Department of Defense Tuberous Sclerosis Complex Research Program Funded Grants FY2002-2025				
State/Country	**PI**	**Institution**	**Project**	**Award Total**
Arizona				**$1,514,188.00**
2019	BOERWINKLE, VARINA	CHILDREN'S HOSPITAL, PHOENIX	Resting State Functional MRI Finds Correct Surgical Target to Stop Seizures in Tuberous Sclerosis Complex	$746,999.00
2016	NARAYANAN, VINODH	TRANSLATIONAL GENOMICS RESEARCH INSTITUTE (TGEN)	Phenotypic Variability in Tuberous Sclerosis Complex (TSC)	$767,189.00
California				**$10,511,628.00**
2023	RAJARAMAN, RAJSEKAR	UNIVERSITY OF CALIFORNIA, LOS ANGELES	Computational EEG Analysis to Predict Infantile Spasms Emergence, Treatment Response, and Relapse Among Children with Tuberous Sclerosis Complex	$721,235.00
2021	MCDONALD, NICOLE M	UNIVERSITY OF CALIFORNIA, LOS ANGELES	Assessment and Treatment of Behavior Problems in TSC at Preschool Age: A Telehealth Approach	$1,167,408.00
2021	DIAZ, BEGONA	LUNDQUIST INSTITUTE FOR BIOMEDICAL INNOVATION AT HARBOR-UCLA MEDICAL CENTER	Investigating Novel Targetable Vulnerabilities of LAM Disease	$231,150.00
2020	LEE, GINA	CALIFORNIA, UNIVERSITY OF, IRVINE	Mechanistic Understanding of m6A Signaling for the Treatment of TSC and LAM	$706,500.00
2019	KASARI, CONNIE	CALIFORNIA, UNIVERSITY OF, LOS ANGELES	TSC Remote Assessment and Intervention (TRAIN)	$922,647.00
2018	TZANNIS, STELIOS	DELOS PHARMACEUTICALS, INC.	Development of Novel, Highly mTORC1 Selective Inhibitors for the Treatment of Tuberous Sclerosis	$472,028.00
2016	SHI, WEI	CHILDREN'S HOSPITAL LOS ANGELES	Mechanisms of Pulmonary Lesions in TSC LAM	$749,250.00
2015	RUBENSTEIN, JOHN L	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	Functional Impact of TSC1 Mutations on the Development and Maturation of Inhibitory Cortical Neurons	$950,181.00
2014	JESTE, SHAFALI S	UNIVERSITY OF CALIFORNIA, LOS ANGELES	Early Behavioral Intervention to Improve Social Communication Function in Infants with TSC	$267,508.00
2012	GUAN, KUN-LIANG	UNIVERSITY OF CALIFORNIA, SAN DIEGO	Crosstalk between mTORC1 and cAMP Signaling	$658,750.00
2012	LIPTON, STUART A	SANFORD-BURNHAM MEDICAL RESEARCH INSTITUTE, LA JOLLA	Application of FDA-Approved Memantine and Newer NitroMemantine Derivatives to Treat Neurological Manifestations in Rodent Models of Tuberous Sclerosis Complex	$195,000.00
2012	SHAW, RUEBEN	SALK INSTITUTE	Defining the Role of Autophagy Kinase ULK1 Signaling in Therapeutic Response of Tuberous Sclerosis Complex to mTOR Inhibitors	$816,000.00
2008	GUAN, KUN-LIANG	UNIVERISTY OF CALIFORNIA, SAN DIEGO	Regulation of mTOR by Nutrients	$675,002.00
2006	KRIEGSTEIN, ARNOLD	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	The Role of Tuberin and Hamartin in Cortical Neuron Migration	$616,467.00
2006	SCHAFFER, DAVID	UNIVERSITY OF CALIFORNIA, BERKELEY	Tuberous Sclerosis Signaling in Adult Neurogenesis	$101,840.00
2005	BARABAN, SCOTT C	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	A Morpholino Strategy to Assess TSC Gene Function in Zebrafish	$99,999.00
2005	BOSS, GERRY R	UNIVERSITY OF CALIFORNIA, SAN DIEGO	Development of an Assay to Measure the Activation State of Rheb, the Downstream Target of TSC1/2, in Animal and Human Cells and Tissue	$224,000.00
2005	STOKOE, DAVID	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	Identification of Translationally Regulated mRNAs and UTR Sequences by TSC1 and TSC2	$100,000.00

Department of Defense Tuberous Sclerosis Complex Research Program Funded Grants FY2002-2025				
State/Country	**PI**	**Institution**	**Project**	**Award Total**
2004	TAMANOI, FUYUHIKO	UNIVERSITY OF CALIFORNIA, LOS ANGELES	A Genetic Approach to Define the Importance of Rheb in Tuberous Sclerosis	$411,672.00
2003	STOKOE, DAVID	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	The Role of GSK3 in Regulating Hamartin Phosphorylation and Activity in Response to Nutrients and Growth Factors	$424,991.00
Colorado				**$237,967.00**
2009	SU, TIN TIN	UNIVERSITY OF COLORADO, BOULDER	Identification of Small Molecule Suppressors of Tsc Mutant Phenotypes in Drosophila	$141,737.00
2005	SU, TIN TIN	UNIVERSITY OF COLORADO, BOULDER	Drosophila as a 3-D Model System to Screen for Anti-Tuberous Sclerosis Therapeutics	$96,230.00
Connecticut				**$2,727,571.00**
2024	MCCOOL, MASON	YALE UNIVERSITY	Regulation of Tuberous Sclerosis Complex Function by the Neurodevelopmental Disorder Risk Gene TRIO	$335,000.00
