



GEORGIA RESEARCH ALLIANCE

GRA Next-Generation Vaccines and Therapeutics Initiative FY08 Collaboration Planning Grants

Total FY08 GRA Grants Awarded:	\$ 1,128,824
Total Non-State Grants Attracted (through 3/1609):	\$10,691,621
Additional Non-State Grants in Pipeline:	\$ 5,326,604

Projects

Innovative methods to regulate immune responses to transplants
PIs: Andrew Mellor (MCG), Allan Kirk (Emory)

Genetic control of T cell immunity by manipulating indoleamine 2,3 dioxygenase (IDO) expression
PIs: Andrew Mellor (MCG); Ralph Tripp, Kim Klonowski (UGA)

Development of a Recombinant Chimeric Gram-positive Pili as a New Live Vaccine Vector
PIs: June Scott (Emory), Zehava Eichenbaum (GSU)

Defining the structural basis of Lipid A variants as vaccine adjuvants
PIs: Robert Woods, Russ Carlson (UGA); David Stephens (Emory)

A novel vaccine against M. tuberculosis
PIs: Fred Quinn, Russ Karls (UGA); Jesse Roman, Roy Sutliff (Emory)

Gene Correction Nanomachine Based Technology for Next-Generation Therapeutics
PIs: William Dynan (MCG), Gang Bao (GT)

Immunopathogenic Role of Infectious Agents in Neurological Disorders
PIs: Robert Yu (MCG), Binghe Wang (GSU)

A Stem Cell Based Cancer Vaccine: Mechanism of Action Study
PIs: Clifton Baile (UGA); Rafi Ahmed (Emory)

Acoustic Microarrays for Testing the Efficacy of Treatments and Vaccines for Chagas
PIs: Rick Tarleton (UGA); Bill Hunt (Georgia Tech)

Vaccination to control cytomegalovirus disease
PIs: Ed Mocarski (Emory); Mark Prausnitz (Georgia Tech)

Optimizing Nanostructured Metal Surfaces for Surface Enhanced Raman Diagnostics of Infectious Viruses
PIs: Yiping Zhao, Ralph Tripp (UGA); Lawrence Bottomley (Georgia Tech)

Evaluation of an Oral Encapsulated Melanoma Tumor Vaccine
PIs: Martin D'Souza, Ravi Palaniappan (Mercer); Periasamy Selveraj (Emory)



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Next Generation Vaccines: Formulation of Oral Nano-encapsulated Influenza Vaccines
PIs: Sang-Moo Kang (Emory), Martin D'Souza (Mercer)

Development of a Recombinant Gram-positive Pilus as a New Live Vaccine Vector
PIs: June Scott (Emory), Zehava Eichenbaum (GSU)

Phosphodiesterase inhibitors as trypanocidal therapeutics
PIs: Roberto Docampo (UGA), Binghe Wang (GSU)

Stimulating the Immune Response against Tumors
PIs: Susanna Greer (GSU), Kristina Detmer (Mercer)

LDV: Development of a model for immunotherapy for high-level persisting viruses
PIs: John Altman (Emory), Margo Brinton (GSU)

Use of Porcine Mesenchymal Stem Cells to Reduce the Immune Response to Porcine Islet Xenografts
PIs: Allan Kirk (Emory), Steve Stice (UGA), Jose Avila (Emory)

Structural studies of the hepatitis B virus surface antigen (HBsAg) aimed at developing next generation vaccines
PIs: John Rose (UGA), Yury Khudyakov (CDC)

A Novel Oral Vaccine for the Treatment of Alzheimer's Disease
PIs: Michael Bartlett (UGA), Jerry Buccafusco (MCG)

Development of Mucin-Glycopeptide Microarray for Cancer Vaccine and Diagnostic Applications
PIs: David Live (UGA), Geert-Jan Boons (UGA), David Smith (Emory), Richard Cummings (Emory)

Defining the structural basis of Lipid A variants as vaccine adjuvants
PIs: Rob Woods (UGA), Russ Carlson (UGA), David Stephens (Emory)

