

Who is Doing What in Industry in the UK in:

Urological Devices & Materials

Directory 2005 – Version 1.1

Corrections: If any of the details contained in this document are inaccurate or out of date, please contact BITECIC at the address below or via e-mail (bridget.matthews@bitecic.com) and the information will be regularly updated.

Acknowledgements: Dr Nora Sabbuba, Cardiff School of Biosciences, Cardiff University and BioMed HTC Bristol, for expert advice in the creation of this activity list.

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Company/Division	Clinical Application	Technology, Material, Device or Process	Research Approach / Existing Product Areas (Key words in bold)
<p>Albyn Medical Ltd., Bridgend Road Industrial Estate, Dingwall, Ross-shire, IV15 9QF, Scotland. Tel: 01349 862388862388 http://www.albynmedical.com</p>	<p>Urodynamics/ urinary retention/ drainage and incontinence</p>	<p>Design, manufacture and supply of equipment to asses and control bladder function. Pebax is used to make catheters and ureters.</p>	<p>Pebax is used for catheters/ureters, which has lower friction, is less likely to kink, and is more biocompatible than PVC. Also catheters can be manufactured from this material, which have a larger lumen diameter than those constructed from other materials with the same outer diameter, and hence the filling rates are higher.</p> <p><u>Products:</u></p> <ul style="list-style-type: none"> • Urodynamics range of catheters, ureters, and consumables made from Pebax • Vblock[®] uterine paracervical block needle • Safyre[™] adjustable sling for urinary incontinence • Argus adjustable sling for male incontinence • Durasphere injectable urinary bulking agent made from pyrolytic carbon-coated beads, which cannot be degraded in the body and which are non-migratory (larger than the 80-micron threshold for migration) • In addition the company manufactures a range of electronic equipment e.g., for drug delivery and monitoring urine flow/urodynamics.

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<p>Astra Tech UK Ltd., Brunel Way, Stonehouse, Gloucestershire, GL10 3SX. Tel: 01453 791763 www.astratechuk.com</p> <p>(Part of the AstraZeneca Group)</p>	<p>Urinary retention/ Bladder drainage and self-catheterisation</p>	<p>A hydrophilic coating is used for intermittent drainage catheters</p>	<p>The company uses biocompatible materials, including resorbable polymers, and also titanium in its products. Their range of catheterisation products is designed for intermittent self-catheterisation and uses a unique hydrophilic coating principle to reduce friction during insertion/removal. The outer hydrophilic layer is made of PVP and salt, which attracts a layer of water to produce a 'liquid-salt' surface) and remains self-lubricating throughout the catheterisation insertion and removal process.</p> <p><u>Products:</u></p> <ul style="list-style-type: none"> • LoFric® catheter for intermittent self-catheterisation (ISC): single-use disposable catheter that reduces the risk of infection
<p>Bard Ltd., Brighton Road, Crawley, West Sussex, RH11 9BP. Tel: 01293 527888 http://www.bardurological.com/</p>	<p>1) Urologic specialty products</p> <p>2) Urological incontinence diagnosis, management, and treatment</p> <p>3) Urologic cancer diagnostics, staging and treatment.</p>	<p>Catheters, stents, urethral slings, bulking agents, surgical implants and associated equipment.</p>	<p>Products focus on drainage, continence and prostate disease management.</p> <p><u>Products:</u></p> <p>0) Endourology:</p> <p>Ureteroscopic and stone management:</p> <p>Ureteral stents:-</p> <ul style="list-style-type: none"> • Inlay and Inlay Optima™ stent – with an ultra-smooth outer surface, which softens at body temperature for comfort • Bardex® Double Pigtail Soft Stent • Figure 4 Silicone Ureteral Stent • Fluoro-4™ Silicone Ureteral Stent (silicone stents for ease of insertion plus enhanced biocompatibility. The silicone/tantalum formulation is also radiopaque for imaging by radiology or fluoroscopy) • Urinary Diversion Stent

