORS OF POOR SHORT-TERM OUTCOME OF PHYSIOTHERAPY INTERVENTION IN WOMEN WITH STRESS URINARY INCONTINENCE  
*Hendriks E, Kessels A G, de Vet H C, Bernards A T, de Bie R*
- 12:15 152 LESSONS LEARNED FROM A PATIENT BURDEN SURVEY FOLLOWING A LARGE RANDOMIZED CONTROLLED TRIAL FOR THE SURGICAL MANAGEMENT OF STRESS URINARY CONTINENCE IN WOMEN  
*Zimmern P, Tennstedt S, Dickinson T, Dandreo K*
- 12:20 153 INTERMITTENT CATHETERISATION: DO DIFFERENT CATHETER TYPES, STRATEGIES OR TECHNIQUES AFFECT UTI?  
*Moore K, Fader M, Getliffe K*
- 12:25 154 GENITOURINARY FISTULA EXPERIENCE IN SIERRA LEONE: REVIEW OF 505 CASES  
*Kaufman M, Lewis A, Wolter C, Phillips S, Maggi D, Condry L, Smith J, Dmochowski R*

**11:00 - 12:30 Session 15 (Poster) - LUTS in Women II****Location: Hall D****Chairs: Jerzy B Gajewski (Canada), Soren Brostrom (Denmark)**

- 11:30 155 LOWER URINARY TRACT SYMPTOMS IN FEMALE PATIENTS WITH HYPERTHYROIDISM  
*Ho C, Yu H, Huang K*
- 11:35 156 PRESERVATION OF URINARY WHITE CELLS TO ENABLE ADOPTION OF MICROSCOPY OF UNSPUN URINE FOR PYURIA INTO ORDINARY CLINICAL ASSESSMENT PROTOCOLS OF LOWER URINARY TRACT SYMPTOMS  
*Khan S, Khasriya R, Bishara S, Mahmood W, Chandhyoke N, Mohenden M, Malone-Lee J*
- 11:40 157 SPUN URINARY SEDIMENTS AND GIEMSA STAIN REVEAL A CHRONIC INFLAMMATORY INFILTRATE IN PATIENTS WITH SYMPTOMS OF OAB  
*Lunawat R, Khasriya R, Falzon M, Balachandran L, Malone-Lee J*
- 11:45 158 ENHANCING THE DETECTION OF PYURIA IN FRESH URINE FROM PATIENTS WITH OVERACTIVE BLADDER BY USE OF THE STERNHEIMER-MALBIN STAIN  
*Khan S, Khasriya R, Badiani R, Bishara S, Malone-Lee J*
- 11:50 159 BACTERIAL URINARY TRACT INFECTION IN PATIENTS WITH OAB SYMPTOMS AND NEGATIVE MIDSTREAM CULTURES EXPOSED THROUGH CULTURE OF THE URINARY SPUN SEDIMENT  
*Khasriya R, Khan S, Ismail S, Ready D, Pratten J, Wilson M, Kelsey M, Malone-Lee J*
- 11:55 160 IS ULTRASOUND BLADDER WALL THICKNESS A BETTER OBJECTIVE MEASURE THAN URODYNAMICS FOR OVERACTIVE BLADDER SYMPTOMS?  
*Panayi D, Khullar V, Fernando R, Hendricken C, Tekkis P*
- 12:00 161 CAN AN AIR-FILLED INTRAVESICAL BALLOON IN-VIVO ATTENUATE PRESSURE AND RAISE THE ABDOMINAL PRESSURE AT WHICH STRESS URINARY INCONTINENCE LEAKAGE OCCURS?  
*Lopez M, Snyder J*
- 12:05 162 SAFETY AND TOLERABILITY OF DULOXETINE IN THE TREATMENT OF FEMALE STRESS URINARY INCONTINENCE (SUI) IN GENERAL PRACTICE IN GERMANY - RESULTS FROM A LARGE OBSERVATIONAL STUDY  
*Michel M C, Methfessel D H, Minarzyk A, Schwerdtner I, Quail D, Gross A*
- 12:10 163 URODYNAMIC URETHRAL FUNCTION, THE SUPINE EMPTY BLADDER STRESS TEST, AND INCONTINENCE SEVERITY  
*Nager C, Kenton K, Kraus S, Chai T, Sirls L, Sutkin G, Wai C, Leng W, Litman H, Tennstedt S, Richter H E, for the Urinary Incontinence Treatment Network*
- 12:15 164 AN INTERNATIONAL UROGYNECOLOGICAL ASSOCIATION (IUGA) – INTERNATIONAL CONTINENCE SOCIETY (ICS) JOINT REPORT ON THE TERMINOLOGY FOR FEMALE PELVIC FLOOR DYSFUNCTION  
*Haylen B, Freeman R, De Ridder D, Swift S, Berghmans B, Lee J, Monga A, Petri E, Rizk D E, Sand P K*
- 12:20 165 SUBCAPSULAR RELOCATION FOR SACRAL NEUROMODULATION PULSE GENERATOR IMPLANT REVISION  
*Roth T*
- 12:25 166 SACRAL NEUROMODULATION IN URINARY RETENTION SECONDARY TO PELVIC ENDOMETRIOSIS ERADICATION  
*Pastorello M, Andretta E, Zuliani C, Vecchio D, Ostaro E*