2019	BORDEY, ANGELIQUE	YALE UNIVERSITY	Exosome Contribution to Social Deficits in TSC	$752,681.00
2015	BORDEY, ANGELIQUE	YALE UNIVERSITY	Epilepsy Causes and Treatment in TSC	$697,777.00
2009	BORDEY, ANGELIQUE	YALE UNIVERSITY	Understanding the Etiology of Tuberous Sclerosis Complex	$734,763.00
2006	SUN, ZHAOXIA	YALE UNIVERSITY	TSC1 and the Cilium in Zebrafish Kidney Development	$110,550.00
2004	SQUILLACE, RACHEL M	THE ROTHBERG INSTITUTE FOR CHILDHOOD DISEASES	Generation of in Vitro Cellular Models of Lymphangioleiomyomatosis for the Development of Tuberous Sclerosis Therapeutics	$96,800.00
District of Columbia				**$273,001.00**
2022	TORII, MASAAKI	CHILDREN'S RESEARCH INSTITUTE AT CNMC	Treatment of Epilepsy in Tuberous Sclerosis Complex by Interneuron Progenitor Transplantation	$273,001.00
Georgia				**$695,969.00**
2018	WEN, ZHEXING	EMORY UNIVERSITY	Modeling TSC and Translating for Therapeutics with Human Cerebral Organoids	$695,969.00
Illinois				**$2,584,655.17**
2022	AUERBACH, BENJAMIN D	ILLINOIS, UNIVERSITY OF, CHAMPAIGN/URBANA	Using Sensory Processing to Identify Neural Circuit Deficits and Novel Treatment Strategies in a Rat Model of TSC	$237,899.00
2020	YOSHII, AKIRA	ILLINOIS, UNIVERSITY OF, AT CHICAGO	Developing a Novel Therapy for Neurological Symptoms of Tuberous Sclerosis Complex	$714,620.00
2017	LE POOLE, ISABELLE	NORTHWESTERN UNIVERSITY	Toward Chimeric Antigen Receptor Transgenic T Cell Therapy for Tuberous Sclerosis Complex	$720,118.17
2011	LE POOLE, ISABELLE	LOYOLA UNIVERISTY CHICAGO	Developing Immunotherapeutic Options for TSC	$797,643.00
2008	WEI, JIAN-JUN	NORTHWESTERN UNIVERSITY	Repression of TSC2 Expression by miR-296 in Human Normal and Tumor Tissues	$114,375.00
Indiana				**$964,386.00**
2010	QUILLIAM, LAWRENCE A	INDIANA UNIVERSITY, INDIANAPOLIS	Targeting ER Stress to Treat TSC	$689,386.00
2004	CASTRO, ARIEL F	INDIANA UNIVERSITY	Functional Relevance of the Ras-Related GTPase Rheb in Tuberous Sclerosis	$275,000.00
Iowa				**$861,315.00**
2023	HARSHMAN, LYNDSAY	UNIVERISTY OF IOWA	Women's Health in Tuberous Sclerosis Complex: A Population-Based Assessment of Morbidity to Inform Clinical Care	$748,815.00
2008	HOHL, RAYMOND J	UNIVERISTY OF IOWA	Potential Contribution of the FOXO-Regulated Cell Cycle Inhibitor, Cyclin G2, to Growth Control in Tuberous Sclerosis	$112,500.00
Maryland				**$3,026,666.00**
2021	LOTAN, TAMARA	JOHNS HOPKINS UNIVERSITY	Exploring and Leveraging Therapeutic Vulnerabilities in Renal Tumors with TSC1/2 Loss	$818,750.00
2019	LIN, DORIS DA MAY	JOHNS HOPKINS UNIVERSITY	Mapping of Brain GABA Levels in Tuberous Sclerosis Complex Using High-Resolution Proton MR Spectroscopic Imaging	$897,716.00

Department of Defense Tuberous Sclerosis Complex Research Program Funded Grants FY2002-2025				
State/Country	**PI**	**Institution**	**Project**	**Award Total**
2018	ASRANI, KAUSHAL	JOHNS HOPKINS UNIVERSITY	mTORC1 Regulates MiTF Expression and Lysosomal Biogenesis	$163,750.00
2011	LOTAN, TAMARA	JOHNS HOPKINS UNIVERSITY	Role of TSC1/2 and mTOR Signaling in Epidermal Cell Differentiation	$162,000.00
2008	DARLING, THOMAS N	UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES/HENRY M. JACKSON FOUNDATION	Targeting Angiogenesis and Lymphangiogenesis in Tuberous Sclerosis Complex	$684,450.00
2005	XIAO, BO	JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE	Aberrant Glutamate Signaling and Tumor-Like Growth of Astrocytes in TSC	$100,000.00
Maryland continued				
2005	XIAO, BO	JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE	Rheb in the Pathogenesis of Seizures in TSC	$100,000.00
2004	XIAO, BO	JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE	Driving the Formation of Tuberous Sclerosis Complex by Creating Conditional Rheb Transgenic Mice	$100,000.00
Massachusetts				**$29,391,722.00**
2024	PRIOLO, CARMEN	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Role of the Glycome in TSC Biomarker Identification and Molecular Pathogenesis	$1,683,194.00
2024	TANG, YAN	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Mechanisms of Immune Suppression in TSC	$266,368.00
2024	PERRIMON, NORBERT	HARVARD UNIVERSITY	Regulation of Steroid Hormone Signaling and Lipid Metabolism by the Tuberous Sclerosis Complex	$254,233.00
