**Cluster 0**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| The UCLA Center in Early Detection of Liver Cancer | UNIVERSITY OF CALIFORNIA LOS ANGELES | U01 | 2019 | 0.04 |
| Spectral precision imaging for early diagnosis of colorectal lesions with CT colonography | MASSACHUSETTS GENERAL HOSPITAL | R01 | 2020 | 0.038 |
| A NON INVASIVE DERMATOLOGICAL LESION CLASSIFIER | WESTERN RESEARCH COMPANY, INC. | R44 | 2001 | 0.038 |
| Deep radiomic colon cleansing for laxative-free CT colonography | MASSACHUSETTS GENERAL HOSPITAL | R21 | 2018 | 0.037 |
| Early Detection of Keratoconus | COLUMBIA UNIVERSITY HEALTH SCIENCES | R01 | 2013 | 0.034 |

**Cluster 1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Assessing ASL CBF as a biomarker for early Alzheimer's disease detection and disease progression | UNIVERSITY OF MARYLAND BALTIMORE | R01 | 2020 | 0.3 |
| Computational Prediction and Functional Validation of Novel Epigenetic Risk Loci in Alzheimer's Disease | EMORY UNIVERSITY | R56 | 2018 | 0.27 |
| Disparities in the Diagnosis of Alzheimer's Disease Among African American and European American Veterans | SEATTLE INST FOR BIOMEDICAL/CLINICAL RES | R56 | 2018 | 0.27 |
| Using connectomics to characterize risk for Alzheimer's Disease | MEDICAL UNIVERSITY OF SOUTH CAROLINA | R01 | 2020 | 0.26 |
| Blood Base Bioenergetic Profiling: A Novel Approach for Identifying Alzheimer's Disease Risk and Pathology | WAKE FOREST UNIVERSITY HEALTH SCIENCES | R01 | 2020 | 0.25 |

**Cluster 2**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Neural Signature of Fear Overgeneralization in Trauma Exposed Adults | NEW YORK STATE PSYCHIATRIC INSTITUTE | R01 | 2018 | 0.048 |
| Neural mechanisms of pathological selfishness | UNIVERSITY OF PENNSYLVANIA | F32 | 2020 | 0.041 |
| Neural mechanisms of attentional priority for visual features and objects | MICHIGAN STATE UNIVERSITY | R01 | 2016 | 0.04 |
| Neurocognitive Mechanisms of the Executive Control of Memory and Emotion | UNIVERSITY OF CALIFORNIA LOS ANGELES | F31 | 2016 | 0.037 |
| Multi-Level Modeling of Addiction Comorbidity | UNIV OF ARKANSAS FOR MED SCIS | F30 | 2020 | 0.036 |

**Cluster 3**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| The NonCancer Care of Elderly Colorectal Cancer Patients | UNIVERSITY OF WASHINGTON | R01 | 2006 | 0.066 |
| Periodontal Disease and the Incidence of Oral Cancer | ROSWELL PARK CANCER INSTITUTE CORP | R03 | 2007 | 0.061 |
| Prospective study on viral load of cervical cancer | KAROLINSKA INSTITUTE | R01 | 2005 | 0.058 |
| Advancing Cancer Pharmacoepidemiology Research Through EHRs and Informatics | UNIVERSITY OF TEXAS HLTH SCI CTR HOUSTON | U24 | 2020 | 0.057 |
| Optimizing cervical cancer screening for HPV-vaccinated women: Evaluation of post-vaccination cervical cancer screening test | UNIVERSITY OF MINNESOTA | R03 | 2020 | 0.053 |

