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**UMCCTS Pilot Project Program Awardees**

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| 2021 Spring PPP |  |  |
| UMass PI and Collaborator (s) |  |  |
| Claudio Punzo, PhD | Associate Professor, Ophthalmology and Visual Sciences | Testing siRNA Therapeutics for the Treatment of Age-Related Macular  Degeneration |
| Mostafa Elfawal, PhD  Reeta Rao, PhD  Sivappa Rasapalli, PhD | Instructor, Program in Molecular Medicine  Associate Dean of Grad. Studies, WPI  Associate Professor, Chemistry Department, UMass Dartmouth | Screening and Optimization of Luotonin Based Leads for Anti-Fungal and Anti-Helminths |
| Mehdi Rashighi Firoozabadi, MD  Jillian Richmond, PhD  Megan Orzalli, PhD | Assistant Professor, Dermatology  Assistant Professor, Dermatology  Assistant Professor, Medicine | Roles of Cutaneous T Peripheral Helper Cells in Photosensitivity of Dermatomyositis |
| Jillian Richmond, PhD  Mehdi Rashighi Firoozabadi, MD | Assistant Professor, Dermatology  Assistant Professor, Dermatology | Examining Factors Governing T Lymphocyte Migration to the Skin During Cutaneous Lupus Erythematosus |
| Kimberly A Fisher, MD  Kathleen M. Mazor, EdD  Sybil Crawford, PhD | Associate Professor, Medicine  Professor of Medicine  Professor of Biostatistics, School of Nursing | Understanding Barriers to COVID-19 Vaccine Equity |
| 2018 PPP |  |  |
| UMass PI and Collaborator(s) |  |  |
| Gang Han, PhD  Yubin Zhou, PhD | Associate Professor, Biochemistry and Molecular Pharmacology  Associate Professor, Institute of Biosciences and Technology, Texas A&M University | Nanoparticle-Instructed Cell Therapy |
| Jomol Mathew, PhD  Apurv Soni  Nisha Fahey  Jeroan Allison, MD  Lawrence Rhein, MD  Tiffany Moore Simas, MD  Nancy Byatt, DO MBA | Chief Research Information Officer, UMMS  MD/PhD Student  Resident Physician, Pediatrics  Professor, PQHS  Professor, Pediatrics  Associate Professor, OBGYN  Associate Professor, Psychiatry | Pilot testing a wearable device to improve care and outcomes among mother-neonate dyad exposed to opioids during pregnancy |
| 2017 PPP |  |  |
| UMass PI and Collaborator(s) |  |  |
| Melissa Anderson, PhD  Kelly Wolf Craig, PhD  Kathleen Biebel, PhD | Assistant Professor, Psychiatry  Clinical Psychologist, UMMS  Associate Professor, Psychiatry | Creating the capacity to screen deaf women for perinatal depression |
| Benjamin Chen MD, PhD  Michael Brehm, PhD  Giles Whalen, MD  Dale Greiner, PhD | Assistant Professor, Pathology  Associate Professor, Molecular Medicine  Professor, Surgery  Professor, Molecular Medicine | Investigating the influence of the tumor immune microenvironment of human malignancies on tumor immunotherapy by utilizing humanized mouse models and patient-derived xenografts. |
| Sarah Goff, MD  Nancy Byatt, DO, MBA  Tina Fioroni, MEd  Annamarie Golden, MS  Kathleen Szegda, PhD, MPH | Associate Professor, Internal Medicine and Pediatrics, UMMS-Baystate  Associate Professor, Psychiatry  Behavioral Health Network, Inc.  Perinatal Support Coalition of Hampden County  Partners for a Healthier Community | Increasing postpartum depression screening and referral in primary care pediatric practices |
| John Haran, MD  Vanni Bucci, PhD | Assistant Professor, Emergency Medicine  Assistant Professor, Biology, UMass Dartmouth | Intestinal microbiome modeling to predict Clostridium difficile colonization in elderly hospitalized patients |
