

**Exhibit R-2, RDT&E,N Budget Item Justification**

Date: Feb 2007

Appropriation/Budget Activity RDT&E,N BA 5				R-1 Item Nomenclature: Medical Development 0604771N				
Cost (\$ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	\$42,284	\$29,551	\$7,973	\$7,818	\$7,883	\$7,902	\$8,033	\$8,178
Medical/Dental Equipment Development/0933	\$6,924	\$7,634	\$7,973	\$7,818	\$7,883	\$7,902	\$8,033	\$8,178
Congressional Adds/9999	\$35,360	\$21,917	\$0	\$0	\$0	\$0	\$0	\$0

**A. Mission Description and Budget Item Justification:** The purpose of this item is to develop biomedical equipment and related techniques to reduce morbidity, to enhance the logistic feasibility of modern medical care for combat casualties, to sustain casualties for evacuation to fixed medical facilities for definitive care, and to ensure that personnel are medically qualified for military duty. Each work unit undertaken in this project has a military requirement. Efforts are justified based upon military payoff and cost benefit. There is a strong potential for dual use, technology transfer, and biotechnology firms / industry participation in the projects.

**B. Program Change Summary:**

	FY 2006	FY 2007	FY 2008	FY 2009
FY 2007 President's Budget	7,094	7,663	7,943	8,025
FY 2008 President's Budget	<u>42,284</u>	<u>29,551</u>	<u>7,973</u>	<u>7,818</u>
Total Adjustments	35,190	21,888	30	-207

Program Adjustments:

Congressional Adds	36,800	22,000	0	0
Program Adjustment	0	0	50	-190
Small Business Innovation	-1,091	0	0	0
Rate Adjustment	0	0	-20	-17
Congressional Adjustment	-519	-112	0	0
Total Adjustments	35,190	21,888	30	-207

**C. Other Program Funding Summary:**

**D. Acquisition Strategy:**

**E. Performance Metrics:**

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**Exhibit R-2a, RDT&E,N Project Justification**

Date: Feb 2007

Appropriation/Budget Activity RDT&E,N/BA 5				Medical Development 0604771N				
Cost (\$ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Medical/Dental Equipment Development/0933	\$6,924	\$7,634	\$7,973	\$7,818	\$7,883	\$7,902	\$8,033	\$8,178
RDT&E,N Articles Quantity								

**A. Mission Description and Budget Item Justification:** The purpose of this item is to develop biomedical equipment and related techniques to reduce morbidity, to enhance the logistic feasibility of modern medical care for combat casualties, to sustain casualties for evacuation to fixed medical facilities for definitive care, and to ensure that personnel are medically qualified for military duty. Each work unit undertaken in this project has a military requirement. Efforts are justified based upon military payoff and cost benefit. There is a strong potential for dual use, technology transfer, and biotechnology firms / industry participation in the projects.

**B. Accomplishments/Planned Program**

	FY 2006		FY 2007		FY 2008		FY 2009
Accomplishment/Effort/Subtotal Cost	\$6,924		\$7,634		\$7,973		\$7,818
RDT&E,N Articles Quantity							

**FY 2006 Accomplishments:**

A Pre-Clinical Model for the Treatment of Radiation Casualties with Ex-Vivo-Expanded Hematopoietic Stem Cells - Developed new cytokine cocktail for increasing CXCR4 expression on hematopoietic stem cells to increase engraftment. Implemented new irradiation protocol for non human primates to better match nuclear Weapons of Mass Destruction scenario. Evaluated different human brain endothelial cells for efficacy in expansion of hematopoietic stem cells. Established criteria for improved non-human primate model for evaluation of protocols.

Tactical Medical Coordination System (TACMEDCS) - Continued the joint US Navy, US Marine Corps prototype refinement of the TACMEDCS focusing on ensuring compatibility with DOD IM/IT systems such as TRANSCOM regulating and Command and Control Evacuation System (TRACES), Composite Healthcare System II (CHCS II), and Theater Medical Information Program - Joint (TMIP-J). Initiated steps for transition and incorporation into Navy Medicine Online with NMIMC.

Impact Injury Prevention (IIP) - Completed data analysis of aviation crash simulation. Delivered digitized data package from Naval BioDynamics Laboratory (NBDL) database to NAVAIR. Data package includes information for subject matching from historical information with ongoing data collection. Materials from this project have substantially contributed to joint services effort. Progressed in digitizing archived analog data from NBDL database.

