**Cluster 0:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Novel deep learning strategy to better predict pharmacological properties of candidate drugs and focus discovery efforts | COLLABORATIVE DRUG DISCOVERY, INC. | R44 | 2020 | 0.094 |
| HIGH THROUGHPUT IN VIVO DRUG DISCOVERY-PHASE 1 | PSYCHOGENICS, INC. | R43 | 2005 | 0.091 |
| A Machine Learning Platform for Adaptive Chemical Screening | MORGRIDGE INSTITUTE FOR RESEARCH, INC. | R01 | 2020 | 0.083 |
| Development of a novel pharmaco-EEG based, high-throughput screening platform to facilitate drug discovery for psychiatric disorders | PSYCHOGENICS, INC. | R43 | 2020 | 0.082 |
| Clustering of the drug activities of the NCI-60 cancerous cell lines | DIVISION OF BASIC SCIENCES - NCI | ZIC | 2013 | 0.076 |

**Cluster 1:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Statistical methods for real-time forecasts of infectious disease: dynamic time-series and machine learning approaches | UNIVERSITY OF MASSACHUSETTS AMHERST | R35 | 2020 | 0.14 |
| Models for synthesising molecular, clinical and epidemiological data, and transla | U OF L IMPERIAL COL OF SCI/TECHNLGY/MED | U01 | 2018 | 0.14 |
| A Framework for Integrating Multiple Data Sources for Modeling and Forecasting of Infectious Diseases | UNIVERSITY OF WASHINGTON | K01 | 2016 | 0.12 |
| Computational Models of Infectious Disease Threats | UNIVERSITY OF PITTSBURGH AT PITTSBURGH | U01 | 2008 | 0.12 |
| New Serological Measures of Infectious Disease Transmission Intensity | UNIVERSITY OF CALIFORNIA BERKELEY | K01 | 2019 | 0.11 |

**Cluster 2:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Mining health data for drug safety profiles | STANFORD UNIVERSITY | R01 | 2017 | 0.13 |
| EMR Adverse Drug Event Detection for Pharmacovigilance | UNIV OF MASSACHUSETTS MED SCH WORCESTER | U01 | 2016 | 0.11 |
| Safety Promotion through Early Event Detection in the Elderly (SPEEDe) | VANDERBILT UNIVERSITY MEDICAL CENTER | R01 | 2020 | 0.1 |
| Mining Social Network Postings for Mentions of Potential Adverse Drug Reactions | ARIZONA STATE UNIVERSITY-TEMPE CAMPUS | R01 | 2015 | 0.1 |
| Transforming Patient Safety Event Data into Actionable Insights through Advanced Analytics | MEDSTAR HEALTH RESEARCH INSTITUTE | R01 | 2020 | 0.098 |

**Cluster 3:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Prediction of COPD Progression by PRM | UNIVERSITY OF MICHIGAN AT ANN ARBOR | R01 | 2020 | 0.029 |
| Identifying individuals at risk of progression to active tuberculosis | UNIVERSITY OF CALIFORNIA, SAN DIEGO | R01 | 2020 | 0.029 |
| Urinary Polypeptide Biomarkers of IgA Nephropathy | UNIVERSITY OF ALABAMA AT BIRMINGHAM | R21 | 2010 | 0.027 |
| Predictive Biomarkers for disease activity and organ damage in patients with lupus | MEDICAL UNIVERSITY OF SOUTH CAROLINA | R01 | 2020 | 0.023 |
| Identification of immune cell-cell communication networks and inflammatory pulmonary microenvironments associated with the progression of COPD | UNIVERSITY OF MICHIGAN AT ANN ARBOR | R01 | 2020 | 0.022 |

**Cluster 4:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Computational genome-wide RNA profiling using next-generation sequencing | UNIVERSITY OF PENNSYLVANIA | R01 | 2016 | 0.05 |
| The Molecular Pathogenesis of Health Disparities in Inf\* | NORTHSHORE UNIVERSITY HEALTHSYSTEM | R01 | 2005 | 0.045 |
| PATHOGENESIS OF HEALTH DISPARITIES IN PRETERM BIRTH | EVANSTON NORTHWESTERN HEALTHCARE RES INS | R01 | 2001 | 0.044 |
| New methods for computational modeling of RNA structures | UNIVERSITY OF MISSOURI-COLUMBIA | R35 | 2020 | 0.041 |
| Structure, function, and dynamics of viral RNAs and RNA-containing complexes | UNIVERSITY OF COLORADO DENVER | R35 | 2020 | 0.041 |

**Cluster 5:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| High Resolution Connectomics of Mammalian Neural Circuits | HARVARD UNIVERSITY | R01 | 2015 | 0.13 |
| Mechanisms of neural circuit dynamics in working memory | PRINCETON UNIVERSITY | U01 | 2016 | 0.13 |
| Mechanisms of neural circuit dynamics in working memory anddecision-making | PRINCETON UNIVERSITY | U19 | 2020 | 0.11 |
| Neuromodulatory control of collective circuit dynamics in C. elegans | MASSACHUSETTS INSTITUTE OF TECHNOLOGY | R01 | 2020 | 0.11 |
| A MOLECULAR CODE FOR CONNECTIVITY IN THE NEOCORTEX | BAYLOR COLLEGE OF MEDICINE | R01 | 2016 | 0.096 |

**Cluster 6:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Genome-Wide Association Analysis of Bladder Cancer | UNIVERSITY OF TX MD ANDERSON CAN CTR | U01 | 2012 | 0.18 |
| Inflammation Genes and Lung Cancer Risk | BAYLOR COLLEGE OF MEDICINE | R01 | 2013 | 0.18 |
| High Density Association Analysis of Lung Cancer | UNIVERSITY OF TX MD ANDERSON CAN CTR | R01 | 2010 | 0.16 |
| Molecular Genetics of HNPCC | UNIVERSITY OF TX MD ANDERSON CAN CTR | R01 | 2011 | 0.14 |
| Machine Learning Prediction of Cancer Susceptibility | UNIVERSITY OF PENNSYLVANIA | R01 | 2014 | 0.13 |

