## Rutgers Cancer Institute of New Jersey Reporting Date: 03/31/2023 Program Area: Cancer Metabolism and Immunology 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
Anthony T Wek R (Indiana U.)	NIDDK	5R01DK109714-07	9/20/16	6/30/25	HOMEOSTATIC RESPONSES TO AMINO ACID INSUFFICIENCY	\$502,176	\$251,088	01	100	\$251,088
Bhattacharya M	NIDDK	1R01DK129870-01A1	4/30/22	3/31/26	HEPATIC FAT ACCUMULATION IN NONALCOHOLIC FATTY LIVER DISEASE: CRITICAL REGULATION BY KISSPEPTIN SIGNALIN	\$341,875	\$341,875	01	100	\$341,875
Birge R Kotenko S	NCI	1R01CA260137-01A1	2/1/22	1/31/27	TARGETING A PHOSPHATIDYLSERINE/TAM RECEPTOR/PD-L1 AXIS AS A VULNERABILITY IN CANCER	\$323,667	\$323,667	01	100	\$323,667
Cao J	NCI	1R01CA272578-01	7/15/22	6/30/27	HEPATITIS B VIRUS INTEGRATIONS IN KMT2B DRIVE HEPATOCELLULAR CARCINOMA	\$301,888	\$301,888	01	100	\$301,888
Davidson S White E (Rutgers)	NCI Rutgers	1OT2CA278609-01	6/22/22	5/31/27	CANCAN-RUTGERS	\$116,406	\$116,406	01	100	\$116,406
Devenport D	NIAMS	5R01AR066070-08	4/1/15	8/31/25	MULTISCALE COORDINATION OF PLANAR CELL POLARITY	\$266,354	\$133,177	01	100	\$133,177
Devenport D	NICHD	1R01HD105009-01A1	6/24/22	5/31/27	THE EMERGENCE OF COLLECTIVE CELL BEHAVIORS FROM INTERCELLULAR INTERACTIONS	\$256,846	\$128,423	01	100	\$128,423
Devenport D	NIAMS	3R01AR066070-08S1	9/1/22	8/31/23	MULTISCALE COORDINATION OF PLANAR CELL POLARITY (SUPPLEMENT 1)	\$57,760	\$28,880	01	100	\$28,880
Devenport D	NIAMS	3R01AR066070-08S2	9/1/22	8/31/23	MULTISCALE COORDINATION OF PLANAR CELL POLARITY (SUPPLEMENT 2)	\$117,957	\$58,979	01	100	\$58,979
Devenport D	NIAMS	2R01AR068320-06A1	2/16/23	1/31/28	CELL CYCLE CONTROL OF CELL POLARITY AND FATE IN EPIDERMAL MORPHOGENESIS	\$403,397	\$403,397	01	100	\$403,397
Donia M	NIAID	1R01AI172144-01	6/16/22	5/31/27	SYSTEMATIC CHARACTERIZATION OF BIOACTIVE MOLECULES FROM THE HUMAN MICROBIOME	\$426,677	\$426,677	01	100	\$426,677
Driscoll M	NIA	3U01AG045864-08S1	6/15/22	4/30/23	C. ELEGANS TESTING PROGRAM EXPANSION: HEALTHSPAN FOCUS (SUPPLEMENT)	\$249,000	\$249,000	01	100	\$249,000
El Ouaamari A	NIDDK	5R01DK122167-03	7/28/20	6/30/25	SENSORY NEUROMODULATION OF PANCREATIC BETA CELLS	\$250,000	\$125,000	01	100	\$125,000
Etchegaray J Gao N	NIAID	1R21AI167079-01A1	6/7/22	5/31/24	TET-MEDIATED DNA OXIDATIONS IN MUCOSAL INNATE DEFENSE	\$150,000	\$112,500	01	100	\$112,500
Ganesan S Lattime E White E	NCI	5R01CA243547-03	12/1/19	11/30/24	IMPACT OF MUTATION BURDEN ON CANCER GROWTH AND THE IMMUNE LANDSCAPE	\$405,038	\$405,038	01	67	\$271,375