Development of Capability-Based Expeditionary Medical Treatment Facilities - Augmented underlying data for updating and resupply. Integrating with TML+. Coordination of efforts for shipboard Resuscitative Surgical Systems with Fleet Forces Command and Marine Corps Warfighting Laboratory to evolve CONOPS. Initiated steps for transition and incorporation into Navy Medicine Online with NMIMC.

Implementing Medical Readiness Review and Risk Assessment Methodologies Using TML+ Planning Tool - Expanded information from current operations to enhance risk assessment, provider, and mortality database. Enhanced capability for patient streaming models and prediction. Initiated steps for transition and incorporation into Navy Medicine Online with NMIMC.

Validating the Forward Deployed Preventive Medicine Units Resource Requirements - Continued data collection from forward deployed preventative medicine units, matching desired capabilities for specific blocks with current/predicted supply maps. Worked closely with Naval Environmental Health Center(s) toward identifying critical capabilities for deployed units. Initiated steps for transition and incorporation into Navy Medicine Online with NMIMC.

Improved Administration of Anti-Motion Sickness Medications - Evaluating fast acting nasal delivery system for medications to treat motion sickness in aviators. Expanded protocol for coincident cognitive and behavioral effects of medications.

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<b>B. Accomplishments/Planned Program</b>							
	FY 2006		FY 2007		FY 2008		FY 2009
Accomplishment/Effort/Subtotal Cost	\$6,924		\$7,634		\$7,973		\$7,818
RDT&E,N Articles Quantity							

**FY 2006 Accomplishments (Continued):**

Mental Health Impact of Marine Corps Combat Exposure - Advanced the statistical analyses of risk factors for post-deployment mental health symptoms focused on Marine Corps personnel in OEF and OIF. Progressing toward completions of the linkage analysis for post-deployment surveys and inpatient and out patient data sources.

Validation of the U.S. Navy Dental Classification System - Completed analysis of the Navy dental classification system based on operational experience during the Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF).

Evaluating a Fixed 8-Hour Submarine Watchstanding Schedule - Identified target platform for at sea trials of modified watchstanding schedule. Final preparations for testing the operational effectiveness of the schedule.

Test and Evaluation of the Submarine Attrition Risk Scale - Completed data collection and test and evaluation of a psychological testing instrument to identify submarine school students who are at risk for separation from the Navy.

Evaluation of Components of the Authorized Dental Allowance List 662 (ADAL 662) Field Dental Operator - Completed evaluation of ADAL candidate field patient, dentist, and assistant chairs for operators. Conducted in association with Fleet Marine Forces. Final report to be transitioned to MARCORSYSCOM.

Refinement and Development of Medical Planning Factors Among the Services - Developed robust modelling technology for historical and predictive modelling for medical planning. Ongoing update and advancement of algorithms using data collected from the Navy & Marine Corps Combat Trauma Registry (CTR) and other sources.

An Information Management System for Medical Lessons Learned - Realigned data mining algorithms from NOMI Lessons Learned database to conform with organization of Navy-Marine Corps Combat Trauma Registry (CTR) . New target will promote a rapid query/response capability in the CTR. Completed initial screen of algorithms for final selection and implementation.

Navy-Marine Corps Combat Trauma Registry (CTR) Steps to Transition - Conducted in theater collection of patient encounter information from Levels I and II care. Support of Navy-USMC CTR registrars working in the AOR. Initiating development of CONOPS for data movement through levels of care in connection with Joint Theater Trauma Registry (JTTR) and TMIP-J. Finalizing agreement with National Naval Medical Center for common data elements addressing Traumatic Brain Injury. Initiated steps for transition and incorporation into Navy Medicine Online with NMIMC.

Beta Testing of the Tuberculosis Lateral Flow Prototype - Collected pediatric oral fluid samples from patient population and initiated feasibility testing of recombinant DNA antibodies in the prototype lateral flow device.

Efficacy of Recombinant Factor VIIa (rfVIIa) Alone and in Combination with Hemoglobin Based Oxygen Carrier (HBOC-UP-L-SC) for the Treatment of Traumatic Brain Injury (TBI) with and without Hemorrhagic Shock (HS) - A resuscitation group was added onto the protocol to evaluate HBOC-201 + 90 µg/kg of rfVIIa. Ten subjects have been completed. Data analyses are ongoing.

Advanced Electronic Stethoscope for General Field Use: Final Product Design Patent Application and Field Testing - Working design modifications to pre-production prototype. Gathered enhanced operability data from field testing. Completed field studies with USMC for feasibility of use in high-noise environment. Audible feedback on battery status has been added. Patent application submitted.

