Rutgers Cancer Institute of New Jersey
Reporting Date: 03/31/2023
Program Area: Genomic Instability and Cancer Genetics
Data Table 2A – Active Funded Projects

Peer-Reviewed Research

PI	Specific Funding Source	Project Number	Project Start Date	Project End Date	Project Title	Annual Project Direct Costs	Cancer- Relevant Annual Project DC	Program Code	Program Percent	Annual Program Direct Costs
Adamson B	NIGMS	5R35GM138167-03	8/25/20	7/31/25	MAPPING THE DNA DAMAGE RESPONSE IN HUMAN CELLS WITH HIGH-RESOLUTION FUNCTIONAL GENOMICS	$250,000	$250,000	02	100	$250,000
Chan M	NICHD	1DP2HD111537-01	9/1/22	8/31/25	BUILDING A SYSTEMATIC, COMPREHENSIVE MAMMALIAN CELL FATE MAP	$300,000	$150,000	02	100	$150,000
Copeland P	NIGMS	5R01GM077073-17 (NCE)	1/6/06	1/31/24	FUNCTIONAL ANALYSIS OF SBP2 AND SELENOCYSTEINE INCORPORATION	$185,832	$139,374	02	100	$139,374
Copeland P	NIEHS	5R21ES032863-02	4/1/21	3/31/23	A NOVEL RNA SENSOR RESPONDS TO STRESS AND REGULATES SELENIUM DISTRIBUTION IN MAMMALS	$125,000	$93,750	02	100	$93,750
De S	NIGMS	5R01GM129066-04	4/1/19	3/31/24	COMPUTATIONAL APPROACHES FOR IDENTIFYING EPIGENOMIC CONTEXTS OF SOMATIC MUTATIONS	$225,000	$225,000	02	100	$225,000
De S	NCI	5R21CA248122-02	5/15/20	4/30/23	INFERENCE OF TUMOR GROWTH DYNAMICS USING GENOMIC DATA	$116,875	$116,875	02	100	$116,875
De S	DoD	W81XWH-22-1-0190	8/1/22	7/31/24	INVESTIGATING FIELD CANCERIZATION IN NON-SMALL CELL LUNG CANCER SUBTYPE USING EMERGING GENOMIC	$174,212	$174,212	02	100	$174,212
Feng Z	NCI	7R01CA214746-05	7/1/18	6/30/23	SENP6, A NOVEL P53 NEGATIVE REGULATOR, IS AN IMPORTANT NEW PLAYER IN CANCER	$224,175	$224,175	02	100	$224,175
Feng Z	NCI	5R01CA229257-02	7/1/21	6/30/26	THE REGULATION OF MUTANT P53 PROTEIN ACCUMULATION IN CANCER: MOLECULAR BASIS AND THERAPEUTIC POTENTIAL	$261,131	$261,131	02	100	$261,131
Feng Z Hu W	NCI	5R01CA227912-05	3/1/18	2/28/24	METABOLIC REPROGRAMMING IN BREAST CANCER	$224,175	$224,175	02	100	$224,175
Ganesan S	NCI	5R01CA233662-04	5/1/19	4/30/24	EVOLUTION AND CLINICAL IMPACT OF CLONAL HEMATOPOIESIS OF INDETERMINATE POTENTIAL IN BREAST TUMOR MICROENVIRONMENT	$404,460	$404,460	02	100	$404,460
Gartenberg M	NIGMS	5R01GM051402-24 (NCE)	9/12/94	2/29/24	BINDING, SLIDING AND FUNCTION OF COHESIN ON SISTER CHROMATIDS	$197,188	$197,188	02	100	$197,188
Grigoriev A	NCI	1R15CA220059-01A1 (NCE)	6/1/18	5/31/23	VARIANT IDENTIFICATION FOR CANCER GENOMICS	$148,462	$148,462	02	100	$148,462