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Bard Ltd. <i>Cont.</i> http://www.bardurological.com/	<i>See above</i>	<i>See above</i>	<p>1) Continen Ureteral catheters:-</p> <ul style="list-style-type: none"> • Bardex® I.C. Foley catheter with Bard® hydrogel and Bacti-Gurad® silver alloy coating (to reduce the rate of urinary tract infections). • Dual Lumen Ureteral Catheter • Polyurethane Ureteral Catheter • TigerTail® Ureteral Catheter • Woven Ureteral Catheter (manufactured from a tightly woven Dacron® core) <p>Continen/Pelvic Reconstruction: Bulking therapy:</p> <ul style="list-style-type: none"> • Contigen® Bard collagen implant for stress incontinence. <p>Sling/urethral support therapies:</p> <ul style="list-style-type: none"> • Uretex® Self-Anchoring Urethral Support System and Uretex® TO Trans-Obturator Urethral Support System (polypropylene mesh for stable and tension-free sling placement) <p>In addition, Bard manufacture ranges of equipment for:</p> <ul style="list-style-type: none"> • Cystoscopic and Bladder Management (equipment to aid bladder access, ureteral dilation and stone retrieval) • Percutaneous and Renal Surgery (drainage catheters) • Prostate management (electrosurgery equipment)

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Bard Ltd. <i>Cont.</i> http://www.bardurological.com/	<i>See above</i>	<i>See above</i>	<p>Pelvic reconstruction:</p> <ul style="list-style-type: none"> • Bard® Dermal Allograft* • FasLata® Allograft Tissue* • Pelvicol® Acellular Collagen Matrix* (Porcine dermal matrix) • PelviSoft® Acellular Collagen BioMesh* (Meshed porcine dermal matrix) • Pelvitex™ Polypropylene Mesh* (Monofilament polypropylene mesh coated with hydrophilic porcine collagen) • Pelvilace™ Implant urethral sling <p>*Also used in sling/urethral support therapies</p> <p>Urodynamics:</p> <ul style="list-style-type: none"> • In addition the company manufactures a range of electronic equipment for monitoring urine flow/urodynamics. <p>2) Cancer/Brachytherapy:</p> <p>Radio-therapy:</p> <ul style="list-style-type: none"> • Proseed® - A range of equipment, products and support for the treatment of prostate cancer by delivering 'seeds' of radioactive source (Iodine 125 or palladium 103).

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Boston Scientific UK Ltd., New England House, Sandridge Park, Porters Wood, St. Albans, Hertsfordshire, AL3 6PH. Tel: 01727 831666 www.bostonscientific.co.uk/	Urinary retention/ Bladder drainage and incontinence Pelvic floor reconstruction Kidney stones Urethral strictures Benign prostatic hyperplasia	Low friction coatings and biocompatible materials including Percuflex® with hydroplus™ coating.	Develops and advocates the use of less invasive medical devices and procedures for the treatment of: Urinary retention/drainage and incontinence; Pelvic floor reconstruction; Kidney stones; Urethral strictures and Benign prostatic hyperplasia. A range of ablation, dilation, guidewire, incontinence and pelvic floor reconstruction, radical prostatectomy, retrieval, and stenting devices are available. The range of devices utilises a number of biocompatible materials and low friction coatings. <u>Products include:</u> <ul style="list-style-type: none"> • Urethral slings for stress incontinence e.g. Advantage™, Lynx™, Obtryx™. • Ureteral stents e.g. Polaris™, which combines both firm and soft durometer Percuflex® materials with hydroplus™ coating.
Biocompatibles UK Ltd., Chapman House, Farnham Business Park, Weydon Lane, Farnham, Surrey, GU9 8QL. Tel: 01252 732732 http://www.biocompatibles.co.uk	Urinary retention/ Bladder drainage and incontinence	PC Technology™ i.e. Polymers containing phosphorylcholine	Phosphorylcholine incorporated into polymers for use in medical devices to provide a biological “non-stick”, biocompatible surface. PC technology™ polymers can also be used to elute drugs in a controlled manner. <u>Products:</u> PC Technology™ has been licensed to coat ureteric stents , and has a possible use for Foley catheters (feasibility studies are being conducted).