| Katherine Luzuriaga, MD  Gary Ostroff, PhD  Eva Szomolanyi-Tsuda, MD | Professor, Molecular Medicine  Professor, Molecular Medicine  Associate Professor, Pathology | An oral, bivalent Epstein-Barr virus vaccine with computationally determined viral glycoprotein epitopes |
| Rene Maehr, PhD  Shelly Peyton, PhD | Assistant Professor, Molecular Medicine  Associate Professor, Chemical Engineering, UMass Amherst | Combining pluripotent stem cells and organ engineering to develop thymic organoids for treatment and investigation of immune syndromes |
| Jae-Hyuck Shim, PhD  Ellen Gravallese, MD  Zheni Starve, MD | Associate Professor, Medicine  Professor, Medicine  Instructor, Medicine | Development of a novel small molecule inhibitor as a therapeutic agent for spondyloarthritis |
| 2016 PPP Round 2 |  |  |
| UMass PI and Collaborator(s) |  |  |
| Daryl Bosco, PhD | Associate Professor, Neurology | Novel ‘Nanobodies’ as a Diagnosis and Therapeutic for ALS |
| Silvia Corvera, MD  Janice Lalikos, MD | Professor, Molecular Medicine  Professor, Surgery | Leveraging the basic cell biology of human adipose tissue to improve outcomes in  wound healing and reconstructive surgery |
| Robert Finberg, MD  Manuel Garber, PhD  Alex Shalek, PhD | Professor, Medicine  Associate Professor, Molecular Medicine  Assistant Professor, Chemistry, MIT | Breakthroughs in Treating and Preventing Influenza with Single Cell Sequencing |
| Ellen Gravallese, MD  Jae-Hyuck Shim, PhD  Ching Tung, PhD | Professor, Medicine  Assistant Professor, Medicine  Professor, Radiology, Weill Cornell Medicine | Development of an innovative treatment strategy for osteoporosis |
| 2016 PPP |  |  |
| UMass PI and Collaborator(s) | **UMMS Worcester & Other UMass Campus Collaborator(s) Title/Dept.** | **Project Title** |
| Sharone Green, MD  Kate Fitzgerald, PhD | Associate Professor, Medicine  Professor, Medicine | Innate Immunity Recognition of Chikungunya Virus |
| Lawrence Hayward, PhD  Charlie Emerson, PhD | Professor, Neurology  Professor, Neurology | A Humanized in vivo Model of Facioscapulohumeral Muscular Dystrophy |
| Wen-Chieh Lin, PhD | Assistant Professor, Family Medicine and Community Health | Identify Community-Living Elders at High Risk of Falling for Targeted and Tailored Interventions |
| Jeffrey J. Rade, MD | Professor, Department of Medicine | Endothelial-Specific Thromboxane Metabolites as Novel Biomarkers for Cardiovascular Risk |
| Wen Xue, PhD | Assistant Professor, RNA Therapeutics Institute | CRISPR-Based Precision Medicine for Tyrosinemia |
| 2014 PPP |  |  |
| UMass PI and Collaborator(s) | **UMMS Worcester & Other UMass Campus Collaborator(s) Title/Dept.** | **Project Title** |
| Lucio H. Castilla, PhD | Associate Professor, Program in Gene Function and Expression | Study the Efficacy of Novel Targeted Therapy Drug for inv16 Acute Myeloid Leukemia in vivo |
| Nina Deng, Ed.D., MA  John E. Ware, Jr., PhD  Jeroan Allison, MD, MS  Arlene Ash, PhD  Hua Fang, PhD | Assistant Professor, Department of Quantitative Health Sciences  Professor and Division Chief, Quantitative Health Sciences  Professor and Vice Chair, Department of Quantitative Health Sciences  Professor and Division Chief, Department of Quantitative Health Sciences  Assistant Professor, Department of Quantitative Health Sciences | Statistical Significance and Power Analyses for Relative Validity Comparisons among Patient-Reported Outcome Measurement Tools |