Gu S	NIGMS	5R01GM111752-09	8/1/14	12/31/23	RNA-MEDIATED CHROMATIN REGULATION AND EPIGENETIC INHERITANCE IN C. ELEGANS	$229,001	$57,250	02	100	$57,250
Herbig U Fitzgerald-Bocarsly P	NIA	5R21AG067368-02	5/15/20	4/30/23	CAUSES OF IMMUNE CELL SENESCENCE IN AGING HUMANS	$125,000	$125,000	02	100	$125,000
Hu W	NCI	1R01CA260838-01A1	2/1/22	1/31/27	THE ROLE OF LEUKEMIA INHIBITORY FACTOR IN COLORECTAL CANCER	$237,259	$237,259	02	100	$237,259
Hu W Feng Z	NCI	5R01CA260837-02	4/1/21	3/31/26	GAIN-OF-FUNCTION MUTANT P53 AND METABOLIC REPROGRAMMING IN COLORECTAL CANCER	$286,892	$286,892	02	100	$286,892
Levine M	NIGMS	5R35GM118147-07	9/23/16	7/31/26	VISUALIZATION OF GENE ACTIVITY IN THE DROSOPHILA EMBRYO	$409,816	$204,908	02	100	$204,908
Libutti S Zamboni W (UNC Chapel Hill)	NCI UNC Chapel Hill	5R01CA247652-02	4/1/21	3/31/26	MINIBEAM RADIATION THERAPY ENHANCED DELIVERY OF NANOPARTICLE ANTICANCER AGENTS TO PANCREATIC CANCER TUMORS	$78,341	$78,341	02	50	$39,171
Madireddy A	DoD	W81XWH-21-1-0935	9/15/21	9/14/24	UNDERSTANDING THE MECHANISMS DRIVING CLONAL HEMATOPOIESIS-ASSOCIATED MUTATIONS	$166,667	$166,667	02	100	$166,667
Madireddy A	CDC	312016	7/1/21	6/30/24	CLONAL HEMATOPOIESIS IN FIRST RESPONDERS EXPOSED TO THE WTC DISASTER	$50,000	$50,000	02	100	$50,000
Madireddy A Verma A (Albert Einstein College of Med.)	NIOSH Albert Einstein College of Med.	1U01OH012271-01	7/1/21	6/30/24	EARLY DETECTION OF CLONAL HEMATOPOIESIS AND LEUKEMIA ASSOCIATED MUTATIONS IN WTC EXPOSED FIREFIGHTERS AFTER THE 9/11 ATTACKS	$50,000	$50,000	02	100	$50,000
Mitrofanova A	NLM	7R01LM013236-03	9/9/20	8/31/24	GENERALIZABLE BIOMEDICAL INFORMATICS STRATEGIES FOR PREDICTIVE MODELING OF TREATMENT RESPONSE	$212,500	$212,500	02	100	$212,500
Mitrofanova A	ACS (National)	RSG-21-023-01	7/1/21	6/30/25	SYSTEMS ANALYSIS OF DRUG RESISTANCE IN PROSTATE CANCER	$165,000	$165,000	02	100	$165,000
Montagna C	NIA	7RF1AG068908-02	9/30/20	8/31/24	GENOMIC INSTABILITY-INDUCED SENESCENCE IN BRAIN AGING AND ALZHEIMER'S DISEASE	$1,184,517	$888,388	02	100	$888,388
Montagna C	DoD	W81XWH-19-1-0104	1/1/22	12/31/23	SOMATIC MUTATION RATE AS DETERMINANT OF BREAST CANCER PENETRANCE IN BRCA1/2 FAMILIAL CASES	$276,689	$276,689	02	100	$276,689
Montagna C	DoD	W81XWH-20-1-0247	4/1/22	8/31/24	SOMATIC MUTATION RATE, GENOMIC INSTABILITY, AND CLONAL EVOLUTION IN BRCA1/2 CARRIERS UNDERGOING PROPHYLACTIC RISK-REDUCING SURGERY TO ESTABLISH SEROUS TUBULAR INTRAEPITHELIAL LESIONS (STILS) AS	$256,941	$256,941	02	100	$256,941