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<p>BluePrint Innovations, Holroyd Hill, Dean Clough, Halifax, West Yorkshire, HX3 5AX. Tel: 01422 385000 http://www.blueprintdev.com</p>	<p>Pelvic Floor toning</p>	<p>Pelvic floor toners made from Santoprene</p>	<p>The company specialises in product design, including medical devices. In addition to working with external companies, Blueprint Innovations develop their own technologies and have been successful in attracting finance, licensing and selling their products. <u>Products:</u></p> <ul style="list-style-type: none"> • BeContent pelvic floor toners to treat female incontinence. The device is made from Santoprene, a soft and autoclavable medical grade material.
<p>Coloplast Ltd., Peterborough Business Park, Peterborough, PE2 6FX. Tel: 01733 392000 http://www.coloplast.co.uk</p> <p>(A subsidiary of Coloplast A/S of Denmark)</p>	<p>Urinary retention/ Bladder drainage and incontinence</p>	<p>Catheters, Urine Bags, Urisheaths, Bowel Management devices and a range of accessories for the management of urinary incontinence</p>	<p>Basic research focuses on materials development (biomaterials, coatings, and hydrogels). <u>Products:</u> Continence care: Intermittent self-catheterisation:-</p> <ul style="list-style-type: none"> • Polished Eye Catheter • SpeediCath catheter (sterile and pre-lubricated) • EasiCath (sterile and pre-lubricated made from PVC with lubrication containing polyvinylpyrrolidone (PVP) and urea) <p>Indwelling catheters:-</p> <ul style="list-style-type: none"> • Foley (100% silicone catheter for long term use - up to three months) <p>Urisheaths to manage male incontinence:</p> <ul style="list-style-type: none"> • Security+ Easifit Sheath • Conveen Security+ Self-Adhesive • Conveen Security+ Urisheath/Uriliner • Clear Advantage Silicone Sheath (100% silicone)

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Coloplast Ltd. <i>Cont.</i> http://www.coloplast.co.uk	<i>See above</i>	<i>See above</i>	The company also manufacture a range of accessories to manage urinary incontinence e.g., Urine bags, and anal plugs for bowel management. Coloplast are also, currently, working in partnership with Ranier Technology Ltd., to develop a new catheter design concept.
Ellis Developments Ltd., The Clocktower, Bestwood Village, Nottingham, NG6 8TQ. Tel: 0115 9797679 http://www.ellisdev.co.uk	Urinary retention/ Bladder drainage	Textile reinforcements for plastics	Ellis Developments specialises in providing textile technology based solutions for surgical/medical device problems e.g., Textile reinforcements for plastics . The company was a member of the NuTap consortium (a Foresight Link Project), in which they contributed the design for a suprapubic catheter port. This device enables drainage of the bladder via a port in the navel and an implanted inter-connecting tube between the bladder and the port.
ETB Ltd., Codicote Innovation Centre, St Albans Road, Codicote, Hertfordshire, SG4 8WH. Tel: 01438 822822 http://www.etb.co.uk	Urinary retention/ Bladder drainage	"Intelligent" Catheters	ETB specialises in the design of Microsystems . The company was a member of the NuTap consortium (a Foresight Link Project) which aimed to improve the options for patients suffering urinary incontinence by: <ol style="list-style-type: none"> 1. Developing a biomaterial to coat catheters in order to make them resist bacterial colonisation and encrustation. 2. Developing a microsystem to control the filling/emptying cycle of the bladder through a valve connected to the bladder catheter. 3. Developing products for use in continence care. Partners on the NuTap project were: Industrial: MediPlus Ltd; Ranier Technology Ltd; Ellis Developments Ltd; Limbs and Things Ltd; BHR Group Ltd; Micro Circuit Engineering Ltd. Academic: Cardiff University; Durham University; and North Bristol NHS Trust.