The Use of the Vacuum Assisted Wound Closure Device (VAWCD) and Quantitative Bacteriology in Extremity Wound Closure - Developed 96 target multiplex PCR card to quantify the levels of genes involved in wound healing. Developed methodology for analysis of VAWCD effluent for quantitative bacteriology and cytokine/growth factor expression. Collaborative study of VAWCD effluent with National Naval Medical Center Orthopedics is underway.

Development of Procedures for Monitoring Atmospheric Contaminants on Disabled Submarines - Complete the investigation of potential submarine atmosphere contaminants and technologies for accurately measuring them to determine the potential adverse health impacts of the contaminants.

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<b>B. Accomplishments/Planned Program</b>							
	FY 2006		FY 2007		FY 2008		FY 2009
Accomplishment/Effort/Subtotal Cost	\$6,924		\$7,634		\$7,973		\$7,818
RDT&E,N Articles Quantity							
<b>FY 2007 Plan:</b>							
<u>Impact Injury Prevention (IIP)</u> - Complete kinematic analysis for augmenting digitized data package from Naval BioDynamics Laboratory (NBDL) database. Develop animations of scenarios and compare kinematic analysis data with animation. Expand anatomic models. Final Report.							
<u>Development of Capability-Based Expeditionary Medical Treatment Facilities</u> - Complete data collection and analysis for updating and resupply. Integrating with TML+ continues. Publish final report.							
<u>Implementing Medical Readiness Review and Risk Assessment Methodologies Using TML+ Planning Tool</u> - Complete studies to determine efficient use of medical resources in response to changing concepts in warfighting doctrine. Finalize enroute care package to support tactical movement of patients on lift of opportunity platforms. Publish final report.							
<u>Validating the Forward Deployed Preventive Medicine Units Resource Requirements</u> - Complete data collection from forward deployed preventative medicine units, matching desired capabilities for specific blocks with current/predicted supply maps. Final Report.							
<u>Improved Administration of Anti-Motion Sickness Medications</u> - Finalize data collection and report preparation. Complete development of guidelines for dissemination and final transition to USSOCOM and NOMI. Final Report.							
<u>Refinement and Development of Medical Planning Factors Among the Services</u> - Finalize evaluation of modelling technologies for medical planning. Update and augment algorithms using data collected from CTR and other sources. Final Report.							
<u>Navy-Marine Corps Combat Trauma Registry (CTR) Steps to Transition</u> - Continue in theater collection of patient encounter information from Levels I and II care. Initiating development of CONOPS for data movement through levels of care in connection with JTTR and TMIP-J. Transition to P-8 Funding for final implementation.							
<u>Beta Testing of the Tuberculosis Lateral Flow Prototype</u> - Collection of adult oral fluid samples. Determine diagnostic value of putative molecules identified in proteomic investigations. Evaluate recombinant DNA antibodies prototypes. Final Report.							
<u>Advanced Electronic Stethoscope for General Field Use: Final Product Design Patent Application and Field Testing</u> - Finalize prototype. Incorporate micro-speaker venting for optimum response. Final transducer response characteristic to determine equalization characteristic of the amplification circuit. Conduct field studies with USMC for use in operational environments. Finalize for production model.							
<u>The Use of the Vacuum Assisted Wound Closure Device and Quantitative Bacteriology in Extremity Wound Closure</u> - Continue data collection and analysis of VAWCD effluent for quantitative bacteriology and cytokine/growth factor expression. Complete patient enrollment and finalize data analysis.							
<u>Development of Procedures for Monitoring Atmospheric Contaminants on Disabled Submarines</u> - Complete analysis of submarine atmosphere contaminants. Complete technical report with recommendations for field analysis techniques. Final Report.							
<u>RESUS: Restore Effective Survival in Shock</u> - Initiate Phase IIa clinical trials for use of Hemoglobin-based Oxygen Carriers in trauma treatment.							
<u>Joint Development Projects with MARCORSYSCOM Medical Acquisition</u> - Initiate Joint Development Testing and Evaluation program for medical products and equipment. Finalize development for USMC Procurement.							
<u>Transition Projects from Force Health Protection Future Capability</u> - Initiate Development, Testing, and Evaluation program for transition products from the Office of Naval Research 6.3 Advanced Development program. Focus will be on transition of novel hemostatic agents (e.g. infusible hemostatics and field/first responder devices).							
<u>The Use of Anti-Oxidants to Augment Outcome in Patients with Balance Disorders After Blast Injury and Blunt Head Trauma</u> - Initiate clinical investigations into the efficacy of antioxidants to reduce the vestibular and auditory effects of blast exposure.							
<u>Restoration of Endodontically-Treated or Compromised Teeth to Prevent or Rehabilitate Tooth Fracture Using Computer-Aided Direct Ceramic/Composite Full-Coverage Restoration</u> - Conduct efficacy studies of CEREC technology for rapid treatment of dental injuries.							
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<b>B. Accomplishments/Planned Program</b>							
	FY 2006		FY 2007		FY 2008		FY 2009
Accomplishment/Effort/Subtotal Cost	\$6,924		\$7,634		\$7,973		\$7,818
RDT&E,N Articles Quantity							