Montagna C Formenti S (Weill Medical College of Cornell U.)	NCI Weill Medical College of Cornell U.	1U54CA274291-01 (9099)	9/21/22	7/31/27	ANALYSIS OF THE IRRADIATED TUMOR AND TUMOR MICROENVIRONMENT	$61,709	$61,709	02	100	$61,709

Montagna C Lauvau, G. / Guo, W. (Albert Einstein College of Med.)	DoD Albert Einstein College of Med.	W81XWH-21-1-0206 / W81XWH-21-1-0207	4/1/21	3/31/24	INVESTIGATING HOW TUMOR SUPPRESSOR MLL3. MUTATIONS PROMOTE TUMOR INFILTRATING REGULATORY T AND B CELLS	$10,020	$10,020	02	100	$10,020
Montagna C Lenz J (Albert Einstein College of Med.)	NCI Albert Einstein College of Med.	5R21CA240580-03	9/16/19	8/31/23	DEVELOPMENT OF A HIGH-RESOLUTION MAPPING PLATFORM FOR HPV DNA INTEGRATION IN PREMALIGNANT LESIONS	$44,587	$44,587	02	100	$44,587
Patel S	NIGMS	5R35GM118086-07	5/1/16	4/30/26	MECHANISTIC STUDIES OF NUCLEIC ACID ENZYMES INVOLVED IN DNA REPLICATION, TRANSCRIPTION, AND INNATE IMMUNITY	$544,510	$544,510	02	100	$544,510
Petry S	NIGMS	5R01GM141100-02	2/1/22	1/31/26	ROLE AND MECHANISMS OF MICROTUBULE NUCELATION IN SPINDLE ASSEMBLY	$245,168	$245,168	02	100	$245,168
Raphael B	NCI	5U24CA248453-03	9/24/20	8/31/25	COMPREHENSIVE AND ROBUST TOOLS FOR ANALYSIS OF TUMOR HETEROGENEITY AND EVOLUTION	$568,830	$568,830	02	100	$568,830
Raphael B	NCI	3U24CA248453-03S1	9/1/22	8/31/23	COMPREHENSIVE AND ROBUST TOOLS FOR ANALYSIS OF TUMOR HETEROGENEITY AND EVOLUTION (SUPPLEMENT)	$50,000	$50,000	02	100	$50,000
Raphael B Yeh J (UNC Chapel Hill)	NCI	5U24CA264027-02	9/22/21	8/31/26	PATHWAY, NETWORK AND SPATIOTEMPORAL INTEGRATION OF CANCER GENOMICS DATA	$248,999	$248,999	02	100	$248,999
Roth M	NIGMS	2R35GM122518-06	3/1/23	12/31/27	INTERACTIONS OF RETROVIRAL AND HOST PROTEINS GUIDED BY ADVANCED MODELING	$415,000	$207,500	02	100	$207,500
Shen Z	NCI	5R01CA195612-07	5/1/15	6/30/26	MOLECULAR MODULATORS OF RADIATION-INDUCED CHROMOSOME INSTABILITY AND HEMATOPOIETIC DAMAGE	$234,263	$234,263	02	100	$234,263
Shen Z	NCI	5R01CA260724-02	2/1/21	1/31/26	REGULATION OF KU70 METHYLATION AND FUNCTIONS BY SETD4	$224,175	$224,175	02	100	$224,175
Shen Z	NCI	5P01CA250957-02	5/1/21	4/30/26	MECHANISMS OF THE BRCA-NETWORK IN TUMORIGENESIS AND THERAPEUTIC RESPONSE					
Shen Z Bunting S	NCI	5P01CA250957-02 (9484)	5/1/21	4/30/26	MECHANISMS OF THE BRCA-NETWORK IN TUMORIGENESIS AND THERAPEUTIC RESPONSE: PROJECT 1: RECRUITMENT OF THE BRCA1-ASSOCIATED HOMOLOGOUS RECOMBINATION MACHINERY (SUBPROJECT 9484)	$244,783	$244,783	02	100	$244,783
