BG3C Needs Summary

Tech id	Title	By	Summary	One Page	PPT
RD2015-0226	Real Time Predictive Analytics for Earlier Intervention of Shock	Victor Garcia	Design a real-time system to analyze continuous streams of data for early recognition of shock.		
RD2014-1101	Biofeedback for Bladder Control	Pramod Reddy	This idea is to develop a muscle activity sensor that can be used at home to identify when a bladder is full. This would be used to aid in potty training, night-time wetting, and people with incontinence.		
RD2014-1209	Improved imaging of cavities inside the body (i.e. endoscopy)	Thomas Sitzman	Design an endoscope that offers enhanced optical information and produced a 3-dimensional true-to-size model of the body cavity.		
RD2015-0102	Implantable bile duct diversion device	Rohit Kohli	Create a medical device that is able to divert bile acid. This may be an improved alternative to gastric bypass weight loss surgery.		
RD2015-0205	Central Line Locks	Conrad Cole	Central line infections are a serious healthcare problem. The project is to develop a better-anti bacterial locking system to prevent central line infections.		
RD2014-1205	On demand stopping and starting of peristalsis to control incontinence	Andrea Bischoff	Develop a medical device that mimics sphincter muscle activity. This would be used for patients that have fecal incontinence and are treated with only minimal effectiveness with enemas.		
RD2014-1102	Smart Uretal Catheter	Pramod Reddy	Develop a catheter that can sense pressure and sense the presence of bacterial proteins. This catheter would prevent serious risk factors associated with blockage in the catheter.		
RD2015-0109	Biometric Patient Bracelet	Mike Buncher	A bracelet or watch with biometric sensors that takes temperature, heartrate, pulse and can communicate information to a patient's care team.		
RD2015-0133	Watch Screen	Mike Buncher	see above -- combine		

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RD2014-1103	Image Reconstruction of Kidney Volume	Pramod Reddy	Develop an algorithm that will calculate the volume of the kidney from multiple 2D ultrasound images. This will help identify obstructed kidneys and make the ultrasounds more meaningful.		
RD2015-0101	Ultrasound visible catheters	Paul Kingma	Design an ultrasound reflective catheter with the same mechanical properties as the existing catheter that could be traced from point of entry to the desired endpoint without using ionizing radiation.		
RD2015-0304	Colorectal patients with an improved bowel management	Michael Helmrath	Develop a mechanism for long term access to the bowel through the appendix that would allow for a patient to flush the colon without a Peristeen or enema.		
2014-0605	Bioshield for protection of central line infection	Ethan Mezoff	This project is to develop a bioshield that protects central lines from bacteria.		
RD2015-0216	A Device to Produce Electrical Muscle Relaxation for Airway Management and Surgical Exposure	David Buck	Design a device that provides easy, immediate, reliable relaxation of the local trachea muscles.		
2014-0127	Custom fit respiratory mask	Hemant Sawnani	Create a customizable respiratory mask that ensures a seal and an even delivery of pressure.		
RD2014-1210	Room wide radiation sensitive markers	Russel Hirsch	Develop a method for measuring and monitory radiation exposure in an entire room rather than in small targeted locations.		
RD2015-0301	Enhanced Drug Delivery to the Inner Ear	Daniel Choo	Develop a mechanism for enhanced drug delivery for inner ear infections. The mechanism needs to allow for prolonged release of the pharmaceutical.		
RD2012-0321	Ureter Scope with both Flexible and Rigid Properties	Eugene Minevich	Design a ureter scope with the right combination of flexible and ridged properties and make it scalable for the pediatric population.		
RD2015-0213	Removable Casts	Kevin Little	Develop a custom fitted cast that cannot be removed by the patient, but can be ‘unlocked’ and removed in an easy manner.		
RD2015-0116	Door Handle Sleeve	Ken Crank	Sanitary door handle 'sleeves' that can be removed rather than disinfected.		

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RD2015-0107	Measuring Speech Improvement post cleft repair	Anne Schwentker	A speech recognition software that provides clinicians with a quantitative method for measuring the effectiveness of cleft palate repair.		
RD2015-0111	Breathing treatment mask for pediatric patients	Wendy Burns	An improved nebulizer, breathing, mask that is easier and more tolerable for patients to use.		
RD2015-0210	Improved methods of treating webbing (syndactyly) of the hand or feet	Kevin Little	Stitching up a zig-zag surgical incision is very time consuming. This idea is to design a mechanism for closing zig-zag incisions that is less time intensive.		
RD2014-1207	Improved multisite full thickness biopsy with quick closure and without thermal damage to adjacent tissue	Andrea Bischoff	Design a device that can biopsy intestine without thermal damage to adjacent tissue and then close the biopsy in a simple and time efficient manner.		
2014-0706	Augmented Neuromuscular Training (aNMT)	Adam Kiefer	Develop a sensorimotor training process that provides athletes with real-time feedback using google glasses or some other devices.		
RD2015-0105	Naso-Jejunal or Gastric Jejunum Catheter Placement	Michael Aquino	Design an NJ and/or GJ tube that is easier to insert into the jejunum.		

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