

Current CDMRP Webpage on Research Highlights

Alcohol and Substance Use Disorders:

- [PASA Awards Five Alcohol and Substance Use Disorders Research Projects](#)
- [PASA Awards Four Alcohol and Substance Use Disorders Research Projects](#)
- [N-acetylcysteine Treatment of Alcohol Use Disorder in Veterans with Traumatic Brain Injury](#)

Alzheimer's:

- [Unraveling Links Between Cholesterol Markers and Cognitive Decline in Alzheimer's Disease](#)
- [Sound wave technologies: Transforming the future of clinical biofluidic diagnosis](#)
- [Neural Imaging and Machine Learning Approaches to Estimate Brain Age and Post-TBI Decline](#)
- [Human-Specific Circular RNAs as Key Players to Tauopathy?](#)
- [Telehealth-Based Mind-Body Interventions to Improve Cognition and Quality of Life in Individuals with MCI and Their Caregivers](#)
- [Detecting and Diagnosing Different Strains of Neurodegenerative Disease](#)
- [Improving Quality of Life Through Training to Reduce Care-Resistant Behaviors](#)
- [Understanding Long-Term TBI Consequences Using Artificial Intelligence](#)
- [Alzheimer's Effect on Financial Outcomes in the Period Prior to Clinical Diagnosis](#)
- [The Glymphatic System: A Novel Discovery for TBI and Dementia](#)
- [Collaborating on Military Risk Factors for Alzheimer's and Other Dementias](#)

Amyotrophic Lateral Sclerosis:

- [Using Machine Learning for Drug Repurposing to Impact ALS Treatment](#)
- [The Therapeutic Potential of Metformin in ALS: Moving Through the ALSRP Pipeline from Therapeutic Development Award \(TDA\) to Pilot Clinical Trial Award \(PCTA\)](#)
- [Amyotrophic Lateral Sclerosis Research Program Recognized for Including Consumer Reviewers in Two-Tier Review System](#)
- [New Nerve-on-a-Chip® System Could Revolutionize Therapeutic Development for ALS](#)
- [A Combined Cell and Gene Therapy Approach for Preserving Motor Neuron Function in ALS](#)
- [UPDATE: ALS Treatment, Tegoprolone, Advancing Through Clinical Trials](#)
- [A New Compound to Prevent Motor Neuron Toxicity in ALS Enters Clinical Trial](#)
- [In Vivo Imaging and Novel Therapeutic Approaches in ALS](#)
- [A Challenge Best Tackled Together - Bridging the ALS Therapeutic Gap with Industry Partners](#)
- [Novel Metabolic Mechanism Implicated in an Early-Onset Form of Amyotrophic Lateral Sclerosis](#)
- [Novel ALS therapeutic intervention shows promise in preclinical trials](#)
- [ALS "Disease in a Dish" Creates Opportunities for Advanced Motor Neuron and Therapeutic Drug Screening](#)
- [Amyotrophic Lateral Sclerosis \(ALS\) Treatment, AT-1501, Enters Clinical Trial](#)
- [Treatment Spotlight: Q&A with ALSRP Investigator Dr. Sytske Moolenaar](#)
- [Targeting miR-155 in Peripheral Monocytes for the Treatment of ALS](#)
- [The Petrucelli group creates mice that model the most common cause of ALS and FTD](#)
- [Development of Copper ATSM as a Therapeutic for SOD-Familial and Sporadic ALS](#)

Autism:

- [CDMRP Funds Innovative Research to Support the Autism Community](#)
- [A Novel Provider-Focused Training Program to Serve Transition-Age Youth and Adults with Autism Spectrum Disorder](#)
- [A Multidisciplinary Intervention for Encopresis in Children With ASD](#)
- [The Influence of Social, Educational, and Work Experiences on Psychological Health for Transition-Aged Youth with Autism Spectrum Disorders](#)
- [School-Based Intervention Programs for Children with ASD](#)
- [Autism Associated Mutations Impact on Ca²⁺ Channels and Behavior](#)
- [Flame Retardant Exposure During Early Development and Autism Spectrum Disorder](#)
- [Using Propranolol to Treat the Core Symptoms of Autism Spectrum Disorder](#)
- [Prenatal Polyunsaturated Fatty Acid Levels and Risk of Autism Spectrum Disorders](#)
- [A Clinical Trial of a Commercially Available Intervention in Pediatric Patients with Autism Spectrum Disorder and Moderate Language Delays](#)
- [The Development of Novel Drugs to Treat the Core Symptoms of ASD](#)
- [Evidence-Based Social-Emotional Therapy Using Augmented and Virtual Reality on Google Glass to Improve Employability and Job Skills in Adults with Autism](#)
- [Facilitating the Transition to Employment for Young Adult Military Dependents with Autism Spectrum Disorder](#)
- [Cognitive Enhancement Therapy: A Promising Approach for Adults with Autism Spectrum Disorder](#)
- [Understanding the Consequences of Aging in Autism Spectrum Disorder](#)
- [Maternal Brain-Reactive Antibodies and Autism Spectrum Disorder](#)
- [Altered Placental Tryptophan Metabolism: A Crucial Molecular Pathway for the Fetal Programming of Neurodevelopmental Disorders](#)
- [Risk Factors, Comorbid Conditions, and Epidemiology of Children with Autism in Military Families](#)

Bone Marrow Failure:

- [Novel RNA-Based Aptamer Strategy to Correct Irregular DNA Methylation and Restore Vital Gene Functions in Myelodysplastic Syndromes](#)
- [The Role of Nemo-Like Kinase in the Pathogenesis and Treatment of Diamond-Blackfan Anemia](#)
- [Therapeutic Targeting of Spliceosomal-Mutant Acquired Bone Marrow Failure Disorders](#)
- [Replicating the Patient-Specific Bone Marrow Failure Disease in Order to Identify Therapeutic Response](#)
- [A Method for Rescuing Hematopoietic Stem Cell Functions in Fanconi Anemia](#)
- [A Novel Therapy for Targeting Acquired Bone Marrow Failure Diseases](#)
- [The Role of U2AF1 Mutations in the Pathogenesis of Myelodysplastic Syndromes](#)
- [Signaling Pathways in the Pathogenesis of Diamond Blackfan Anemia](#)
- [Translational Control in Bone Marrow Failure](#)

Breast Cancer:

- [Kara Kenan - Cancer does not Happen in a Void](#)
- [CDMRP-FUNDED RESEARCH AIMS TO EFFICIENTLY DETECT BREAST CANCER](#)
- [Identification of Actionable Networks Promoting Breast Cancer Progression and Brain Metastasis](#)
- [Inhibition of Myeloid-Derived Suppressor Cell Biogenesis to Improve the Efficacy of Immune Checkpoint Inhibitors in Triple-Negative Breast Cancer](#)
- [Epigenetic Factor CECR2 as a Potential Target in Breast Cancer Metastasis](#)
- [The CDMRP Remembers Dr. Susan Love](#)
- [Dual-Loading Antibody-Drug Conjugates for Combating Breast Cancer Tumor Heterogeneity and Drug Resistance](#)
- [Functional Mechanism and Targeting of Metadherin in Breast Cancer](#)
- [Targeting GM-CSF to Inhibit Development of Leptomeningeal Disease from Breast Cancer](#)
- [A Novel Tubulin Inhibitor to Overcome Taxane Resistance in Metastatic Breast Cancer](#)
- [Tumor-Specific Fluorescence-Guided Surgery for Breast Cancer](#)
- [Overcoming HER2-Based Therapy Resistance in Breast Cancer Brain Metastases through CDK4/6 Inhibition](#)
- [Predicting Paclitaxel Sensitivity in Breast Cancer Patients](#)
- [Targeting Drug Resistance in Triple-Negative Breast Cancer](#)
- [Investigating Estrogen Receptor Mutations in Breast Cancer to Guide New Therapeutic Strategies](#)
- [Targeting Prolyl Peptidases in Triple-Negative Breast Cancer](#)
- [Identifying a Gene Panel to Predict Risk of Recurrence in Patients with Basal-Like Breast Cancer](#)
- [Targeting Senescence May Prevent Chemotherapy-Induced Bone Loss in Breast Cancer Patients](#)
- [Stromal Lysyl Hydroxylase 2, a Novel Biomarker for Breast Cancer Patient Prognosis](#)
- [Cluster of Differentiation 73 \(CD73\) Blockade Promotes Dendritic Cell Infiltration of Primary Tumors and Activation of Antitumor Immune Responses](#)
- [Mitochondria-Targeted Copper-Depleting Nanoparticle Inhibits Triple-Negative Breast Cancer Progression in Mice](#)
- [Metabonomic Targeting of Heterogeneous Breast Cancer for Personalized Therapy Development](#)
- [Ruxolitinib for the Prevention of Breast Cancer](#)
- [Fasting-Mimicking Diet Induces Breast Cancer Regression Through Enhanced Effectiveness of Hormone Therapy](#)
- [Characterization of Clustered Circulating Tumor Cells to Eliminate Breast Cancer Metastasis](#)
- [New Diagnostic and Therapeutic Approaches to Eradicating Recurrent Breast Cancer](#)
- [De-Escalating Treatment in HER2+ Breast Cancer: Establishing Effective and Less Toxic Therapy Based on Predictive Biomarkers](#)
- [Podcast Discusses the DoD Breast Cancer Research Program and Metastatic Breast Cancer Research](#)
- [Lab-on-Chip \(LOC\) Platform for Assessment of Extracellular Matrix \(ECM\) Stiffness](#)
- [Targeting miR551b to Prevent Tumor Formation and Metastasis of Triple-Negative Breast Cancer \(TNBC\)](#)
- [Death Effector Domain-Containing Protein \(DEDD\) Vulnerability to Cell Cycle Inhibition in Triple-Negative Breast Cancer \(TNBC\)](#)
- [Enhancing the Cytotoxicity of T-DM1 to Treat HER2+ Breast Cancer](#)