- 11:00 - 12:30**      **Session 16 (Poster) - Lower Urinary Tract, Physiology & Treatment**  
**Location: Hall E**  
**Chairs: Christopher R Chapple (United Kingdom), Anthony John Kanai (United States)**
- 11:30      167      TREATMENT OF EXTENSIVE BXO INVOLVING THE WHOLE PENDULOUS URETHRA WITH BILATERAL BUCCAL MUCOSA GRAFTS  
*Osman T, Ihab E, Abdelwahab E*
- 11:35      168      RISK FACTORS OF DE NOVO OVERACTIVE BLADDER AND STRESS INCONTINENCE FOLLOWING SURGICAL REMOVAL OF URETHRAL DIVERTICULUM  
*Kim Y H, Park S J, Hong J*
- 11:40      169      SURGICAL MANAGEMENT OF URETHRAL DIVERTICULA IN WOMEN: A SYSTEMATIC REVIEW  
*Bodner B, Elenskaia K, Doerfler D, Umek W, Laml T, Haeusler G, Hanzal E*
- 11:45      170      MANAGEMENT AND OUTCOME OF INJURY TO THE URINARY TRACT AT GYNAECOLOGICAL AND OBSTETRIC PROCEDURES AT A BUSY DISTRICT GENERAL HOSPITAL  
*Venkitaraman U, Dixit S, Chilaka V*
- 11:50      171      QUALITY OF LIFE AND VOIDING FUNCTION AND FOLLOWING NEOBLADDER FORMATION  
*Gillatt D*
- 11:55      172      LATISSIMUS DORSI DETRUSOR MYOPLASTY IN PATIENTS WITH ACONTRACTILE BLADDER – LONG TERM RESULTS OF A MULTICENTER STUDY  
*Gakis G, vanKoeveeringe G, Raina S, Lorenz S, Rahnama'i M, Ninkovic M, Stenzl A, Sievert K*
- 12:00      173      FIVE-YEAR FOLLOW-UP OF SACRAL NERVE NEUROMODULATION IN 60 WOMEN WITH IDIOPATHIC REFRACTORY URGE INCONTINENCE  
*Groen J, Blok B, Bosch R*
- 12:05      174      THE CORRELATION OF ESTIMATED AND ISOTOPE GFR IN PATIENTS WITH BOWEL IN THE URINARY TRACT  
*Ockrim J, Hamid R, Shah J, Greenwell T*
- 12:10      175      RELEASE OF ATP AND NO FROM RAT PROSTATE: AN IN VITRO AND IN VIVO ASSESSMENT OF ADRENERGIC RECEPTOR STIMULATION  
*Munch E, Munoz A, Boone T, Smith C, Somogyi G*
- 12:15      176      ALTERATION OF CAVEOLAE-MEDIATED SIGNALLING PATHWAYS IN OBSTRUCTED BLADDER  
*Cristofaro V, Lowalekar S, Yalla S V, Sullivan M P*
- 12:20      177      EFFECTS OF ESTROGEN DEFICIENCY AND ITS REPLACEMENT ON VOIDING BEHAVIOUR AND PRIMARY BLADDER AFFERENT ACTIVITY IN THE RAT  
*Aizawa N, Iijima K, Rosenbaum J, Downs T R, Igawa Y, Andersson K, Wyndaele J J*
- 12:25      178      LOWER URINARY TRACT SYMPTOMS AND QUALITY OF LIFE IN NORWEGIAN MEN: THE HUNT STUDY  
*Seim A, Fjære O, Hoyo C, Ostbye T, Vatten L J*
- 12:30 - 13:30**      **Lunch Break / Poster & Video Viewing / Exhibition**
- 12:30 - 13:30**      **Meet the Experts 3: Male LUTS and Fistulas**  
**Location: Room 2002**  
**Experts: Roger Roman Dmochowski (United States), Sender Herschorn (Canada)**
- 12:30 - 13:30**      **Meet the Experts 4: Urodynamics and Research**  
**Location: Room 2002**  
**Experts: Marcus Drake (United Kingdom), Werner Schaefer (United States)**
- 13:30 - 14:30**      **Session 17 (Podium Video) - Videos - Surgical Techniques II**  
**Location: Hall A**  
**Chairs: Mark E Vierhout (Netherlands), Sherif Mourad (Egypt)**
- 13:30      179      VIDEO DEMONSTRATION OF VAGINAL SURGERY FOR PROLAPSE USING MESH IMPLANTS AND A VAGINAL SUPPORT DEVICE  
*Al-Salihi S, Lim J, Carey M*
- 13:40      180      ANTERIOR PROLAPSE (CYSTOCELE AND VAULT) REPAIR WITH MESH: SINGLE INCISION APPROACH WITH NEW MINIMALLY INVASIVE FIXATION SYSTEM  
*Moore R*
- 13:50      181      ENDOFAST RELIANT™ SYSTEM FOR ANTERIOR COMPARTMENT REPAIR  
*Von Theobald P, Alcalay M*
- 14:00      182      TRANSVAGINAL REPAIR OF ANTERIOR VAGINAL WALL PROLAPSE WITH AN ULTRA-LIGHT POLYPROPYLENE MESH NOVASILK® USING A LARGE UNFIXED INTERVESICOVAGINAL MESH  
*Mansoor A*
- 14:10      183      LAPAROSCOPICALLY ASSISTED VAGINAL REPAIR OF VESICO-VAGINAL FISTULA - INITIAL CLINICAL REPORT  
*Garcia/Segui A, Lopez V, Arnal H, Perez M G, Zambrano C, Ballesteros C, Moanack J, Valero R*
- 14:20      184      ADJUSTABLE TRANSOBTURATOR SLING (ARGUS T®) FOR THE TREATMENT OF POST RADICAL PROSTATECTOMY URINARY INCONTINENCE (PRPUI)  
*Trigo Rocha F, Gomes C, Figueiredo J A, Bruschini H, Srougi M*
- 13:30 - 14:30**      **Session 18 (Poster) - Detrusor Overactivity Non-Clinical**  
**Location: Hall B**  
**Chairs: Christopher Henry Fry (United Kingdom), Lori A Birder (United States)**
- 13:50      185      INHIBITION OF BLADDER OVERACTIVITY BY TRANSCUTANEOUS STIMULATION TARGETING THE PUDENDAL NERVE IN CATS  
*Wang J, Shen B, Liu H, Subbaroyan J, Roppolo J, DeGroat W, Tai C*
- 13:55      186      URINARY NERVE GROWTH FACTOR IS A BETTER BIOMARKER THAN DETRUSOR WALL THICKNESS FOR THE ASSESSMENT OF OVERACTIVE BLADDER WITH INCONTINENCE  
*Kuo H, Liu H, Chancellor M*
- 14:00      187      INTERSTITIAL CELL P2Y6-RECEPTORS MODULATE DETRUSOR OVERACTIVITY FOLLOWING SPINAL CORD TRANSECTION  
*Ikeda Y, Birder L, DeGroat W, Kanai A*
- 14:05      188      EFFECTS OF COMBINED USE OF TROSPIDIUM CHLORIDE AND MELATONIN ON IN VITRO CONTRACTILITY OF RAT URINARY BLADDER  
*Onur R, Ozcan M, Tuygun U, Ozan T, Ayar A, Orhan I*