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<p>Giltech Ltd., 8/13 North Harbour Industrial Estate , Ayr, KA8 8BN, Scotland. Tel: 01292 264406 http://www.giltech.biz</p>	<p>Prevention of device-related infections</p>	<p>Slow release polymer technology for delivering anti-microbial ionic materials and agents i.e. hydrogel-silver coating.</p>	<p>The company focuses research on antibacterial biomaterials for wound dressings and Patented slow release polymer (hydrogel) technology for coating medical devices. The incorporating of silver within the hydrogel coating, provides antibacterial properties, effective against microorganisms including super-bugs, such as MRSA and VRSA The technology has been licensed to Tyco for use in a range of Medical devices, including catheters and other urological devices. Kendall USA, a business unit of Tyco Healthcare Ltd., have exploited it in their Dover® silver Foley catheter (Dover IC; 100% silicone with a silver- hydrogel coating) and drainage system.</p>
<p>Gyneideas®, 6.05 Kelvin Campus, West of Scotland Science Park, Glasgow, GZ0 0SP. Tel: 0141 9454653 http://www.gyneideas.com</p> <p>(Sister company the MPathy®)</p>	<p>Female urinary incontinence</p>	<p>Implantable tape-sling for female incontinence</p>	<p>Develops medical devices in field of women's healthcare. <u>Products:</u></p> <ul style="list-style-type: none"> • Minitape® RP incontinence urethral tape-sling for treatment of urinary incontinence in women.

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<p>Hunter Urology Ltd., 1 The Stable Yard, Woodhayes, Luppitt, Honiton Devon, EX14 4TP. Tel: 01404 44088 http://www.hunterurology.com</p>	<p>Urinary retention/ Bladder drainage and self-catheterisation</p>	<p>Catheters incorporating smooth surfaces and antibacterials</p>	<p>The company focuses on products for intermittent self-catheterisation. <u>Products:</u></p> <ul style="list-style-type: none"> • Safetycat® catheter featuring a specially designed surface , which incorporates thousands of tiny pores for the storage of lubricant ensuring that the catheter is always coated with a thin layer of gel (for easy insertion and removal). The device also features a unique ‘Soft Cath Eyes’ (SCE) technology (smooth, rounded catheter eyes) to protect the urethra to avoid risk of injury • Antibac® catheter featuring a unique antimicrobial surface, which is activated by water to become lubricious for easy insertion and removal. The technology also allows silver or antiseptic to be slowly released from a PVC/base polymer complex.
<p>MediPlus Ltd., The Gateway Centre, Coronation Road, Cressex Business Park, High Wycombe, Buckinghamshire, HP12 3SU. Tel: 01494 551200 http://www.mediplus.co.uk</p>	<p>Urodynamics devices for filling and voiding Cystometry</p>	<p>Catheters for cystometry, UPP and abdominal (rectal) pressure</p>	<p>The company develops and manufactures urodynamic catheters, accessories and other urology products. They were also part of the NuTap consortium (a Foresight Link Project) in which they were involved in developing new products to help manage urinary incontinence. <u>Products:</u></p> <ul style="list-style-type: none"> • Inflow device: a temporary urethral insert containing a remote-controlled valve-pump mechanism as an alternative to catheterisation, to empty the bladder in women. • Developed new catheter concept (“Urie catheter “), which has no retention balloon and which allows complete drainage of bladder (no sumping of urine)