**Cluster 4**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| High throughput assaying of circuit activity and connectivity in brain organoids | HARVARD UNIVERSITY | RF1 | 2020 | 0.035 |
| Bayesian Methods for Localizing Dynamic Brain Activity and Epileptogenic Zones | UNIVERSITY OF CALIFORNIA, SAN FRANCISCO | F32 | 2011 | 0.034 |
| BRAIN INITIATIVE RESOURCE: DEVELOPMENT OF A HUMAN NEUROELECTROMAGNETIC DATA ARCHIVE AND TOOLS RESOURCE (NEMAR) | UNIVERSITY OF CALIFORNIA, SAN DIEGO | R24 | 2020 | 0.031 |
| BrainStorm: Highly Extensible Software for Advanced Electrophysiology and MEG/EEG Imaging | UNIVERSITY OF SOUTHERN CALIFORNIA | R01 | 2020 | 0.03 |
| Motion Robust Mapping of Human Brain Functional Connectivity Changes in Utero | UNIVERSITY OF WASHINGTON | R01 | 2016 | 0.029 |

**Cluster 5**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Identifying Receipt of Colorectal Cancer Screening | VANDERBILT UNIVERSITY | R21 | 2008 | 0.33 |
| Increasing CRC Screening in Primary Care Settings | UNIVERSITY OF ILLINOIS | R01 | 2007 | 0.33 |
| Mammography Visits to Improve Colon Cancer Screening | UNIVERSITY OF MICHIGAN AT ANN ARBOR | K07 | 2009 | 0.32 |
| Reducing disparities in colorectal cancer screening in Vietnamese Americans | CANCER PREVENTION INSTIT OF CALIFORNIA | R01 | 2012 | 0.32 |
| Comprehensive Colorectal Cancer Risk Prediction to Inform Personalized Screening | FRED HUTCHINSON CANCER RESEARCH CENTER | R01 | 2020 | 0.31 |

**Cluster 6**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| A Computational Biomechanical Airway Model for Obese Children at Risk for OSAS | ALBERT EINSTEIN COLLEGE OF MEDICINE | R01 | 2020 | 0.098 |
| Multi-Site Validation Study of the HLHS Arrest Predictor | BAYLOR COLLEGE OF MEDICINE | R01 | 2020 | 0.096 |
| Development of clinical decision tools for management of diarrhea of children in high and low resource settings | UNIVERSITY OF UTAH | R01 | 2020 | 0.088 |
| Predicting Heterogeneous Neurodevelopmental Outcomes in School-age Children with Early Caregiving Adversities | COLUMBIA UNIV NEW YORK MORNINGSIDE | R01 | 2020 | 0.083 |
| The New Tics Study: A Novel Approach to Pathophysiology and Cause of Tic Disorders | WASHINGTON UNIVERSITY | R01 | 2020 | 0.081 |

**Cluster 7**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Clinically Relevant Genome Variation Database | STANFORD UNIVERSITY | U01 | 2016 | 0.096 |
| EMR Phenotype and Community Engaged Genomic Associations | MAYO CLINIC ROCHESTER | U01 | 2014 | 0.085 |
| Creating a Myelomeningocele Exome Variant Map | UNIVERSITY OF TEXAS HLTH SCI CTR HOUSTON | R01 | 2018 | 0.083 |
| Genetic Factors in Keratoconus | CEDARS-SINAI MEDICAL CENTER | R01 | 2019 | 0.081 |
| Optimizing Genetic Testing for Deafness for Clinical Diagnostics | UNIVERSITY OF IOWA | R01 | 2020 | 0.079 |

**Cluster 8**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Systems Microscopy Analysis of Tumor Cell Motility in Microenvironment Context | TEMPLE UNIV OF THE COMMONWEALTH | R00 | 2017 | 0.15 |
| Systems microscopy analysis of tumor cell motility in microenvironment context | ALBERT EINSTEIN COLLEGE OF MEDICINE | K99 | 2014 | 0.15 |
| Genotype and phenotype predictors in therapy response in renal cell carcinoma | UNIVERSITY OF PENNSYLVANIA | R01 | 2013 | 0.13 |
| Quantitative Multimodal Image Guidance for Improved Liver Cancer Treatment | YALE UNIVERSITY | R01 | 2020 | 0.13 |
| SBIR Phase I Topic 402 - Artificial Intelligence-Aided Imaging for Cancer Prevention, Diagnosis, and Monitoring | PHENOMAPPER, LLC | N43 | 2020 | 0.1 |