Gao N	NIDDK	5R01DK132885-02	3/15/22	1/31/26	PANETH CELL HETEROGENEITY IN INFECTION AND INFLAMMATION	\$316,463	\$237,347	01	100	\$237,347
Gao N Kiela P (U. of Arizona)	NIDDK	5R01DK119198-04	7/1/19	6/30/24	INTESTINAL LYSOZYME CONTROLS MUCOSAL IMMUNE RESPONSE TO MICROBIOTA	\$277,831	\$277,831	01	100	\$277,831
Gitai Z Donia M	NCCIH	5R01AT011963-02	9/1/21	4/30/26	SMALL RNAS AS NOVEL MODULATORS OF MICROBE-HOST INTERACTIONS	\$949,998	\$474,999	01	100	\$474,999
Guo G	NIGMS	5R01GM135258-03	7/1/20	4/30/24	GUT-LIVER CROSSTALK BY FGF15/19 IN REGULATING XENOBIOTIC NUCLEAR RECEPTOR ACTIVATION	\$200,000	\$200,000	01	100	\$200,000
Guo G	NIGMS	3R01GM135258-03S1	5/1/22	4/30/23	GUT-LIVER CROSSTALK BY FGF15/19 IN REGULATING XENOBIOTIC NUCLEAR RECEPTOR ACTIVATION (SUPPLEMENT)	\$48,134	\$48,134	01	100	\$48,134
Guo G	VA	2I01BX002741-04A1	10/1/17	9/30/25	ROLE OF INTESTINAL BILE ACID SIGNALING IN LIVER DISEASES	\$165,000	\$165,000	01	100	\$165,000
Guo Y	NCI	7R01CA237347-04	2/1/20	1/30/25	ELUCIDATE THE MECHANISM OF AUTOPHAGY IN SUPPORTING LKB1- DEFICIENT LUNG TUMORIGENESIS AND METASTASIS	\$224,737	\$224,737	01	100	\$224,737
Guo Y	ACS (National)	RSG-19-165-01	1/1/20	12/31/23	TARGETING METABOLIC VULNERABILITIES TO IMPROVE KRAS- DRIVEN NSCLC TREATMENT	\$165,000	\$165,000	01	100	\$165,000
Guo Y	NCI	1R21CA263136-01A1	8/1/22	7/31/24	TARGETING AUTOPHAGY TO INCREASE THE SENSITIVITY OF LKB1- DEFICIENT LUNG TUMORS TO ANGIOGENESIS INHIBITOR	\$140,250	\$140,250	01	100	\$140,250
Hinrichs C	NCI	2R00CA195682-02A1	3/31/23	3/30/28	THE LANDSCAPE OF TUMOR INTRINSIC GENETIC RESISTANCE TO T CELL THERAPY	\$499,000	\$499,000	01	50	\$249,500
Irvine K	NIGMS	5R35GM131748-04	5/1/19	4/30/24	REGULATION OF GROWTH AND MORPHOGENESIS	\$400,000	\$400,000	01	100	\$400,000
Jacinto E	NIGMS	5R01GM137493-03	4/1/20	3/31/24	MTORC2 SIGNALING IN METABOLISM AND CELL FATE	\$208,000	\$208,000	01	100	\$208,000
Jacinto E	NIGMS	3R01GM137493-03S1	4/1/22	3/31/23	MTORC2 SIGNALING IN METABOLISM AND CELL FATE (SUPPLEMENT)	\$24,666	\$24,666	01	100	\$24,666
Johnson W	NCI	7R21CA260382-02	12/1/22	11/30/23	MICROBIOME-BASED BIOMARKERS AND MODELS OF LUNG CANCER DEVELOPMENT AND TREATMENT	\$105,188	\$105,188	01	100	\$105,188
Kang Y	ACS (National)	RP-19-180-01	1/1/20	12/31/24	STROMAL NICHE AS REGULATORS OF BREAST CANCER METASTASIS (Research Professor Award)	\$100,000	\$100,000	01	100	\$100,000
Kiledjian M	NIGMS	2R01GM126488-05	2/27/18	3/31/26	EUKARYOTIC RNA NAD+ CAPPING AND DENADING	\$232,539	\$116,270	01	100	\$116,270