2023	SHEN, JIE	BRIGHAM AND WOMEN'S HOSPITAL, INC.	A Novel Translational Mechanism Underlying TSC Pathophysiology	$793,572.00
2023	HENSKE, ELIZABETH	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Efficacy of Novel B7-H3 Antibodies in TSC	$236,072.00
2023	TANG, YAN	BRIGHAM AND WOMEN'S HOSPITAL, INC.	LAM-Targeting Nanoparticle-Assisted and Base Editor-Enabled Gene Therapy for Lymphangioleiomyomatosis	$263,598.00
2022	PRIOLO, CARMEN	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Targeting Mitochondrial Metabolism in Tuberous Sclerosis Complex	$855,709.00
2022	ALESI, NICOLA	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Role of the Secreted Factor CTHRC1 in the Pathogenesis of TSC	$253,636.00
2022	BREAKEFIELD, XANDRA O	MASSACHUSETTS GENERAL HOSPITAL	Can EVs Expand the Therapeutic Effect of Gene Replacement for Tsc1 in Brain?	$726,382.00
2021	KWIATKOWSKI, DAVID	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Targeting TSC by mTORC1-Specific Bi-Steric Inhibitors	$857,947.00
2021	TANG, YAN	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Tumor-Targeting Lipid Nanoparticle-Based siRNA Therapy for TSC	$249,670.00
2020	SAHIN, MUSTAFA	CHILDREN'S HOSPITAL, BOSTON	The Contribution of Rapamycin-Insensitive Processes to Neurological Symptoms in TSC	$796,500.00
2020	WEISSMAN, JONATHAN	WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH	Toward Pharmacological Rescue of TSC Loss of Function	$292,500.00
2020	LIU, HENG-JIA	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Therapeutic Targeting of the Immune Checkpoint Molecule B7-H3 in TSC	$260,892.00
2019	KWIATKOWSKI, DAVID	BRIGHAM AND WOMEN'S HOSPITAL,	Targeting mTOR/JUN/AXL Axis in TSC Tumors	$262,652.00
2018	TANG, YAN	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Dissecting Mechanisms of Immune Suppression in Tuberous Sclerosis Complex (TSC) by Integrative Single Cell Profiling of Tumor-Microenvironment Interaction	$179,000.00
2018	EL-CHEMALY, SOUHEIL	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Targeting the Angiotensin Receptor in TSC	$748,620.00

Department of Defense Tuberous Sclerosis Complex Research Program Funded Grants FY2002-2025				
State/Country	**PI**	**Institution**	**Project**	**Award Total**
2017	LIPTON, JONATHAN	CHILDREN'S HOSPITAL, BOSTON	Targeting Circadian Clock Proteostasis as a Novel Therapeutic Strategy in Tuberous Sclerosis Complex	$796,500.00
2017	MANNING, BRENDAN	HARVARD UNIVERSITY	Mapping the Routes to Tumor Cell Death in TSC	$717,750.00
2017	PERRIMON, NORBERT	HARVARD UNIVERSITY	An Evolutionary Approach to Vulnerability Mapping in Order to Identify Alternative and Synergistic Therapeutic Strategies for TSC and Related Diseases	$739,125.00
2017	ZAREI, MAHSA	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Targeting Transcriptional Addiction for the Treatment of TSC	$222,751.00
2016	BELAID, AMINE	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Targeting Folate-Dependent Metabolic Pathways for the Treatment of TSC	$253,850.00
2016	EL-CHEMALY, SOUHEIL	BRIGHAM AND WOMEN'S HOSPITAL, INC.	LAMP: The LAM Microbiome Project	$235,000.00
2016	FELDMAN, ADAM S	MASSACHUSETTS GENERAL HOSPITAL	Evaluation of Lipid Poor Renal Masses with Magnetic Resonance Spectroscopy in Tuberous Sclerosis Complex	$342,000.00
2016	HENSKE, ELIZABETH	BRIGHAM AND WOMEN'S HOSPITAL, INC.	T Cell Dysfunction in TSC: Mechanisms and Targeted Therapy	$628,989.00
2016	GOLDBERG, MARCIA B	MASSACHUSETTS GENERAL HOSPITAL	Toward Novel Therapeutics for TSC and LAM: Using Mechanisms of a Bacterial Protein to Sensitize Cells to Rapamycin	$327,437.00
Massachusetts continued				
2016	GIANNIKOU, KRINIO	BRIGHAM AND WOMEN'S HOSPITAL, INC.	Epigenetic Analysis of TSC Tumors to Identify Novel Therapeutic Targets	$266,250.00
2015	BREAKEFIELD, XANDRA O	MASSACHUSETTS GENERAL HOSPITAL	Systemic Gene Therapy for Tuberous Sclerosis	$240,037.00
2015	HOUSDEN, BENJAMIN	HARVARD UNIVERSITY	A Unique Opportunity for TSC: Repurposing FDA-Approved Drugs Using a Unique Combinatorial Screening Strategy	$254,048.00
2015	PRIOLO, CARMEN	BRIGHAM AND WOMEN'S HOSPITAL	Novel Metabolic Biomarkers in Tuberous Sclerosis Complex	$250,633.00
2015	ZHANG, WEI	JUVOBIO PHARMACEUTICALS INC.	Human-Induced Pluripotent TSC1 and TSC2 Mutant Stem Cell-Derived Neuronal Assays for Mechanistic Studies and Therapeutics Development	$164,998.00