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MediPlus Ltd. <i>Cont.</i> http://www.mediplus.co.uk	<i>See above</i>	<i>See above</i>	<ul style="list-style-type: none"> • Seldinger Suprapubic Foley or Cystometry catheter Introduction kit, which aids the accuracy and safety of introducing SP catheters into the bladder. • Single lumen filling and Cystometry bladder pressure catheter made from Medical Grade PVC • Double lumen Cystometry catheter for patient catheterisation and simultaneous bladder filling and pressure measurement, made from Medical Grade PVC • UPP: Single and double lumen catheters for patient catheterisation and bladder filling followed by simultaneous UPP and Cystometry measurements, made from Medical Grade PVC • Abdominal rectal pressure catheter for measuring peritoneal pressure PVC with PVC, latex, silicone or neoprene balloon • Triple lumen UPP catheters for cystometry and UPP with simultaneous perfusion PVC or polyurethane <p>The company also produces urology and urodynamics consumables and products e.g., CystoSetGuard extension set, Meatal dilator, Cysto-Aid urine collection device, Mediplus pump tube sets for filling and voiding cystometry, and catheter retention cones to prevent male patients voiding the catheter during urodynamics procedures.</p>

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<p>Mentor Medical Systems Ltd., 10 Commerce Way, Lancing, West Sussex, BN15 8TA. Tel: 01903 761122 http://www.Mentorcorp.com</p>	<p>1) Bladder control and incontinence (inc. Stress incontinence)</p> <p>2) Vaginal prolapse</p> <p>3) Urologic cancer (prostate and bladder) diagnostics and treatment.</p> <p>4) Erectile disfunction</p>	<p>1) Catheters</p> <p>1) Surgical solution for stress incontinence</p> <p>2) Surgical urethral slings</p> <p>3) Radio-isotope implants ('seeds')</p> <p>4) Penile and testicular implants</p>	<p>The company develops and manufactures medical device products, including those for urological applications.</p> <p><u>Products:</u></p> <p>1) Continenence:</p> <p>Catheters:-</p> <ul style="list-style-type: none"> • Self-Cath® catheters (and bags), made from flexible Medical Grade PVC and with smooth fire polished eyelets, for intermittent self-catheterisation • Freedom® Male External catheters (and bags) made from latex or silicone • Alpine leg bags • Cystocare lubricious-coated Foley PVC indwelling catheters (2-way, female, Nelation, or self-adhesive male catheters) • Cystocare Folsil indwelling silicone catheters with a radiopaque stripe for imaging (a range of catheters including paediatric devices) <p>Surgical Slings:-</p> <ul style="list-style-type: none"> • ObTape™ trans-obturator surgical sling for treating stress incontinence <p>2) Prolapse:</p> <ul style="list-style-type: none"> • Suspend® Tutoplast® processed fascia lata • Totoplast® processed, gamma irradiated human (allogeneic) dermis • EvaCare® pessaries

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Mentor Medical Systems Ltd. Cont. http://www.Mentorcorp.com	<i>See above</i>	<i>See above</i>	3) Cancer/Brachytherapy: <ul style="list-style-type: none"> • A range of equipment, products and support for the treatment of prostate cancer by delivering 'seeds' of radioactive source (Iodine 125 or palladium 103). • Surgical Implants: <ul style="list-style-type: none"> • Saline filled testicular implant • AcuForm® Flexible Rod penile implant • Titan® and Alpha® inflatable penile implants
Teleflex Medical UK, Stirling Road, Cressex Business Park, High Wycombe, Buckinghamshire, HP12 3ST. Tel: 01494 532761 http://europe.teleflexmedical.com/	Urodynamics and urinary retention/ Bladder drainage and self-catheterisation	Catheters and other devices made from polyurethane, silicone, Silkomed (Silicone elastomer), Silkolatex (latex material with silicone content) and antimicrobial silicone	The company develops and manufactures products for the medical device industry, including those for urology applications. They have recently been focusing on the development of latex-free materials for use in medical devices. Products: <ul style="list-style-type: none"> • Rusch products - flexible instruments for Urology and Endourology applications • Rusche Care products- catheters, urinal condoms stents, and drainage bags for Home Care use. • Medical Service products - products for intermittent catheterisation for Home Care use.