**Cluster 9**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Cerebellar connectivity and error-based learning in infants at risk for autism | WASHINGTON UNIVERSITY | F31 | 2020 | 0.26 |
| Investigating quantitative signatures of autism in toddlers | COLUMBIA UNIVERSITY TEACHERS COLLEGE | R01 | 2020 | 0.23 |
| Novel video-based approaches for detection of autism risk in the first year of life | UNIVERSITY OF CALIFORNIA AT DAVIS | R01 | 2020 | 0.23 |
| Clinical algorithm for identifying adult autism | UNIVERSITY OF PENNSYLVANIA | R34 | 2015 | 0.22 |
| Novel computer vision-based assessment of infant-caregiver synchrony as an early level II screening tool for autism | CHILDREN'S HOSP OF PHILADELPHIA | R21 | 2020 | 0.21 |

**Cluster 10**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Big Data analytics of HIV treatment gaps in South Carolina: Identification and prediction | UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA | R01 | 2020 | 0.39 |
| Big Data Analysis of HIV Risk and Epidemiology in Sub-Saharan Africa | STANFORD UNIVERSITY | R01 | 2020 | 0.36 |
| Addressing Major HIV Prevention and Health Outcomes Questions in an Era of Universal ART: Mentoring in a Community-Randomized Trial | BRIGHAM AND WOMEN'S HOSPITAL | K24 | 2020 | 0.35 |
| HIV Testing, Linkage and Retention in Care: Contextual Factors and Disparities | UNIVERSITY OF CALIFORNIA LOS ANGELES | R01 | 2017 | 0.35 |
| Developing an artificial intelligence-based mHealth intervention to increase HIV testing in Malaysia | YALE UNIVERSITY | R21 | 2020 | 0.35 |

**Cluster 11**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| A Multisite Neurobehavioral Assessment of Fetal Alcohol Spectrum Disorders | SAN DIEGO STATE UNIVERSITY | U01 | 2020 | 0.3 |
| Mouse Model Neuro-Facial Dysmorphology: Tanslational and Treatment Studies | INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS | U01 | 2011 | 0.28 |
| Spectrum of and Nutritional Risk Factors for FASD in Russia and Ukraine | UNIVERSITY OF CALIFORNIA, SAN DIEGO | U01 | 2011 | 0.27 |
| Administrative Core of the CIFASD | SAN DIEGO STATE UNIVERSITY | U24 | 2020 | 0.25 |
| Maternal circulating miRNA function in Fetal Alcohol Spectrum Disorders | TEXAS A&M UNIVERSITY HEALTH SCIENCE CTR | F31 | 2019 | 0.22 |

**Cluster 12**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| DNA Methylation and gene expression variations influence pituitary adenoma hormonal function and invasive growth | UNIVERSITY OF SOUTHERN CALIFORNIA | R01 | 2020 | 0.13 |
| Revealing the transcriptomic basis of neuronal identity through functional meta-analysis | COLD SPRING HARBOR LABORATORY | R01 | 2020 | 0.11 |
| Regularized Classification & Survival Analysis for Expression Profiling of Cancer | UNIVERSITY OF IOWA | R01 | 2011 | 0.095 |
| Point Impact and Sparsity in Functional Data Analysis. | COLUMBIA UNIVERSITY HEALTH SCIENCES | R01 | 2014 | 0.093 |
| Translational Bioinformatics for Human Developmental Genomics | TUFTS UNIVERSITY MEDFORD | R01 | 2012 | 0.088 |