| Anastasia Khvorova, PhD | Professor, Department of Molecular Medicine, RNA Therapeutics Institute | Development of Novel Class of Therapeutic Oligonucleotides based on Small Molecule Screening |
| John E. Landers, PhD | Director, Center for ALS Genetics Day Neuromuscular Research Laboratory  Associate Professor, Department of Neurology | Evaluation of Candidate ALS Genes by AAV9 Transgene Delivery into Mice |
| Beth A. McCormick, PhD  Gang Han, PhD | Professor, Microbiology and Physiological Systems  Assistant Professor of Biochemistry and Molecular Pharmacology | Semi-Synthetic Nanobug: Mimicking Bacterial Pathogens to Overcome Multidrug Resistance in Tumors |
| Phillip D. Zamore, PhD  Guangping Gao, PhD | Gretchen Stone Cook Professor of Biomedical Sciences  Professor, Microbiology & Physiological Systems | Cell Type-specific Gene Silencing by Tethered microRNAs |
| 2013 PPP |  |  |
| UMass PI and Collaborator(s) | **UMMS Worcester & Other UMass Campus Collaborator(s) Title/Dept.** | **Project Title** |
| Jeffrey A. Bailey, MD, PhD  Ann M. Moormann, PhD, MPH | Assistant Professor, Division of Transfusion Medicine, Department of Medicine  Associate Professor, Division of Pediatric Immunology & Infectious Diseases, Department of Pediatrics | Endemic Burkitt Lymphoma Transcriptome and Genome Profiles Associated with Clinical Presentation, Treatment Response, Relapse, and Survival |
| Michael R. Green, MD, PhD  Sanchita Bhatnagar, PhD | Professor, Program in Molecular Medicine; Director, Program in Gene Function and Expression  Instructor, Program in Gene Function and Expression | Reactivation of the Inactive X-Linked *MECP2 Gene* as a Therapeutic Strategy for Rett Syndrome |
| Andrei A. Korostelev, PhD | Assistant Professor, RNA Therapeutics Institute and Department of Biology & Molecular Pharmacology | Novel Therapeutic Routes against Premature-Termination Diseases |
| Wenjun Li, PhD  Robert Goldberg, PhD  Joel M. Gore, MD | Associate Professor, Division of Preventive and Behavioral Medicine, Department of Medicine  Professor, Quantitative Health Sciences  Professor, Division of Cardiovascular Medicine, Department of Medicine | Health Care Reform and Accessibility, Quality and Outcomes of AMI-Related Care |
| Joel D. Richter, PhD  Jean A. Frazier, MD  Jean A. King, PhD  Futai Kensuke, PhD | Professor, Program in Molecular Medicine  Robert M. and Shirley S. Siff Endowed Chair in Autism; Professor, Departments of Psychiatry and Pediatrics  Professor, Department of Psychiatry;  Assistant Professor, Department of Psychiatry, Neuropsychiatric Research Institute | Amelioration of the Fragile X Syndrome by Targeting the Translational Apparatus |
| David M. McManus, MD, ScM, FACC, FHRS  Jane S. Saczynski, PhD  Catarina Kiefe, PhD, MD  Robert Goldberg, PhD  John F. Keaney, Jr., MD  Kevin Floyd, MD | Assistant Professor, Departments of Medicine and Quantitative Health Sciences  Assistant Professor, Departments of Medicine and Quantitative Health Sciences  Professor and Chair, Department of Quantitative Health Sciences; Inaugural Melvin S. and Sandra L. Cutler Chair in Biomedical Research  Professor, Departments of Medicine Quantitative Health Sciences  Chief, Division of Cardiovascular Medicine; Professor, Department of Medicine  Assistant Professor, Department of Medicine | Cognitive and Psychosocial Characteristics in Patients Undergoing Treatment for Atrial Fibrillation: Relation to 6-month Clinical Outcomes |