- 14:10 189 MYOGENIC BASIS OF DETRUSOR OVERACTIVITY : CORRELATION OF ULTRASTRUCTURAL FEATURES IN NEUROGENIC AND NON-NEUROGENIC OVERACTIVE HUMAN DETRUSORS  
*Brammah S, Chan L, Tse V, Wills E*
- 14:15 190 BLADDER DYSFUNCTION IN A NEW ANIMAL MODEL OF INCREASED LEVELS OF SUPEROXIDE IONS  
*Soler R, Fuellhase C, Lu B, Bishop C, Andersson K*
- 14:20 191 PROSTAGLANDIN INVOLVEMENT IN AFFERENT SIGNALING OF THE BLADDER  
*Rahnama'i M, van Koeveeringe G, De Wachter S, de Vente J, Gillspie J I, van Kerrebroeck P*
- 14:25 192 CYTOKINES IN URINE INDICATES URETHRAL ORIGIN OF URGENCY IN THE "OVERACTIVE BLADDER SYNDROME"  
*Lofgren O*
- 13:30 - 14:30** **Session 19 (Poster) - Rehabilitation**  
**Location: Hall C**  
**Chairs: Kari Bø (Norway), Wendy F Bower (Hong Kong)**
- 13:50 193 PELVIC FLOOR MUSCLE TRAINING IN THE TREATMENT OF LOWER URINARY TRACT SYMPTOMS IN WOMEN WITH MULTIPLE SCLEROSIS  
*Lucio A, Campos R, Perissinoto M C, Damasceno B, D'Ancona C*
- 13:55 194 EFFECTIVENESS OF INVOLVING A NURSE SPECIALIST FOR PATIENTS WITH URINARY INCONTINENCE IN PRIMARY CARE: RESULTS OF A PRAGMATIC MULTICENTRE RANDOMISED CONTROLLED TRIAL  
*Albers-Heitner, MSc, PPT C, Berghmans, PhD, PPT L, Lagro-Janssen, Prof, PhD, MD A, Joore, PhD M, Nieman, PhD F, Venema, PhD, urologist P, Severens, Prof. PhD J, Winkens, PhD, MD R*
- 14:00 195 A RANDOMIZED TRIAL OF PESSARY VS. BEHAVIORAL THERAPY VS. COMBINED THERAPY FOR TREATMENT OF STRESS URINARY INCONTINENCE  
*Richter H E*
- 14:05 196 THE TREATMENT OF STRESS URINARY INCONTINENCE USING AN INCONTINENCE RING: A RANDOMIZED, CROSS-OVER TRIAL  
*Harvey M, Day A*
- 14:10 197 SIMULTANEOUS PERINEAL ULTRASOUND AND VAGINAL PRESSURE MEASUREMENT PROVES THE EFFICACY OF ELECTRICAL PUDENDAL NERVE STIMULATION IN TREATING FEMALE STRESS INCONTINENCE  
*Siyou W, Juanjuan Y, Guomei C, Mingyi X*
- 14:15 198 PHYSICAL THERAPY FOR PERSISTENT POSTPARTUM STRESS URINARY INCONTINENCE: A SEVEN YEAR FOLLOW-UP STUDY  
*Elliott V, Dumoulin C, Martin C, Morin M, Lemieux M, Bourbonnais D*
- 14:20 199 METHODS USED BY PHYSICAL THERAPISTS TO LEARN PELVIC FLOOR MUSCLE EXAMINATION  
*Shelly E, Krum L*
- 14:25 200 TRANSPLANTATION OF MUSCLE-DERIVED STEM CELL PLUS FIBRIN GLUE RESTORES URETHRAL FUNCTION IN A PUDENDAL NERVE-TRANSECTED RAT MODEL  
*Xu Y, Song Y*
- 13:30 - 14:30** **Session 20 (Poster) - Pain Syndromes**  
**Location: Hall D**  
**Chairs: Bert Messelink (Netherlands), Christopher K Payne (United States)**
- 13:50 201 AXONOPATHIC CHANGES OF VISCERAL NERVE ENDINGS IN URINARY BLADDER IN INTERSTITIAL CYSTITIS – AN ULTRASTRUCTURAL STUDY  
*Zamecnik L, Zamecnik J, Hacek J, Hanus T*
- 13:55 202 INVOLVEMENT OF UROTHELIAL CRF RECEPTORS IN MODULATING BLADDER FUNCTION  
*Hanna-Mitchell A, Buffington T, Mayer E, Birder L*
- 14:00 203 MUSCARINIC AND PURINERGIC RECEPTORS IN THE RAT BLADDER ARE ALTERED BY CHEMICALLY INDUCED CYSTITIS  
*Yamada S, Yoshida A, Kageyama A, Mori F, Ito Y*
- 14:05 204 ASSESSMENT OF PATIENT OUTCOMES FOLLOWING SUBMUCOSAL INJECTION OF TRIAMCINOLONE FOR TREATMENT OF HUNNER'S ULCER SUBTYPE INTERSTITIAL CYSTITIS  
*Cox M, Kltuke J, Klutke C*
- 14:10 205 INVESTIGATION OF THE FUNCTION OF INTEGRIN-MEDIATED BACTERIAL ADHERENCE PROTEINS AND THEIR RECEPTORS IN WOMEN WITH RECURRENT BACTERIAL CYSTITIS AND INTERSTITIAL CYSTITIS  
*Price N, Carver J, Jackson S, Mardon H*
- 14:15 206 UNILATERAL SACRAL NEUROMODULATION IN PATIENTS WITH PAINFUL BLADDER SYNDROME/INTERSTITIAL CYSTITIS: 5 YEARS FOLLOW UP  
*Ghazwani Y, Elkelini M, Hassouna M*
- 14:20 207 VALIDATION OF A MODIFIED NATIONAL INSTITUTES OF HEALTH SYMPTOM INDEX TO ASSESS GENITOURINARY PAIN IN MEN AND WOMEN  
*Clemens J Q, Calhoun E A, Litwin M S, McNaughton-Collins M, Crowley E M, Landis J R*
- 14:25 208 PAINFUL BLADDER AND URINARY TRACT PATHOLOGY ASSOCIATED WITH LONG TERM KETAMINE USE  
*Gillatt D*
- 14:30 - 15:00** **State of the Art 2: Bladder Reinnervation: Can New Nerves Improve the Function of the Neurogenic Bladder?**  
**Location: Hall A**  
**Chair: Karl-Erik Andersson (United States)**  
**Speaker: William C de Groat (United States)**
- 15:00 - 15:30** **Coffee Break / Poster & Video Viewing / Exhibition**
- 15:30 - 17:00** **ICS Annual General Meeting**  
**Location: Hall B**
- 19:00 - 23:59** **Gala Dinner aboard the San Francisco Belle**  
**Location: San Francisco Belle**