**Cluster 13**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| A Hybrid General Natural Language Processing Architecture | LOGICAL SEMANTICS, INC. | R43 | 2010 | 0.059 |
| Engineering Approach to Individually Tailored Medicine | UNIVERSITY OF CALIFORNIA LOS ANGELES | R01 | 2007 | 0.054 |
| Secondary use of EMRs for surgical complication surveillance | MAYO CLINIC ROCHESTER | R01 | 2018 | 0.045 |
| CLAMP-CS: a Cloud-based, Service-oriented, high-performance Natural Language Processing Platform for Healthcare | MELAX TECHNOLOGIES, INC. | R44 | 2020 | 0.042 |
| Capturing and linking genomic and clinical information | COLUMBIA UNIVERSITY HEALTH SCIENCES | R01 | 2006 | 0.042 |

**Cluster 14**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| AUTOMATIC QUANTITATIVE CT IMAGING OF PERICARDIAL FAT: A NOVEL ISCHEMIA PREDICTOR | CEDARS-SINAI MEDICAL CENTER | R21 | 2009 | 0.13 |
| Transition from Risk Factors to Early HF: Prevalence, Pathogenesis, and Phenomics | WAKE FOREST UNIVERSITY HEALTH SCIENCES | R01 | 2018 | 0.12 |
| Comprehensive Cardiac Structure-Function Analysis in Heart Transplantation | NORTHWESTERN UNIVERSITY AT CHICAGO | R01 | 2018 | 0.098 |
| CorBand: A novel wearable wrist sensor for heart failure remote monitoring | RETHINK MEDICAL, INC. | R44 | 2017 | 0.097 |
| Early Diagnosis of Heart Failure: A Perioperative Data-Driven Approach | UNIVERSITY OF MICHIGAN AT ANN ARBOR | K01 | 2020 | 0.094 |

**Cluster 15**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| The Gut Microbiome in Parkinson Disease | UNIVERSITY OF MASSACHUSETTS LOWELL | R01 | 2019 | 0.03 |
| Metabolomics and risk of Parkinson's Disease | HARVARD SCHOOL OF PUBLIC HEALTH | R01 | 2019 | 0.025 |
| Precision immunoprofiling to reveal diagnostic biomarkers of latent TB infection | UNIVERSITY OF MICHIGAN AT ANN ARBOR | R01 | 2020 | 0.022 |
| Identifying individuals at risk of progression to active tuberculosis | UNIVERSITY OF CALIFORNIA, SAN DIEGO | R01 | 2020 | 0.02 |
| Environment, Metabolomics, and PD | UNIVERSITY OF CALIFORNIA LOS ANGELES | R21 | 2020 | 0.017 |

**Cluster 16**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Speech Prosody and Articulatory Dynamics in Spoken Language | UNIVERSITY OF SOUTHERN CALIFORNIA | R01 | 2016 | 0.36 |
| Functional Architecture of Speech Motor Cortex | UNIVERSITY OF CALIFORNIA, SAN FRANCISCO | U01 | 2018 | 0.33 |
| Multimodal Speech Translation for Assistive Communication | NORTHEASTERN UNIVERSITY | R21 | 2015 | 0.33 |
| SPEECH MOVEMENT CLASSIFICATION FOR ASSESSING AND TREATING ALS | MGH INSTITUTE OF HEALTH PROFESSIONS | R01 | 2018 | 0.32 |
| Speech Movement Classification for Assessing and Treating ALS | MGH INSTITUTE OF HEALTH PROFESSIONS | R01 | 2017 | 0.32 |

**Cluster 17**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Institutional Collaboration between LSTM and CDC and Prevention on Malaria(U01) | TMLIVERPOOL SCHOOL OF TROPICAL MEDICINE | U01 | 2015 | 0.61 |
| Vaccine Development for Falciparum Malaria in Pregnant Women and Their Offspring | RHODE ISLAND HOSPITAL | K08 | 2017 | 0.51 |
| Towards noninvasive diagnosis of malaria | CHILDREN'S HOSP OF PHILADELPHIA | R21 | 2020 | 0.5 |
| Systems Biology of Plasmodium falciparum: Building and Exploring Network Models | UNIVERSITY OF TEXAS SAN ANTONIO | SC1 | 2015 | 0.34 |
| Malarial Retinopathy Screening System for Improved Diagnosis of Cerebral Malaria | VISIONQUEST BIOMEDICAL INC | R44 | 2020 | 0.29 |