**Cluster 7:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Clinical Research Sites for the MACS/WIHS Combined Cohort Study (MACS/WIHS-CCS) - Baltimore/Wash DC Center | JOHNS HOPKINS UNIVERSITY | U01 | 2020 | 0.27 |
| Big Data analytics of HIV treatment gaps in South Carolina: Identification and prediction | UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA | R01 | 2020 | 0.25 |
| Developing an artificial intelligence-based mHealth intervention to increase HIV testing in Malaysia | YALE UNIVERSITY | R21 | 2020 | 0.24 |
| Big Data Analysis of HIV Risk and Epidemiology in Sub-Saharan Africa | STANFORD UNIVERSITY | R01 | 2020 | 0.24 |
| Developing an Artificial Intelligence Chatbot to Promote HIV Testing | YALE UNIVERSITY | R21 | 2020 | 0.23 |

**Cluster 8:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Motion Robust Mapping of Human Brain Functional Connectivity Changes in Utero | UNIVERSITY OF WASHINGTON | R01 | 2016 | 0.053 |
| Pattern Analysis of fMRI via machine learning/sparse models: application to brain development | UNIVERSITY OF PENNSYLVANIA | R01 | 2019 | 0.053 |
| C-PAC: A configurable, compute-optimized, cloud-enabled neuroimaging analysis software for reproducible translational and comparative | CHILD MIND INSTITUTE, INC. | R24 | 2020 | 0.045 |
| Mapping normal developmental coupling between structural and functional brain networks and abnormalities associated with psychosis | UNIVERSITY OF PENNSYLVANIA | F31 | 2018 | 0.044 |
| BRAIN INITIATIVE RESOURCE: DEVELOPMENT OF A HUMAN NEUROELECTROMAGNETIC DATA ARCHIVE AND TOOLS RESOURCE (NEMAR) | UNIVERSITY OF CALIFORNIA, SAN DIEGO | R24 | 2020 | 0.043 |

**Cluster 9:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| ABCD-USA Consortium: Research Project | UNIVERSITY OF CALIFORNIA, SAN DIEGO | U01 | 2019 | 0.17 |
| ABCD-USA Consortium:Research Project | UNIVERSITY OF PITTSBURGH AT PITTSBURGH | U01 | 2019 | 0.15 |
| Using Machine Learning Approaches to Examine Emotion-Related Brain Activity and Substance Use Among Adolescents | GEORGE MASON UNIVERSITY | F31 | 2020 | 0.12 |
| ABCD-USA Consortium: Data Analysis Center | UNIVERSITY OF CALIFORNIA, SAN DIEGO | U24 | 2019 | 0.11 |
| Predicting Substance Use and Related Antisocial Behavior with Psychiatric, Socioeconomic, and Brain Measures in Women Offenders | UNIVERSITY OF NEW MEXICO | F31 | 2020 | 0.1 |

**Cluster 10:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Crowd coding in the brain:3D imaging and control of collective neuronal dynamics | UNIV OF MARYLAND, COLLEGE PARK | U01 | 2016 | 0.055 |
| Corticofugal Modulation of Tactile Sensory Processing | DUKE UNIVERSITY | R01 | 2005 | 0.047 |
| Top-down control of auditory processing in the cortico-collicular network | OREGON HEALTH & SCIENCE UNIVERSITY | R01 | 2019 | 0.042 |
| Top-down control of auditory processing in the cortico-collicular network (Administrative Supplement) | OREGON HEALTH & SCIENCE UNIVERSITY | R01 | 2017 | 0.041 |
| Quantitative Tools for Investigating Sensory Systems | UNIVERSITY OF CALIFORNIA BERKELEY | R01 | 2010 | 0.04 |

**Cluster 11:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Structure based design of trimer interface epitope focused universal influenza vaccines | VANDERBILT UNIVERSITY MEDICAL CENTER | U01 | 2020 | 0.056 |
| Optimization and joint modeling for peptide detection by tandem mass spectrometry | UNIVERSITY OF WASHINGTON | R01 | 2020 | 0.054 |
| Alicanto: Proteogenomic discovery of single chain antibodies in llama | DIGITAL PROTEOMICS, LLC | R43 | 2018 | 0.048 |
| Deep learning based antibody design using high-throughput affinity testing of synthetic sequences | MASSACHUSETTS INSTITUTE OF TECHNOLOGY | R01 | 2020 | 0.047 |
| Antibody discovery | NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES | ZIA | 2020 | 0.046 |

**Cluster 12:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Protege: A Knowledge-Engineering Environment for Advancing Biomedical Sciences | STANFORD UNIVERSITY | R01 | 2020 | 0.15 |
| Protege: An Ontology-Development Platform for Biomedical Scientists | STANFORD UNIVERSITY | R01 | 2016 | 0.14 |
| Ontologies and Biomedical Language Processing | UNIVERSITY OF COLORADO DENVER | R01 | 2010 | 0.13 |
| Collaborative Development of Biomedical Ontologies and Terminologies | STANFORD UNIVERSITY | R01 | 2016 | 0.13 |
| Automated Integration of Biomedical Knowledge | BRIGHAM AND WOMEN'S HOSPITAL | R01 | 2010 | 0.13 |

**Cluster 13:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| The Center for Predictive Computational Phenotyping-1 Overall | UNIVERSITY OF WISCONSIN-MADISON | U54 | 2018 | 0.11 |
| Opening the Black Box of Machine Learning Models | UNIVERSITY OF WASHINGTON | R35 | 2020 | 0.037 |
| COMPUTATIONAL THINKING-Computational Abduction for Molecular Biology | UNIVERSITY OF COLORADO DENVER | N03 | 2010 | 0.036 |
| Data-Driven Statistical Learning with Applications to Genomics | UNIVERSITY OF WASHINGTON | DP5 | 2018 | 0.036 |
| COMPUTATIONAL THINKING-Automated Reasoning for Application of Clinical | STANFORD UNIVERSITY | N03 | 2010 | 0.035 |

**Cluster 14:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Biomarker panel to differentiate stroke from stroke mimic | PREDICTION SCIENCES, LLC | R43 | 2008 | 0.32 |
| Sleep apnea after stroke: Implications for screening and treatment | UNIVERSITY OF MICHIGAN AT ANN ARBOR | R01 | 2019 | 0.31 |
| Fast and Easy Assessment of Stroke | ALVA HEALTH, INC. | R43 | 2019 | 0.3 |
| Whole Genome RNA Sequencing (RNAseq) of Blood from Patients with Lacunar Stroke | UNIVERSITY OF CALIFORNIA AT DAVIS | R01 | 2020 | 0.29 |
| Whole Transcriptome Studies of Patients with Transient Ischemic Attacks (TIAs) | UNIVERSITY OF CALIFORNIA AT DAVIS | R01 | 2020 | 0.29 |