| Molly E. Waring, PhD  Tiffany Moore Simas, MD  Sherry L. Pagoto, PhD  Barbara Olendzki, RD, MPH, LDN | Assistant Professor, Quantitative Health Sciences  Associate Professor, Departments of Obstetrics & Gynecology and Pediatrics;  Associate Professor, Division of Preventive and Behavioral Medicine, Department of Medicine  Clinical & Research Nutritionist and Nutrition Program Director, Center for Applied Nutrition; Assistant Professor, Division of Preventive and Behavioral Medicine, Department of Medicine | Impulsivity and Weight Gain During Pregnancy: The Roles of Excess Energy Intake, Food Reward Sensitivity, and the Food Environment |
| 2012 PPP |  |  |
| UMass PI and Collaborator(s) | **UMMS Worcester & Other UMass Campus Collaborator(s) Title/Dept.** | **Project Title** |
| Hua (Julia) Fang, PhD  Joseph DiFranza, MD  Ann Moormann, PhD  Yunsheng Ma, MD, PhD  Sun S. Kim, PhD, RN  Thomas Houston, MD, MPH  Bruce A. Barton, PhD  Jeroan Allison, MD, MSc  Arlene S. Ash, PhD | Assistant Professor, Division of Biostatistics and Health Services, Department of Quantitative Health Sciences (QHS)  Professor, Department of Family Medicine & Community Health  Associate Professor, Pediatric Immunology & Infectious Diseases, Dept. of Pediatrics  Associate Professor, Division of Preventive & Behavioral Medicine, Department of Medicine  Assistant Professor, Department of Psychiatry  Professor, Quantitative Health Sciences  Professor, Quantitative Health Sciences  Professor & Vice Chair, Department of Quantitative Health Sciences  Professor, Quantitative Health Sciences | A New Tool for Studying Heterogeneity of Treatment Effects in Longitudinal Translational Research |
| Brian C. Lewis, PhD  Venu Bathini, MD | Associate Professor, Program in Gene Function and Expression  Assistant Professor, Department of Medicine, Division of Hematology and Oncology | Combined Inhibition of MEK and IGF1R as an Effective Therapeutic Strategy for Pancreatic Ductal Adenocarcinoma |
| Zuoshang Xu, PhD  Guangping Gao, PhD  Robert Brown, Jr., MD, PhD | Professor, Department of Biochemistry and Molecular Pharmacology  Professor, Microbiology and Physiological Systems  Professor and Chair, Department of Neurology | Deliver RNAi for Treatment of Amyotrophic Lateral Sclerosis (ALS) Using AAV |
| 2010 PPP |  |  |
| UMass PI and Collaborator(s) | **UMMS Worcester & Other UMass Campus Collaborator(s) Title/Dept.** | **Project Title** |
| Kristina Deligiannidis, MD  Anthony J. Rothschild, MD  Peter J. Schmidt, MD  Neil Aronin, MD  Scott Shaffer, PhD  Julia V. Johnson, MD  Bruce Barton, PhD | Assistant Professor of Psychiatry & Obstetrics & Gynecology  Irving S. & Betty Brudnick Endowed Chair & Professor of Psychiatry  Chief, Section on Behavioral Endocrinology at NIH/NIMH  Chief, Division of Endocrinology & Metabolism; Professor of Medicine; Cell Biology; Physiology  Research Professor of Biochemistry & Molecular Pharmacology  Professor & Chair of the Department of Obstetrics & Gynecology  Research Professor of Quantitative Health Sciences | A Neuroendocrine and Neurochemical Biosignature in Late Pregnancy and its Association with the Development of Post-Partum Depression in Women |