- 08:30 - 09:00** **Point-Counterpoint - Mesh vs No Mesh (Never Mesh: KK / Mesh Selectively: HS / Always Mesh:AS)**  
**Location: Hall A**  
**Chair: Ann Gormley (United States)**  
**Speakers: Kimberly Kenton (United States), Harriette Miles Scarpero (United States), Ajay Singla (United States)**
- 09:00 - 10:00** **Session 21 (Podium) - Detrusor Overactivity**  
**Location: Hall A**  
**Chairs: Vikram Khullar (United Kingdom), Roger Roman Dmochowski (United States)**
- 08:30 209 A DOUBLE BLIND, PLACEBO CONTROLLED, RANDOMISED, CROSS OVER STUDY OF TRIGONE SPECIFIC INJECTIONS OF BOTULINUM TOXIN B FOR TREATING PATIENTS WITH IDIOPATHIC DETRUSOR OVERACTIVITY REFRACTORY TO OTHER CONSERVATIVE TREATMENTS  
*Moore K, Hirst G, Emery S, Turner A, Lucas M*
- 08:45 210 QUALITY OF LIFE IN A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY OF OXYBUTYNIN CHLORIDE TOPICAL GEL TREATMENT OF PATIENTS WITH OVERACTIVE BLADDER  
*Rudy D, Hanno P, Caramelli K, Thomas H, Hoel G*
- 09:00 211 CONDITIONAL NEUROMODULATION USING TRANS-RECTAL STIMULATION IN SPINAL CORD INJURY  
*Craggs M, Edirisinghe N, Leaker B, Susser J, Al-Mukhtar M, Donaldson N*
- 09:15 212 ATP RELEASE DURING CYSTOMETRY IN WOMEN WITH DETRUSOR OVERACTIVITY AND PAINFUL BLADDER SYNDROME: CONTRIBUTION TO "URGENCY"?  
*Cheng Y, Allan W, Walsh C, Mansfield K J, Burcher E, Moore K H*
- 10:00 - 10:30** **State of the Art 3: Urodynamics in 2009: Utilization, Education and Best Practices, Are They Aligned?**  
**Location: Hall A**  
**Chair: Anthony Stone (United States)**  
**Speaker: Jack Christian Winters (United States)**
- 10:30 - 11:00** **Coffee Break / Poster & Video Viewing / Exhibition**
- 11:00 - 12:00** **Session 22 (Podium) - Neurourology II**  
**Location: Hall A**  
**Chairs: Helmut Madersbacher (Austria), Jacques Corcos (Canada)**
- 11:00 213 **PRIZE AWARD: Best Clinical Abstract (Joint)**  
 ABNORMAL BRAIN RESPONSES TO BLADDER FILLING IN YOUNG WOMEN WITH URINARY RETENTION AND EFFECT OF SACRAL NEUROMODULATION  
*Kavia R, DasGupta R, Critchley H, Fowler C, Griffiths D*
- 11:15 214 **PRIZE AWARD: Best Clinical Abstract (Joint)**  
 BRAIN ACTIVITY MEASURED BY FUNCTIONAL MAGNETIC RESONANCE IMAGING (FMRI) IS RELATED TO PATIENT REPORTS AND CLINICAL SEVERITY OF URGE URINARY INCONTINENCE  
*Tadic S, Griffiths D, Schaefer W, Cheng C, Resnick N*
- 11:30 215 BRAIN REGIONS AND EFFECTIVE CONNECTIVITY IN VOLUNTARY CONTROL OF BLADDER SENSATIONS: AN FMRI STUDY  
*Hamann M, Van der Horst C, Wolff S, Jansen O, Juenemann K P, Kuhtz-Buschbeck J P*
- 11:45 216 BLADDER MANAGEMENT AFTER SPINAL CORD INJURY IN THE UNITED STATES 1973-2005  
*Cameron A P, Wallner L, Sarma A, Tate D, Rodriguez G, Clemens J Q*
- 11:00 - 12:00** **Session 23 (Podium) - Reconstructive Surgery LUT**  
**Location: Hall B**  
**Chairs: Anthony Stone (United States), Karl-Dietrich Sievert (Germany)**
- 11:00 217 PATIENT EXPECTATIONS, SUBJECTIVE IMPROVEMENT AND OBJECTIVE CURE: IS THERE A DIFFERENCE BETWEEN THE TRANSOBTURATOR TAPE AND THE TENSION FREE VAGINAL TAPE PROCEDURE?  
*Robert M, Birch C, Cenailo D, Murphy M, Carlson K, Baverstock R, Mainprize T, Ross S*
- 11:15 218 THE IMPACT OF URETHROPLASTY ON VOIDING SYMPTOMS AND SEXUAL FUNCTION  
*Johnson E, Latini J*
- 11:30 219 A NEW COLLAGEN-BASED UROTHELIAL TRANSPLANT FOR RECONSTRUCTIVE SURGERY OF THE LOWER URINARY TRACT  
*Feil G, Maurer S, Just L, Krug J, Kohler K, Stenzl A, Sievert K*
- 11:45 220 URETHRAL DIVERTICULAE IN WOMEN: DISCREPANCIES BETWEEN MRI AND SURGICAL FINDINGS  
*Chung D E, Purohit R, Girshman J, Blaivas J G*
- 12:00 - 13:00** **Lunch Break / Poster & Video Viewing / Exhibition**
- 12:00 - 13:00** **ICS 2009 Scientific Committee Prizes Meeting**  
**Location: Meeting Room 1**
- 12:00 - 13:00** **Meet the Experts 5: Female LUTS and Fistulas**  
**Location: Room 2002**  
**Experts: Firouz Daneshgari (United States), Dirk de Ridder (Belgium)**
- 12:00 - 13:00** **Meet the Experts 6: Neurourology**  
**Location: Room 2002**  
**Experts: Clare Juliet Fowler (United Kingdom), John PFA Heesakkers (Netherlands)**