2014	HENSKE, ELIZABETH P	BRIGHAM AND WOMEN'S HOSPITAL	Role of MicroRNA in the Pathogenesis and Treatment of TSC	$803,679.00
2014	KWIATKOWSKI, DAVID J	BRIGHAM AND WOMEN'S HOSPITAL	COLA: A Pilot Clinical Trial of COX-2 Inhibition in LAM and TSC	$344,582.00
2014	HENSKE, ELIZABETH P	BRIGHAM AND WOMEN'S HOSPITAL	Catalyzing Translational TSC Research: Novel LAM and AML Cell Culture Models	$177,375.00
2014	RAMESH, VIJAYA	MASSACHUSETTS GENERAL HOSPITAL	Patient-Specific Human iPSCs for Modeling TSC Pathophysiology and Therapeutic Discovery	$1,000,450.00
2014	SAHIN, MUSTAFA	CHILDREN'S HOSPITAL, BOSTON	Understanding the Role of TSC1/2 in Cerebellar Purkinje Neurons	$717,951.00
2013	EL-CHEMALY, SOUHEIL Y	BRIGHAM AND WOMEN'S HOSPITAL	Critical Roles for SYK in Lymphangiogenesis in LAM	$162,318.00
2012	BREAKFIELD, XANDRA O	BRIGHAM AND WOMEN'S HOSPITAL	Gene Therapy to Extend Lifespan of Tsc1 Conditional Brain Knockouts	$158,297.00
2012	HENSKE, ELIZABETH	BRIGHAM AND WOMEN'S HOSPITAL	Dysregulation of Cellular Metabolism: Novel Therapeutic Opportunities for TSC	$905,089.00
2012	PRIOLO, CARMEN	BRIGHAM AND WOMEN'S HOSPITAL	Novel Application for 18F-Fluorocholine PET Imaging in TSC	$170,609.00
2012	SAHIN, MUSTAFA	BOSTON CHILDREN'S HOSPITAL	Role of CTGF in White Matter Development in Tuberous Sclerosis	$739,505.00
2011	HENSKE, ELIZABETH	BRIGHAM AND WOMEN'S HOSPITAL	TSC1 and TSC2 Gene Homologs in Schizosaccharomyces Pombe	$1,678,542.00

Department of Defense Tuberous Sclerosis Complex Research Program Funded Grants FY2002-2025				
State/Country	**PI**	**Institution**	**Project**	**Award Total**
2011	YU, JANE	BRIGHAM AND WOMEN'S HOSPITAL	Targeting Estrogen-Induced COX-2 Activity in Lymphangioleiomyomatosis (LAM)	$121,999.00
2011	PERRIMON, NORBERT	HARVARD UNIVERSITY	Unbiased Combinatorial Genomic Approaches to Identify Alternative Therapeutic Targets within the TSC Signaling Network	$998,375.00
2010	BEAR, MARK	MASSACHUSETTS INSTITUE OF TECHNOLOGY	Role of Altered mGluR Activity in Cognitive Impairments in TSC: Implications for a Novel Method Treatment	$698, 510.00
2010	NELSON, CHARLES	CHILDREN'S HOSPITAL, BOSTON	Defining Early Markers of Neurodevelopmental Disorders in Infants with TSC	$1,490,090.00
2009	BLENIS, JOHN	HARVARD UNIVERSITY	Identification of Genes and Compounds that Control the Viability of Cells Lacking Tsc2	$169,500.00
2009	CHAN, JOANNE	CHILDRENS HOSPITAL	Neuronal VEGF Signaling Enhances Tsc1/2 Deficiency to Promote TSC Progression	$171,583.00
2009	GAN, BOYI	DANA-FARBER CANCER INSTITUTE	TSC-FoxO Signaling Network in Kidney Cancer Development	$494,392.00
2009	LADIAS, JOHN	BETH ISRAEL DEACONESS MEDICAL CENTER, BOSTON	Structural Basis for TSC1-TSC2 Complex Function	$782,688.00
2009	MANNING, BRENDAN	HARVARD UNIVERSITY	Defining the Therapeutic Implications of the Integrative Stress Response in TSC	$726,750.00
Massachusetts continued				
2009	PAUL, ELAHNA	MASSACHUSETTS GENERAL HOSPITAL	Biomarkers of Renal Tumor Burden and Progression in TSC	$176,998.00
2008	YOSHII, AKIRA	MIT	Studying Protein Synthesis-Dependent Synaptic Changes in Tuberous Sclerosis	$567,840.00
2006	LADIAS, JOHN	BETH ISRAEL DEACONESS MEDICAL CENTER, BOSTON	Structural Basis for TSC1-TSC2 Complex Formation	$113,900.00
2006	LONG, XIAOMENG	MASSACHUSETTS GENERAL HOSPITAL	Screening for Chemical Compounds that Specifically Interfere with TSC-Rheb-TOR Signaling	$117,206.00
2006	SABATINI, DAVID M	WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH	Structural and Mechanistic Analyses of TSC1/2- and Rheb1/2-Mediated Regulation of the mTOR Pathway	$779,922.00
2004	SABATINI, DAVID M	WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH	Identifying Novel Drug Targets for the Treatment of Tuberous Sclerosis Complex Using High Throughput Technologies	$100,000.00
2004	SAHIN, MUSTAFA	CHILDREN'S HOSPITAL, BOSTON	Development of Peptide Inhibitors of Rheb Signaling Pathway	$100,000.00
2003	KAELIN, WILLIAM G	DANA-FARBER CANCER INSTITUTE	Hypoxia-Inducible Factor Regulation by the TSC2 Tumor Suppressor Protein	$356,600.00
2003	SABATINI, BERNARDO	HARVARD UNIVERSITY	The Role of TSC1 in the Formation and Maintenance of Excitatory Synapses	$425,000.00
2002	ITO, NAOTO	MASSACHUSETTS GENERAL HOSPITAL	Functions of TSC Genes in the Nervous System in Drosophila Melanogaster	$420,569.00
Michigan				**$1,810,446.70**