**Cluster 18**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Digital Mammography: Advanced Computer-Aided Breast Can\* | UNIVERSITY OF MICHIGAN | R01 | 2007 | 0.29 |
| Improving Breast Cancer Detection and Diagnosis with CAD | UNIVERSITY OF PITTSBURGH AT PITTSBURGH | R01 | 2011 | 0.29 |
| Digital Tomosynthesis Mammography: Computer-Aided Analysis of Masses | UNIVERSITY OF MICHIGAN AT ANN ARBOR | R33 | 2009 | 0.27 |
| Toward Diagnostics and Therapies of Molecular Subcategories of CAD | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI | R01 | 2018 | 0.25 |
| Information-Theoretic Based CAD in Mammography | DUKE UNIVERSITY | R01 | 2008 | 0.24 |

**Cluster 19**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Detection of Glaucoma Progression with Macular OCT Imaging | UNIVERSITY OF CALIFORNIA LOS ANGELES | K23 | 2016 | 0.37 |
| Functional and Structural Optical Coherence Tomography for Glaucoma | OREGON HEALTH & SCIENCE UNIVERSITY | R01 | 2020 | 0.35 |
| Medical Advice from Glaucoma Informatics (MAGI) | UNIVERSITY OF CALIFORNIA SAN DIEGO | R33 | 2005 | 0.34 |
| Diagnostic Innovations in Glaucoma: Clinical Electrophysiology | UNIVERSITY OF CALIFORNIA, SAN DIEGO | R21 | 2008 | 0.32 |
| A hybrid artificial intelligence framework for glaucoma monitoring | UNIVERSITY OF TENNESSEE HEALTH SCI CTR | R21 | 2020 | 0.31 |

**Cluster 20**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Deep Learning and Streaming Analytics for Prediction of Adverse Events in the ICU | UNIVERSITY OF CALIFORNIA, SAN DIEGO | K01 | 2019 | 0.076 |
| Enhancing an EMR-Based Real-Time Sepsis Alert System Performance through Machine Learning | WAYNE STATE UNIVERSITY | R21 | 2017 | 0.076 |
| Using clinical treatment data in a machine learning approach for sepsis detection | DASCENA, INC. | R43 | 2018 | 0.074 |
| Sepsis Early Prediction and Subphenotype Illumination Study (SEPSIS) | UNIVERSITY OF WISCONSIN-MADISON | R01 | 2020 | 0.067 |
| Sepsis Early Prediction and Subphenotype Illumination Study (SEPSIS) | UNIVERSITY OF CHICAGO | R01 | 2019 | 0.067 |

**Cluster 21**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| The initial care of younger adults with newly diagnosed type 2 diabetes | KAISER FOUNDATION RESEARCH INSTITUTE | K23 | 2020 | 0.046 |
| SURPASS: (Statin Use and Risk Prediction of Atherosclerotic Cardiovascular Disease in minority Subgroups) | STANFORD UNIVERSITY | K01 | 2020 | 0.038 |
| Epidemiology and clinical outcomes of diabetic macular edema | UNIVERSITY OF WASHINGTON | K23 | 2020 | 0.029 |
| Predictive Model of Chronic Kidney Disease in a Hispanic Population | UNIVERSITY OF TEXAS MED BR GALVESTON | K22 | 2016 | 0.029 |
| Data-Driven Identification of the Acute Respiratory Distress Syndrome | UNIVERSITY OF MICHIGAN AT ANN ARBOR | K01 | 2020 | 0.028 |