- 13:00 - 13:30 State of the Art 4: Medical Education and the Pharmaceutical Industry - Things ain't what they used to be**  
**Location: Hall A**  
**Chair: Clare Juliet Fowler (United Kingdom)**  
**Speaker: Kate Lloyd (United Kingdom)**
- 13:30 - 14:30 Session 24 (Poster) - Urodynamic Techniques & BOO**  
**Location: Hall B**  
**Chairs: Michael Duncan Craggs (United Kingdom), Werner Schaefer (United States)**
- 13:50 221 COMPUTER MODEL BASED DYNAMIC URETHROVAGINAL SUPPORT ASSESSMENT FOR FEMALE SUI  
*Zhang Y, Timm G, Sweet R, Metzger G, Burke D, Erdman A*
- 13:55 222 URETHRAL MOBILITY AND ITS RELATIONSHIP WITH URODYNAMIC DIAGNOSIS  
*Pipiris A, Shek K L, Dietz H P*
- 14:00 223 URETHRAL SLEEVE SENSOR: A BETTER METHOD TO MEASURE URETHRAL PRESSURE DURING DYNAMIC CONDITIONS  
*Tan-Kim J, Weinstein M, Nager C*
- 14:05 224 PERFORMANCE OF DISPOSABLE PRESSURE-SENSING CATHETERS DURING SIMULATED URODYNAMIC EVENTS  
*Awada H, Fletter P, Cooper M, Zaszczurynski P, Damaser M*
- 14:10 225 URINE FLOW RATES IN WOMEN WITH SYMPTOMS OF PELVIC FLOOR DYSFUNCTION  
*Haylen B, Lee J, Zhou J, Law M*
- 14:15 226 THE FIRST METHOD OF CONTINUOUS AND NON-INVASIVE BLADDER PRESSURE MEASUREMENT  
*Clarkson B, Robson W, McArdle F, Griffiths C, Pickard R, Drinnan M*
- 14:20 227 URODYNAMIC APPRAISAL OF THE EFFECT OF THE A-BLOCKER ALFUZOSIN ON FEMALE PRIMARY BLADDER NECK OBSTRUCTION  
*Athanasopoulos A, Gyftopoulos K, Giannitsas K, Perimenis P*
- 14:25 228 URODYNAMIC GRADING OF BLADDER OUTFLOW CONDITIONS IN FEMALES  
*Schaefer W, Chen Y, Tadic S, Griffiths D, Resnick N*
- 13:30 - 14:30 Session 25 (Poster) - Basic Pharmacology**  
**Location: Hall C**  
**Chairs: Karl-Erik Andersson (United States), Yasuhiko Igawa (Japan)**
- 13:50 229 EFFECTS OF CL316,243, A BETA3-ADRENOCEPTOR AGONIST, AND PROSTAGLANDIN E2 ON THE PRIMARY BLADDER AFFERENT ACTIVITY OF THE RAT  
*Aizawa N, Igawa Y, Wyndaele J J*
- 13:55 230 ALLYL ISOTHYOCYNATE INDUCES BLADDER OVERACTIVITY VIA DIRECT ACTIVATION OF BOTH TRPA1 AND TRPV1  
*Everaerts W, Talavera K, Gees M, Leten C, Voets T, Nilius B, De Ridder D*
- 14:00 231 ACID, BUT NOT CAPSAICIN, IS AN EFFECTIVE STIMULUS FOR ATP RELEASE IN THE PORCINE BLADDER MUCOSA  
*Sadananda P, Mansfield K J, Burcher E*
- 14:05 232 SPONTANEOUS CONTRACTILE ACTIVITY OF THE UROTHELIUM IS INCREASED BY MUSCARINIC AND PURINERGIC RECEPTOR STIMULATION  
*Moro C, Milligan C, Leeds C, Chess-Williams R*
- 14:10 233 DEPRESSED UROTHELIAL INHIBITION OF DETRUSOR CONTRACTIONS IN THE HUMAN NEUROGENIC OVERACTIVE BLADDER  
*Chess-Williams R, Cross R, Chapple C*
- 14:15 234 ROLE OF UROTHELIUM ON BETA-3-ADRENOCEPTOR MEDIATED RELAXATION IN HUMAN DETRUSOR MUSCLE  
*Propping S, Wuest M, Eichhorn B, Grimm M, Wirth M, Kaumann A, Ravens U*
- 14:20 235 DISTRIBUTION OF B-ADRENOCEPTOR SUBTYPES IN SUBUROTHELIAL INTERSTITIAL CELLS OF THE HUMAN URINARY BLADDER  
*Otsuka A, Matsumoto R, Shinbo H, Imanishi T, Kurita Y, Ozono S*
- 14:25 236 THE EXPRESSION OF TRANSIENT RECEPTOR POTENTIAL (TRP) V4, A1, AND V1 IN THE HUMAN BLADDER MUCOSA OF NORMAL AND BLADDER OUTLET OBSTRUCTION - A NOVEL MECHANISM IN THE OBSTRUCTION-INDUCED BLADDER OVERACTIVITY  
*Miyamoto T, Mochizuki T, Zakohji H, Kobayashi H, Yoshiyama M, Araki I, Takeda M*
- 13:30 - 14:30 Session 26 (Poster) - Neuromodulation (Basic & Clinical)**  
**Location: Hall D**  
**Chairs: Philip Edward van Kerrebroeck (Netherlands), Graham H Creasey (United States)**
- 13:50 237 SACRAL NERVE STIMULATION PREVENTS THE FUNCTIONAL AND STRUCTURAL CHANGES ASSOCIATED WITH BLADDER OUTLET OBSTRUCTION: A RAT MODEL  
*Comiter C, Phull H, Salkini M, Mazar C*
- 13:55 238 THE EFFECTS OF SACRAL ACUPUNCTURE ON ACETIC ACID-INDUCED BLADDER IRRITATION IN CONSCIOUS RATS  
*Hino K, Honjo H, Nakao M, Kitakoji H*
- 14:00 239 PRIMARY SOMATOSENSORY EVOKED MAGNETIC FIELDS BY DORSAL PENILE NERVE STIMULATION  
*Matsushita M, Nakagawa H, Nakasato N, Kanno A, Kaiho Y, Kawamorita N, Arai Y*
- 14:05 240 URETHRAL SPHINCTER EMG CONTROLLED DORSAL PENILE/CLITORAL NERVE STIMULATION TO TREAT NDO  
*Opisso E, Borau A, Rijkhoff N*
- 14:10 241 IS COST THE ACHILLES HEEL OF POSTERIOR TIBIAL NERVE STIMULATION? A COST MINIMISATION COMPARISON WITH ANTIMUSCARINIC THERAPY IN THE MANAGEMENT OF OAB  
*Robinson D, Jacklin P, Cardozo L*
- 14:15 242 6 AND 12 MONTH RESULTS FROM ORBIT TRIAL COMPARING PERCUTANEOUS TIBIAL NERVE STIMULATION (PTNS) VS. EXTENDED-RELEASE TOLTERODINE  
*Peters K, MacDiarmid S, Wooldridge L, Leong F C, Shobeiri S A, Rovner E, Siegel S, Tate S, Faegins B*
- 14:20 243 SACRAL NEUROMODULATION IN DIABETIC PATIENTS: SUCCESS AND COMPLICATIONS IN THE TREATMENT OF VOIDING DYSFUNCTION  
*Powell C, Daniels D, Braasch M, Kreder K*
- 14:25 244 SACRAL NERVE STIMULATION FOR FECAL INCONTINENCE, A PROSPECTIVE, MULTICENTRE, SCOTTISH STUDY  
*Thornton M, Collie M, McKinlay A, Bartolo D*

**13:30 - 14:30 Session 27 (Poster) - Pelvic Floor & Lower Bowel****Location: Hall E****Chairs: Christine Norton (United Kingdom), Alois Martan (Czech Republic)**

- 13:50 245 MESENCHYMAL STEM CELLS IMPROVE FUNCTIONAL OUTCOME AFTER ANAL SPHINCTER INJURY IN AN ANIMAL MODEL  
*Zutshi M, Salcedo L, Penn M, Mayorga M, Hull T, Damaser M*
- 13:55 246 PREVALENCE OF URINARY AND BOWEL PROBLEMS IN GYNAECOLOGIC MALIGNANCIES – A CROSS SECTIONAL STUDY  
*Pushpalatha K, Sharma J B, Sunesh K, Roy K K, Lalit K, Sharma D N*
- 14:00 247 INCIDENCE AND RISK FACTORS FOR FECAL INCONTINENCE IN OLDER MEN AND WOMEN  
*Markland A, Goode P, Burgio K, Redden D, Richter H E, Allman R, Sawyer P*
- 14:05 248 DO LEVATOR DEFECTS INCREASE THE RISK OF PROLAPSE RECURRENCE AFTER PELVIC FLOOR SURGERY?  
*Model A, Shek K L, Dietz H P*
- 14:10 249 ULTRASOUND ASSESSMENT OF THE VAGINAL MESH SHRINKING IN PATIENT WITH ANTERIOR VAGINAL WALL REPAIR  
*Svabik K, Martan A, Masata J, El Haddad R*
- 14:15 250 A PROSPECTIVE INTEROBSERVER STUDY USING THE POPSTIX DEVICE, A MEASURING TOOL TO SIMPLIFY POPQ MEASUREMENT  
*Hayward L, Wong V, Tomlinson L, Smallldridge J*
- 14:20 251 IS LEVATOR AVULSION A RISK FACTOR FOR RECURRENCE AFTER ANTERIOR COLPORRHAPHY?  
*Dietz H P, Shek K L, Chantarasorn V*
- 14:25 252 THE OPTIMAL ANTERIOR REPAIR STUDY (OARS): A TRIPLE ARM RANDOMIZED DOUBLE BLINDED CLINICAL TRIAL OF STANDARD COLPORRHAPHY, PORCINE DERMIS OR POLYPROPYLENE MESH AUGMENTED ANTERIOR VAGINAL WALL REPAIR  
*Dyer K, Nguyen J, Lukacz E, Simsiman A, Lubner K, Menefee S*