2024	HOFFMANN, HANNE	MICHIGAN STATE UNIVERSITY	Light Therapy for TSC	$221,043.00
2021	DOMBKOWSKI, ALAN A	WAYNE STATE UNIVERSITY	Exosome Biomarkers of Epilepsy in Tuberous Sclerosis Complex Patients	$223,998.00
2014	INOKI, KEN	UNIVERSITY OF MICHIGAN	Mechanism of Ribosomes Biogenesis in TSC	$845,679.00
2013	DOMBKOWSKI, ALAN	WAYNE STATE UNIVERSITY	The Role of 5-Hydroxymethylcytosine in Gene Dysregulation of Epileptogenic Tubers in Tuberous Sclerosis Complex Patients	$149,942.00
2006	GUAN, KUN-LIANG	UNIVERSITY OF MICHIGAN	Regulation of the mTOR Pathway by a Novel Rheb Binding Protein BNIP3	$99,784.70
2005	GUAN, KUN-LIANG	UNIVERSITY OF MICHIGAN	BIG1 as a Potential Guanine Nucleotide Exchange Factor for Rheb	$100,000.00

Department of Defense Tuberous Sclerosis Complex Research Program Funded Grants FY2002-2025				
State/Country	**PI**	**Institution**	**Project**	**Award Total**
2005	GUAN, KUN-LIANG	UNIVERSITY OF MICHIGAN	Function of p53 in Regulation of TSC Mutant Cell Apoptosis	$70,000.00
2004	GUAN, KUN-LIANG	UNIVERSITY OF MICHIGAN	Regulation of TSC1/TSC2 Stability and Rheb GTP Level by Herc1	$100,000.00
Minnesota				**$2,822,567.00**
2018	KIM, DO-HYUNG	UNIVERSITY OF MINNESOTA	Role of the Immunoproteasome in TSC Pathogenesis and Therapeutics	$693,000.00
2015	YONG, JEONGSIK	UNIVERSITY OF MINNESOTA	Characterization of mTOR-Responsive Truncated mRNAs in Cell Proliferation	$226,800.00
2012	KIM, DO-HYUNG	UNIVERSITY OF MINNESOTA	Targeting Amino Acid-mTORC1 Signaling Limb for TSC Suppression	$645,998.00
2005	KIM, DO-HYUNG	UNIVERSITY OF MINNESOTA	Defining the Regulatory Mechanisms of Rheb-mTOR Signaling Activated in Tuberous Sclerosis Complex	$100,000.00
2006	KIM, DO-HYUNG	UNIVERSITY OF MINNESOTA	Functional Proteomics of TSC-mTOR Signaling	$596,567.00
2006	SELLECK, SCOTT	UNIVERSITY OF MINNESOTA	Understanding the Function of Tuberous Sclerosis Complex Genes in Neural Development: Roles in Synapse Assembly and Axon Guidance	$560,202.00
Missouri				**$2,054,762.00**
2021	WONG, MICHAEL	WASHINGTON UNIVERSITY	Mechanisms of Sleep-Seizure Interactions in Tuberous Sclerosis Complex	$781,381.00
2020	WONG, MICHAEL	WASHINGTON UNIVERSITY	The Role of Blood-Brain Barrier Dysfunction in Epilepsy in TSC	$236,250.00
2014	WEBER, JASON	WASHINGTON UNIVERSITY	Identification of NPM and DDX5 as Therapeutic Targets in TSC	$152,500.00
2011	WONG, MICHAEL	WASHINGTON UNIVERSITY	The Role of Brain Inflammation in Epileptogenesis in TSC	$152,000.00
2004	SHIPLEY, JAMES M	WASHINGTON UNIVERSITY	Modeling Phenotypes of Tuberous Sclerosis in the Mouse	$307,949.00
2002	GUTMANN, DAVID	WASHINGTON UNIVERSITY	Mouse Models of TSC-Related Epilepsy	$424,682.00
New Jersey				**$2,587,482.00**
2022	VALVEZAN, ALEXANDER	RUTGERS, NEW JERSEY, STATE UNIVERSITY OF	Defining the Cell Cycle Phase-Specific Regulation and Function of mTORC1 to Identify New Therapeutic Targets in TSC Tumors	$783,077.00
2019	VALVEZAN, ALEXANDER	RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY	Defining Cellular Stresses Sensed Through the TSC Complex to Identify Vulnerabilities in TSC Tumors	$234,750.00
2015	D'ARCANGELO, GABRIELLA	RUTGERS UNIVERSITY, NEW BRUNSWICK	Cell Type-Specific Contributions to the TSC Neuropathology	$816,171.00
2011	D'ARCANGELO, GABRIELLA	RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY	Exploring the Interaction between TSC2, PTEN, and the NMDA Receptor in Animal Models of Tuberous Sclerosis	$155,000.00
2009	WOOD, TERESA	NEW JERSEY, UNIVERSITY OF MEDICINE AND DENTISTRY OF, ROBERT WOOD JOHNSON MEDICAL SCHOOL	TSC Regulates Oligodendroglial Differentiation and Myelination in the CNS	$154,012.00
2004	CHADA, KIRAN K	NEW JERSEY, UNIVERSITY OF MEDICINE AND DENTISTRY OF, ROBERT WOOD JOHNSON MEDICAL SCHOOL	HMGA2 in Tuberous Sclerosis	$444,472.00
New Mexico				**$761,506.00**
2024	SOLEIMANI, MANOOCHER	UNIVERSITY OF NEW MEXICO	Identification of Therapeutically Targetable Molecules and Pathways for the Treatment of Cystic Kidneys in Tuberous Sclerosis Complex	$761,506.00
New York				**$9,648,739.00**
2024	TANG, GUOMEI	COLUMBIA UNIVERSITY MEDICAL CENTER	Restoring GABAergic Inhibition as a Potential Therapy for TSC-Associated Neurocognitive Impairment	$822,501.00

Department of Defense Tuberous Sclerosis Complex Research Program Funded Grants FY2002-2025				
State/Country	**PI**	**Institution**	**Project**	**Award Total**