| John E. Harris, MD, PhD  Bruce Barton, PhD | Assistant Professor of Medicine, Division of Dermatology  Research Professor of Quantitative Health Sciences | Testing the Safety of Simvastatin as a New Treatment for Vitiligo |
| John E. Landers, PhD  Stefano Goldwurm, PhD | Associate Professor of Neurology, Director, Center for ALS Genetics, Day Neuromuscular Research Laboratory  Director of the “Parkinson Institute Biobank” at the Parkinson Institute in Milan, Italy | Identification of Recessive Genes Causative for Parkinson’s Disease Using Exome Sequencing |
| Phillip D. Zamore, PhD  Guangping Gao, PhD | Gretchen Stone Cook Professor of Biomedical Sciences, Professor of Biochemistry & Molecular Pharmacology  Professor, Microbiology and Physiological Systems | Understanding the Consequences of Recombinant Adeno-Associated Virus-Mediated, Long-Term Inhibition of Mir-122 and Mir-33 in Mice |
| Milagros C. Rosal, PhD  Tiffany A. Moore Simas, MD, MPH, Med  Silvia Corvera, MD  Sarwat Hussain, MD  Barbara Olendzki, RD, MPH, LDN | Associate Professor of Medicine, Division of Preventive & Behavioral Medicine  Assistant Professor, Obstetrics & Gynecology & Pediatrics  Professor of Molecular Medicine  Professor and Vice Chair of Radiology  Division of Preventive & Behavioral Medicine | Percent Dietary Saturated Fat Composition in Pregnancy and Postpartum Weight Loss |
| Kristin Schneider, PhD  Stephenie Lemon, PhD  Jessica Oleski MA  Deirdra Murphy, DPT  Cynthia Ferrara, PhD | Assistant Professor of Medicine  Associate Professor of Medicine, Director of the Worcester County Prevention Research Center  Project Director  Assistant Professor of Physical Therapy, UMass Lowell  Associate Professor of Physical Therapy, UMass Lowell | A Community-Based Social Networking Intervention to Increase Walking in Dog Owners |
| 2009 PPP | | |
| UMass PI and Collaborator(s) | **UMMS Worcester & Other UMass Campus Collaborator(s) Title/Dept.** | **Project Title** |
| David Guertin, PhD | Assistant Professor, Molecular Medicine | The Role of mTOR in Tumor Progression, and Fostering the Development of Novel mTOR Inhibitors for Use in Oncology |
| Jennifer Tseng, MD, MPH  Victor Ambros, PhD  Brian Lewis, PhD | Associate Professor, Surgery  Professor, Molecular Medicine  Associate Professor, Gene Function & Expression | Proteomic and MicroRNA Biomarkers for Malignancy in Cystic Pancreatic Lesions |
| Leslie Berg, PhD  Joonsoo Kang, PhD | Professor, Pathology  Associate Professor, Pathology | Inhibition of the Tec Kinase ITK as a Novel Treatment for Human Autoimmune Diseases |
| Jan Cerny, MD, PhD  Shaoguang Li, MD, PhD  Alan G. Rosmarin, MD | Assistant Professor, Medicine  Associate Professor, Medicine, Hematology/Oncology  Associate Professor, Medicine, Hematology/Oncology | Targeting of Stem Cells in Chronic Myeloid Leukemia Patients |
| Elliot Androphy, MD  Stephen Miller, PhD | Professor, Medicine  Assistant Professor, Medicine | Development of an E6 Inhibitor Medication |
| 2008 PPP | | |
| UMass PI and Collaborator(s) | **UMMS Worcester & Other UMass Campus Collaborator(s) Title/Dept.** | **Project Title** |
| Ellen Gravallese, MD  Gary Ostroff, PhD  Nicole C. Walsh, PhD  Alfonso Mora, DVM | Professor, Medicine & Cell Biology  Professor, Molecular Medicine  Instructor, Rheumatology/Medicine  Instructor, Molecular Medicine | [Orally Delivered siRNA Targeting MAP4K4 for the Treatment of Arthritis](http://www.umassmed.edu/Content.aspx?id=57610) |