Understanding the Immunological Responses to Polysaccharides and Glycoconjugate Vaccines
PIs: Bali Pulendran (Emory), Nadine Roupheal (Emory), Sandra Romeo-Steiner (CDC), Joe Martinez (CDC), George Carlone (CDC), David Stephens (Emory)

Nasal aerosol delivery of influenza VLP vaccines
PIs: Mark Papania (CDC), Ruben Donis (CDC), Richard Compans (Emory)

Development of New Generation Mucosal Subunit Vaccine against Tuberculosis
PIs: Suraj Sable (CDC), Rama Amara (Emory), Thomas Shinnick (CDC), James Posey (CDC)

Role of cell-type-specific neutralizing antibodies in control of cytomegalovirus infection
PIs: Ed Mocarski (Emory), Scott Schmid (CDC)

Capsule based reverse vaccinology for Neisseria meningitides
PIs: Leonard Mayer (CDC), King Jordan (Georgia Tech)

Development of a PET Contrast Agent for in Vivo HIV Vaccine and Antiviral Testing
PIs: Philip Santangelo (Georgia Tech), Eric Hunter (Emory), Francois Villinger (Emory)



GEORGIA RESEARCH ALLIANCE

GRA Next-Generation Vaccines and Therapeutics Initiative FY10 Collaboration Planning Grants

Development of a New Vaccine Vector for Respiratory Syncytial Virus Based on a Probiotic Bacterium
PIs: June Scott (Emory), Ralph Tripp (UGA), Mark Tompkins (UGA)

Immunomodulating effects of vitamin D hormone during Chlamydia infection
PIs: Qing He (Morehouse School of Medicine), Myrtle Thierry-Palmer (Morehouse School of Medicine), Godwin Ananaba (Clark Atlanta University)

Evaluation of HIV-1 Neutralizing Capacity of Antibodies Raised Against Envelope Protein Retaining Only Highly Conserved N-Glycosylation Sites
PIs: Pandelakis Koni (MCG), Paul Spearman (Emory)

Structural studies of the hepatitis B virus surface antigen (HBsAg) aimed at developing next generation vaccines (Year 2)
PIs: John Rose (UGA), Yury Khudyakov (CDC)

Anti-Inflammatory Potential of Novel Non-Toxic Microtubule-Modulating Brominated Noscapine Analogs
PIs: Ritu Aneja (GSU), Susu Zughair (Emory), David Stephens (Emory)

Use of Porcine Mesenchymal Stem Cells to Reduce the Immune Response to Porcine Islet Xenografts (Year 2)
PIs: Allan Kirk (Emory), Steve Stice (UGA), Jose Avila (Emory)

Capsule based reverse vaccinology for Neisseria meningitides (Year 2)
PIs: Leonard Mayer (CDC), Brian Harcourt (CDC), King Jordan (Georgia Tech)

Development of Mucin-Glycopeptide Microarray for Cancer Vaccine and Diagnostic Applications (Year 2)
PIs: David Live (UGA), Geert-Jan Boons (UGA), David Smith (Emory), Richard Cummings (Emory)

Immune-potential of pneumococcal capsular polysaccharide vaccine using albumin and B-cyclodextrin encapsulation
PIs: Gowisankar Rajam (CDC), Martin D-Souza (Mercer), Nadine Rouphael (Emory)

VLP and reassortant vaccines against the 2009 swine origin influenza virus
PIs: Ruben Donis (CDC), Richard Compans (Emory)

Vaccination to Evaluate Reticulocyte Binding-Like (RBL) Proteins as Targets for New Generation Malaria Vaccines
PIs: John Barnwell (CDC), Mary Galinski (Emory)

A Glycan-Conjugate Vaccine for Schistosomiasis
PIs: Richard Cummings (Emory), David Smith (Emory), Carlos Rivera-Marrero (Emory), Evan Secor (CDC), Patricia Wilkins (CDC)

Impact of Respiratory Syncytial Virus Strains Variability on Respiratory Disease and Immunity
PIs: Martin Moore (Emory), Teresa Peret (CDC), Dean Erdman (CDC), Larry Anderson (CDC)

Measles and Polio Vaccination using Microneedle Patches for Improved Logistics and Immunogenicity
PIs: Mark Pallansch (CDC), Mark Prausnitz (Georgia Tech), Paul Rota (CDC)