2023	HUANG, YUNFEI	ALBANY MEDICAL CENTER HOSPITAL	Transcellular mTOR Signaling Between Neurons and Microglia and Its Implications in TSC	$815,000.00
2022	HAMMES, STEPHEN R	UNIVERSITY OF ROCHESTER	Estrogen Promotes Lymphangioleiomyomatosis (LAM) Indirectly Through Stimulation of Innate Immunity	$770,000.00
2021	TANG, GUOMEI	COLUMBIA UNIVERSITY MEDICAL CENTER	Autophagy Induction as a Novel Therapeutic Strategy for TSC-Associated Cognitive and Autistic Social Deficits	$810,000.00
2020	D'ARMIENTO, JEANINE M	COLUMBIA UNIVERSITY MEDICAL CENTER	LAM Pilot Study with Nilotinib LAMP-2	$859,380.00
2020	HOLZ, MARINA K	NEW YORK MEDICAL COLLEGE	KCC2 Dysfunction Enhances Synaptic Excitability of Cytomegalic Neurons in TSC	$243,000.00
2017	D'ARMIENTO, JEANINE MARIE	COLUMBIA UNIVERSITY MEDICAL CENTER	Neural Crest Origin of TSC Tumors	$719,994.00
2016	BLENIS, JOHN	JOAN & SANFORD I WEILL MEDICAL COLLEGE OF CORNELL UNIVERSITY	Metabolic Regulation of mTORC1 Catalytic Activity	$762,750.00
2015	TANG, GUOMEI	COLUMBIA UNIVERSITY MEDICAL CENTER	Impaired mTOR Macroautophagy and Neurocognitive Deficits in Tuberous Sclerosis Complex	$720,000.00
2014	GOLDMAN, JAMES E	COLUMBIA UNIVERSITY MEDICAL CENTER	Molecular Mechanisms Underlying the Epileptogenesis and Seizure Progression in Tuberous Sclerosis	$679,999.00
2013	QIAN, SHU-BING	CORNELL UNIVERSITY, ITHACA	Defining Translational Reprogramming in Tuberous Sclerosis Complex	$658,750.00
2011	SULZER, DAVID	COLUMBIA UNIVERSITY	Altered Astrocyte-Neuron Interactions and Epileptogenesis in Tuberous Sclerosis Complex Disorder	$704,306.00
2011	HAMMES, STEPHEN	UNIVERSITY OF ROCHESTER	Uterine-Specific Knockout of TSC-2: A Mouse Model for Lymphangioleiomyomatosis (LAM)	$152,000.00
New York continued				
2010	QIAN, SHU-BING	CORNELL UNIVERSITY, ITHACA	Genome-Wide Analysis of Translational Control in Tuberous Sclerosis Complex	$146,810.00
2008	TSANG, STEPHEN	COLUMBIA UNIVERSITY	Preventing Visual Handicap in Children with Tuberous Sclerosis Complex	$482,300.00
2006	LEATHERWOOD, JANET	STATE UNIVERSITY OF NEW YORK AT STONY BROOK	A Search for New Therapeutic Targets: Using Yeast to Find the GEF for Rheb	$101,949.00
2005	JAFFREY, SAMIE R	WEILL MEDICAL COLLEGE OF CORNELL UNIVERSITY	Role of TSC1/2 in Axonal Development and Neuronal Morphogenesis	$100,000.00
2004	ZHONG, YI	COLD SPRING HARBOR LABORATORY	Analysis of Learning Disabilities of Tuberous Sclerosis Complex in Drosophila	$100,000.00
North Carolina				**$2,716,351.00**
2024	WALSH, KYLE M	DUKE UNIVERSITY	Integrative Transcriptomic and Epigenomic Profiling of Subependymal Giant Cell Astrocytoma at Single-Cell Resolution	$240,897.00
2022	CAPAL, JAMIE K	NORTH CAROLINA AT CHAPEL HILL, UNIVERSITY OF	Regulating Together in Tuberous Sclerosis Complex: A Pilot Feasibility Study in Children and Adolescents with TSC-Associated Neuropsychiatric Disorder (TAND)	$1,188,902.00
2018	RAAB-GRAHAM, KIMBERLY F	WAKE FOREST UNIVERSITY HEALTH SCIENCES	Investigative Studies into mTORC1-Dependent Dendritic Branch Potentiation in TSC	$652,954.00
2013	ANTON, EVA	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	Disrupted Cilia Signaling in Tuberous Sclerosis Complex	$633,598.00
Ohio				**$4,494,790.00**
2024	HESTER, MARK	RESEARCH INSTITUTE AT NATIONWIDE CHILDREN'S HOSPITAL	Preclinical Development of Micro-Tuberin Gene Therapy for Tuberous Sclerosis Complex Type 2	$703,000.00

Department of Defense Tuberous Sclerosis Complex Research Program Funded Grants FY2002-2025				
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2023	SHI, WEI	UNIVERSITY OF CINCINNATI	Characterization of Novel Perivascular Lesions Caused by Specific Deletion of Tsc2 in Hematopoietic Cells	$243,000.00
2022	RITTER, DAVID	CHILDREN'S HOSPITAL, CINCINNATI	Cardiac Rhabdomyomas as Biomarkers of TSC Disease Severity	$213,281.00
2021	DIFRANCESCO, MARK	CHILDREN'S HOSPITAL, CINCINNATI	Establishing Network Connectivity and Microvascular Imaging Biomarkers for Tuberous Sclerosis Complex	$755,762.00
2021	LETTERIO, JOHN	CASE WESTERN RESERVE UNIVERSITY	Development of Novel Synthetic Triterpenoids for the Chemoprevention of Neurological Manifestations of Tuberous Sclerosis Complex	$241,500.00
2020	HESTER, MARK	RESEARCH INSTITUTE AT NATIONWIDE CHILDREN'S HOSPITAL	Dissecting Mechanisms Underlying Brain Calcification in TSC	$231,000.00