**FY 2008 Plan:**

Enhanced Spatial Disorientation Training: Basic, Clinical and Operational Aspects - Employ state of the art spatial orientation technologies to investigate methods for mitigation spatial disorientation in aviators.

Clinical Trial of a Newly Developed Forward-Deployable Dental Dressing - conduct field efficacy testing with the USMC of a novel dental treatment technology.

Mobile Oxygen Ventilation and External Suction (MOVES) System -Redesign configuration for application in USMC airframes. Complete final design of MOVES for manufacturing prototype delivery.

RESUS: Restore Effective Survival in Shock - Initiate Phase IIa clinical trials for use of Hemoglobin-based Oxygen Carriers in trauma treatment.

The Use of Anti-Oxidants to Augment Outcome in Patients with Balance Disorders After Blast Injury and Blunt Head Trauma - Initiate clinical investigations into the efficacy of antioxidants to reduce the vestibular and auditory effects of blast exposure.

Restoration of Endodontically-Treated or Compromised Teeth to Prevent or Rehabilitate Tooth Fracture Using Computer-Aided Direct Ceramic/Composite Full-Coverage Restoration - Conduct efficacy studies of CEREC technology for rapid treatment of dental injuries.

Enhanced Spatial Disorientation Training: Basic, Clinical and Operational Aspects - Employ state of the art spatial orientation technologies to investigate methods for mitigation spatial disorientation in aviators.

Clinical Trial of a Newly Developed Forward-Deployable Dental Dressing - conduct field efficacy testing with the USMC of a novel dental treatment technology.

Mobile Oxygen Ventilation and External Suction (MOVES) System -Redesign configuration for application in USMC airframes. Complete final design of MOVES for manufacturing prototype delivery.

Joint Development Projects with MARCORSYSCOM Medical Acquisition - Initiate Joint Development Testing and Evaluation program for medical products and equipment. Finalize development for USMC Procurement.

Transition Projects from Force Health Protection Future Capability - Initiate Development, Testing, and Evaluation program for transition products from the Office of Naval Research 6.3 Advanced Development program. Focus will be on transition of novel hemostatic agents (e.g. infusible hemostatics and field/first responder devices).

**FY 2009 Plan:**

Joint Development Projects with MARCORSYSCOM Medical Acquisition - Initiate Joint Development Testing and Evaluation program for medical products and equipment. Finalize development for USMC Procurement.

Transition Projects from Force Health Protection Future Capability - Initiate Development, Testing, and Evaluation program for transition products from the Office of Naval Research 6.3 Advanced Development program. Focus will be on transition of novel hemostatic agents (e.g. infusible hemostatics and field/first responder devices).

**FY 2010 Plan:**

Joint Development Projects with MARCORSYSCOM Medical Acquisition - Initiate Joint Development Testing and Evaluation program for medical products and equipment. Finalize development for USMC Procurement.

Transition Projects from Force Health Protection Future Capability - Initiate Development, Testing, and Evaluation program for transition products from the Office of Naval Research 6.3 Advanced Development program. Focus will be on transition of novel hemostatic agents (e.g. infusible hemostatics and field/first responder devices).