**Cluster 15:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Digital Mammography: Advanced Computer-Aided Breast Can\* | UNIVERSITY OF MICHIGAN | R01 | 2007 | 0.21 |
| Computer-Aided Detection of Urinary Tract Cancer on MDCT Urography | UNIVERSITY OF MICHIGAN AT ANN ARBOR | R01 | 2014 | 0.2 |
| COMPUTER AIDED DIAGNOSIS IN CHEST RADIOGRAPHY | UNIVERSITY OF CHICAGO | R01 | 2004 | 0.19 |
| COMPUTERIZED DETECTION OF PULMONARY NODULES | UNIVERSITY OF CHICAGO | R01 | 2002 | 0.17 |
| Improving Breast Cancer Detection and Diagnosis with CAD | UNIVERSITY OF PITTSBURGH AT PITTSBURGH | R01 | 2011 | 0.16 |

**Cluster 16:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Visualization and Analysis of the TCGA Data Using the UCSC Cancer Genomics Browse | UNIVERSITY OF CALIFORNIA SANTA CRUZ | R21 | 2009 | 0.081 |
| Integrative Cancer Genomics: Drivers, Pathways and Drugs | COLUMBIA UNIV NEW YORK MORNINGSIDE | R01 | 2016 | 0.077 |
| A Federated Galaxy for user-friendly large-scale cancer genomics research | OREGON HEALTH & SCIENCE UNIVERSITY | U24 | 2020 | 0.071 |
| MICRORNA BIOMARKERS FOR OROPHARYNGEAL CANCER | UNIVERSITY OF ILLINOIS AT CHICAGO | R01 | 2020 | 0.07 |
| Developing high-throughput genetic perturbation strategies for single cells in cancer organoids | MASSACHUSETTS INSTITUTE OF TECHNOLOGY | U01 | 2020 | 0.064 |

**Cluster 17:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 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 | 0.26 |
| A Noninvasive, Precision Medicine Approach to Improve Breast Cancer Screening Using Cell-free RNA from Saliva. | PRIME GENOMICS, INC. | R43 | 2019 | 0.25 |
| Informatics Techniques to Optimize Mammography for Aging Populations | UNIVERSITY OF WISCONSIN-MADISON | R01 | 2016 | 0.25 |
| Background parenchymal uptake (BPU) on molecular breast imaging as a novel breast cancer risk factor | MAYO CLINIC ROCHESTER | R21 | 2016 | 0.24 |
| Breast Cancer Risk Stratification with Resonant Electrical Impedance Spectroscopy | UNIVERSITY OF PITTSBURGH AT PITTSBURGH | R33 | 2010 | 0.23 |

**Cluster 18:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 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 | 0.11 |
| Multi-Site Validation Study of the HLHS Arrest Predictor | BAYLOR COLLEGE OF MEDICINE | R01 | 2020 | 0.1 |
| PREDICTING OUTCOME IN CHILDREN WITH NEW-ONSET TICS USING NEUROIMAGING DATA | WASHINGTON UNIVERSITY | R21 | 2016 | 0.091 |
| Predicting Heterogeneous Neurodevelopmental Outcomes in School-age Children with Early Caregiving Adversities | COLUMBIA UNIV NEW YORK MORNINGSIDE | R01 | 2020 | 0.09 |
| Real-Time Prediction of Acute Arrest in Infants with Single Ventricle Physiology | BAYLOR COLLEGE OF MEDICINE | R56 | 2016 | 0.088 |

**Cluster 19:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Speech Prosody and Articulatory Dynamics in Spoken Language | UNIVERSITY OF SOUTHERN CALIFORNIA | R01 | 2016 | 0.31 |
| Speech segregation to improve intelligility of reverberant-noisy speech | OHIO STATE UNIVERSITY | R01 | 2020 | 0.29 |
| Functional Architecture of Speech Motor Cortex | UNIVERSITY OF CALIFORNIA, SAN FRANCISCO | U01 | 2018 | 0.28 |
| Objectively Quantifying Speech Outcomes of Children with Cleft Palate | ARIZONA STATE UNIVERSITY-TEMPE CAMPUS | R21 | 2019 | 0.27 |
| Dynamics of Vocal Tract Shaping | UNIVERSITY OF SOUTHERN CALIFORNIA | R01 | 2020 | 0.27 |

**Cluster 20:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| From enrichment to insights | STANFORD UNIVERSITY | R01 | 2020 | 0.1 |
| Biases introduced by filtering electronic health records for patients with "complete data" | HARVARD MEDICAL SCHOOL | R01 | 2020 | 0.084 |
| National Infrastructure for Standardized and Portable EHR Phenotyping Algorithms | WEILL MEDICAL COLL OF CORNELL UNIV | R01 | 2020 | 0.084 |
| Multi-objective representation learning methods for interpetable predictions of patient outcomesusing electronic health records | UNIVERSITY OF PENNSYLVANIA | K99 | 2020 | 0.08 |
| Algorithms to Identify Systemic Lupus from Electronic Health Record Data | NORTHWESTERN UNIVERSITY AT CHICAGO | R21 | 2018 | 0.078 |

**Cluster 21:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| CorBand: A novel wearable wrist sensor for heart failure remote monitoring | RETHINK MEDICAL, INC. | R44 | 2017 | 0.0087 |
| CORA\_TM\_A Personalized Cardiac Counselor for Optimal Therapy | CORNELL UNIVERSITY | R01 | 2018 | 0.0079 |
| Technologic Innovation to Enhance the Scalability and Sustainability of Trauma Center Provider Training in Suicide Safety Planning | UNIVERSITY OF WASHINGTON | K23 | 2020 | 0.0078 |
| Adaptive Prediction of Blood Glucose Levels using Wearable Physiological Sensors | OHIO UNIVERSITY ATHENS | R21 | 2017 | 0.0074 |
| Innovations in Suicide Prevention Research (INSPIRE) | UNIV OF NORTH CAROLINA CHAPEL HILL | R01 | 2020 | 0.0065 |