- [Connecting Blood and Intratumoral Treg Cell Activity in Predicting Future Relapse in Breast Cancer](#)
- [Era of Hope Scholars - Making Breakthroughs in Preventing Metastasis](#)
- [2019 BCRP Landscape Video](#)
- [Blocking CXCR4 Reduces Tumor Fibrosis and Sensitizes Metastatic Breast Cancer to Immunotherapy](#)
- [Neutrophil Extracellular Traps Produced During Inflammation Awaken Dormant Cancer Cells](#)
- [Reprogramming the Pro-Tumorigenic Immune Microenvironment to Anti-Tumorigenic in Breast Cancer](#)
- [RANKL/RANK Control BRCA1 Mutation-Driven Mammary Tumors](#)
- [Therapeutic Antibody Targeting Tumor- and Osteoblastic Niche-Derived Jagged1 Sensitizes Bone Metastasis to Chemotherapy](#)
- [The Link Between Chromosomal Instability and Metastatic Progression in Triple-Negative Breast Cancer](#)
- [Imaging Agent, Flurodeoxyglucose \(¹⁸F-FDG\), Transforms Chemotherapeutics into Phototherapy for Precise Treatment of Metastatic Breast Cancer](#)
- [Atf3 in Non-Cancer Host Cells is Linked to Chemotherapy-Enhanced Metastasis in Breast Cancer](#)
- [Her2 and TrkB as Dual Therapy Targets for Her2+ Breast Cancer Brain Metastases](#)
- [Targeting the Cytoskeletal Physics of Circulating Breast Tumor Cells to Reduce Metastasis](#)
- [Uncovering a New Pathway to Target and Treat Breast Cancer Metastasis](#)
- [The Multifunctional Transcription Factor, TRIM25, Drives Breast Cancer Metastasis](#)
- [RON kinase: A Target for Treatment of Cancer-Induced Bone Destruction and Osteoporosis](#)
- [CDK4/6 Inhibition Triggers Antitumor Immunity](#)
- [The Flare Behind Tumor Imaging to Rapidly Measure Breast Cancer Response to Therapy](#)
- [Microenvironments and Signaling Pathways Regulating Early Dissemination, Dormancy, and Metastasis](#)
- [Detection of HER2-Positive Metastases in Patients with HER2-Negative Primary Breast Cancer](#)
- [Breast Cancer Geneticist Awarded 2017 Breakthrough Prize](#)
- [Prediction of Metastasis Using Second Harmonic Generation](#)

Combat Readiness-Medical:

- [CDMRP-Funded Research Developed a Portable Exposure Biomarker Device for Lead and Other Heavy Metal Exposures](#)
- [Revolutionary Antiviral Nasal Drug to Combat Respiratory Illnesses](#)
- [A Nanotechnology-Enabled Biosynthetic Whole-Blood Surrogate for Hemostatic Resuscitation](#)
- [On-Demand Warming of Blood Products Using Non-Electric Fluid Warmers](#)

Chronic Pain Management:

- [CDMRP FUNDED RESEARCH ON FUNCTIONAL RESTORATION PROGRAMS FOR CHRONIC PAIN](#)

Defense Medical Research and Development:

- [A Lightweight Powered Prosthetic Limb for Individuals with Above-Knee Amputations](#)
- [Prolonged Exposure Therapy for PTSD: 60-Minute Sessions as Effective as 90-Minute Sessions](#)
- [Creating Clinical Solutions from Basic Research: A CDMRP Bone Story](#)
- [THE PAP SMEAR CHALLENGE: COMPARING CLINICAL PERFORMANCE OF A NOVEL “MOLECULAR PAP” BASED ON NEXT-GENERATION SEQUENCING TO TRADITIONAL CERVICAL CANCER SCREENING](#)
- [Remote Anger and Stress Management \(M-SAT\)](#)
- [Adapting SmartPhones for Ocular Diagnosis](#)
- [Closed Loop Total Intravenous Anesthesia \(TIVA\): The Battlefield Anesthetic of the Future](#)
- [Understanding the Protective Effects of Cellular Prion Protein \(PrP^C\) and Cell Death Protease Inhibition for Treating TBI](#)
- [Military Suicide Research Consortium: Recent Accomplishments from Cutting-Edge Studies](#)
- [Smart Oxygen Monitors to Diagnose and Treat Cardiopulmonary Injuries](#)
- [Identification and Validation of Novel Therapeutic Targets for Traumatic Brain Injury](#)
- [Army Medicine Opens the Door for Vision Prosthetic Prototypes](#)
- [Novel Detection of Traumatic Brain Injuries](#)
- [Characterization of a Model of Blast-induced Mild Traumatic Brain Injury](#)
- **Military Infectious Diseases Research Program (JPC-2)**
 - [Novel Antimicrobial Peptides as Topical Anti-Infectives Against Combat-Related Bacterial and Fungal Wound Infections](#)
 - [A Novel, Broad Spectrum Anti-Infective that Provides Novel Regenerative Properties in Skin](#)
 - [Development of Novel Kinocidin-Based Anti-Infective Therapeutics](#)
 - [Preclinical Development of an Antimicrobial Nanoemulsion to Investigational New Drug for Multidrug-Resistant Wound Infections](#)
 - [Fighting the Insect War: Containing Vector-Borne Disease and Strengthening Our Military Overseas](#)
 - [Rapid Diagnostics for Multidrug Resistant Organisms in Combat-Related Infection](#)
 - [Development of a Novel, Antimicrobial Skin Substitute for Burn Patients](#)
 - [Fighting Bacteria with Bacteria: Controlling Wound Infections with Predatory Bacteria](#)
 - [Next Generation Antimicrobial Wound Dressings to Reduce Infection and Promote Wound Healing](#)
- **Military Operational Medicine Research Program (JPC-5)**
 - [Treatment of Comorbid Sleep Disorders and PTSD](#)
 - [A Lightweight Powered Prosthetic Limb for Individuals with Above-Knee Amputations](#)
 - [Novel Stem Cell Model Reveals How Neurons Respond to Stress in PTSD](#)
 - [Prolonged Exposure Therapy for PTSD: 60-Minute Sessions as Effective as 90-Minute Sessions](#)
 - [A Deployable Extended-Wear Hearing Aid for Battlefield Military Operations](#)
 - [Healing from Traumatic Events by Targeting Feelings of Guilt](#)
 - [Blue Light Therapy: A Promising Supplemental Approach to Lessen PTSD Symptom Severity](#)
 - [Written Exposure Therapy: An Efficient and Effective Treatment for PTSD](#)
 - [PHQ and SCS Working Together to Improve Suicide Risk Detection](#)

- [Wingman-Connect Program: An Impactful Collaboration between Academia and the Air Force](#)
- [ADAPT and Marriage Checkup Together are Strengthening Military Families](#)
- [Lethal Means Counseling and Distribution of Cable Locks Increase Safe Firearm Storage among Military Personnel](#)
- [Evaluating Sex Differences as a Predictor of Risk for Opioid Use Disorder](#)
- [Decreasing Aggression in Veterans with PTSD](#)
- [Using Virtual Reality as a Training Tool to Enhance the Proficiency of Behavioral Health Providers](#)
- [Targeted Strategies to Accelerate Evidence-Based Psychotherapies Implementation in Military Settings](#)
- [Finding Love Again After PTSD: Intensive Group Couple Therapy for PTSD](#)
- [Identifying Biomarkers that Distinguish Post-Traumatic Stress Disorder and Mild Traumatic Brain Injury Using Advanced Magnetic Resonance Spectroscopy](#)
- [Advances in Understanding Suicidal Ideation and Behavior](#)
- [What's in Your Uniform? An Investigation of Permethrin-Treated Army Combat Clothing](#)
- [Effectiveness and Patient Acceptability of Stellate Ganglion Block for Treatment of Posttraumatic Stress Disorder Symptoms among Active Duty Military Members](#)
- [Designing Predictive Models for Musculoskeletal Injury and Injury Reoccurrence After Returning to Full Duty Following an Injury](#)
- [Repetitive Transcranial Magnetic Stimulation \(rTMS\) Combined with Cognitive Processing Therapy \(CPT\) Shows Promise for Reducing Symptoms of Combat-Related PTSD in Veterans](#)
- [Researchers Develop Operationally Specific Auditory Tests to Assess Fit-for-Duty Hearing Performance in Service Members](#)
- [Military Suicide Research Consortium Hosts Dissemination Science Institute to Address the Need for Effective Health Communication Strategies](#)
- [2018 San Antonio Combat PTSD Conference Draws Record Attendance, Delivers a Powerful Program](#)
- [Open house event celebrates the partnership between STRONG STAR and CRDAMC, a key collaboration in furthering the treatment of PTSD](#)
- [Toward a Gold Standard for Suicide Risk Assessment for Military Personnel](#)
- [Texting: A Brief Intervention to Prevent Suicidal Ideation and Behavior](#)
- [Development and Evaluation of Veteran Supportive Supervisor Training \(VSST\): Improving Transition for Veterans in the Workplace](#)
- [Improvement and Extension of Auditory Hazard Models](#)
- **Combat Casualty Care Research Program (JPC-6)**
 - [Human Neural Stem Cells, a New Approach to Restorative Therapy for Severe Traumatic Brain Injury](#)
 - [Optimized Liposomal Dexamethasone Therapy Improves Functional Outcome of Post-Traumatic Skeletal Muscle and Neuromuscular Junction](#)
 - [CN-105, a Prophylactic Neuroprotectant Against Traumatic Brain Injury](#)
 - [Novel Prosurvival Strategies Enhance Prolonged Field Care](#)