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Kiledjian M	NIGMS	5R01GM067005-16	9/1/04	2/28/24	REGULATION OF MAMMALIAN MRNA DECAY	\$245,000	\$122,500	01	100	\$122,500
Korennykh A	NIGMS	5R01GM110161-08	5/1/14	6/30/24	STRUCTURE AND FUNCTION OF KINASE FAMILY RECEPTORS REGULATING TRANSLATION	\$200,000	\$200,000	01	100	\$200,000
Lasfar A Zloza A (Rush U.)	NCI Rush U.	5R01CA225993-04	7/15/18	6/30/23	ROLE OF IFN-LAMBDA IN PROMOTING BREAST CANCER METASTASIS	\$121,691	\$121,691	01	100	\$121,691
Laskin D	NIEHS	7R01ES033698-02	2/15/22	11/30/26	HARNESSING INFLAMMATORY MACROPHAGES TO THWART LUNG DISEASE CAUSED BY CHRONIC OZONE EXPOSURE	\$419,047	\$314,285	01	100	\$314,285
Liu D	NIAID	5R01Al130197-05	2/13/18	1/31/24	THE ADAPTOR PROTEIN CRK IN IMMUNE RESPONSES	\$373,547	\$373,547	01	100	\$373,547
Liu D	NCI	1R21CA267368-01	1/15/22	12/31/23	CD147-CAR-NK CELLS FOR HEPATOCELLULAR CARCINOMA TREATMENT	\$140,250	\$140,250	01	100	\$140,250
Nelson C	NICHD	5R01HD099030-04	8/15/19	6/30/24	MECHANICAL FORCES AND THE REGULATION OF AIRWAY PROGENITOR CELLS	\$208,250	\$156,188	01	100	\$156,188
Nelson C	NHLBI	5R01HL164861-02	1/1/22	11/30/25	INTERPLAY BETWEEN MECHANICAL FORCES AND RETINOIC ACID IN LUNG DEVELOPMENT	\$347,021	\$173,511	01	100	\$173,511
Nelson C Tien J (Boston U.)	NCI Boston U.	5U01CA214292-05	4/1/17	3/31/23	ENGINEERED INVASIVE HUMAN BREAST TUMORS WITH INTEGRATED CAPILLARIES AND LYMPHATICS	\$245,278	\$245,278	01	100	\$245,278
Nickels B	NIGMS	5R35GM118059-07	6/10/16	5/31/26	TRANSCRIPTION: MECHANISM AND REGULATION	\$455,260	\$227,630	01	100	\$227,630
Ploss A	NIAID	5R01AI153236-03	5/1/20	4/30/25	MECHANISMS OF HEPATITIS B VIRUS CCCDNA FORMATION	\$342,061	\$342,061	01	100	\$342,061
Ploss A	NIAID	5R01AI107301-10	7/1/13	6/30/23	GENETIC VIRAL AND HOST ADAPTATIONS TO BREACH SPECIES BARRIERS OF HCV	\$352,328	\$352,328	01	100	\$352,328
Ploss A Dahari H (Lovola U. Chicago)	NIAID Loyola U. Chicago	5R01Al146917-02	2/1/20	1/31/25	DATA-DRIVEN MATHEMATICAL AND COMPUTATIONAL MODELING OF HEPATITIS D INFECTION AND TREATMENT RESPONSE	\$157,078	\$78,539	01	100	\$78,539
Ploss A Su L	NIAID U. of Maryland Baltimore	5R01Al138797-05	9/24/18	8/31/23	MODELING IMMUNE IMPAIRMENTS AND PATHOGENESIS IN NOVEL HUMANIZED MICE FOR HBV-HIV CO-INFECTION	\$243,348	\$243,348	01	100	\$243,348
Pritykin Y	NIAID	1DP2AI171161-01	7/19/22	6/30/27	REGULATORY GENOMICS OF T CELLS IN MOUSE AND HUMAN	\$300,000	\$300,000	01	100	\$300,000
Rabinowitz J	ННМІ	GT11089	9/18/18	9/30/26	NAD+ FLUX IN AGED MICE	\$92,100	\$92,100	01	100	\$92,100