**Cluster 22**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Quantitative Parenchyma Descriptor as an Imaging Biomarker of Breast Cancer Risk | UNIVERSITY OF MICHIGAN AT ANN ARBOR | U01 | 2019 | 0.24 |
| Migraine, Migraine Medication Use, and Risk of Breast Cancer | FRED HUTCHINSON CANCER RESEARCH CENTER | R03 | 2010 | 0.24 |
| NESTED CASE CONTROL STUDY OF MAMMOGRAPHIC DENSITY | UNIVERSITY OF HAWAII AT MANOA | R01 | 2002 | 0.24 |
| Mitochondrial Haplogroups and Breast Cancer Risk | BRIGHAM AND WOMEN'S HOSPITAL | R03 | 2008 | 0.24 |
| Convergent AI for Precise Breast Cancer Risk Assessment | METHODIST HOSPITAL RESEARCH INSTITUTE | R01 | 2020 | 0.23 |

**Cluster 23**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Very large datasets and new models to predict and design protein interactions | MASSACHUSETTS INSTITUTE OF TECHNOLOGY | R01 | 2014 | 0.22 |
| Computer Studies of Protein Structure and Function | COLUMBIA UNIVERSITY HEALTH SCIENCES | R01 | 2016 | 0.19 |
| Proteomics of ciliopathy protein complexes | UNIVERSITY OF TEXAS, AUSTIN | F31 | 2019 | 0.18 |
| Advanced approaches to protein structure prediction | UNIVERSITY OF MICHIGAN AT ANN ARBOR | R35 | 2020 | 0.18 |
| Understanding molecular rules governing protein allostery by deep mutational scanning | UNIVERSITY OF WISCONSIN-MADISON | DP2 | 2018 | 0.17 |

**Cluster 24**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Biomarker panel to differentiate stroke from stroke mimic | PREDICTION SCIENCES, LLC | R43 | 2008 | 0.4 |
| Sleep apnea after stroke: Implications for screening and treatment | UNIVERSITY OF MICHIGAN AT ANN ARBOR | R01 | 2019 | 0.4 |
| Fast and Easy Assessment of Stroke | ALVA HEALTH, INC. | R43 | 2019 | 0.39 |
| Whole Transcriptome Studies of Patients with Transient Ischemic Attacks (TIAs) | UNIVERSITY OF CALIFORNIA AT DAVIS | R01 | 2020 | 0.38 |
| MEDIC ONE STROKE SCALE | UNIVERSITY OF WASHINGTON | K23 | 2003 | 0.36 |

**Cluster 25**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| fMRI-based Biomarkers for Multiple Components of Pain | UNIVERSITY OF COLORADO | R01 | 2017 | 0.4 |
| Mechanistic Characterization of Pain in Temporomandibular Disorders: Does Pain Centralization Influence Responsiveness to Peripherally Targeted Treatments? | EMORY UNIVERSITY | R00 | 2020 | 0.39 |
| Neuroimaging-based biomarkers for two components of pain | COLUMBIA UNIV NEW YORK MORNINGSIDE | RC1 | 2010 | 0.38 |
| Development of a deep neural network to measure spontaneous pain from mouse facial expressions | UNIV OF NORTH CAROLINA CHAPEL HILL | R01 | 2020 | 0.37 |
| A Multimodal Approach for Monitoring Prolonged Acute Pain in Neonates | UNIVERSITY OF SOUTH FLORIDA | R21 | 2020 | 0.37 |