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<p>Ranier Technology Ltd., Greenhouse Park Innovation Centre, Newmarket Road, Cambridge, CB1 5AS. Tel: 01223 505045 http://www.ranier.co.uk</p>	<p>Urinary incontinence</p>	<p>Novel urinary catheter</p>	<p>The company exploits proprietary precision polyurethane technology (PPM technology) to develop novel medical devices and was part of the NuTap project. PPT technology was used to design a novel urinary catheter. This catheter has:</p> <ul style="list-style-type: none"> • The same external dimensions as standard catheters but a larger internal lumen and no retention balloon. This allows rapid voiding of the bladder. • Extension of the time to blockage (caused by bacterial crystalline biofilm formation) by up to three-fold that of standard catheters
<p>Tissue Laboratories (TSL) Plc., Victoria Road, Aldershot, Hampshire, GU11 1EJ. Tel: 01252 333002 http://www.tissuescience.com</p>	<p>Urinary incontinence</p>	<p>Bulking agents and surgical implant materials</p>	<p>The company conducting researches and develops tissue implant products. Their core technology is the Permacol™ surgical implant, which is an isocyanate cross-linked, decellularised porcine dermal matrix (mainly collagen I). Trials have shown that the material is non-allergenic and long-lasting when implanted into humans, and has applications in surgical repair and reconstruction. TSL Plc. has recently signed agreements with CR Bard Inc. for use of its technology in urological applications.</p> <p><u>Products:</u></p> <ul style="list-style-type: none"> • Permacol™ Injection, a bulking agent injected into the urethra for treatment of stress incontinence. • Pelvicol™ Acellular Collagen Matrix (product from Bard Ltd.)

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<p>Tyco Healthcare UK Ltd., 154 Fareham Road, Gosport, Hampshire, PO13 0AS. Tel: 01329 224114 http://www.tycohealthcare.co.uk</p>	<p>Urinary incontinence</p>	<p>Continence care products</p>	<p>The company develops, manufactures and distributes medical devices including those for urological applications.</p> <p>Products:</p> <p>Specialty Catheters:</p> <ul style="list-style-type: none"> • Suprapubic Trocar catheters • Temperature Monitoring catheters • Silicone Catheters <p>Catheters:</p> <ul style="list-style-type: none"> • 100% Silicone catheters • Hydrogel coated catheters • Silicone coated catheters • Silicone elastomer coated <p>Paediatric Urology Products:</p> <ul style="list-style-type: none"> • Urodynamic Catheters • Paediatric range <p>Urinary Collection:</p> <ul style="list-style-type: none"> • Leg Bags • Male External Catheters • Catheter Straps <p>A range of other products are available including: drainage bags; continence clothing and disposables; urine meters; drainage extension tubing.</p>

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<p>Unomedical, 27 Thornhill Road, North Moons Moat, Redditch, Worcestershire, B98 9NL. Tel: 01527 587700 http://www.unomedical.com</p> <p>(Owned by Nordic Capital)</p>	<p>Urinary incontinence</p>	<p>Urinary catheters, collecting bags and urological accessories.</p>	<p>The company focuses on applied research and development, and relies on developments in biocompatible materials and polymer research.</p> <p><u>Products:</u></p> <ul style="list-style-type: none"> • Urinary catheters and collecting bags including a comprehensive range of basic and closed system bags and Foley catheters • Continence accessories for both hospital and home healthcare settings. • Products are also available as pre-connected customised solutions (preKon), to save time and reduce the risk of infection.
<p>Vitrolife UK Ltd., Herriot Watt Research Park, Edinburgh, EH14 4AP. Tel: 0131 4497797 http://www.vitrolife.com</p>	<p>Wide-ranging therapeutic applications including use as bulking agents for urinary incontinence.</p>	<p>Polymeric biomaterials based on hyaluronan</p>	<p>A major area of interest is the development of modified hyaluronan (Hyaluronic acid), a naturally occurring tissue biopolymer with properties consistent with its use in urological applications (e.g., molecular size, hydration, charge, lubrication).</p>