**14:30 - 15:00 Coffee Break / Poster & Video Viewing / Exhibition****15:00 - 16:00 Session 28 (Poster) - Pregnancy/Childbirth & Outcome****Location: Hall B****Chairs: Siv Morkved (Norway), Heinz Koelbl (Germany)**

- 15:20 253 URINARY INCONTINENCE IN NULLIPAROUS WOMEN: INCIDENCE AND ASSOCIATED RISK FACTORS  
*Brown S, Donath S, MacArthur C, McDonald E, Krastev A*
- 15:25 254 CAN LEVATOR AVULSION BE PREDICTED ANTENATALLY?  
*Shek K L, Chantarasorn V, Dietz H P*
- 15:30 255 INTRAPARTUM AND POSTNATAL BLADDER CARE: A SURVEY OF MIDWIVES' CURRENT PRACTICE  
*Carr D, Cook V*
- 15:35 256 RESIDENCY AND RISK OF OBSTETRIC ANAL SPHINCTER INJURY IN MIGRANT SOUTH ASIAN WOMEN  
*Cartwright R, Al Memar M*
- 15:40 257 INFLUENCE OF MATERNAL WEIGHT IN THE PERSISTENCE OF PREGNANCY STRESS URINARY INCONTINENCE ONE YEAR AFTER FIRST DELIVERY  
*Diez Itza I, Arrue M, Ibañez L, Paredes J, Murgiondo A, Sarasqueta C*
- 15:45 258 FOUR YEARS AFTER FIRST DELIVERY, DO URINARY INCONTINENCE AND ANAL INCONTINENCE SHARE SAME OBSTETRICAL RISK FACTORS?  
*Fritel X, Khoshnood B, Fauconnier A*
- 15:50 259 URINARY INCONTINENCE 12 YEARS AFTER FIRST CHILDBIRTH IN A COHORT OF 235 WOMEN  
*Fritel X, Morel K, Quiboeuf E, Fauconnier A*
- 15:55 260 OVINE MODEL OF OBSTETRIC FISTULA  
*Crawford B, Zanjani E, Thain D, Stanford E, Van Andel R, Pixley J, Milsap L, Keller P*

**15:00 - 16:00 Session 29 (Poster) - Painful Bladder Syndrome / IC****Location: Hall C****Chairs: Ragi Doggweiler (United States), Stefan de Wachter (Belgium)**

- 15:20 261 PREVALENCE OF INTERSTITIAL CYSTITIS/ PAINFUL BLADDER SYNDROME IN THE UNITED STATES  
*Clemens J Q, Stoto M A, Elliott M, Suttorp M, Bogart L, Berry S H*
- 15:25 262 CXCR3 AND RELATED CHEMOKINES AS POSSIBLE BIOMARKERS FOR ULCERATIVE INTERSTITIAL CYSTITIS  
*Ogawa T, Seki S, Imamura T, Igawa Y, Nishizawa O, Homma T, Akahane S, Homma Y*
- 15:30 263 ELEVATED URINARY LEVELS OF HEPATOCARCINOMA-INTESTINE-PANCREAS/PANCREATITIS-ASSOCIATED PROTEIN (HIP/PAP) IN PATIENTS WITH PAINFUL BLADDER SYNDROMES/INTERSTITIAL CYSTITIS (PBS/IC)  
*Makino T, Kawashima H, Konishi H, Tanaka T, Nakatani T, Kiyama H*
- 15:35 264 PHYSICAL FINDINGS IN PATIENTS WITH UROLOGIC CHRONIC PELVIC PAIN SYNDROMES (UCPPS)  
*Kotarios R, Fortman C, Neville C, Badillo S, O'Dougherty B, Fraser L, Lynch A, Odabachian L, Sanfield A, Fitzgerald M P, Clemens J Q, Potts J*

- 15:40 265 DIFFERENTIAL DIAGNOSIS OF PAINFUL BLADDER SYNDROME/INTERSTITIAL CYSTITIS USING INFRARED MICROSPECTROSCOPY  
*Gilleran J, Pozza M, Dimitrakov J, Stella J, Rodriguez-Saona L, Buffington T*
- 15:45 266 DEFECTIVE SPINAL MODULATION OF NOCICEPTIVE PROCESSING IN PATIENTS WITH PAINFUL BLADDER SYNDROME/INTERSTITIAL CYSTITIS (PBS-IC) MAY PLAY AN ESSENTIAL ROLE IN THE PATHOPHYSIOLOGY OF THE DISEASE  
*Malaguti S, Mako A, Natale F, Lamarche J, Cervigni M*
- 15:50 267 BLADDER-COLON CROSS-SENSITIZATION INDUCED BLADDER OVERACTIVITY  
*Zabbarova I, Birder L, Roppolo J, DeGroat W, Kanai A*
- 15:55 268 MOUSE MODEL FOR CHARACTERIZATION OF RADIATION CYSTITIS AND ITS PREVENTION USING A NEW CLASS OF RADIOPROTECTORS  
*Zabbarova I, Wipf P, Birder L, Epperly M, DeGroat W, Kanai A*

**15:00 - 16:00 Session 30 (Poster) - Anatomy & Imaging****Location: Hall D****Chairs: John Gosling (United States), Hans Peter Dietz (Australia)**