**Cluster 26**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Gene-Gene Interactions and Their Functional Roles in Prostate Cancer Aggressiveness | LSU HEALTH SCIENCES CENTER | R21 | 2017 | 0.35 |
| Genetic & epigenetic analysis of angiogenesis genes in recurrent prostate cancer | H. LEE MOFFITT CANCER CTR & RES INST | R01 | 2012 | 0.35 |
| CLINICAL AND EPIDEMIOLOGICAL CENTER--PROSTATE CANCER | JOHNS HOPKINS UNIVERSITY | U01 | 2004 | 0.33 |
| Modifiable Risk Factors for Fatal Prostate Cancer: A Prospective Study In Asia | VANDERBILT UNIVERSITY | R03 | 2013 | 0.33 |
| MRI Imaging and Biomarkers for Early Detection of Aggressive Prostate Cancer | UNIVERSITY OF MIAMI SCHOOL OF MEDICINE | U01 | 2020 | 0.32 |

**Cluster 27**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| A systems analysis of drug tolerance in Mycobacterium tuberculosis | INSTITUTE FOR SYSTEMS BIOLOGY | R01 | 2020 | 0.12 |
| HIGH THROUGHPUT IN VIVO DRUG DISCOVERY-PHASE 1 | PSYCHOGENICS, INC. | R43 | 2005 | 0.096 |
| Mapping the Drugome: predictive network approaches to drug safety surveillance | BOSTON CHILDREN'S HOSPITAL | R00 | 2014 | 0.094 |
| Peripheral Nerve-on-a-chip for Predictive Preclinical Pharmaceutical Testing | AXOSIM, INC. | R42 | 2018 | 0.09 |
| MegaTrans – human transporter machine learning models | COLLABORATIONS PHARMACEUTICALS, INC. | R41 | 2019 | 0.09 |

**Cluster 28**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Seasonality of Suicide and Airborne Allergens | UNIVERSITY OF MARYLAND BALTIMORE | R01 | 2009 | 0.43 |
| SEASONALITY OF SUICIDE AND AIRBORNE ALLERGENS | UNIVERSITY OF MARYLAND BALTIMORE | R01 | 2008 | 0.43 |
| Computerized Adaptive Suicidal Risk Stratification and Prediction | ADAPTIVE TESTING TECHNOLOGIES | R44 | 2020 | 0.43 |
| Digital Monitoring of Agitation for Short-Term Suicide Risk Prediction | MASSACHUSETTS GENERAL HOSPITAL | K23 | 2020 | 0.42 |
| Treatment Utilization Before Suicide (TUBS) | HENRY FORD HEALTH SYSTEM | R01 | 2018 | 0.42 |

**Cluster 29**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| PEDIATRIC ASTHMA DISPARITIES: PERCEPTIONS AND MANAGEMENT | RHODE ISLAND HOSPITAL | U01 | 2008 | 0.51 |
| Asthma ascertainment and characterization through electronic health records | MAYO CLINIC ROCHESTER | R01 | 2017 | 0.47 |
| Nasal biomarkers of asthma | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI | R01 | 2019 | 0.45 |
| DISPARITIES IN ASTHMA AMONG ELDERLY IN WEST TEXAS | TEXAS TECH UNIVERSITY HEALTH SCIS CENTER | R03 | 2003 | 0.45 |
| Secondary use of EMR for residency training in asthma care and documentation | MAYO CLINIC ROCHESTER | R21 | 2020 | 0.44 |

**Cluster 30**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Vitamin D, Epstein-Barr virus infection, and cigarette smoking and risk of multip | HARVARD SCHOOL OF PUBLIC HEALTH | R01 | 2015 | 0.34 |
| Improving Diagnosis of Multiple Sclerosis Through the Integration of Novel Imaging and Laboratory Biomarkers | UNIVERSITY OF VERMONT & ST AGRIC COLLEGE | K02 | 2020 | 0.33 |
| A New Model of Peptide Fragmentation for Improved Protein Identification and Targ | UNIVERSITY OF COLORADO | R01 | 2015 | 0.33 |
| Novel Strategies to Identify GxE Contributions to MS Pathogenesis | UNIVERSITY OF CALIFORNIA BERKELEY | R01 | 2015 | 0.3 |
| Sequential Ion/Ion Reactions for Large Peptide and Whole Protein Characterization | UNIVERSITY OF WISCONSIN-MADISON | R01 | 2015 | 0.27 |

