



Technologies

Cancer Technologies

- Prostate-Specific Gene, PCGEM1 and Methods of Using PCGEM1 to Detect, Treat and Prevent Prostate Cancer
- Androgen-Regulated PMEPA1 Gene and Methods of Using the Same to Inhibit Prostate Cancer Cell Growth
- Methods of Diagnosing or Treating Prostate Cancer Using the ERG Gene Alone or in Combination with the AMCR Gene or Other Genes that are Over Expressed or Under Expressed in Prostate Cancer
- Induction of Tumor Immunity by Variants of Folate Binding Protein in Breast Cancer
- Isolated Antigenic Peptide Fragments and Uses
- Erythropoietin Signaling in Breast Cancer
- The Human Tumor Suppressor Gene ANX7 as a Diagnostic/Prognostic Marker in Breast and Prostate Cancers
- Method of Dynamic Retardation of Cell Division Cycle Kinetics to Potentiate Cell Damage
- Targeted Identification of Immunogenic Peptides
- Stable Quantitation and Detection of Immune Response Levels with Non-Zero Background Peptides
- ERG Monoclonal Antibody
- Detection of Prostate Cancer-Specific Transcribed ERG Sequences and by ERG Isoform 8
- Cell-Based Detection of Prostate Cancer from Urine

HIV Technologies

- Expression and Characterization of HIV-1 Envelope Protein Associated with a Broadly Reactive Neutralizing Antibody Response
- Modified Oligomeric HIV-1 gp140 Envelope Proteins
- HIV-1 Envelope Proteins
- HIV-1 R2 Envelope Protein with Enhanced Trimerization Characteristics

Diagnostic Technologies

- A Simple and Rapid Method to Induce Premature Chromosome Condensation in Resting Peripheral Blood Lymphocytes to Study Structural and Numerical Chromosomal Aberrations Involving Specific Chromosomes
- Biomarker Technologies for Post-Traumatic Stress Disorder (PTSD)
- Novel Diagnostic Method in Disorders that Affect Ryanodine Receptor Gene Abnormalities and Altered Cellular Calcium Homeostasis in Related Syndromes

Medical Devices

- Portable Handpump for Evacuation of Blood
- Light Promotes Regeneration and Functional Recovery After Spinal Cord Injury
- Light as a Replacement for Mitogenic Factors on Progenitor Cells
- Limb Accelerometry for Diagnosis of Convulsions

Pharmaceutical Technologies

- Activation of Hypoxia Inducible Gene Expression
- Short-Chain C4-Ceramide to Treat Cystic Fibrosis
- Chronic Basophil Activation as a Therapy for Th1-Driven Autoimmune Diseases
- Recombinant DNA Molecules for Producing Terminal Transferase-Like Polypeptides
- Amphiphilic Pyridinium Compounds, Methods of Making and Use Thereof
- Compositions and Methods for the Prevention, Detection, and Treatment of Post-Traumatic Stress Disorder
- Clinical Applications of Parenteral Omega-3 Fatty Acids for the Treatment of Combat Associated Traumatic Brain Injury (CA-TBI)
- Peptides that Identify and Block Alzheimer's AB Ion Channel Pore are Effective at Preventing AB Cytotoxicity

Vaccine Construct Technologies

- Dual Carrier Immunogenic Constructs
- Producing Immunogenic Constructs Using Soluble Carbohydrates Activated via Organic Cyanylating Reagents (CDAP)
- Method for Preparing Solid Phase Conjugate Vaccines
- Protein-Polysaccharide Conjugate Vaccines and Other Immunological Reagents Prepared Using Homobifunctional and Heterobifunctional Vinylsulfones, and Process for Preparing the Conjugates
- Process for Preparing Conjugate Vaccines Including Free Protein and the Conjugate Vaccines, Immunogens, and Immunogenic Reagents Produced by this Process
- Simplified Method for Removing Free Protein During Preparation of Protein-Polysaccharide Conjugates and Vaccines Using Restricted Access Media

Diagnostic Imaging Technologies

- Pixelation Reconstruction for Improved Image Resolution and Image Data Transmission
- Method and System for MRI Venography Including Arterial and Venous Discrimination