| Michael Green, PhD, MD  Narendra Wajapeyee, PhD | Professor, Molecular Medicine  Director, Gene Function & Expression  Post Doc Associate,Gene Function & Expression | [Role of IGFBP7 and IGFBP7 Pathway Components in the Development, Diagnosis and Treatment of Cancers Involving Oncogenic BRAF](http://www.umassmed.edu/Content.aspx?id=57616) |
| Timothy Kowalik, PhD  Laura Gibson, MD  Nicholas Renzette, PhD  Bornali Bhattacharjee, PhD  Jeffrey Jensen, PhD | Associate Professor, Molecular Genetics & Microbiology/Vice Chair, Immunology & Virology Program  Assistant Professor, Pediatrics & Medicine, Divisions of Infectious Diseases & Immunology  Post Doc Fellow**,** Molecular Genetics & Microbiology  Post Doc Fellow, Molecular Genetics & Microbiology  Assistant Professor**,** Molecular Medicine | [CMV-Specific Cellular Immunity and Genomic Variation](http://www.umassmed.edu/Content.aspx?id=57618) |
| Michel Albert, PhD  J. Mark Madison, MD | Professor, Radiology  Director, MRI Research Medicine & Physiology  Professor, Molecular Medicine & Physiology Chief, Pulmonary, Allergy & Critical Care Medicine | [New Technique for Understanding/Diagnosis of COPD: Hyperpolarized 3He MR Imaging](http://www.umassmed.edu/Content.aspx?id=57620) |
| Tiffany A. Moore-Simas, MD, MPH  Janet Hardy, PhD, MS, MPH  Sybil L. Crawford, PhD  Sharon Maynard, MD | Assistant Professor, Obstetrics & Gynecology & Pediatrics  Instructor, Medicine, Preventive  & Behavioral Medicine  Associate Professor, Medicine, Preventive  & Behavioral Medicine  George Washington University | [Angiogenic Biomarkers for the Prediction of Preeclampsia](http://www.umassmed.edu/Content.aspx?id=57622) |
| 2007 PPP |  |  |
| UMass PI and Collaborator(s) | **UMMS Worcester & Other UMass Campus Collaborator(s) Title/Dept.** | **Project Title** |
| Silvia Corvera, MD  Richard Perugini, MD  Michael Thompson, MD | Professor, Molecular Medicine  Assistant Professor, Surgery  Assistant Professor,Medicine | [Thiazolidione family of insulin sensitizers in humans](http://www.umassmed.edu/Content.aspx?id=57112) |
| Sherry Pagoto, PhD  Jamie Bodenlos, PhD  Anthony Rothschild, PhD  Roger Davis, PhD  Yunsheng Ma, PhD | Assistant Professor, Preventive & Behavioral Medicine  Post Doc Fellow, Preventive & Behavioral Medicine  Professor, Psychiatry  Professor, Molecular Medicine  Assistant Professor, Preventive & Behavioral Medicine | [Effective acute vagus nerve stimulation of eating behavior and appetite regulation](http://www.umassmed.edu/Content.aspx?id=57138) |
| David Paydarfar, MD  Elisabeth Block Salisbury, PhD  Premananda Indic, PhD  Francis J. Bednarek, MD | Professor, Neurology & Physiology  Assistant Professor, Neurology & Pediatrics  Instructor, Neurology  Chief, Neonatology, Professor, Pediatrics/OB/GYN | [Pathological disturbances in respiratory rhythm](http://www.umassmed.edu/Content.aspx?id=57110) |
| Richard Perugini, MD  Michael P. Czech, PhD | Assistant Professor, Surgery  Professor & Chair, Program in Molecular Medicine | [Molecular mechanisms of insulin in obese patients](http://www.umassmed.edu/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=57140) |
| Jie Song, PhD  David Ayers, MD | Assistant Professor, Cell Biology, Orthopedics, & Physical Rehabilitation  Professor & Chair, Orthopedics | [New therapeutics strategy for the treatment of osteoporotic bony lesions](http://www.umassmed.edu/Content.aspx?id=57144) |