Rabinowitz J Lu W (Princeton)	NCI Princeton	5R50CA211437-07	9/19/16	8/31/26	REVEALING CANCER METABOLISM VIA MASS SPECTROMETRY AND ISOTOPE TRACERS (RESEARCH SPECIALIST AWARDED TO WENYUN LU)	\$77,243	\$77,243	01	100	\$77,243
Rabinowitz J White E (Rutaers)	NCI Rutgers	5R01CA163591-10	8/7/12	6/30/23	TUMOR CELL DEPENDENCE ON HOST METABOLISM	\$186,273	\$186,273	01	100	\$186,273
Runnels L Yue L (UConn)	NHLBI	5R01HL147350-04	4/1/19	2/28/24	REGULATION OF TRPM7 CHANNELS	\$404,712	\$404,712	01	100	\$404,712
Sampath H	NIDDK	5R01DK126963-02	7/1/21	6/30/26	THE ROLE OF INTESTINAL SCD1 IN REGULATING METABOLIC HEALTH	\$250,000	\$125,000	01	100	\$125,000
Sant'Angelo D	NIAID	5R21AI159066-02 (NCE)	3/8/21	2/29/24	PLZF EXPRESSION IN ADIPOSE RESIDENT NATURAL KILLER T CELLS	\$96,981	\$96,981	01	100	\$96,981
Schwarzbauer J	NIAMS	5R01AR073236-05	5/1/18	4/30/23	FIBRONECTIN-DEPENDENT MECHANISMS GOVERNING THE ASSEMBLY OF A DEFINITIVE EXTRACELLULAR MATRIX	\$217,800	\$217,800	01	100	\$217,800
Toettcher J	NSF	1750663	4/1/18	3/31/23	CAREER: SIGNAL PROCESSING IN THE ERK PATHWAY: DYNAMICS, DECISIONS, AND DEVELOPMENT	\$175,000	\$175,000	01	100	\$175,000
Toettcher J	NIGMS	1R01GM144362-01	9/22/22	8/31/26	A NEW CLASS OF BIOSENSORS FOR DETECTING SIGNALING DYNAMICS WITHOUT LIVE-CELL MICROSCOPY	\$200,000	\$100,000	01	100	\$100,000
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	01	50	\$147,683
White E Davidson S (Princeton)	NCI	1OT2CA278609-01	6/22/22	5/31/27	CANCAN-RUTGERS	\$58,934	\$58,934	01	100	\$58,934
White E Rabinowitz J (Princeton)	NCI	5R01CA163591-10	8/7/12	6/30/23	TUMOR CELL DEPENDENCE ON HOST METABOLISM	\$186,273	\$186,273	01	100	\$186,273
Woychik N	NIAID	7R01AI143760-04	12/1/19	11/30/24	TRANSCRIPTOME AND PROTEOME REMODELING BY MYCOBACTERIUM TUBERCULOSIS MAZF TOXINS	\$506,733	\$253,367	01	100	\$253,367
Woychik N	NIAID	5R01AI154464-03	5/7/20	4/30/24	GENOME EXPLORATION THROUGH TOXIN-MEDIATED RIBOSOME STALLING	\$250,000	\$125,000	01	100	\$125,000
Woychik N	NCI	7R21CA267852-02	12/1/21	11/30/23	REPURPOSING MYCOBACTERIUM TUBERCULOSIS TRNASE TOXINS FOR CANCER CHEMOTHERAPY	\$128,626	\$128,626	01	100	\$128,626
Zong W	NCI	7R01CA224550-05	9/1/18	8/31/23	GLUTAMINE SYNTHETASE IN CELL METABOLISM AND ONCOGENESIS	\$287,685	\$287,685	01	100	\$287,685
Zong W	NCI	7R01CA232246-05	9/1/18	8/31/23	PI3 KINASE PIK3CB (P110BETA) IN MEMBRANE TRAFFICKING AND METABOLISM	\$224,175	\$224,175	01	100	\$224,175
Zong W	NCI	5R01CA129536-16	4/14/08	6/30/23	PROTEIN AND REDOX HOMEOSTASIS IN CANCER DEVELOPMENT AND THERAPY	\$209,475	\$209,475	01	100	\$209,475
					Peer-Reviewed Research Subtotals	\$16,223,382	\$13,427,583			\$12,896,737