C. **Other Program Funding Summary:** Not applicable

D. **Acquisition Strategy:** Not applicable

E. **Performance Metrics:** Not Applicable

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**Exhibit R-2a, RDT&E,N Budget Item Justification**

Date: Feb 2007

Appropriation/Budget Activity RDT&E,N BA 5				Medical Development 0604771N				
Cost (\$ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
9999 Congressional Adds - VARIOUS	\$35,360	\$21,917	\$0	\$0	\$0	\$0	\$0	\$0
RDT&E,N Articles Quantity:								
<b>A. Mission Description and Budget Item Justification:</b> Congressional Adds.								
<b>B. Accomplishments/Planned Program</b>								
	FY 2006	FY 2007						
Accomplishment/Effort/Subtotal Cost								
RDT&E,N Articles Quantity								
Non-invasive Vectored Vaccine Research/2836	\$2,394	\$0						
Military Dental Research/2896	\$3,256	\$3,985						
Minimally Invasive Surgical Technology Institute/9002	\$2,011	\$0						
Biomedical Research Imaging Core - COH National Medical Center/9003	\$1,915	\$1,345						
Discovery, Early Detection, Evaluation, Treatment and Prevention/9397	\$4,884	\$3,985						
Defense Graduate Psychology Education		\$2,889						
Rescue Streamer Distress Signal/9398	\$958	\$0						
Infusible Hemostatic Therapeutic Trials/9592	\$1,438	\$1,992						
Multivalent Dengue Vaccine Program/9593	\$1,438	\$0						
Diabetes Research, Somatic Cell Processing Program/9596	\$1,628	\$1,395						
Bioadhesion Research to Combat Biological Warfare/9735	\$2,682	\$0						
Hemoglobin-Based Oxygen Carrier Research/9737	\$3,943	\$0						
HUVACTC Proton Beam Therapy Research/9738	\$958	\$996						
Implantable Middle Ear Hearing System/9739	\$1,438	\$0						
Navy Medical Interactive Data System (NMIDS)/9741	\$4,501	\$0						
On Demand Custom Body Implants/Prosthesis for Injured Personnel/9742	\$958	\$1,345						
US Navy Cancer Vaccine Program/9743	\$958							
Community Hospital Telehealth Consortium		\$996						
Thermotube Battlefield Body Temperature		\$498						
Validation of Prognostic and Health		\$2,491						

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<b>FY 2006 Accomplishments:</b>	
Non-invasive Vectored Vaccine Research/2836	Progressed in development of a simple non-invasive vaccine delivery technology that reduces the logistical burden associated with the traditional needle delivery of vaccines.
Military Dental Research/2896	Developed innovative designs for dental care and dental health for CONUS and OCONUS operations. Conducted critical research in development of rapid-read diagnostic tests and other protective measures that helped reduce the severity and number of casualties due to dental and other medical emergencies.
Minimally Invasive Surgical Technology Institute/9002	Conducted studies designed for developing minimally invasive techniques and methodologies for surgical intervention that are specifically designed to reduce the likelihood of error or introduction of iatrogenic problems.
Biomedical Research Imaging Core - COH National Medical Center/9003	Progressed in efforts to create a Medical countermeasure for ionizing radiation and chemical warfare agents.
Discovery, Early Detection, Evaluation, Treatment and Prevention in Cancer Research/9397	Developed research designs and methods to perform translational research, as well-defined preventative recommendations for maintaining vitamin D intake and serum levels in men and women in the Armed Services. Promoted advancement of a multidisciplinary clinical center of excellence was established at the Pennsylvania State University in collaboration with the Hershey Medical Center utilizing state-of-the-art facilities for the diagnosis and long-term management of cancer patients. Established and assembled a comprehensive program, including the UCSD School of Medicine and the UCSD Cancer Center, the National Academy of Science's Institute of Medicine, and various other facilities that determined the relationship of vitamin D status to colon, breast, and prostate cancer.
Rescue Streamer Distress Signal/9398	The Naval Submarine Medical Research Laboratory, Groton, CT tested and field evaluated an infrared (IR) SEE/RESCUE distress streamer. Personal-size IR streamers were evaluated for fit and operation based on Navy submarine evacuation procedures and larger raft-size streamers were evaluated for incorporation into the standard submarine life raft and the associated evacuation procedures.
Multivalent Dengue Vaccine Program/9593	This effort used the novel recombinant adenovirus vector technologies to develop a vaccine for dengue. Identified most promising candidate components for testing. Downselect of critical components in progress.
Diabetes Research, Somatic Cell Processing Program/9596	The Somatic Cell Processing Facility (SCPF) at the Diabetes Research Institute (DRI)/University of Miami area of cellular therapy for diabetes and related complications. Served as a national resource for isolation, purification, and transportation of live clinical-grade human cells. Demonstrated improvements in specific areas include cell sorting, analysis, and imaging which have provided notable improvements to the cell isolation process and increased the areas of research for tissue-engineered end products.
Bioadhesion Research to Combat Biological Warfare/9735	Explored the use of intranasal Anthrax vaccines focusing on drug development and qualification testing. This work was accomplished as a step necessary to apply to the FDA to initiate human clinical studies.
Infusible Hemostatic Therapeutic Trials/9592	Explored the use of infusible agents in the control of non-compressible bleeding. Conducted pre-clinical trials of efficacy. Progressed as a candidate for further development through FDA approval process.
Hemoglobin-Based Oxygen Carrier Research/9737	This effort evaluates the HBOC technology's role in improving casualty survival and decreased medical logistical burden for support of operations in the war on terrorism. Funds released in AUG 06.
HUVACTC Proton Beam Therapy Research/9738	Progressed toward development of cutting edge medical therapeutics using proton beam therapies to be implemented in a local state-of-the-art medical technology center and care for one of the nation's largest concentrations of Navy and military personnel.
Implantable Middle Ear Hearing System/9739	Investigated the military applicability of implantable hearing systems that counter the effects of noise-induced hearing loss without the drawbacks of conventional hearing aids.
Navy Medical Interactive Data System (NMIDS)/9741	Documented healthcare at far forward locations without fixed infrastructure, documentation and distribution of healthcare documentation from point of injury, to provide patient in-transit visibility.
On Demand Custom Body Implants/Prosthesis for Injured Personnel/9742	Initiated efforts to develop manufacturing methods and materials necessary for rapid prototyping and delivery of prostheses. Applying state-of-the-art CAD/CAM procedures to prosthesis manufacturing technology.
US Navy Cancer Vaccine Program/9743	Explored the efficacy of a prostate cancer vaccine in delaying the progression of prostate cancer in patients otherwise unresponsive to conventional therapy.