2019	YU, JANE J	UNIVERSITY OF CINCINNATI	Dysregulation of Sphingolipid Metabolism and Actions in Tuberous Sclerosis Complex	$722,250.00
2018	YU, JANE J	UNIVERSITY OF CINCINNATI	Development of Remission-Inducing Therapy for TSC Tumors	$160,500.00
2010	LI, YU	CHILDREN'S HOSPITAL, CINCINNATI	Noninvasive, MR-Guided HIFU Therapy of TSC-Associated Renal Angiomyolipomas	$152,624.00
2009	MCCORMACK, FRANCIS	UNIVERSITY OF CINCINNATI	LAMS Clinics Research Network	$1,103,808.00
2005	BISSLER, JOHN	CHILDREN'S HOSPITAL, CINCINNATI	Tuberous Sclerosis Complex Natural History Study: Renal Manifestations	$814,065.00
2004	XU, LI-HUI	ONCOIMMUNE, LTD.	Study of 2-Deoxyglucose as a Potential Treatment for TSC	$100,000.00
Pennsylvania				**$2,214,061.00**
2021	OBRAZTSOVA, KSENIYA	PENNSYLVANIA, UNIVERSITY OF	Defining Molecular Mechanism for Targeting the Female-Specific TSC-LAM	$243,750.00
2015	STEPANOVA, VICTORIA	UNIVERSITY OF PENNSYLVANIA	Role of Urokinase-Type Plasminogen Activator (uPA) in Progression of TSC Tumors	$240,000.00
2008	ASTRINIDIS, ARISTOTELIS	DREXEL UNIVERSITY SCHOOL OF MEDICINE	Role of the Hamartin-Plk1 Interaction in Tuberous Sclerosis Complex Pathogenesis	$675,000.00
2005	CRINO, PETER B	UNIVERSITY OF PENNSYLVANIA	Mutational Analysis of Cell Types in Tuberous Sclerosis Complex (TSC)	$406,560.00
2005	LIU, YONG-JIAN	UNIVERSITY OF PITTSBURGH	Molecular Mechanisms of Neurological Disorders in TSC	$100,000.00
2003	KRYMSKAYA, VERA P	UNIVERSITY OF PENNSYLVANIA	The Role of TSC Proteins in Regulating Cell Adhesion and Motility	$150,000.00
2002	HENSKE, ELIZABETH	FOX CHASE CANCER CENTER	TSC1 and TSC2 Gene Homologs in Schizosaccharomyces Pombe	$398,751.00
Rhode Island				**$869,815.00**
2011	ZERVAS, MARK	BROWN UNIVERSITY	Temporal Loss of Tsc1: Neural Development and Brain Disease in Tuberous Sclerosis	$716,530.00
2010	ZERVAS, MARK	BROWN UNIVERSITY	Determining Neuronal Circuits in Tuberous Sclerosis	$153,285.00
South Carolina				**$924,765.00**
2019	FELICIANO, DAVID M	CLEMSON UNIVERSITY	A Subependymal Giant Cell Astrocytoma (SEGA) Mouse Model	$667,968.00
2013	STRANGE, CHARLIE	MEDICAL UNIVERSITY OF SOUTH CAROLINA	LAM Pilot Study with Imatinib Mesylate (LAMP-1)	$256,797.00
Tennessee				**$4,055,037.00**
2022	CHAUM, EDWARD	VANDERBILT UNIVERSITY MEDICAL CENTER	Optimizing Therapeutic Control of Epilepsy in Tuberous Sclerosis Complex Using a Novel Biosensor	$1,567,533.00
2017	ZAREI, MAHSA	VANDERBILT UNIVERSITY	Targeting Transcriptional Addiction for the Treatment of TSC	$222,751.00
2015	IHRIE, REBECCA A	VANDERBILT UNIVERSITY	Identifying Novel Candidate Therapies for SEGAs Using Quantitative Single-Cell Assays	$930,096.00

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2013	BISSLER, JOHN	UNIVERSITY OF TENNESSEE, HEALTH SCIENCE CENTER	Prevention of TSC Renal Disease	$637,501.00
2009	ESS, KEVIN	VANDERBILT UNIVERSITY	Neural Development in tsc2-Deficient Zebrafish	$697,156.00
Texas				**$8,863,065.58**
2024	RICHARD, MELISSA	BAYLOR COLLEGE OF MEDICINE	The Clinical and Genetic Architecture of Autism Spectrum Disorder Among Individuals With Tuberous Sclerosis Complex	$614,936.00
2023	HAMILTON, LIBERTY	UNIVERSITY OF TEXAS AT AUSTIN	Brain Representations of Language in Children with Tuberous Sclerosis Complex	$628,677.00
2023	WEINER, HOWARD	BAYLOR COLLEGE OF MEDICINE	Brain Representations of Language in Children with Tuberous Sclerosis Complex	$1,171,770.00
2021	BRAGER, DARRIN	UNIVERSITY OF TEXAS AT AUSTIN	Voltage-Gated Ion Channel Dysfunction in Tuberous Sclerosis	$231,237.00
2020	ANDERSON, ANNE	BAYLOR COLLEGE OF MEDICINE	Mechanisms of Epileptogenesis and Circuit Dysfunction in a Mouse Model of TSC	$722,250.00
2018	PENG, GUANG	M.D. ANDERSON CANCER CENTER, UNIVERSITY OF TEXAS	Maintenance of Genome Stability in TSC2-Deficient Tumors	$160,000.00
2018	JIANG, XIAOLONG	BAYLOR COLLEGE OF MEDICINE	Deciphering Circuit-Level Mechanisms Underlying Intrinsic Epileptogenicity of Cortical Tubers in TSC	$160,072.00
2017	FARACH, LAURA	UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON	Developing a Genetic Risk Prediction Model for Epilepsy in Patients with TSC	$627,069.00
2016	TSAI, PETER	TEXAS, UNIVERSITY OF, SOUTHWESTERN MEDICAL CENTER AT DALLAS	Neural Circuits Underlying Autism-Relevant Behaviors in TSC	$708,784.00
2014	KARBOWNICZEK, MAGDALENA	TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER, LUBBOCK	Identifying Mechanisms Initiating LAM and Angiomyolipoma in Tuberous Sclerosis Complex	$641,746.00