Joint (USU & HJF) Office of Technology Transfer
Technologies Available for Licensing

Technologies

- Method for Adjusting MR Scan Plane Over Cardiac Cycle to Track Motion of Coronary Artery
 - Method and Apparatus for Rapid Assessment of Stenosis Severity
 - Method and Apparatus for Optical Imaging of Peripheral Vasculature
 - Method and Apparatus for Efficient Stenosis Identification in Peripheral Arterial Vasculature using MR Imaging
 - Method and Apparatus for Optical Imaging of Peripheral Vasculature Emphasizing Distal Arterial Visualization in a Multi-Station Examination
 - Method and System for Acquisition and Preferential Arterial and Venous Images for MR Angiography
 - Method and Apparatus Using Post Contrast-Enhanced Steady-State Free Precision in MR Imaging
 - Center Curve Trajectory Analysis for Myocardial Wall Motion
 - Whole Body MRI Scanning with Moving Table and Interactive Control
 - System and Method for Multi-Segment Center Point Trajectory Mapping
 - Infrared Intracranial Hematoma Detector
 - Method and System for Reliable Eye Tracking in Neurocognitive Assessment
- Radioprotection Technologies**
- Phytoestrogenic Isoflavone Compositions, Their Preparation and Use Thereof for Protection Against and Treatment of Radiation Injury
 - Radiation Protection by Gamma Tocotrienol
 - The Use of Multiple Protein Biomarkers for Radiation Injury and Exposure Assessment
 - Integrated MicroRNomic Radiation Biodosimetry
 - *Deinococcus Radiodurans* Defines a Novel Radioprotection Paradigm: Adenosine and Uridine as Radioprotectors for Mammalian Cells
- Infectious Disease Technologies**
- Compositions and Methods for the Inhibition of Membrane Fusion by Paramyxoviruses
 - Soluble Forms of Nipah and Hendra Virus G Glycoproteins
 - Soluble Forms of Hendra and Nipah Virus F Glycoprotein
 - Detection of Shiga-Like Toxins of Enterohemorrhagic *Escherichia Coli*
 - Method for Treating Infectious Respiratory Diseases by Administration of an Anti-Inflammatory Agent Directly into the Lower Respiratory Tract
 - Immunogenic Shiga-Like Toxin II Variant Mutants
 - Development of Hybrid Stx1 and Stx2 Holotoxoid Vaccine to Elicit Heterologous Protection against Both Types of Shiga Toxins
 - Bacterial Expression and in vitro Assembly of Active Holo-IB Kinase (IKK)
 - A Plasmid Expressing the Minimal Invasion Genes of *Shigella* and its Use in a Vaccine Strain
 - Mutant Forms of Cholera Toxin as an Adjuvant
 - Novel (Poly)Glycerolphosphate-Based Anti-Staphylococcal Conjugate Vaccine
 - A Novel Epstein-Barr Virus Vaccine
 - Development and Characterization of Human Monoclonal Antibodies to Ebolavirus Envelopes
 - Isolation and Characterization of Humoral Response Determinants to the Henipavirus Attachment Glycoprotein

Software

- Medical Multimedia Database System
- Multi-Grayscale Overlay Window
- Blast and Ballistic Trajectory Analysis with MDCT: Construction of Complex Planes to Quantify Pathway, Location, and Size of Fragments in Trauma Diagnosis

Other Technologies

- Determining Natural and Depleted Uranium in Biological Samples
- Single Step Measurement of Angular and Spectral Dependence of Mueller Matrix for Single Step Aerosol Particle
- Hair Follicle Neogenesis and Regeneration
- Tissue Repair, Prevention and Treatment of Fibrosis Using *Listeria Monocytogenes* Internalin B protein.
- Portable Nanopump for Mass Spectrometry
- F-Tractin: An Improved Live Cell Probe for Actin Filaments
- Lysyl Oxidase Proenzyme- and Propeptide-Specific Antibody
- Repurposing Air Traffic Control Methods to Track Casualties
- An Ultrasound-Based Blast-Wave Simulator

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