Duchenne Muscular Dystrophy

- [Toward a Safer and Better Gene Therapy for Duchenne Muscular Dystrophy](#)
- [New Potential Antibody Treatment for Duchenne Muscular Dystrophy](#)
- [Steps Forward in Treating Duchenne Muscular Dystrophy with Gene Repair Therapy](#)
- [AAV Vectors, A Step Toward Duchenne Muscular Dystrophy Clinical Trials](#)
- [Preclinical Testing of a Novel Method to Block TGFbeta Family Proteins in DMD](#)

Epilepsy

- [TGF-beta Signaling in Post-Traumatic Epileptogenesis: Novel Mechanisms and Therapeutic Target](#)
- [Re-Imagining Epilepsy Treatments - A Cocktail of Novel Small Molecules Shows Promise for Blocking Post-Traumatic Epilepsy](#)
- [Large Animal Models of TBI May Reveal the Mechanisms Behind Post-Traumatic Epilepsy](#)
- [The Epidemiology of Epilepsy and Traumatic Brain Injury: Severity, Mechanism, and Outcomes](#)
- [Hope for Repurposing an Anti-Diabetic Drug as a Potential Therapy in Pediatric TBI](#)
- [Dr. Karen Parko - Resolving the Connection Between TBIs and Epilepsy](#)

Gulf War Illness:

- [Gulf War Veterans' Perspectives Brought to Light in Educational Materials](#)
- [Boston University Tackles Gulf War Illness Through Collaboration and Community Resources](#)
- [Life Sciences Special Issue Focuses on Gulf War Illness Research](#)
- [The Unwavering Mission of the GWIRP Thirty Years after the Persian Gulf War](#)
- [Misconceptions about GWI and the Impact of Provider Attitudes: Assessing and Addressing Problems](#)
- [CNS autoantibodies lead to a differential diagnostic test for Gulf War Illness](#)
- [Joint VA/DoD Gulf War Illness State of the Science Conference Draws Hundreds of Researchers and Veterans](#)
- [Gulf War Illness State of the Science Conference](#)
- [GWIRP-funded project expands exciting gut biome finding for Gulf War Illness](#)
- [Seeking Solutions: Veteran Learns about Gulf War Illness — TV series brings resources into view](#)
- [A Prospective Open-Label Clinical Trial of Methylphenidate plus a GWI-Specific Nutrient Formula in Patients with Gulf War Illness and Concentration Disturbances](#)
- [GWI Common Data Elements Initiative](#)
- [The Gulf War Illness Clinical Trials and Interventions Consortium and the Boston Biorepository, Recruitment, and Integrative Network for GWI](#)
- [Alabama initiative for Veteran-based research](#)

Hearing Restoration:

- [Restoring Hearing Loss with Drug-Like Cocktails – A Preliminary Investigation](#)
- [HRRP Hosts Inaugural Meeting of Hearing Research Funders Network](#)

- [HRRP-funded investigators develop miniature imaging probe to visualize cellular pathology in the inner ear](#)
- [Addressing Both Immediate Needs and Long-Term Consequences](#)
- [Addressing Research Gaps for Our Veterans](#)
- [Confronting the Challenges of Hearing Loss: A Veteran's Perspective](#)
- [Advancing Effective Hearing Restoration Therapies](#)

Joint Warfighter Medical:

- [Revolutionizing Oxygen Therapy for Trauma Patients, the SAVE-O2 Trial is a Leap Forward in Healthcare](#)
- [Sweaty Issues: Seeking to Reduce Residual Limb Perspiration to Improve the Quality of Life of Amputees](#)
- [NuCress™ Bone Scaffolding Solution for Healing Bone Trauma on the Battlefield and Beyond](#)
- [Creating Clinical Solutions from Basic Research: A CDMRP Bone Story](#)
- [Enhancing Healthcare Through Interoperability](#)
- [A New Product for the Treatment of Post-Traumatic Osteoarthritis](#)
- [Development of BIO 301 to Prevent Acute Radiation Syndrome and Mitigate the Delayed Effects of Acute Radiation Exposure](#)

Kidney Cancer:

- [Advancing Therapeutics, Diagnostics, and Biomarker Discovery Video](#)
- [Exploration of Iron Dependent Cell Death \(Ferroptosis\): A Novel Treatment Option for Patients with Clear Cell Kidney Cancer](#)
- [A Novel Mechanism of Pathogenesis for Renal Medullary Carcinoma](#)
- [The Academy of Kidney Cancer Investigators - Getting to Know Class 1 and 2](#)
- [Therapeutic Targeting of HHLA2/KIR3DL3 Axis as a Novel Immune Checkpoint Pathway in Renal Cancer](#)
- [Stromal \$\beta\$ -catenin Activation Contributes to Abnormal Kidney Formation in Mice that Mimics Human Wilms Tumor](#)
- [Metabolic Reprogramming of Clear Cell Renal Cell Carcinoma Mediated by Tobacco Smoke](#)
- [Profilin 1 Promotes Aggressiveness of ccRCC and Provides a Potential New Therapeutic Target](#)
- [Harnessing Predictive Markers of Response to Antiangiogenic Therapy: Two Approaches to Optimizing Treatment for Metastatic Renal Carcinoma](#)

Lung Cancer:

- [THE CDMRP FUNDS RESEARCH TO ENHANCE TREATMENT AND UNDERSTANDING OF BRAIN METASTASES IN LUNG CANCER](#)
- [CAR T-cell Therapy for Lung Cancer – Incorporation of Self-Amplification and Safety Mechanisms](#)
- [Innovative Drug Combinations to Improve Immunotherapy for the Treatment of Non-Small Cell Lung Cancer](#)

- [Uncovering the Molecular Drivers of Tuft Cells Provides Insight into Potential Vulnerability in a Variant of Small Cell Lung Cancer](#)
- [A New Generation of Researchers: The Lung Cancer Research Program Supports the Development of Early-Career Investigators](#)
- [The Lung Cancer Research Program Supports Six Early-Career Investigators with Fiscal Year 2020 \(FY20\) Awards](#)
- [Rationalizing New Therapeutic Options for Small Cell Lung Cancer Patients Through a Deeper Understanding of Disease Heterogeneity](#)
- [Exploring Modulators of TKI Therapy to Inform Better Patient Treatment for Lung Cancer](#)
- [Peripheral Blood T-Cell Dynamic Biomarkers to Identify Responders and Non-Responders in Immune Checkpoint-Based Therapy for Lung Cancer](#)
- [LCRP Awardee Receives 2021 Wachtel Cancer Research Award](#)
- [Investigating Dysbiosis of the Lung as a Biomarker for Early Lung Cancer Detection](#)
- [The Generation of Pulmonary Neuroendocrine Cells and SCLC-like Tumors from Human Embryonic Stem Cells](#)
- [Lung Cancer Research Program's Career Development Award Expands the Talent Pool in the Field of Lung Cancer](#)
- [Targeted Inhibition of Mutant *KRAS* Oncogene Signaling by RAS Mimetics as a Therapeutic Approach for Lung Cancer](#)
- [Predicting Response to Immune Checkpoint Inhibition in Non-Small Cell Lung Cancer](#)
- [MEK Inhibition Modulates TNF \$\alpha\$ Response in Lung Cancer to Enhance Therapeutic Activity](#)
- [Investigating the Role of the Lung Microbiome in Non-Small Cell Lung Cancer Tumor Initiation and Progression](#)
- [Advancing Multi-Modal Therapy for Inoperable Early Stage Lung Cancer Patients](#)
- [Is It Really Cancer? Developing a CT-Based Classifier for Indeterminate Nodules Detected by Lung Cancer Screening](#)
- [A New NSAID Shows Promise for the Prevention of Lung Cancer](#)
- [Competing for RAS - Understanding *KRAS* and the Effects of Its Interactions for Potential Lung Adenocarcinoma Treatment](#)
- [Antidiabetic Drugs Are a Potential Solution to Some Treatment-Resistant Tumors](#)
- [Cancer Interception: Inducing Metabolic Crisis as a Form of Treatment during Lung Carcinogenesis](#)
- [The Search for a Biomarker Reveals Mechanisms of Treatment Resistance and New Approaches to Restore Effectiveness for Targeted Therapies](#)
- [Detecting Lung Cancer in the Blood Stream: A Successful Validation of a Highly Sensitive Blood-Based Biomarker for Lung Cancer](#)
- [The Cancer Moonshot Program: APOLLO and LCRP's Lung Cancer Biospecimen Resource Network](#)
- [The Role of the Epithelial-to-Mesenchymal Transition in Cancer Metastasis and Chemotherapy Resistance](#)
- [Fostering Collaboration Leads to Early Detection Breakthroughs in Lung Cancer](#)
- [Genetic Implications and Novel Targets for the Treatment of Non-Small Cell Lung Cancer](#)
- [Genetic Determinants of Lung Cancer Subtype: Adenocarcinoma to Small Cell Conversion](#)