**Cluster 22:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 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 | 0.26 |
| Computational Prediction and Functional Validation of Novel Risk Loci of Alzheimer's Disease | EMORY UNIVERSITY | R56 | 2018 | 0.23 |
| Manifold-valued statistical models for longitudinal morphometic analysis in preclinical Alzheimer's disease (AD) | UNIVERSITY OF WISCONSIN-MADISON | R01 | 2018 | 0.23 |
| Circadian Organization and Disorder in Alzheimer's Disease | UNIVERSITY OF PENNSYLVANIA | R01 | 2020 | 0.23 |
| Temporal Trends, Novel Imaging and Molecular Characterization of Preclinical and Clinical Alzheimer's Disease in the Framingham Cohorts | UNIVERSITY OF TEXAS HLTH SCIENCE CENTER | R01 | 2020 | 0.22 |

**Cluster 23:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Web-based App to Alleviate Loneliness and Isolation in Older Adults at Home | VIGOROUS MIND, INC. | R43 | 2018 | 0.19 |
| Integrated Web-Based Customer Engagement, Physical Exercise, and Coaching Platform for Older Adults | VIGOROUS MIND, INC. | R43 | 2017 | 0.18 |
| Understanding and Predicting High-Need, High-Cost Patients among Older Adults | WEILL MEDICAL COLL OF CORNELL UNIV | K99 | 2020 | 0.16 |
| Investigating Sedentary Time In Aging: New Directions Using Technology (iSTAND) | KAISER FOUNDATION HEALTH PLAN OF WASHINGTON | K23 | 2017 | 0.15 |
| Cognitive and social aspects of decision-making | UNIVERSITY OF COLORADO AT COLORADO SPGS | R15 | 2002 | 0.15 |

**Cluster 24:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Regulatory landscape of the human genome: comparative and evolutionary analysis. | NATIONAL LIBRARY OF MEDICINE | ZIA | 2020 | 0.14 |
| Integrative analysis tools to dissect cell-type specific transcriptional programs | SLOAN-KETTERING INST CAN RESEARCH | R01 | 2014 | 0.13 |
| Computational approaches for comparative regulatory genomics to decipher long-range gene regulation | UNIVERSITY OF WISCONSIN-MADISON | R01 | 2020 | 0.11 |
| Locating Regulatory Elements in Genomes | RUTGERS, THE STATE UNIV OF N.J. | R01 | 2008 | 0.11 |
| Genomic Reconstruction of Yeast Transcription Networks | UNIVERSITY OF CALIFORNIA SAN FRANCISCO | R01 | 2006 | 0.11 |

**Cluster 25:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Development And Applications Of The Open Microscopy Environment (OME) | NATIONAL INSTITUTE ON AGING | ZIA | 2016 | 0.06 |
| Multimodal image registration by proxy image synthesis | JOHNS HOPKINS UNIVERSITY | R01 | 2015 | 0.056 |
| Advanced Medical Image Reconstruction | NATIONAL HEART, LUNG, AND BLOOD INSTITUTE | ZIA | 2018 | 0.052 |
| Development and Dissemination of MuscleMiner: An Imaging Informatics Tool for Mus | UNIVERSITY OF FLORIDA | R01 | 2018 | 0.052 |
| Development and Dissemination of MuscleMiner: An Imaging Informatics System for Muscle | UNIVERSITY OF FLORIDA | R01 | 2016 | 0.051 |

**Cluster 26:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Combining chemical and computational tools for predictive models of microbiome communities | UNIVERSITY OF PENNSYLVANIA | R35 | 2020 | 0.16 |
| Bayesian Machine Learning Tools for Analyzing Microbiome Dynamics | BRIGHAM AND WOMEN'S HOSPITAL | R01 | 2020 | 0.15 |
| Development of Mucosal and Systemic Immunity and Risk of Food Allergy | UNIVERSITY OF ROCHESTER | U01 | 2020 | 0.15 |
| Model-guided design of next-generation bacterial therapeutics to treat cardiovascular disease | UNIVERSITY OF WISCONSIN-MADISON | R01 | 2020 | 0.14 |
| Joint Analysis of Microbiome and Other Genomic Data Types | FRED HUTCHINSON CANCER RESEARCH CENTER | R01 | 2019 | 0.13 |

**Cluster 27:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Multi-tissue platform for modeling systemic pathologies | COLUMBIA UNIVERSITY HEALTH SCIENCES | UH3 | 2020 | 0.27 |
| Novel Platform for Quantitative Subcellular Resolution Imaging of Human Tissues Using Mass Spectrometry | PURDUE UNIVERSITY | UH3 | 2020 | 0.13 |
| Cellularly resolved molecular pathway assessment in biopsies via spectral imaging | CAMBRIDGE RESEARCH AND INSTRUMENTATION | R44 | 2011 | 0.11 |
| Advanced Development of TIES-Enhancing Access to Tissue for Cancer Research | UNIVERSITY OF PITTSBURGH AT PITTSBURGH | U24 | 2017 | 0.1 |
| Nascent Adhesion-Based Mechano-transmission for Extracellular Matrix Stiffness Sensing | MICHIGAN TECHNOLOGICAL UNIVERSITY | R15 | 2019 | 0.099 |

**Cluster 28:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Decrypting Variants of Uncertain Significance in Long-QT Syndrome | NORTHWESTERN UNIVERSITY AT CHICAGO | R01 | 2017 | 0.17 |
| Regulation of mRNA splicing by intronic genetic variants | INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS | R01 | 2018 | 0.17 |
| Micropublications for Automating Genome Sequence Variant Interpretation from Medical Literature | GENOMENON, INC. | R43 | 2019 | 0.16 |
| Clinically Relevant Genome Variation Database | STANFORD UNIVERSITY | U01 | 2016 | 0.16 |
| Comprehensive Characterization of Missense Mutants in Factor IX | BLOODWORKS | R01 | 2020 | 0.14 |

**Cluster 29:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| A Multimodal Approach for Monitoring Prolonged Acute Pain in Neonates | UNIVERSITY OF SOUTH FLORIDA | R21 | 2020 | 0.38 |
| Central glutamate signaling in postoperative pain regulation - Renewal | NEW YORK UNIVERSITY SCHOOL OF MEDICINE | R01 | 2020 | 0.37 |
| Development of a Medical Device Utilizing an EEG-Based Algorithm for the Objective Quantification of Pain | PAINQX, INC. | R44 | 2020 | 0.37 |
| fMRI-based Biomarkers for Multiple Components of Pain | UNIVERSITY OF COLORADO | R01 | 2017 | 0.37 |
| Evaluation of Pain in Chronic Pancreatitis using the NAPS2 cohorts | UNIVERSITY OF PITTSBURGH AT PITTSBURGH | R21 | 2015 | 0.36 |