- 15:20 269 ANATOMY OF THE UTEROSACRAL LIGAMENT  
*Dzung V, Haylen B, Kelly T, Annabelle F*
- 15:25 270 THE CLINICAL IMPORTANCE OF PUDENDAL NERVE COURSE  
*Grill R, Smrzova T, Baca V, Otcenasek M, Urban M, Kachlik D, Dzupa V*
- 15:30 271 COURSE OF THE DORSAL NERVE OF THE CLITORIS  
*Ginger V A, Yang C*
- 15:35 272 PERINEAL APPROACH TO VASCULAR ANATOMY DURING TRANSOBTURATOR CYSTOCELE REPAIR  
*Bader G*
- 15:40 273 A SIMPLIFIED METHOD FOR DETERMINING HIATAL BIOMETRY  
*Wong V, Dietz H P*
- 15:45 274 UNILATERAL CORONAL DIAMETERS OF THE LEVATOR HIATUS: BASELINE DATA FOR THE AUTOMATED DETECTION OF AVULSION OF THE PUBORECTALIS MUSCLE  
*Ismail S, Shek K, Dietz H P*
- 15:50 275 THREE-DIMENSIONAL VIRTUAL-REALITY RECONSTRUCTION OF PELVIC FLOOR STRUCTURE FOR PATIENTS WITH FEMALE STRESS URINARY INCONTINENCE  
*Hu L, Song Y*
- 15:55 276 REAL-TIME MEASUREMENT OF OXYHEMOGLOBIN CONCENTRATION CHANGES IN THE FRONTAL MICTURITION AREA: AN FNIRS STUDY  
*Sakakibara R, Tsunoyama K, Takahashi O, Uchiyama T, Yamamoto T, Yamanishi T, Kishi M, Ogawa E, Awa Y, Yamaguchi C*

**15:00 - 16:00 Session 31 (Poster) - Nocturia & Incontinence****Location: Hall E****Chairs: Edwin Paterson Arnold (New Zealand), Jerry G Blaiwas (United States)**

- 15:20 277 NOCTURIA PREVALENCE AND ASSOCIATION WITH CHRONIC MEDICAL ILLNESS, 2-YEAR MORTALITY IN OLDER PUERTO RICAN MEN  
*Fitzgerald M P, Davila Ramon A L, Garcia A, Palloni A, Tong L, Durazo-Arvizu R, Durazo-Arvizu R*
- 15:25 278 THE EFFECT OF NOCTURIA ON HEALTH-RELATED QUALITY OF LIFE AND MOS SLEEP SCORE IN FEMALE  
*Kim S, Kwon D, Hwang E C, Rho J, Jeong H J, Kim M K, Choi H S, Ryu S B, Jung S I, Im C M, Oh K J*
- 15:30 279 THE INCIDENCE AND PREVALENCE OF NOCTURIA (INCREASED NOCTURNAL VOIDING FREQUENCY): RESULTS FROM A COMMUNITY BASED COHORT STUDY IN OLDER MEN  
*van Doorn B, Blanker M, Bosch R*
- 15:35 280 IMPACT OF NOCTURIA ON MEDICAL CARE USE AND ITS COSTS IN AN ELDERLY POPULATION: 30 MONTH PROSPECTIVE OBSERVATION OF NATIONAL HEALTH INSURANCE BENEFICIARIES IN JAPAN  
*Nakagawa H, Ikeda Y, Kaiho Y, Matsushita M, Hozawa A, Ohmori-Matsuda K, Tsuji I, Arai Y*
- 15:40 281 VOIDING FUNCTION IN WOMEN WITH ORTHOTOPIC NEOBLADDER DIVERSION  
*Kaufman M, Walter C, Lowrance W, Scarpero H, Dmochowski R, Cookson M, Smith, Jr. J*
- 15:45 282 THE AGE OF RECOVERY FROM ENURESIS CORRELATES WITH THE NATURAL COURSE OF OAB IN ADULTS  
*Al-Shukri S, Kuzmin I, Lukina E*
- 15:50 283 ANXIETY AND DEPRESSION ASSOCIATED WITH INCONTINENCE IN MIDDLE AGED WOMEN  
*Felde G, Bjelland I, Hunskaar S*
- 15:55 284 THE EPIDEMIOLOGICAL STUDY OF WOMEN WITH URINARY INCONTINENCE AND RISK FACTORS FOR STRESS URINARY INCONTINENCE IN CHINA  
*Zhu L*

**16:00 - 16:30 Closing Ceremony & Prizes****Location: Hall A**



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Cheng Y<sup>1</sup>, Allan W<sup>2</sup>, Walsh C<sup>2</sup>, Mansfield K J<sup>3</sup>, Burcher E<sup>4</sup>, Moore K H<sup>1</sup>

1. St George Hospital, University of New South Wales, 2. St George Hospital, 3. University of Wollongong, 4. University of New South Wales

## ATP RELEASE DURING CYSTOMETRY IN WOMEN WITH DETRUSOR OVERACTIVITY AND PAINFUL BLADDER SYNDROME: CONTRIBUTION TO “URGENCY”?

### Hypothesis / aims of study

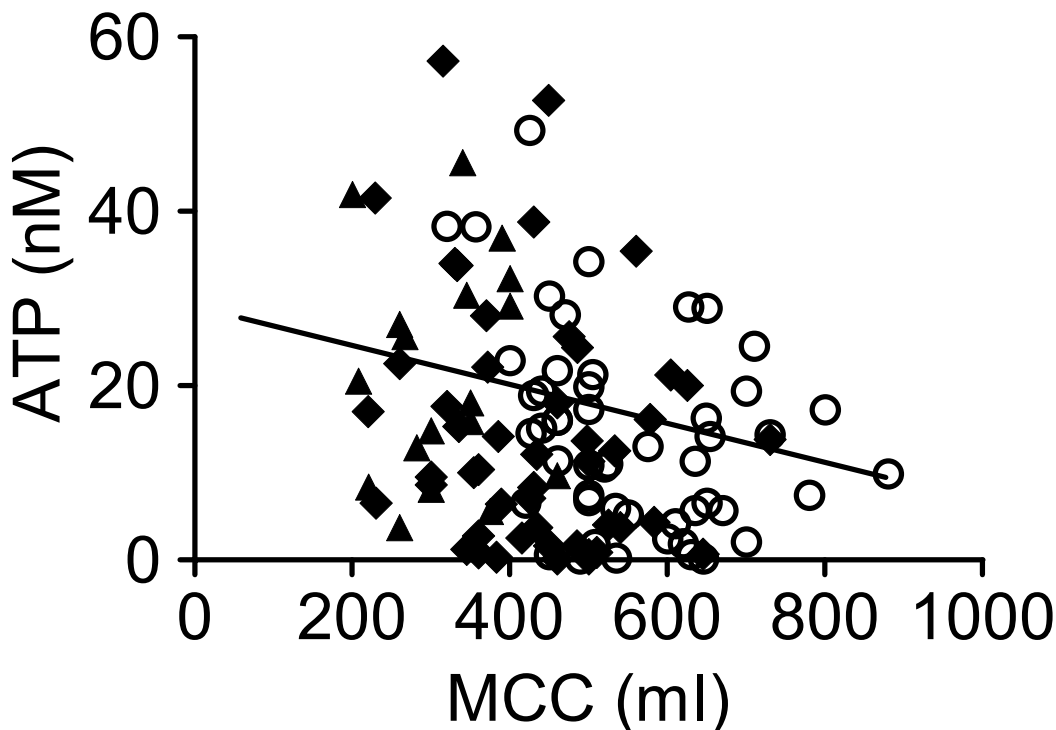
ATP is an important signalling molecule whose release from the bladder urothelium in response to stretch is thought to stimulate afferent nerves and thus convey information about bladder fullness (and the sensation of urgency). Our aim was to measure the release of ATP during urodynamic filling of bladders of women with idiopathic detrusor overactivity (DO), painful bladder syndrome (PBS) and stress incontinence (controls), in order to test the hypothesis that ATP release might play a role in bladder function and/or dysfunction.