**Cluster 31**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Development and Dissemination of MuscleMiner: An Imaging Informatics Tool for Mus | UNIVERSITY OF FLORIDA | R01 | 2018 | 0.067 |
| Development and Dissemination of MuscleMiner: An Imaging Informatics System for Muscle | UNIVERSITY OF FLORIDA | R01 | 2016 | 0.067 |
| Multimodal image registration by proxy image synthesis | JOHNS HOPKINS UNIVERSITY | R01 | 2015 | 0.06 |
| Clinical Image Retrieval: User needs assessment toolbox development & evaluation | MASSACHUSETTS GENERAL HOSPITAL | R00 | 2013 | 0.059 |
| Clinical Image Retrieval: User needs assessment, toolbox development & evaluation | OREGON HEALTH & SCIENCE UNIVERSITY | K99 | 2010 | 0.059 |

**Cluster 32**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Histopathology correlated quantitative analysis of lung nodules with LDCT for early detection of lung cancer | UNIVERSITY OF MICHIGAN AT ANN ARBOR | U01 | 2020 | 0.22 |
| EARLY DETECTION OF LUNG CANCER USING METABOLOMIC LIPID PROFILING | RUSH UNIVERSITY MEDICAL CENTER | R21 | 2014 | 0.22 |
| Macro-vasculature: A Novel Image Biomarker of Lung Cance | UNIVERSITY OF PITTSBURGH AT PITTSBURGH | R01 | 2020 | 0.22 |
| A diagnostic model for malignant pulmonary nodules | UNIVERSITY OF MARYLAND BALTIMORE | R21 | 2020 | 0.21 |
| Lung cancer in East Africa and the relationship to HIV-1 infection: epidemiology, molecular characterization and imaging | CASE WESTERN RESERVE UNIVERSITY | U54 | 2020 | 0.21 |

**Cluster 33**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Olfactory and facial markers of developmental risk for psychosis in 22q11 deletion syndrome | UNIVERSITY OF PENNSYLVANIA | R01 | 2020 | 0.18 |
| Ultra-high field GluCEST MRI and MRS in youth at risk for psychosis | UNIVERSITY OF PENNSYLVANIA | R01 | 2020 | 0.17 |
| 2/5 CAPER Computerized assessment of psychosis risk | NORTHWESTERN UNIVERSITY | R01 | 2020 | 0.16 |
| 4/5 CAPER: Computerized assessment of psychosis risk | UNIVERSITY OF GEORGIA | R01 | 2020 | 0.16 |
| CAPER: Computerized Assessment of Psychosis Risk | TEMPLE UNIV OF THE COMMONWEALTH | R01 | 2020 | 0.16 |

**Cluster 34**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| AUTOMATED METHODS TO SUPPORT THE DETECTION OF DEPRESSION IN DEMENTIA | CARNEGIE-MELLON UNIVERSITY | RC1 | 2010 | 0.13 |
| An Expert System to Reduce Depression in Primary Care | PRO-CHANGE BEHAVIOR SYSTEMS, INC. | R44 | 2004 | 0.1 |
| Effectiveness of Treating Prenatal Depression to Reduce Postpartum Depression | KAISER FOUNDATION RESEARCH INSTITUTE | R01 | 2016 | 0.1 |
| Changing Talk Online (CHATO): A Pragmatic Trial to Reduce Behavioral Symptoms in Dementia Care | UNIVERSITY OF KANSAS MEDICAL CENTER | R61 | 2019 | 0.09 |
| Planning Changing Talk Online (CHATO): a Clinical Trial Testing the Effects of Online Communication Training for Nursing Home Staff on Behavioral and Psychological Symptoms of Residents with Dementia | UNIVERSITY OF KANSAS MEDICAL CENTER | R34 | 2018 | 0.083 |