2013	RAAB-GRAHAM, KIMBERLY	UNIVERSITY OF TEXAS AT AUSTIN	Molecular Studies Investigating th eLink Between Dendritic mRNA Translation and Repression Leading to Epilepsy in TSC	$800,064.00
2010	GAMBELLO, MICHAEL	UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON	Behavioral Analysis and Rescue of a Novel Cerebellar Mouse Model of Tuberous Sclerosis Complex	$149,643.00
2010	KOENIG, MARY K	UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON	Topical Rapamycin Therapy to Alleviate Cutaneous Manifestations of Tuberous Sclerosis Complex	$1,798,869.00
2009	WALKER, CHERYL	M.D. ANDERSON CANCER CENTER, UNIVERSITY OF TEXAS	TSC2 and Cystogenesis	$111,382.00
2006	GAMBELLO, MICHAEL	UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON	Targeted Disruption of Tsc2 Gene in the Mouse Cerebellum	$95,259.58
2005	WALKER, CHERYL	M.D. ANDERSON CANCER CENTER, UNIVERSITY OF TEXAS	TSC2 Haploinsufficiency Leads to a Mutator Phenotype	$100,000.00
2004	SPARAGANA, STEVEN P	TEXAS SCOTTISH RITE HOSPITAL FOR CHILDREN	Tuberous Sclerosis Complex National Database	$141,307.00
Vermont				**$155,661.17**
2018	MAHONEY, JOHN M	UNIVERSITY OF VERMONT & STATE AGRICULTURAL COLLEGE	Systems Genetics of Tuberous Sclerosis Complex Outcomes Using BXD Recombinant Inbred Mice	$155,661.17
Virginia				**$238,794.00**
2022	WENKER, IAN	VIRGINIA, UNIVERSITY OF	Mechanisms of Seizure-Induced Death of TSC Model Mice	$238,794.00
Washington				**$232,295.00**
2012	XU, WENQUING	UNIVERSITY OF WASHINGTON	3D Structure of TSC1	$154,295.00
2008	XU, WENQUING	UNIVERSITY OF WASHINGTON	Structural Studies of the HERC1-Tuberin Interaction	$78,000.00
West Virginia				**$84,420.00**
2006	GUO, HUI-FU	WEST VIRGINIA UNIVERSITY	Analyzing the Functions of Tuberous Sclerosis Complex in Synapse Development and Synaptic Plasticity in Drosophila	$84,420.00

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Wisconsin				**$144,211.00**
2013	HORNBERGER, TROY A	UNIVERSITY OF WISCONSIN, MADISON	The Role of TSC2 Phosphorylation in the Regulation of TSC2 Localization and mTOR Signaling	$144,211.00
Australia				**$754,255.00**
2018	ELLISDON, ANDREW M	MONASH UNIVERSITY	Structural Basis of Tuberous Sclerosis Complex Assembly and Dysregulation in Disease	$754,255.00
Belgium				**$663,190.00**
2023	JANSEN, ANNA	VRIJE UNIVERSITEIT BRUSSEL	TANDem 2: Closing the Gap to Interventions for TAND	$663,190.00
Canada				**$1,317,216.00**
2013	KARAGIANNIS, JIM	UNIVERSITY OF WESTERN ONTARIO	Using Genetic Buffering Relationships Identified in Fission Yeast to Elucidate the Molecular Pathology of Tuberous Sclerosis	$84,318.00
2013	STANFORD, WILLIAM	UNIVERSITY OF OTTAWA	Modeling TSC and LAM Using Patient-Derived Induced Pluripotent Stem Cells	$658,419.00
2010	ROBERGE, MICHEL	UNIVERISTY OF BRITISH COLUMBIA	Study of mTOR Signaling Inhibitors as Potential Treatment for TSC	$107,050.00
2008	STAMBOLIC, VUK	UNIVERSITY HEALTH NETWORK, TORONTO	Development of a Novel NMR-Based Rheb GTPase Assay and Molecular Characterization of TSC2 GAP Activity	$110,400.00
2005	MCNEILL, HELEN	MOUNT SINAI HOSPITAL, SAMUEL LUNENFELD RESEARCH INSTITUTE	Genetic and Molecular Analysis of the Mechanisms by which TSC Regulates Neuronal Differentiation	$357,029.00
England				**$584,708.00**
2018	DUNLOP, ELAINE	CARDIFF UNIVERSITY	An Innovative Model System of Cell Invasion in TSC/LAM to Uncover New Drug Targets and Therapies	$99,995.00
2016	BATEMAN, JOSEPH	KING'S COLLEGE, LONDON	Establishing the Molecular Basis of the Neurodevelopmental Features of TSC	$484,713.00
Germany				**$146,049.35**
2019	KUEMMEL, DANIEL	WESTFAELISCHE WILHELMS-UNIVERSITAET MUENSTER	Structural Analysis of the TSC Complex by Single Particle Reconstruction	$146,049.35
Japan				**$420,000.00**
2004	MATSUMOTO, TOMOHIRO	KYOTO UNIVERSITY	Fission Yeast Model Study for Dissection of TSC Pathway	$420,000.00
Switzerland				**$714,141.00**
2021	HALL, MICHAEL N	UNIVERSITAT BASEL	Selective mTORC1 Inhibitors to Treat TSC	$549,471.00
2019	HALL, MICHAEL N	UNIVERSITAT BASEL	Novel mTORC1 Inhibitors to Treat TSC	$164,670.00
The Netherlands				**$350,548.00**
2006	NELLIST, MARK	Erasmus MC-Daniel den Hoed Cancer Center	Biochemical Characterization of TSC1 and TSC2 Variants Identified in Patients with Tuberous Sclerosis Complex	$350,548.00