Shen Z Xia B	NCI	5P01CA250957-02 (9485)	5/1/21	4/30/26	MECHANISMS OF THE BRCA-NETWORK IN TUMORIGENESIS AND THERAPEUTIC RESPONSE: PROJECT 2: TARGETING DNA REPLICATION IN BRCA-ASSOCIATED BREAST CANCER (SUBPROJECT 9485)	$237,034	$237,034	02	100	$237,034
Shen Z	NCI	5P01CA250957-02 (9487)	5/1/21	4/30/26	MECHANISMS OF THE BRCA-NETWORK IN TUMORIGENESIS AND THERAPEUTIC RESPONSE: PROJECT 4: THE BRCA NETWORK IN MEDULLOBLASTOMA RESPONSES TO REPLICATION STRESS (SUBPROJECT 9487)	$269,078	$269,078	02	100	$269,078
Singh M	NIGMS	5R01GM076275-13 (NCE)	2/18/06	2/29/24	PREDICTING AND ANALYZING PROTEIN INTERACTION NETWORKS	$157,475	$157,475	02	100	$157,475
Toettcher J Levine M	NIDDK	5U01DK127429-03	9/17/20	6/30/25	CONTROL OF THE 4D CHROMATIN LANDSCAPE UNDERLYING GENE ACTIVITY DURING DEVELOPMENT	$295,366	$295,366	02	50	$147,683
Troyanskaya O	NIGMS	5R01GM071966-17	4/1/05	3/31/24	INTEGRATION AND VISUALIZATION OF DIVERSE BIOLOGICAL DATA	$283,249	$141,625	02	100	$141,625
Verzi M	NIDDK	5R01DK112365-04 (NCE)	7/5/17	3/31/23	NUTRIGENOMICS OF INTESTINAL VITAMIN D ACTION	$397,302	$198,651	02	100	$198,651
Verzi M	NIDDK	5R01DK121915-03	7/16/20	6/30/24	MECHANISMS OF INTESTINAL EPITHELIAL DIFFERENTIATION	$250,695	$250,695	02	100	$250,695
Verzi M	NIDDK	3R01DK121915-03S1	9/1/21	6/30/23	MECHANISMS OF INTESTINAL EPITHELIAL DIFFERENTIATION (SUPPLEMENT)	$30,989	$30,989	02	100	$30,989
Verzi M	NIDDK	5R01DK126446-02	9/23/21	5/31/26	MECHANISMS DRIVING METABOLIC SHIFTS IN THE INTESTINAL EPITHELIUM	$258,665	$258,665	02	100	$258,665
Verzi M Spence J (UMich at Ann Arbor)	NIDDK UMich at Ann Arbor	5U01DK103141-08	4/1/14	8/31/24	NICHE SUPPORT OF HUMAN INTESTINAL STEM CELLS	$85,000	$85,000	02	100	$85,000
Xia B	NCI	7R01CA138804-13	7/1/09	6/30/25	ROLE OF PALB2 IN THE DNA DAMAGE RESPONSE AND CANCER SUPPRESSION	$243,224	$243,224	02	100	$243,224
Xia B	NCI	5R01CA262227-02	7/1/21	6/30/26	REGULATION OF DNA REPLICATION KINETICS BY BRCA2 AFTER DNA DAMAGE	$215,208	$215,208	02	100	$215,208
Zaratiegui M	NIGMS	5R35GM131763-04	6/1/19	5/31/24	THE CROSS-REGULATION OF HOST DNA REPLICATION AND LTR RETROTRANSPOSONS	$250,001	$250,001	02	100	$250,001
Zhou Z Dean D (U. Rochester)	NIDDK U. Rochester	5R01DK120680-03	4/15/20	3/31/24	GENE THERAPY FOR GERD-ASSOCIATED ESOPHAGEAL EPITHELIAL BARRIER DYSFUNCTION	$104,186	$104,186	02	100	$104,186
					Peer-Reviewed Research Subtotals	$12,534,649	$11,086,378			$10,899,525