**Cluster 30:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Center for Genetic Studies of Drug Abuse in Outbred Rats | UNIVERSITY OF CALIFORNIA, SAN DIEGO | P50 | 2020 | 0.047 |
| LINKAGE AND ASSOCIATION OF GENETIC MARKERS AND DISEASE | NEW YORK BLOOD CENTER | R01 | 2001 | 0.046 |
| Enhanced Gene Identification in Complex Traits Using Kernel Machines | EMORY UNIVERSITY | R01 | 2015 | 0.043 |
| Quantitative Analysis Methods for Complex Trait Genetics | WASHINGTON UNIVERSITY | K01 | 2006 | 0.043 |
| Computational Methods for Next-Generation GWAS | UNIVERSITY OF OREGON | F32 | 2020 | 0.041 |

**Cluster 31:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Alcohol Use: Nonlinearities in Intraindividual Variables | UNIVERSITY OF SOUTHERN CALIFORNIA | F31 | 2005 | 0.22 |
| Mediators and Moderators of a Neighborhood Experiment on Alcohol Use | UNIVERSITY OF MINNESOTA | R21 | 2017 | 0.21 |
| Alcohol Misuse: An Independent Risk Factor that Increases the Incidence and Severity of COVID-19 | RUSH UNIVERSITY MEDICAL CENTER | R24 | 2020 | 0.21 |
| Ambulatory assessment of alcohol use, mood dysregulation, and alcohol craving | UNIVERSITY OF MISSOURI-COLUMBIA | R21 | 2014 | 0.21 |
| How Cannabis Use Affects Alcohol Treatment Outcomes | PUBLIC HEALTH INSTITUTE | R21 | 2016 | 0.2 |

**Cluster 32:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Microtemporal Processes Underlying Health Behavior Adoption and Maintenance | UNIVERSITY OF SOUTHERN CALIFORNIA | U01 | 2020 | 0.084 |
| Leveraging National Sleep Research Resource Data for Personalized Sleep Profiling | BRIGHAM AND WOMEN'S HOSPITAL | R01 | 2020 | 0.07 |
| Administrative Supplement for Sleep and Cardiometabolic Health Disparities at the US/Mexico Border: The Nogales Cardiometabolic Health and Sleep (NoCHeS) Study | UNIVERSITY OF ARIZONA | R01 | 2019 | 0.069 |
| Cardiovascular implications of sleep characteristics using real-world objective sleep data | UNIVERSITY OF WASHINGTON | R21 | 2020 | 0.064 |
| Sleep and Cardiometabolic Health Disparities at the US/Mexico Border: The Nogales Cardiometabolic Health and Sleep (NoCHeS) Study | UNIVERSITY OF ARIZONA | R01 | 2020 | 0.062 |

**Cluster 33:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Pittsburgh Biomedical Informatics Training Program | UNIVERSITY OF PITTSBURGH AT PITTSBURGH | T15 | 2011 | 0.21 |
| Medical Informatics Research Training Program at Columb\* | COLUMBIA UNIVERSITY HEALTH SCIENCES | T15 | 2007 | 0.2 |
| Training in Biomedical Informatics at Columbia University | COLUMBIA UNIVERSITY HEALTH SCIENCES | T15 | 2009 | 0.19 |
| Boston-Area Research Training Program in Biomedical Informatics | HARVARD UNIVERSITY (MEDICAL SCHOOL) | T15 | 2007 | 0.17 |
| Graduate Training in Biomedical Informatics | STANFORD UNIVERSITY | T15 | 2008 | 0.17 |

**Cluster 34:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Natural language processing for clinical and translational research | MAYO CLINIC ROCHESTER | R01 | 2016 | 0.22 |
| Annotation, development and evaluation for clinical information extraction | UNIVERSITY OF CALIFORNIA, SAN DIEGO | R01 | 2013 | 0.2 |
| Annotation, development and evaluation for clinical information extraction (transfer) | BOSTON CHILDREN'S HOSPITAL | R01 | 2013 | 0.2 |
| Open Health Natural Language Processing Collaboratory | MAYO CLINIC ROCHESTER | U01 | 2020 | 0.19 |
| Extended Methods and Software Development for Health NLP | COLUMBIA UNIVERSITY HEALTH SCIENCES | R01 | 2019 | 0.19 |

**Cluster 35:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Reliable Seizure Prediction Using Physiological Signals and Machine Learning | MAYO CLINIC ROCHESTER | R01 | 2019 | 0.41 |
| Dynamics of long range network interactions in focal epilepsy | COLUMBIA UNIVERSITY HEALTH SCIENCES | R01 | 2020 | 0.36 |
| Trainable Early Warning System for Epileptic Seizures | CHATTEN ASSOCIATES, INC. | R44 | 2006 | 0.35 |
| Tracking pre-seizure dynamics to predict and control seizures | STANFORD UNIVERSITY | R01 | 2020 | 0.34 |
| Algorithm for the Real-Time Detection of Absence Seizures from Oculometric Data | EYSZ, INC. | R43 | 2020 | 0.34 |

**Cluster 36:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 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 | 0.55 |
| Institutional Research Collaboration between the Liverpool School of Tropical Medicine and the Centers for Department of Health and Human Services Centers for Disease Control and Prevention | TMLIVERPOOL SCHOOL OF TROPICAL MEDICINE | U01 | 2019 | 0.51 |
| Institutional Collaboration Between Liverpool STM & CDC on Malaria | TMLIVERPOOL SCHOOL OF TROPICAL MEDICINE | U01 | 2009 | 0.47 |
| Malaria Operations Research to Improve Malaria Control and Reduce Morbidity and Mortality in Western Kenya | TMLIVERPOOL SCHOOL OF TROPICAL MEDICINE | U01 | 2020 | 0.42 |
| Towards noninvasive diagnosis of malaria | CHILDREN'S HOSP OF PHILADELPHIA | R21 | 2020 | 0.42 |