- [Identification of a New Biomarker for Lung Cancer Tumor Aggression Points to Promising New Therapies](#)
- [Functional Assessment of Patient-Derived Models of Acquired Drug Resistance Identifies a New Drug Combination for EGFR Mutant Lung Cancer](#)

Lupus

- [Aim2 Couples with Ube2i for Repression of Interferon Signatures in Systemic Lupus Erythematosus](#)
- [Effects of *ITGAM* Genetic Variation on Mac-1-Mediated Functions of B-Cells](#)
- [Multi-Ancestral Genomic Approach to SLE-Precision Medicine](#)
- [The LRP Presents the Fiscal Year 2021 Transformative Vision Award Recipient](#)
- [The LRP Presents the Fiscal Year 2021 Impact Award Recipients](#)
- [The LRP Presents the Fiscal Year 2021 Idea Award Recipients](#)
- [An Individualized Approach to Cutaneous Lupus Erythematosus Response Therapy](#)
- [Developing Antigen-Specific Therapies for Systemic Lupus Erythematosus](#)
- [Clarifying Mechanisms of Treg Function as a Basis for SLE Therapy](#)
- [Correlation of Atmospheric Fine Particulate Pollution with Lupus Flare Activity](#)
- [Targeting IRF5 Hyperactivation in Lupus as a Driver of Disease Risk and Pathogenesis](#)
- [Therapeutic Targeting of Senescent Cells in Lupus](#)
- [Systemic Lupus: Improving the Rationale for Treatment Choices in a Heterogeneous Disease](#)
- [Utility of a Functioning Report for Lupus Patients and Their Providers](#)

Melanoma:

- [The Melanoma Research Program Funds Second Cohort for the Melanoma Academy](#)
- [Beyond Sunscreen: Redefining Melanoma Prevention](#)
- [Introducing the Melanoma Academy](#)
- [The Melanoma Research Program's Renewed Focus on Rare Melanomas and a New Funding Opportunity](#)
- [Oncoprotein "RLIP" as a Novel Therapeutic Target for Melanoma Prevention and Treatment](#)
- [Fiscal Year 2021 Melanoma Research Program Academy: An Opportunity for Leadership](#)
- [Breaking the Habit: Melanoma Cells Dependence on BRAF+MEK Inhibitors](#)
- [Improving Therapy for Melanoma Brain Metastases](#)
- [Identification of the HDAC Inhibitor Quisinostat as a Possible Therapeutic for Uveal Melanoma](#)
- [Exploring Novel Ideas in Melanoma Research](#)
- [FY20 Melanoma Research Program: Filling the Gaps in Research for a Better Future](#)
- [Siah2: A Potential Biomarker to Predict Immunotherapy Treatment Outcomes in Melanoma Patients](#)
- [Role of the Inhibitory Receptor TIGIT in the Regulation of CD4+ Tregs in Patients with Advanced Melanoma](#)
- [Metabolic Remodeling of the Tumor Microenvironment to Improve the Efficacy of Immunotherapy](#)
- [Targeting Increased Polyamine Transport of Resistant Melanomas](#)

- [Central Tolerance Blockade to Augment Checkpoint Immunotherapy in Melanoma](#)

Military Burn:

- [Portable Nanoparticle Anesthetic Dressing for Burn Wounds](#)
- [Vitamin C: An Inexpensive and Readily Available Potential Treatment for Severe Burn Patients](#)
- [Novel Peptide Drugs to Improve Burn Care Outcomes](#)
- [Enzymatic Debridement for Prolonged Field Care of Military Burn Wounds](#)
- [Pirfenidone-Containing Burn Wound Patch to Reduce Scarring](#)
- [Revised Goniometry for Improved Diagnosis and Physical Therapy for Burn Patients](#)
- [Omega-3 Fish Skin for Burn Wound Coverage and Advanced Healing](#)
- [COL Kevin Chung, MD, FCCM, FACP - Charting a Course Toward Resuscitation and Recovery](#)
- [Modulation of Burn Scars Through Laser Assisted Delivery of Stem Cells](#)
- [Improving the Prognosis of Soldiers with Acute Respiratory Distress Syndrome](#)
- [Clinical Therapeutic Applications of Epinephrine and Vitamin-E Supplements to Treat Burn Patients](#)

Multiple Sclerosis:

- [CDMRP Funds Research to Support Service Members and Veterans with Multiple Sclerosis](#)
- [Glucagon-Like Peptide-1 Receptor Agonist as New Therapeutics for Multiple Sclerosis](#)
- [Bioengineered Particles to Promote Regulatory T Cells and Modulate the Immune System in Transplantation and Multiple Sclerosis](#)
- [Fitness Trackers and Smartphones Used to Predict Behavior Changes in People with Multiple Sclerosis During the COVID-19 Stay-at-Home Mandate](#)
- [Physical Telerehabilitation Program for Multiple Sclerosis Patients Improves Patients' Quality of Life](#)
- [Reduced Disease Severity Following Novel Angiotensin 1-7 Treatment in MS Mouse Model](#)
- [Imaging Measures Reflect Cognitive Changes Over Time in Multiple Sclerosis Patients](#)
- [Exercise Training, Metabolic Changes, and Symptoms in People with MS](#)
- [Exploring Remyelination in MS: Myelin, Metformin, and Mitochondria](#)
- [Acceleration of Oligodendrocyte Maturation and Functional Remyelination in an MS Model Following Flavonoid Treatment](#)
- [The Role of Protein Deimination in Restoring Visual Function in MS Patients](#)
- [Differential Association of Age and Serum Neurofilament Light Chain in MS Patients](#)
- [Online Toolkit to Assist with Self-Management of MS Symptoms](#)
- [Tap Your Feet to Track Progressive Multiple Sclerosis](#)
- [Mitochondrial Dysfunction and Disease Progression in MS](#)
- [Sensory-Motor and Cognitive-Motor Dysfunction in Multiple Sclerosis: A Mobile Brain-Body Imaging Investigation](#)
- [Using Reprogrammed Stem Cells as a Therapy for MS](#)
- [Link Between Alterations in the Gut Microbiota and Multiple Sclerosis](#)
- [Developing a Promising New Target in the Treatment of Multiple Sclerosis](#)
- [Using Advanced MRI Tools to Develop Novel Assessments of Cognition in MS Patients](#)

- [In Vivo Imaging of Cortical Inflammation and Subpial Pathology in Multiple Sclerosis by Combined PET and MRI](#)

Neurofibromatosis:

- [New Investigator Award Recipients Bring New Ideas to the Neurofibromatosis Research Program for Fiscal Year 2022](#)
- [Sleep Disorders Among Children with Neurofibromatosis Type 1 \(NF1\)](#)
- [Improving Hearing in NF2 Patients Who Use the Auditory Brainstem Implant \(ABI\)](#)
- [Development of Therapeutic Strategies for NF1-Associated Optic Pathway Glioma](#)
- [NFRP Supports Multi-Institutional Synergistic Idea Award to Investigate Inflammation During NF-Related Optic Tumor Formation](#)
- [NFRP Funds First Research OTA to Support Neurofibromatosis Clinical Trials](#)
- [Neurofibromatosis Research Program \(NFRP\) Research Resources](#)
- [Genetic Risk Factors of Schwannoma Tumors](#)
- [Pharmacological Alk Inhibition Impacts Behavior and Cognition in Adult NF1 Mutant Mice](#)
- [Nf1 Mutation Drives Neuronal-Activity-Dependent Initiation of Optic Glioma](#)
- [New Investigator Award Recipients Bring New Ideas to the Neurofibromatosis Research Program for Fiscal Year 2020](#)
- [Cabozantinib for Neurofibromatosis Type 1-Related Plexiform Neurofibromas: A Phase 2 Trial](#)
- [Everolimus Therapy for NF1-Optic Gliomas in Children: A Clinical Trial](#)
- [The Pain of Neurofibromatosis](#)
- [The NFRP Supports the Future of NF Research with Several New Investigator Awards](#)
- [The NFRP Joins Efforts to Promote Open Science in NF Research](#)
- [Clinical Trials Address Quality of Life for Persons with Neurofibromatosis \(NF1, NF2, and Schwannomatosis\) with Resiliency Training Delivered via Live Video](#)
- [Study Finds That Bevacizumab Treatment for NF2-Related Vestibular Schwannomas Increases Reported Quality of Life in Adults and Children](#)
- [The NFRP Presents the Fiscal Year 2018 Early Investigator Research Award Recipients](#)
- [The NFRP Presents the Fiscal Year 2018 New Investigator Award Recipients](#)
- [Investigating the Role of Fibroblasts in the Tumor Microenvironment and Hippo Signaling Pathway in Neurofibromas](#)
- [Cerebellopontine Angle \(CPA\) Model: A Novel Tool for Investigating Immunotherapy in Neurofibromatosis Type 2 Vestibular Schwannomas](#)
- [Gaining Momentum Through Innovation and Recruitment](#)
- [Fiscal Year 2017 New Investigator Award Recipients](#)
- [Bench to Bedside - Collaborating to Develop Effective Therapies for NF](#)
- [Pathophysiology and Treatment of Muscle Weakness in NF1](#)
- [Identification of Molecular and Cellular Contributions to Neurofibroma Formation and Growth](#)
- [Fiscal Year 2016 New Investigator Award Recipients](#)
- [Potential Therapeutics for Neurofibromatosis Type 2-Associated Schwannoma Tumors](#)
- [Confronting the Challenge of Neurofibromatosis](#)
- [Identification of Novel Therapeutic Targets for NF1 Optic Pathway Glioma by Examining the Tumor as an Ecosystem](#)