### Study design, materials and methods

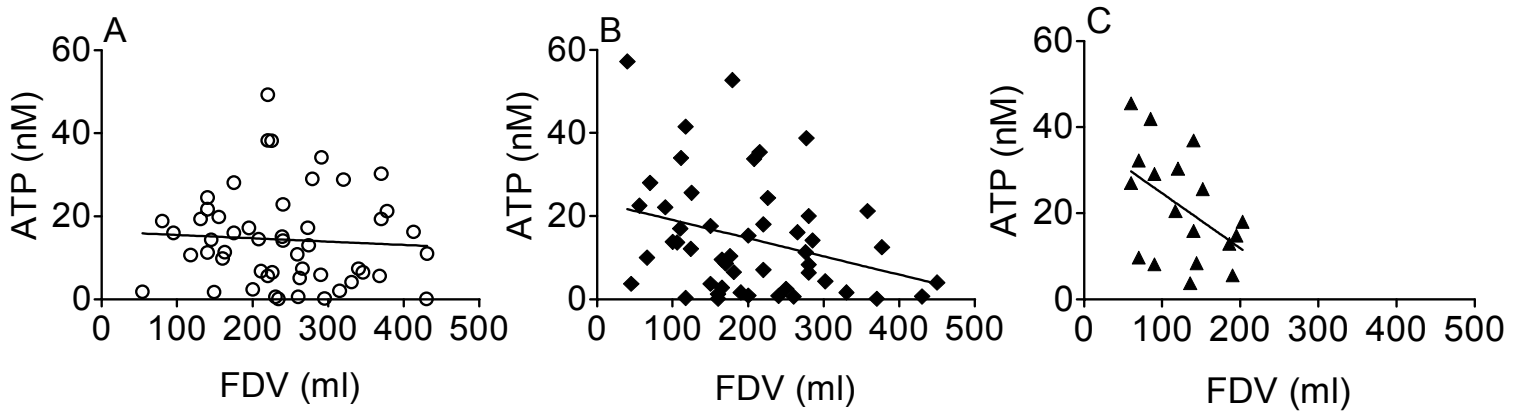
Routine cystometry was performed on 118 women aged 28-87 years. Informed consent was obtained and the study was approved by the local human ethics committee. Saline was infused into the bladder at a filling rate of 75ml / min. The volumes at first desire to void (FDV) and maximal cystometric capacity (MCC) were noted. The presence of any detrusor contractions during filling, erect provocation and tap water stimulus were recorded. After voiding, the saline bladder washings were collected, the volume voided noted and the bladder washings were snap frozen at -30°C. ATP was measured using a bioluminescence assay (Sigma) and a luminometer (GloMax 20/20). The concentration of ATP (nmoles/l) in each sample was calculated. Patients were characterised as (a) DO (involuntary detrusor contractions during the filling phase which may be spontaneous or provoked), (b) PBS (FDV ≤200 ml, MCC ≤400 ml, stable bladder) or (c) control (neither DO or PBS, i.e. pure urodynamic stress incontinence, involuntary leakage of urine during increased abdominal pressure in the absence of detrusor contractions). Subjects found to have bacterial cystitis on a catheter specimen of urine on the test day ( $10^7$  c.f.u./l with pyuria >10 wbc/l) were excluded from the study. Overall subject numbers comprised 49 DO, 18 PBS and 51 control women. Data were expressed as median (interquartile range, IQR). Correlations between two factors were tested by linear regression analysis.

### Results

**Figure 1.** Correlation of ATP concentration in bladder washing with maximal cystometric capacity (MCC) in all patients (control (○), DO (◆) and PBS (▲) patients). There was a significant inverse correlation between maximal bladder capacity and ATP concentration in the bladder washings from all of the patients ( $r^2 = 0.07$ ,  $P = 0.003$ ): that is, the smaller the maximal capacity, the greater the ATP concentration (Fig 1). Analysis of the correlation between the ATP concentration in the individual patient sub-groups revealed a similar trend in control and DO patients, but this was significant only in control patients ( $P = 0.013$ ,  $r^2 = 0.12$ ).



**Figure 2.** Correlation of ATP concentration in bladder washings with first desire to void (FDV) in (A) control patients, (B) DO patients and (C) PBS patients.



There was a significant correlation between FDV and ATP concentration in the bladder washings in DO (Fig 2B,  $r^2 = 0.096$ ,  $P = 0.03$ ) and PBS (Fig 2C,  $r^2 = 0.23$ ,  $P = 0.04$ ) patients, but not in control patients (Fig 2A,  $r^2 = 0.004$ ,  $P = 0.65$ ).

#### Interpretation of results

This appears to be the first study showing that ATP release can be analyzed in the fluid voided after cystometry testing, which opens new avenues of research. In the present study, there was a general correlation between ATP release and MCC. That is, the lower the MCC, the higher the ATP concentration in the bladder washing. This is in accordance with data from human mucosal strips where stretch increases ATP release [1]. Our findings suggest that the intravesical concentration of ATP might be an important factor in the sensation of maximum bladder capacity. As regards the first desire to void, there was no correlation between bladder washing ATP concentration and FDV in control patients. However, there was a significant correlation between ATP and FDV in DO and PBS patients. That is, higher ATP release was related with a lower FDV, in these two groups. This is in accordance with recent studies in bladder mucosal strips showing enhanced ATP release in response to stretch in patients with PBS [2].

#### Concluding message

The measurement of ATP in cells from cystometry washings is a novel approach to understanding the signals that may contribute to the sensation of “urgency” (the sudden compelling desire to void). The inverse correlation between ATP release and maximum capacity suggests that ATP released during bladder filling plays a role in modulating afferent sensation. The relationship between ATP and FDV seen only in the DO / PBS patients suggests that ATP release may be more readily triggered in these women.

#### References

1. Kumar V, Chapple CC, Chess-Williams R J Urol (2004) Characteristics of adenosine triphosphate release from porcine and human normal bladder. J Urol 172: 744-747
2. Kumar V, Chapple CR, Surprenant AM, Chess-Williams R (2007). Enhanced adenosine triphosphate release from the urothelium of patients with painful bladder syndrome: a possible pathophysiological explanation. J Urol 2007 178: 1533-1536

<b>Specify source of funding or grant</b>	<b>NHMRC Australia</b>
<b>Is this a clinical trial?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>Yes</b>
<b>Specify Name of Ethics Committee</b>	<b>St George Hospital Human Ethics Committee, Sydney, Australia</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>