**Cluster 37:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Perceptual bases of visual concepts | UNIVERSITY OF IOWA | R01 | 2010 | 0.16 |
| Towards cortical visual prosthetics | BOSTON CHILDREN'S HOSPITAL | R21 | 2010 | 0.15 |
| Representation of information across the human visual cortex | UNIVERSITY OF CALIFORNIA BERKELEY | R01 | 2018 | 0.14 |
| The role of area V4 in the perception and recognition of visual objects | UNIVERSITY OF WASHINGTON | R01 | 2018 | 0.14 |
| Characterizing and Modeling Infants' Self-Generated Object Views: Implications for Object Recognition and Language Learning | INDIANA UNIVERSITY BLOOMINGTON | F32 | 2017 | 0.13 |

**Cluster 38:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Metal mixtures, children's cognition, and sensitive developmental windows | BOSTON UNIVERSITY MEDICAL CAMPUS | R00 | 2017 | 0.22 |
| Principal Component Pursuit to Assess Exposure to Environmental Mixtures in Epidemiologic Studies | COLUMBIA UNIVERSITY HEALTH SCIENCES | R01 | 2020 | 0.19 |
| Novel Biomarker to Identify Critical Windows of Susceptibility to Metal Mixture | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI | R01 | 2020 | 0.18 |
| Spatiotemporal Risk Assessment Modeling of Chemical Mixtures | OREGON STATE UNIVERSITY | K99 | 2019 | 0.18 |
| Bringing Modern Data Science Tools to Bear on Environmental Mixtures: Administrative Supplement for U3 Populations | RICE UNIVERSITY | R01 | 2019 | 0.18 |

**Cluster 39:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Statistical Learning in Language Acquisition | UNIVERSITY OF WISCONSIN-MADISON | R37 | 2019 | 0.2 |
| Structural and Semantic Cues for the Acquisition of Linguistic Regularties | UNIVERSITY OF WISCONSIN-MADISON | F31 | 2011 | 0.18 |
| Statistical approaches to linguistic pattern learning | GEORGETOWN UNIVERSITY | R01 | 2019 | 0.18 |
| "Mechanisms of Early Bilingual Language Acquisition" | UNIVERSITY OF CALIFORNIA AT DAVIS | R03 | 2017 | 0.18 |
| The When to Worry about Language Study (W2W-L): Joint consideration of developmental patterning and neural substrates for enhancing earlyidentification of language impairment | NORTHWESTERN UNIVERSITY | R01 | 2020 | 0.17 |

**Cluster 40:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 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 | 0.28 |
| Genetic & epigenetic analysis of angiogenesis genes in recurrent prostate cancer | H. LEE MOFFITT CANCER CTR & RES INST | R01 | 2012 | 0.28 |
| Prostate Cancer Imaging | DIVISION OF BASIC SCIENCES - NCI | ZIA | 2020 | 0.28 |
| CLINICAL AND EPIDEMIOLOGICAL CENTER--PROSTATE CANCER | JOHNS HOPKINS UNIVERSITY | U01 | 2004 | 0.27 |
| MRI Imaging and Biomarkers for Early Detection of Aggressive Prostate Cancer | UNIVERSITY OF MIAMI SCHOOL OF MEDICINE | U01 | 2020 | 0.27 |

**Cluster 41:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Enabling forelimb function with agonist drug and epidural stimulation in SCI | UNIVERSITY OF CALIFORNIA LOS ANGELES | U01 | 2017 | 0.14 |
| Spinal Epidural Electrode Array To Facilitate Standing and Stepping After SCI | UNIVERSITY OF CALIFORNIA LOS ANGELES | U01 | 2018 | 0.13 |
| Restoring arm and hand motor function with non-invasive spinal stimulation. | NEUROENABLING TECHNOLOGIES, INC. | R43 | 2013 | 0.13 |
| A Theranostic Tool to Assess and Enable Spared Spinal Motor Function After SCI | NEUROENABLING TECHNOLOGIES, INC. | R43 | 2014 | 0.12 |
| Spinal Epidural Electrode Array to Facilitate Standing and Stepping After SCI | UNIVERSITY OF CALIFORNIA LOS ANGELES | R01 | 2012 | 0.11 |

**Cluster 42:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Mid-frontal delta/theta rhythms and cognitive control in PD | UNIVERSITY OF IOWA | R01 | 2020 | 0.13 |
| Evaluating Longitudinal Changes in the Human Structural Connectome in Relation to Cognitive Aging | UNIVERSITY OF TEXAS, AUSTIN | R01 | 2020 | 0.13 |
| Intrinsic Cortical Networks and Cognitive Dysfunction in Parkinson???s Disease | UNIVERSITY OF COLORADO DENVER | K02 | 2014 | 0.11 |
| Intrinsic Cortical Networks and Cognitive Dysfunction in Parkinson's Disease | UNIVERSITY OF COLORADO DENVER | K02 | 2017 | 0.11 |
| Automated Assessment of Cognitive Tests for Detecting Mild Cognitive Impairment | OREGON HEALTH & SCIENCE UNIVERSITY | R21 | 2018 | 0.1 |

**Cluster 43:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| EDAC: ENCODE Data Analysis Center | UNIV OF MASSACHUSETTS MED SCH WORCESTER | U24 | 2020 | 0.41 |
| Linking disease-associated variants to transcriptional regulation using ENCODE | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI | U01 | 2015 | 0.2 |
| A Data Analysis Center for integration of fly and worm modENCODE datasets | MASSACHUSETTS INSTITUTE OF TECHNOLOGY | RC2 | 2011 | 0.18 |
| Enhance human ENCODE by function comparisons to mouse | PENNSYLVANIA STATE UNIVERSITY-UNIV PARK | RC2 | 2011 | 0.18 |
|  |  |  |  |  |

**Cluster 44:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Computerized Radiographic Analysis of Bone Structure | UNIVERSITY OF CHICAGO | R01 | 2005 | 0.39 |
| MACE - Michigan Alliance for Cheminformatic Exploration | UNIVERSITY OF MICHIGAN | P20 | 2007 | 0.28 |
| VOICE RESPONSE/INTERNET REGISTRATION & RANDOMIZATION | RHO FEDERAL SYSTEMS DIVISION, INC. | R44 | 2002 | 0.28 |
| FOUNDATION MODEL OF ANATOMY | UNIVERSITY OF WASHINGTON | R01 | 2002 | 0.23 |
| INTELLIGENT CRITIQUING OF CLINICAL-GUIDELINE APPLICATION | STANFORD UNIVERSITY | R01 | 2000 | 0.22 |