- [Decreasing the Clinical Impact of Neurofibromatosis - New Clinical Trials Funded Through the Neurofibromatosis Research Program](#)
- [Deletion of Anaplastic Lymphoma Kinase improves cognitive impairments in a mouse model of Neurofibromatosis Type 1](#)
- [Study Finds that Lovastatin is Not Effective for Treating Learning or Attention Impairments in Children with NF1](#)
- [Opioid Receptor Signaling Crosstalk to Ras Protein is Mediated by Neurofibromin 1](#)
- [FY15 New Investigator Award Recipients](#)
- [Finding New Targets for Treatment of NF2-Deficient Meningiomas](#)
- [Combined mTORC1 and MEK Inhibition Leads to Regression of NF1-Mutant Cancers](#)

Neurotoxin Exposure Treatment Parkinson's:

- [The NETP Presents the Fiscal Year 2020 Early-Investigator Research Award Recipients](#)
- [Investigating the Gene-Environment Interactions Related to Parkinson's Disease Susceptibility](#)
- [The NETP Presents the Fiscal Year 2019 Early-Investigator Research Award Recipients](#)
- [Reducing Tau as a Therapeutic Strategy for Improving Cognitive Dysfunction in Parkinson's Disease](#)
- [Identifying an Additional Risk for Sporadic Parkinson's Disease in the Gut Microbiome](#)
- [Dr. Angus Nairn - Proteomic Methods for Analyzing Protein in Dopaminergic Neurons](#)
- [Remembering Dr. Robert Burke: A Pioneer in Neuro-restorative Approaches to Treating Parkinson's Disease](#)
- [Dr. Andrew Singleton - Aging Whole-Genome Sequencing in Parkinson's Disease](#)
- [Dr. Kenneth Marek - Evaluating the Natural History of Prodromal PD in the PARS Cohort](#)
- [Dr. Caroline Tanner Video - Persistent Organic Pollutants and Parkinson's disease in Native Populations of Hawaii and Alaska](#)
- [Dr. Paul Greengard Video - New P11 Biomarker Predicts Clinical Effectiveness of Antidepressant Drugs](#)
- [Alpha-synuclein: Promising molecular test for Parkinson's disease](#)
- [PRP PI Honored at the White House as a 'Champion of Change'](#)

Orthotics and Prosthetics Outcomes:

- [Assessing the Physical and Psychosocial Needs of Women with Limb Loss](#)
- [Improved Daily Comfort and Mobility for Lower-Limb Amputees Using Novel Release-Relock System](#)
- [Hip Muscle Quality and Osseointegration Outcomes](#)
- [Sweaty Issues: Seeking to Reduce Residual Limb Perspiration to Improve the Quality of Life of Amputees](#)
- [Enhanced Autodiagnostic Adaptive Trainer for Myoelectric Prosthesis Users \(eADAPT-MP\)](#)
- [The Narrow Beam Walking Test: An Improved Clinical Balance Test for Assessing Fall Risk in Unilateral Lower Limb Prosthesis Users](#)
- [Women's Specific Footwear with Prosthetic Feet](#)

- [A Prosthetic Foot Emulator to Optimize Prescription of Prosthetic Feet in Veterans and Service Members with Leg Amputations](#)
- [A Novel Prosthetic Foot Designed to Maximize Functional Abilities, Health Outcomes, and Quality of Life in People with Transtibial Amputation](#)
- [SpringActive Odyssey Ruggedized Ankle Prosthesis](#)
- [Improving the Control of Powered Lower Limb Prostheses](#)

Ovarian Cancer:

- [CDMRP-FUNDED RESEARCH SEEKS TO UNDERSTAND THE CONNECTION BETWEEN PSYCHOLOGICAL DISTRESS AND OVARIAN CANCER](#)
- [Falloscope: A Minimally Invasive Tool for Early Ovarian Cancer Detection](#)
- [Leukemia Inhibitory Factor and Interleukin-6: Functioning in Parallel to Promote Ovarian Cancer Growth](#)
- [Exploiting the Immunometabolome to Enhance Antitumor Immunity in Ovarian Cancer](#)
- [Developing Therapeutics in Rare Subtypes of Ovarian Cancer](#)
- [Mentorship Is a Key Component for a Successful Ovarian Cancer Research Team](#)
- [Nanoparticles for Effective and Targeted Ovarian Cancer Treatment](#)
- [A microRNA Promotes Oncogenic Transformation Leading to Ovarian Cancer](#)
- [Ovarian Cancer Academy: 10 Years of Empowering Early Career Ovarian Cancer Investigators](#)
- [Combination Immunotherapies Offer New Hope for Chemotherapy-Resistant Ovarian Cancer Patients](#)
- [A Collaborative Effort has Uncovered Novel Therapies to Treat an Aggressive Form of Ovarian Cancer That is Unresponsive to Standard Treatment](#)
- [BRCA in Ovarian Cancer: Understanding the Risk and Finding New Means of Treatment](#)
- [A Multi-Institutional Approach to Understanding the Pathology of Ovarian Cancer](#)
- [A More Reliable Personalized Medicine-Based Approach to Test Ovarian Cancer Drugs](#)
- [Cyclin E1 as a Therapeutic Target for High-Grade Serous Ovarian Cancer](#)
- [The Impact of the Ovarian Cancer Academy Is Long-Lasting and Far-Reaching](#)
- [Investigation of a Novel PET Tracer to Assess PARP Inhibitor Sensitivity in Ovarian Cancer Patients](#)
- [Expert Highlights Immunotherapy Potential in Ovarian Cancer](#)
- [Evaluation of DNA Repair Function as a Predictor of Response in a Clinical Trial of PARP Inhibitor Monotherapy for Recurrent Ovarian Carcinoma](#)
- [Towards Understanding Ovarian Cancer Progression and Chemotherapy Resistance](#)
- [Chip-Based Magnetic Imager for Molecular Profiling of Ovarian Cancer Cells](#)
- [The Clinical Development Award: Accelerating Ovarian Cancer Research into Clinical Application](#)
- [Combination Therapy of JO-c and PEGylated Liposomal Doxorubicin/Doxil™ in Ovarian Cancer Patients](#)
- [Providing Hope: Increasing Long-Term Survivorship of Ovarian Cancer Patients](#)
- [Genetic Modifiers of Ovarian Cancer Risk in BRCA1 Mutation Carriers](#)
- [Optical Imaging Falloscope for Minimally Invasive Ovarian Cancer Detection](#)
- [Ubiquitin-Mediated Protein Degradation Pathways for Ovarian Cancer Treatment](#)
- [Repurposing FDA-Approved Drug as a Potential Metastasis Inhibitor for Ovarian Cancer Treatment](#)

- [Therapeutic Strategies against Cyclin E1-Amplified Ovarian Cancers](#)

Pancreatic Cancer:

- [Early-Career Investigator Award Recipients Bring New Talent to the Pancreatic Cancer Research Program](#)

Parkinson's:

- [The PRP Presents the Fiscal Year 2022 Investigator-Initiated Research Award Recipients](#)
- [The PRP Presents the Fiscal Year 2022 Early Investigator Research Award Recipients](#)
- [The PRP Presents the Fiscal Year 2022 Synergistic Idea Award Recipients](#)
- [Exercise and Plasticity in PD: Functional and Structural Evidence in the Cortex and the Spinal Cord](#)
- [The Role of Astrocytes and Microglia in Exercise-induced Neuroplasticity in Parkinson's Disease](#)
- [Physical Therapy Incorporates Digital Health Technology and Behavioral Intervention to Improve Exercise Participation and Slow Down Parkinson's Progression](#)
- [Understanding the Role of Gene-Environment Interactions in the Degeneration of Human Dopaminergic Neurons in Parkinson's Disease](#)
- [Mechanisms of Specific Lipid-Induced Degeneration Causing Non-Motor Symptoms of Parkinson's Disease](#)
- [Effects of Exercise on Glymphatic Functioning and Neurobehavioral Correlates in Parkinson's Disease](#)
- [Synergistic Idea Award Highlights](#)
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- [Parkinson's Risk Estimation Using Digital Diagnosis Codes and Treatments](#)
- [Early Investigator Research Award Highlights](#)
- [Investigating Autonomic Nervous System Symptoms in Parkinson's Disease](#)
- [Exercise Impacts Parkinson's-Related Metabolic Pathways](#)

Peer Reviewed Cancer:

- [Peer Reviewed Cancer Research Program - 18 Cancer-Related Topics in FY24, Including Pediatric Brain Cancer](#)
- [Convergent Science Virtual Cancer Center — Supporting Military Health Video](#)
- [New Behavioral Health Science Awards Aim to Improve Quality of Life in Pediatric, Adolescent, and Young Adult Cancer Survivors](#)
- [The Convergent Science Virtual Cancer Center \(CSVCC\) Video](#)
- [Novel Targets for the Treatment of Metastatic Colorectal Cancer](#)
- [IN FOCUS: Patient Well-Being and Survivorship in Cancer Care and Research](#)
- [Novel CAR-T Therapy Targeting BAFF-R Against B-Cell Lymphomas](#)
- [A Promising Nanotech Approach to Enhance Immunotherapy in Liver Cancer](#)
- [Thyroid Cancer Awareness Month: Innovations in Thyroid Cancer Research](#)
- [Identifying New Therapeutic Options for Osteosarcoma](#)

- [Combination Therapy Utilizing Prodrugs with Protoporphyrin IX Photodynamic Therapy](#)
- [Defining Microbial Ecosystems in Bladder Cancer Patients](#)
- [Fiscal Year 2020 Peer Reviewed Cancer Research Program Convergent Science Virtual Cancer Center](#)
- [Early Career Investigators Are Developing Strategies to Improve Outcomes in Head and Neck Cancers](#)
- [Boosting *Listeria* Hysteria: Prime Strategies Against Cancer](#)
- [Neutro-lizing Colorectal Cancer](#)
- [Defining Mechanisms of Resistance to Immunotherapy in Head and Neck Cancer](#)
- [Oncolytic Virotherapy: Boosting the Immune Response in Brain Cancer](#)
- [Attacking Cancer with Missiles](#)
- [Multifunctional Nanofiber for Convection-Enhanced Delivery of Theranostics to Diffuse Intrinsic Pontine Glioma](#)
- [Targeting Protein Degradation in Ewing Sarcoma](#)
- [FY20 PRCRP Awards Will Investigate Novel Ways to Treat Sarcomas that Disproportionately Affect the Pediatric, Adolescent, and Young Adult Populations](#)
- [Novel Therapeutic Strategies for Overcoming Treatment Resistance in Biliary Cancers](#)
- [Mantis Shrimp Inspired Near-Infrared Endoscopy for Colorectal Cancer Surgery](#)
- [Blood Cancer Breakthrough: Recently FDA-Approved XPOVIO[®] Research Was Initially Funded by DOD](#)
- [Imaging as Predictive Biomarker for Esophageal Cancer: Offering New Hope to a Forgotten Population of Cancer Patients](#)
- [In Focus: Cancer in Children, Adolescents, and Young Adults \(CCAYA\)](#)
- [In Focus: Military Health and Cancer](#)
- [A Powerful New Model for Accelerating Liver Cancer Research](#)
- [Research that Considers the Whole Patient](#)
- [Investigating the Link Between Potential Cancer-Causing Pollutants in the Environment and Testicular Cancer Risk in US Air Force Servicemen](#)
- [The Fiscal Year 2020 Peer Reviewed Cancer Research Program Virtual Cancer Center: An Opportunity for Leadership](#)
- [Role of the Inhibitory Receptor TIGIT in the Regulation of CD4+ Tregs in Patients with Advanced Melanoma](#)
- [Discovering New Drug Targets in Radiation-Induced Myeloproliferative Neoplasms](#)
- [The Peer Reviewed Cancer Research Program \(PRCRP\) Vision Video](#)
- [Metabolic Remodeling of the Tumor Microenvironment to Improve the Efficacy of Immunotherapy](#)
- [Overcoming Tumor Immune Evasion](#)
- [IN FOCUS: Oncolytic Virotherapy in Pediatric Brain Tumors](#)
- [Turning the Heat up on Cancer: Combining Heat and Immunotherapy to Better Treat Bladder Cancer](#)
- [Targeting Increased Polyamine Transport of Resistant Melanomas](#)
- [Central Tolerance Blockade to Augment Checkpoint Immunotherapy in Melanoma](#)
- [IN FOCUS: Research in Cancers in Children, Adolescents, and Young Adults](#)
- [Neural Proteins Implicated in Pancreatic Cancer Desmoplasia](#)

- [IN FOCUS: Brain Tumor Research Funding](#)
- [IN FOCUS: BLADDER CANCER](#)
- [Exposing a Silent Killer: Dr. Arti Shukla Studies Methods for Early Detection of Mesothelioma](#)
- [In Focus: Melanoma Research Funding](#)
- [Advancing Our Understanding of How to Reduce the Risk of Developing Blood Cancer After Radiation Exposure](#)
- [An Improved Toolset for Pancreatic Cancer Research](#)
- [IN FOCUS: STOMACH CANCER RESEARCH FUNDING](#)
- [IN FOCUS: LIVER CANCER RESEARCH FUNDING](#)
- [Giving Mesothelioma the One-Two Punch](#)
- [Discovering novel therapeutic strategies to treat kidney cancer](#)
- [Targeting Fibroblast Growth Factor Receptor Signaling Pathways in Mesothelioma](#)
- [Identification of Novel RNA Editing Biomarkers of Human Leukemia Stem Cell Generation](#)
- [Linking Observed Mutations from Pediatric Brain Tumors to Mechanisms That May Drive Tumorigenesis](#)
- [Understanding Inflammation and Its Link to Colorectal Cancer](#)

Peer Reviewed Medical:

- [CDMRP Funds Research to Reduce Opioid Use in Veterans and Service Members with Chronic Pain](#)
- [Developing an Effective Treatment Option for Pancreatitis](#)
- [Promoting Regeneration and Healing During Bone Transport Using a Novel Implant Technology](#)
- [Strain-Programmable Bioadhesive Patch for Accelerated Healing of Diabetic Ulcer](#)
- [Developing a Portable Diagnostic Device for Rapid and Accessible Screening of Hepatitis B](#)
- [Improving Function Through Nonopioid Pain Relief in Service Members with Chronic Back Pain Following Trauma or Overuse Injury Using a Nonsurgical Therapy](#)
- [Group-Based Adaptations of Brief Cognitive Behavioral Therapy Effectively Mitigate Suicide Ideation in Military Personnel](#)
- [Clinical Development of a Novel Lung and Windpipe Sealant](#)
- [Development of DF-COV for the Treatment and Prevention of COVID-19 and Associated Immunopathologic Respiratory Complications](#)
- [Preclinical Advancement of Novel Mechanism-of-Action Therapeutics to Combat Type 2 Diabetes in US Veterans](#)
- [A Safer Alternative to Mechanical Ventilation in the Treatment of Acute Respiratory Distress Syndrome](#)
- [Prevention of Post-traumatic Osteoarthritis with CDK9 Inhibitors](#)
- [Development of an Innovative Combination Therapy Against Multidrug-Resistant Bacteria](#)
- [Web-Based Provider Training for Cognitive Behavioral Therapy of Insomnia \(CBT I\)](#)
- [Development of a Novel Cell-Based, Live Influenza Vaccine with Universal Attributes](#)
- [Development of \(R\)-ND-336 for the Treatment of Diabetic Foot Ulcers](#)
- [Growth-Adaptive Pediatric Heart Valves: Addressing a Critical Unmet Need for Infants and Young Children That Saves Lives and Reduces Surgeries](#)
- [Comparative Effectiveness of Acupuncture for Chronic Pain and Comorbid Conditions](#)

- [Mitigating the Effects of Acute and Delayed Radiation Exposure to Hematopoiesis and Blood Stem Cell Function Using the Prostaglandin E2 Signaling Cascade](#)
- [Novel Liver-Stage-Active Antimalarials](#)
- [A Novel Host-Protein Point of Need Platform for Differentiating Bacterial Versus Viral Infections: Transition from Prototype to Product](#)
- [Amicidin- \$\alpha\$ Surgical Gel for Prevention of Infections in Surgery and Trauma](#)
- [Novel RNAi Ovitrap to Protect Service Members from Mosquito-Borne Illnesses](#)
- [Development of Novel Pain Medications from Marine Sources to Replace Opioids](#)
- [Creating Clinical Solutions from Basic Research: A CDMRP Bone Story](#)
- [Investigating the Cellular and Molecular Mechanisms Associated with Worsened Outcomes in COVID-19 Patients with Chronic Lung Disease](#)
- [Development of BIO 301: An Encapsulated Nanogenistein Therapy](#)
- [Peer Reviewed Medical Research Program Releases Funding Opportunities for COVID-19 Research](#)
- [Research with a Comprehensive Impact](#)
- [Taking Ideas From Discovery to the Clinic](#)
- [Improving Medical Care for Service Members and Their Families](#)
- [Mesenchymal Stem Cell Transplantation as a Therapeutic Agent for Multiple Sclerosis](#)
- [Adoptive Cellular Therapy Targeting Recurrent Pediatric Brain Cancers](#)
- [Guiding Therapeutic Decisions for Patients Using microRNA Biomarkers](#)
- [Developing a Fingerprint for Renal Cell Carcinoma Progression](#)
- [Making a difference in congenital heart disease](#)
- [Engineering Immunotherapies for Mesothelioma and Other Solid Tumors](#)