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<b>FY 2007 Plans:</b>	
Military Dental Research/2896	Develop innovative designs for dental care and dental health for CONUS and OCONUS operations. Conduct critical research in development of rapid-read diagnostic tests and other protective measures that helped reduce the severity and number of casualties due to dental and other medical emergencies.
Defense Graduate Psychology Education	This program will be reprogrammed to another PE.
Biomedical Research Imaging Core - COH National Medical Center/9003	Progress in efforts to created a Medical countermeasure for ionizing radiation and chemical warfare agents.
Infusible Hemostatic Therapeutic Trials/9592	Continue to explored the use of infusible agents in the control of non-compressible bleeding.
Discovery, Early Detection, Evaluation, Treatment and Prevention in Cancer Research/9397	Develop research designs and methods to perform transitional research, as well-defined preventative recommendations for maintaining vitamin D intake and serum levels in men and women in the Armed Services. Promote advancement of a multidisciplinary clinical center of excellence was established at the Pennsylvania State University in collaboration with the Hershey Medical Center utilizing state-of-the-art facilities for the diagnosis and long-term management of cancer patients. Establish and assemble a comprehensive program, including the UCSD School of Medicine and the UCSD Cancer Center, the National Academy of Science's Institute of Medicine, and various other facilities that determine the relationship of vitamin D status to colon, breast, and prostate cancer.
Diabetes Research, Somatic Cell Processing Program/9596	The Somatic Cell Processing Facility (SCPF) at the Diabetes Research Institute (DRI)/University of Miami area of cellular therapy for diabetes and related complications. Serve as a national resource for isolation, purification, and transportation of live clinical-grade human cells. Demonstrate improvements in specific areas include cell sorting, analysis, and imaging which have provided notable improvements to the cell isolation process and increase the areas of research for tissue-engineered end products.
HUVACTC Proton Beam Therapy Research/9738	Progress toward development of cutting edge medical therapeutics using proton beam therapies to be implemented in a local state-of-the-art medical technology center and care for one of the nation's largest concentrations of Navy and military personnel.
Community Hospital Telehealth Consortium	Initiate investigation into telehealth applications among multiple sources.
Thermotube Battlefield Body Temperature	Initiate investigation into applications fo thermotube technologies for mitigation of effects of hypothermia.
On Demand Custom Body Implants/Prosthesis for Injured Personnel/9742	Initiate efforts to develop manufacturing methods and materials necessary for rapid prototyping and delivery of prostheses. Apply state-of-the-art CAD/CAM procedures to prosthesis manufacturing technology.
Validation of Prognostic and Health	Initiate studies to validate health management systems.
<p><b>C. Other Program Funding Summary:</b> Not Applicable</p> <p><b>D. Acquisition Strategy:</b> Not Applicable</p> <p><b>E. Performance Metrics:</b> Not Applicable</p>	

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