**Cluster 45:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Sepsis Early Prediction and Subphenotype Illumination Study (SEPSIS) | UNIVERSITY OF CHICAGO | R01 | 2019 | 0.35 |
| Sepsis Early Prediction and Subphenotype Illumination Study (SEPSIS) | UNIVERSITY OF WISCONSIN-MADISON | R01 | 2020 | 0.35 |
| Using Big Data to Understand Sepsis in an Immunocompromised Population | UNIVERSITY OF WASHINGTON | F31 | 2020 | 0.35 |
| Enhancing an EMR-Based Real-Time Sepsis Alert System Performance through Machine Learning | WAYNE STATE UNIVERSITY | R21 | 2017 | 0.34 |
| Automated detection and prediction of atrial fibrillation during sepsis | BOSTON UNIVERSITY MEDICAL CAMPUS | R01 | 2020 | 0.32 |

**Cluster 46:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| A statistical framework to systematically characterize cancer driver mutations in noncoding genomic regions | DANA-FARBER CANCER INST | R21 | 2020 | 0.081 |
| Computational evaluation of the causal role of somatic mutations in human aging | ALBERT EINSTEIN COLLEGE OF MEDICINE | K99 | 2019 | 0.066 |
| Tracing the evolution of the human mutation rate | STANFORD UNIVERSITY | F32 | 2017 | 0.061 |
| Massively parallel functional analyses of human PTEN variants | OREGON HEALTH & SCIENCE UNIVERSITY | F31 | 2019 | 0.057 |
| Development of New Genome Editing Agents Using RNA Modifying Enzymes | UNIVERSITY OF CALIFORNIA, SAN DIEGO | R21 | 2019 | 0.052 |

**Cluster 47:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Detection of Glaucoma Progression with Macular OCT Imaging | UNIVERSITY OF CALIFORNIA LOS ANGELES | K23 | 2016 | 0.4 |
| Functional and Structural Optical Coherence Tomography for Glaucoma | OREGON HEALTH & SCIENCE UNIVERSITY | R01 | 2020 | 0.4 |
| Relationship between Glaucoma and the Three-Dimensional Optic Nerve Head Related Structure | SCHEPENS EYE RESEARCH INSTITUTE | K99 | 2020 | 0.36 |
| Diagnostic Innovations in Glaucoma: Clinical Electrophysiology | UNIVERSITY OF CALIFORNIA, SAN DIEGO | R21 | 2008 | 0.34 |
| Medical Advice from Glaucoma Informatics (MAGI) | UNIVERSITY OF CALIFORNIA SAN DIEGO | R33 | 2005 | 0.34 |

**Cluster 48:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Integrated Prediction of Protein Struture at 1D, 2D and 3D Levels | UNIVERSITY OF MISSOURI-COLUMBIA | R01 | 2013 | 0.18 |
| Advanced approaches to protein structure prediction | UNIVERSITY OF MICHIGAN AT ANN ARBOR | R35 | 2020 | 0.18 |
| Distance-based ab initio protein structure prediction | UNIVERSITY OF MISSOURI-COLUMBIA | R01 | 2020 | 0.17 |
| New Computational Methods for Data-driven Protein Structure Prediction | TOYOTA TECHNOLOGICAL INSTITUTE / CHICAGO | R01 | 2020 | 0.17 |
| FUNCTION DIVERGENCE IN PROTEIN FAMILIES | BURNHAM INSTITUTE FOR MEDICAL RESEARCH | R01 | 2003 | 0.16 |

**Cluster 49:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Automated Facial Expression Analysis for Research and Clinical Use | UNIVERSITY OF PITTSBURGH AT PITTSBURGH | R01 | 2016 | 0.24 |
| A Study of the Computational Space of Facial Expressions of Emotion | OHIO STATE UNIVERSITY | R01 | 2014 | 0.24 |
| FACIAL EXPRESSION ANALYSIS BY IMAGE PROCESSING | UNIVERSITY OF PITTSBURGH AT PITTSBURGH | R01 | 2005 | 0.24 |
| COMPUTER VISION ANALYSIS OF DYNAMIC FACIAL BEHAVIOR | UNIVERSITY OF CALIFORNIA SAN DIEGO | F32 | 2001 | 0.2 |
| Multi-feature modeling of the neural representation of emotion- and identity-related information derived from facial and vocal cues | UNIVERSITY OF CALIFORNIA BERKELEY | R01 | 2019 | 0.2 |

**Cluster 50:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Data Management and Coordinating Center (DMCC) | UNIVERSITY OF SOUTH FLORIDA | U54 | 2013 | 0.0079 |
| SimTK: An Ecosystem for Data and Model Sharing in the Biomechanics Community | STANFORD UNIVERSITY | R01 | 2020 | 0.0071 |
| Linking Information, Families and Technology (LIFT) | KIT SOLUTIONS, INC. | R43 | 2005 | 0.0069 |
| Text Mining Pipeline to Accelerate Systematic Reviews in Evidence-Based Medicine | UNIVERSITY OF ILLINOIS AT CHICAGO | R01 | 2019 | 0.0065 |
| SWIFT-ActiveScreener: research and development of an intelligent web-based document screening system | SCIOME, LLC | R43 | 2017 | 0.0062 |

**Cluster 51:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Optimization of efflux avoidance and inhibition for antibiotic development | UNIVERSITY OF OKLAHOMA NORMAN | R01 | 2020 | 0.11 |
| FAST platform for same-shift, complete antibiotic menu antibiotic susceptibility testing | SELUX DIAGNOSTICS, INC. | R43 | 2018 | 0.11 |
| Systems Biology of Microbiome-mediated Resilience to Antibiotic-resistant Pathogens | SLOAN-KETTERING INST CAN RESEARCH | U01 | 2020 | 0.11 |
| Systems Biology Approach to Redefine Susceptibility Testing and Treatment of MDR Pathogens in the Context of Host Immunity | UNIVERSITY OF CALIFORNIA, SAN DIEGO | U01 | 2020 | 0.1 |
| Point-of-care antimicrobial susceptibility testing based on simultaneous tracking of multi-phenotypic features of single bacterial cells | ARIZONA STATE UNIVERSITY-TEMPE CAMPUS | R01 | 2020 | 0.097 |