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- [Effect of ALM Drug Therapy to Reduce Inflammation and Scar Formation After ACL Reconstruction Surgery: Targeting Earlier Return to Active Duty](#)
- [Improved Daily Comfort and Mobility for Lower-Limb Amputees Using Novel Release-Relock System](#)
- [Cognitive Function and ACL Rehabilitation](#)
- [Pre-Innervated Muscle Complexes: A New Avenue for Treatment of Volumetric Muscle Loss](#)
- [A Clinician-Friendly Algorithm to Create Low-Cost, Customizable Prosthetic Feet](#)
- [Early Data Suggests a Potential New Bioengineering Strategy for Treating Osteoarthritis](#)
- [Creating Clinical Solutions from Basic Research: A CDMRP Bone Story](#)
- [Development of Large Animal Models for Improved Regenerative Therapies in Bone Healing and Volumetric Muscle Loss Injury](#)
- [Seeking Multimodal Vaccines to Eradicate Biofilm-Associated Microorganisms Following Traumatic Musculoskeletal Injury](#)
- [New Information in Our Understanding of Osteoarthritis Onset](#)
- [CPT Matthew Anderson - Advocating for Change](#)
- [Focusing on Optimal Recovery and Restoration for our Servicemembers](#)

- [Neuroma/Targeted Muscle Reinnervation Educational Highlight](#)
- [Development of a High-Performance, Adaptable Prosthetic Socket for Amputees](#)
- [Experimental PEG Fusion Medical Device for Immediate Physiological Recovery After Peripheral Nerve Injury](#)
- [Development of an Active Cooling System for Improving Residual Limb Skin Care](#)
- [New Large Animal Model to Study Treatment for PTOA](#)
- [siRNA Delivery to Stem Cells in the Treatment of Post-Traumatic Osteoarthritis](#)
- [Providing upper-extremity prosthetic device users with functionality and flexibility](#)

Prostate Cancer:

- [CDMRP FUNDS MENTORED SCIENCE TO EXPAND CAPACITY FOR IMPACTFUL PROSTATE CANCER RESEARCH](#)
- [CDMRP Funds Impactful Prostate Cancer Research to Improve the Lives of Those Affected](#)
- [Therapeutic Targeting of Neuroendocrine Prostate Cancer](#)
- [B7-H3 \(CD276\) as a Therapeutic Target in Lethal Prostate Cancers](#)
- [An International Registry to Inform Treatment Choices for Patients with Advanced Prostate Cancer](#)
- [Unique Structural Characterization of Androgen Receptor - A Key Protein in Prostate Cancer](#)
- [PSMA-PET Imaging in Prostate Cancer: From Detection to Therapeutics](#)
- [Neuroendocrine Differentiation and Enzalutamide Resistance in Prostate Cancer](#)
- [Quality of Life among African American Prostate Cancer Survivors and Their Partners: A Multilevel Perspective](#)
- [Active Surveillance for African-American Men with Prostate Cancer](#)
- [Combining Nanotechnology and Radiation to Enhance Checkpoint Blockade Immunotherapy of Advanced Prostate Cancer](#)
- [The Impact of a Gene Expression Profile on Treatment Choice and Outcome among Minority Men Newly Diagnosed with Prostate Cancer](#)
- [Effects of CD24/RCC2/p53 Signaling on Prostate Cancer Metastasis](#)
- [Novel Tumor Suppressive Role of Phosphodiesterases in Prostate Cancer](#)
- [Characterization of the Immune-Oncologic Profile of Lethal Prostate Cancer in African American Men](#)
- [Alleviating Immunosuppression to Enhance CAR T-Cell Efficacy in Metastatic Prostate Cancer](#)
- [Identifying Genomic Drivers of Prostate Cancer Progression](#)
- [Investigating Racial Differences in the Financial Impact of Prostate Cancer](#)
- [Preserving Sexual Function in Men Undergoing Radiation Treatment for Prostate Cancer](#)
- [High dose testosterone causes DNA damage and suppresses prostate cancer growth](#)
- [Bipolar Androgen Therapy: Breaking Out of the Chrysalis of Chronic Androgen Deprivation Therapy in Men with Late-Stage Castrate-Resistant Prostate Cancer](#)
- [BET Bromodomain Degraders for the Treatment of Metastatic Prostate Cancer](#)
- [Using a novel genetically engineered mouse model to identify new drug targets for treatment-resistant metastatic prostate cancer](#)
- [First-in-Class Anti-sMIC Immunotherapy Antibody Therapy to Target Prostate Cancer Metastasis](#)
- [Artificial Lymph Node: A Trap to Study and Fight Prostate Cancer](#)

- [Targeting BET proteins in Prostate Cancer](#)
- [Synergistic Action of FOXP3 and TSC1 Pathways in Prostate Cancer Progression](#)
- [Revolutionizing prostate cancer imaging with collagen hybridizing peptide](#)
- [Assessment of Biospecimen Needs of the Prostate Cancer Research Community](#)
- [The PROPHECY Study Validates the Use of Two AR-V7 Biomarker Assays for Predicting Hormone Therapy Resistance in Men with Metastatic Castration-Resistant Prostate Cancer](#)
- [NEK6 mediates castration resistance in prostate cancer in vivo](#)
- [LSD1: a novel biomarker and therapeutic target for prostate cancer](#)
- [Assessment of Biospecimen Needs of the Prostate Cancer Research Community](#)
- [Deconvoluting the Complexity of Bone Metastatic Prostate Cancer via Computational Modeling](#)
- [Combining Metformin with Androgen Deprivation Therapy to Treat Advanced Prostate Cancer](#)
- [Clinical Implications for Long Non-coding RNAs in Prostate Cancer](#)
- [CDK12 loss is a distinct immunogenic class of advanced prostate cancer](#)
- [Autonomic Nerves Drive Prostate Cancer Growth, Invasion, and Metastasis](#)
- [Inhibition of ACK1 to Overcome Drug Resistance in Prostate Cancer](#)
- [A Relationship Between Mast Cells and Racial Disparity of Prostate Cancer](#)
- [Chimeric Amino Acid Rearrangements as Immune Targets in Prostate Cancer](#)
- [Dr. Bettina Drake Video - Prostate Cancer Outcomes in VA Hospitals](#)
- [Noninvasive Detection of AR-FL/AR-V7 as a Predictive Biomarker for Therapeutic Resistance in Men with Metastatic Castration-Resistant Prostate Cancer](#)
- [Circulating tumor cell analysis as a treatment-specific biomarker for prostate cancer](#)
- [Targeting the Aberrant Androgen Receptor in Advanced Treatment-Resistant Prostate Cancer](#)
- [Statin use may increase survival in men with prostate cancer undergoing androgen deprivation therapy](#)
- [Cooperativity between Oncogenic PKC Epsilon and Pten Loss in Prostate Cancer](#)

Psychological Health and Traumatic Brain Injury:

- [Preparing for Future Battlefield Contestations by Maximizing Medical and Prolonged Field Care Methods in the Operational Environment](#)
- [Effect of Prolonged Exposure Therapy on PTSD Symptom Severity in Military Personnel](#)
- [Predicting Generalized Anxiety Among Military Couples Following Deployment](#)
- [A Military-Relevant Model of Closed Concussive Head Injury: Longitudinal Studies Characterizing and Validating Single and Repetitive mTBI](#)
- [Genetic and Environmental Predictors of Combat-Related PTSD/The STRONG STAR Multidisciplinary PTSD Research Consortium](#)
- [The TBI Endpoints Development \(TED\) Initiative Advances Multidisciplinary Research Efforts to Improve Diagnosis and Treatment of TBI](#)
- [TEAM-TBI: a Precision Medicine Approach for TBI](#)
- [CENC Researchers Blaze a Trail to New Insights in Mild Traumatic Brain Injury](#)

- [Operation Brain Trauma Therapy: Consortium Identifies Promising New Treatments and Biomarkers for Traumatic Brain Injury](#)
- [The INjury and TRaumatic STress \(INTRuST\) Clinical Consortium Brings Together Scientists to Further Posttraumatic Stress Disorder \(PTSD\) and Traumatic Brain Injury \(TBI\) Research](#)
- [Treatment of Adult Severe Traumatic Brain Injury Using Autologous Bone Marrow Mononuclear Cells](#)
- [Treatment of TBI with Hormonal and Pharmacological Support, Preclinical Validation Using Diffuse and Mechanical TBI Animal Models](#)
- [Is telemedicine-delivered therapy as effective as treatment delivered at the clinic?](#)
- [Defining the Impact of Group Therapy on Treating PTSD in Active Military Personnel](#)

Rare Cancers:

- [National Childhood Cancer Awareness Month: Advancing Research in More Than 13 Types of Childhood Cancers, Including Neuroblastoma](#)
- [Head and Neck Cancer Awareness Month: April 2023](#)
- [Cholangiocarcinoma Awareness: A Rare Cancer Too Dangerous for a “Watch-and-Wait” Approach](#)
- [NRTO: A Networking Platform for Rare Ovarian Cancer](#)
- [Rare Cancers Research Program Initiatives in Sarcoma Research](#)
- [Partnering with patients to create a rare soft tissue sarcoma target discovery platform as a community resource](#)

Reconstructive Transplant Research:

- [Ethical Factors Impacting Patients’ Decisions to Pursue VCA](#)
- [Bioengineered Particles to Promote Regulatory T Cells and Modulate the Immune System in Transplantation and Multiple Sclerosis](#)
- [Researching New Ways to Block Inflammation and Prevent Severe Tissue Damage Following Transplantation](#)
- [Regaining independence after the world's first successful combination face and double hand transplant](#)
- [Mapping the Inflammatory Response to Vascularized Composite Allotransplantation](#)
- [Transfer of Donor Lymph Nodes to Promote Graft Tolerance](#)
- [Engineered Microparticles for Promoting Transplant Tolerance: Taking a Page Out of Cancer's Playbook](#)
- [Increasing Organ Donor Authorization for Vascularized Composite Allotransplantation](#)
- [Improving and Quantifying Functional Hand Use in Hand Transplant Recipients and Amputees](#)
- [CDMRP-funded Physician Performs Historic Face Transplant Surgery](#)
- [Project Update: Biomarkers to Predict Rejection in Vascularized Composite Allotransplantation: MMP3](#)
- [Reconstructive Transplant Research Program \(RTRP\) Request for Information \(RFI\)](#)
- [Developing Therapeutic Reagents to Accelerate the Rate of Peripheral Nerve Growth after Reconstructive Transplantation](#)

- [Improving Ischemia Reperfusion Injury in Vascularized Composite Tissue Allotransplantation via Histone Deacetylase Modulation](#)
- [T-Regulatory Cell-Based Therapies Promote Survival of Vascularized Composite Allografts](#)
- [Biomarkers to Predict Rejection in Vascularized Composite Allotransplantation](#)
- [Utilizing Vascularized Bone to Improve Outcomes of Face Transplantation](#)

Scleroderma:

- [Preparing the Way for New Investigators While Fostering High-Impact Research: The Scleroderma Research Program's Idea Development Award — New Investigator Collaboration Option](#)

Spinal Cord Injury:

- [Zeroing in on Neuropathic Pain in Spinal Cord Injury](#)
- [Melissa Nunn: Integrating as a Spinal Cord Injury Lived Experience Consultant within the Hiremath Research Team](#)
- [Update on TRACK-SCI: Toward Better Biomarkers and Data Accessibility for Spinal Cord Injury Research](#)
- [Stentrod: A SCIRP-Funded Device to Facilitate Independence After Paralysis](#)
- [TRACK-SCI: Leveraging Fundamental Clinical Discoveries to Guide Treatment and Improve Recovery after Spinal Cord Injury](#)
- [Acute Intermittent Hypoxia as a Multi-Functional Therapy for Spinal Cord Injuries](#)
- [Efficacy Study of a Fully Implanted Neuroprosthesis for Functional Benefit to Individuals with Tetraplegia](#)
- [Utilizing Nerve Transfers to Improve Hand Function Following Cervical Spinal Cord Injury](#)
- [Treatment of Sleep Apnea in Patients with Cervical Spinal Cord Injury](#)
- [Directing Spinal Cord Plasticity: The Impact of Stretch Therapy on Functional Recovery After Spinal Cord Injury](#)
- [A Randomized, Crossover Clinical Trial of Exoskeletal-Assisted Walking to Improve Mobility, Bowel Function and Cardio-Metabolic Profiles in Persons with SCI](#)
- [Restoring Proprioception via a Cortical Prosthesis: A Novel Learning-Based Approach](#)
- [Managing the acute spinal cord injury](#)
- [Introducing the FY15 Spinal Cord Injury Research Program Portfolio](#)
- [An Implantable Neuroprosthetic Device to Normalize Bladder Function after Spinal Cord Injury](#)
- [Experiences of Living with Pain after a Spinal Cord Injury](#)

Tick-Borne Disease:

- [Identifying How Spotted Fever Group Rickettsia Bacteria Invade and Promote Their Life Cycle in Host Cells](#)
- [Progress in Development of a Live Attenuated Vaccine for Powassan Virus](#)
- [Lyme Disease Awareness Month - Spotlight on Tick-Borne Disease Research Program Fiscal Year 2021 Lyme Disease Initiatives](#)

- [Wearable Devices for Controlled Release of Tick Repellents](#)
- [Lyme Disease Awareness Month - Spotlight on Tick-Borne Disease Research Program Fiscal Year 2020 Lyme Disease Initiatives](#)
- [A Pre-Exposure Immunoprophylaxis for the Prevention of Lyme Disease](#)
- [Lyme Disease Awareness Month - Spotlight on TBDRP FY19 Lyme Disease Initiatives](#)
- [Generation of a Vaccine Candidate to Protect Against Tick-Borne Ehrlichiosis](#)
- [Lyme Disease Awareness Month - Spotlight on TBDRP FY18 Lyme Disease Initiatives](#)
- [Scientist Working to Improve Diagnosis of Lyme Disease and Other Tick-Borne Illnesses](#)
- [Lyme Disease Awareness Month - Spotlight on TBDRP FY17 Lyme Disease Initiatives](#)

Traumatic Brain Injury and Psychological Health:

- [CDMRP Funds Innovative Research to Better Understand and Treat Brain Injuries](#)
- [Treatment of Comorbid Sleep Disorders and PTSD](#)
- [Clinical Trial of Pregnenolone for the Reduction of Symptoms Associated with Traumatic Brain Injury](#)
- [Glecaprevir/Pibrentasvir for the Treatment of Posttraumatic Stress Disorder](#)
- [Novel Stem Cell Model Reveals How Neurons Respond to Stress in PTSD](#)
- [Prolonged Exposure Therapy for PTSD: 60-Minute Sessions as Effective as 90-Minute Sessions](#)
- [Clinical Trial of Sildenafil Citrate for Treatment of Cerebrovascular Dysfunction in Chronic Traumatic Brain Injury](#)
- [Developing the Use of Intranasal Insulin for On-Field Treatment of Traumatic Brain Injury](#)
- [Validating a New Algorithm to Diagnose Traumatic Brain Injury in Far-Forward Settings](#)
- [CDMRP supports Sexual Assault Prevention and Response Research on Behalf of the Department of Defense](#)

Tuberous Sclerosis Complex:

- [CDMRP-Funded Tuberous Sclerosis Complex Research Addresses TSC-Associated Epilepsy](#)
- [The Role of Blood-Brain Barrier Dysfunction in Epilepsy in Tuberous Sclerosis Complex](#)
- [Beyond Rapamycin: A Search for Curative Therapies in TSC](#)
- [A New Mouse Model Sheds Light on the Origin of Epilepsy in Tuberous Sclerosis Complex](#)
- [A Timeline for Success: The FDA Approves New Topical Treatment for Facial Tumors in TSC](#)
- [Autophagy and the Neurocognitive Deficits in TSC](#)
- [Developing Novel mTORC1 Inhibitors to Treat TSC](#)
- [Genetic Analysis of TSC Tumors Identifies Novel Therapeutic Targets](#)
- [Neural Circuits Underlying Autism Relevant Behaviors in TSC](#)
- [TSC Remote Assessment and Intervention \(TRAIN\)](#)
- [Targeting Autophagy for the Treatment of TSC and LAM](#)
- [Inhibition of Neuron Hyperexcitability In The TSC Brain May Provide A Therapeutic Option To Treat Seizures](#)
- [Causes of Epilepsy in TSC- Potential Therapeutic Targets](#)
- [Identifying Mechanisms Initiating LAM and Angiomyolipoma in Tuberous Sclerosis Complex](#)
- [Metabolic Imaging Biomarkers for TSC](#)

- [Repurposing FDA-Approved Drugs to Treat Tuberous Sclerosis Complex](#)
- [Gene Therapy, a New Approach to Treating TSC](#)
- [Topical Rapamycin Therapy to Alleviate Cutaneous Manifestations of Tuberous Sclerosis Complex](#)
- [Modeling TSC and LAM Using Patient-Derived Induced Pluripotent Stem Cells](#)
- [A Novel Model Provides Insight into Tuberous Sclerosis Complex](#)
- [A Promising Early Intervention for TSC linked Autism in Infants](#)
- [Building Protein Network Models of Epilepsy to Find New Treatments in TSC](#)
- [Understanding the Mechanisms of Disease Leads to Potential New Treatments for TSC-related LAM](#)
- [Identifying the Roots of Myelin Dysfunction in the TSC Brain](#)
- [Inflammation and Epilepsy in TSC](#)
- [Targeting Amino Acid-mTORC1 Signaling for Treatment of TSC](#)
- [Loss of Tsc2 and Increased mTORC1 Signaling in Excitatory Neurons Lead to Complex Abnormalities](#)
- [TSC-FoxO Signaling Network in Kidney Cancer Development](#)

Vision:

- [CAPT Walter Steigleman, MD - Advancing Research for Military Vision Trauma](#)
- [MAJ Thomas Zampieri \(USA Ret.\), PhD, PA - Restoring Hope for Service Members with Eye Trauma](#)
- [Michael Steinmetz, PhD - Generating New Treatments for Warfighters and Their Families](#)
- [COL Mark Reynolds, MD - Addressing the Unique Challenges of Military Eye Trauma](#)
- [USC Team Captures Valuable User Feedback from Military Medical Personnel regarding Novel Reversible Adhesive to Manage Ocular Trauma](#)
- [Computational Modeling of Primary Blast Injury to the Eye](#)
- [A Retinal Prosthetic with the Capacity to Produce Normal Vision](#)