**Cluster 52:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Assisted Identification and Navigation of Early Mental Health Symptoms in Youth | KAISER FOUNDATION RESEARCH INSTITUTE | R56 | 2018 | 0.15 |
| Real-Time Mobile Cognitive Behavioral Intervention for Serious Mental Illness | UNIVERSITY OF CALIFORNIA, SAN DIEGO | R01 | 2016 | 0.15 |
| Estimating Population Effects in Mental Health Research Using Meta-Analysis | DUKE UNIVERSITY | R00 | 2020 | 0.15 |
| CBTpro: Scaling up CBT for psychosis using simulated patients and spoken language technologies | LYSSN.IO, INC. | R42 | 2020 | 0.12 |
| Impact of Telemedicine on Medicare Beneficiaries with Mental Illness | HARVARD MEDICAL SCHOOL | R01 | 2020 | 0.12 |

**Cluster 53:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Sign Finder: Computer Vision to Find and Read Signs | BLINDSIGHT CORPORATION | R44 | 2006 | 0.12 |
| MobileEye OCR for the Visually Impaired | APPLIED MEDIA ANALYSIS, LLC | R43 | 2006 | 0.11 |
| Locating and Reading Informational Signs | UNIVERSITY OF CALIFORNIA LOS ANGELES | R01 | 2004 | 0.11 |
| NRI: An Egocentric Computer Vision based Active Learning Co-Robot Wheelchair | STEVENS INSTITUTE OF TECHNOLOGY | R01 | 2017 | 0.11 |
| NRI: Small: A Co-Robotic Navigation Aid for the Visually Impaired | UNIVERSITY OF ARKANSAS AT LITTLE ROCK | R01 | 2016 | 0.1 |

**Cluster 54:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 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 | 0.24 |
| Neural Correlates of Biological Motion Perception in Children with ASD | SEATTLE CHILDREN'S HOSPITAL | K01 | 2018 | 0.23 |
| Harmonization for multisite Connectomics: parsing heterogeneity and creating markers in ASD | UNIVERSITY OF PENNSYLVANIA | 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 | 0.22 |

**Cluster 55:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Supplementing Survey-Based Analyses of Group Vaccination Narratives and Behaviors Using Social Media | GEORGE WASHINGTON UNIVERSITY | R01 | 2019 | 0.22 |
| Moving beyond description: Statistical and casual inference for social media data | UNIVERSITY OF ROCHESTER | R01 | 2015 | 0.22 |
| Characterization of Misinformation Dynamics in COVID-19 related health information in online social media | UNIVERSITY OF TEXAS HLTH SCI CTR HOUSTON | R01 | 2020 | 0.18 |
| Delineating proactive social behaviors in dynamic and multidimensional social space | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI | R21 | 2020 | 0.18 |
| Social Media Use and Mechanisms of Suicide Risk in Adolescents | RHODE ISLAND HOSPITAL | K23 | 2020 | 0.18 |

**Cluster 56:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| A Community Effort to Translate Protein Data to Knowledge: An Integrated Platform | UNIVERSITY OF CALIFORNIA LOS ANGELES | U54 | 2017 | 0.25 |
| Mobility Data Integration to Insight | STANFORD UNIVERSITY | U54 | 2018 | 0.18 |
| Big Data Coursework for Computational Medicine | WEILL MEDICAL COLL OF CORNELL UNIV | R25 | 2016 | 0.18 |
| Administrative Supplement Request for Transforming Analytical Learning in the Era of Big Data | UNIVERSITY OF MICHIGAN AT ANN ARBOR | R25 | 2016 | 0.14 |
| Developing Cloud-based tools for Big Neural Data | UNIVERSITY OF PENNSYLVANIA | K01 | 2015 | 0.11 |

**Cluster 57:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Neuron and Glial Cellular Signatures from Normal and Diseased iPS Cells | UNIVERSITY OF CALIFORNIA-IRVINE | U54 | 2020 | 0.11 |
| Symmetry breaking and polarization of cell in 3D environments | UT SOUTHWESTERN MEDICAL CENTER | F32 | 2017 | 0.11 |
| Computational Modeling of Heterogeneous Gene Expression in Single Cells | UNIV OF NORTH CAROLINA CHAPEL HILL | F31 | 2017 | 0.11 |
| Analysis of the T Cell Repertoire | DIVISION OF BASIC SCIENCES - NCI | ZIA | 2020 | 0.11 |
| Real-time computer vision tracking of stemness | CARNEGIE-MELLON UNIVERSITY | R01 | 2010 | 0.11 |

**Cluster 58:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Identification of epigenetic subclones in lymphomas and leukemias | WASHINGTON UNIVERSITY | F30 | 2020 | 0.28 |
| Signals of Epigenetic Modification in Sjogrens Syndrome | UNIVERSITY OF CALIFORNIA BERKELEY | F31 | 2018 | 0.27 |
| MODELING DNA METHYLATION'S ROLE IN GENE REGULATION | WASHINGTON UNIVERSITY | R01 | 2018 | 0.27 |
| Defining Genomic Signatures for Aberrant DNA Methylation in Human Cancers | EMORY UNIVERSITY | R01 | 2013 | 0.25 |
| Statistical Models in Epigenomics | UNIVERSITY OF SOUTHERN CALIFORNIA | R01 | 2005 | 0.24 |

**Cluster 59:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Awardee | Award Activity | Year | Sample Silhouette Score |
| Predicting brain tumor progression via multiparametric image analysis and modelin | UNIVERSITY OF PENNSYLVANIA | R01 | 2018 | 0.18 |
| MDCT Quantification of hepatic tumor viability for assessment of cancer therapy | IQ MEDICAL IMAGING, LLC | R42 | 2019 | 0.14 |
| Quantitative Image Modeling for Brain Tumor Analysis and Tracking | OLD DOMINION UNIVERSITY | R01 | 2019 | 0.14 |
| Quantitative Multimodal Image Guidance for Improved Liver Cancer Treatment | YALE UNIVERSITY | R01 | 2020 | 0.14 |
| Automatic Volumetric Treatment Response Assessment and Determination of Regional Genetic Characteristics in Glioblastoma | HARVARD MEDICAL SCHOOL | F30 | 2020 | 0.14 |