

**2024 NIH Research Festival Posters**  
**Monday, September 23, 2024 || Building 10, FAES Terrace, NIH Bethesda**  
**Full list: Posters displayed across four sessions. See <https://researchfestival.nih.gov> for session times.**

PosterCat	#	Title	Authors	Lead IC
Biomedical Engineering and Biophysics (BIOENG)	1	A high-throughput 3D bioprinted human placenta as a novel predictive platform to study drug safety and pathological conditions during pregnancy	C Antich, J Noel, Y Qu, D Tao, E Radnaa, J Jacob, R Menon, MJ Song, M Ferrer	NCATS
Biomedical Engineering and Biophysics (BIOENG)	2	Weakly Supervised Learning for Subcutaneous Edema Segmentation of Abdominal CT	S Bhadra, J Liu, RM Summers	CC
Biomedical Engineering and Biophysics (BIOENG)	3	Macrophage-Integrated 3D Outer Blood-Retinal Barrier Model to Investigate Subclinical Choroidal Neovascular Age-Related Macular Degeneration	C Cargill, R Quinn, T Park, C Zhang, E Nguyen, D Bose, M J Song, M Ferrer, R Sharma, K Bharti	NEI
Biomedical Engineering and Biophysics (BIOENG)	4	Atomic Force Microscopy: A Versatile Microscopy Resource on Campus	EK Dimitriadis	NIBIB
Biomedical Engineering and Biophysics (BIOENG)	5	A Functional 3D Bioprinted Neuromuscular Junction Model for Therapeutic Development of Myopathies and Neuromuscular Diseases	SA Frebert, CA Antich, S Kundu, P Ormanoglu, J Colon, Y Zou, Mj Song, M Ward, C Bonnemenn, M Ferrer	NCATS
Biomedical Engineering and Biophysics (BIOENG)	6	Monitoring and Control System for Alcohol Vapor Chambers in Rodent Research	MA Garmendia, PM Donley, RH Pursley, JA Krynskiy, JC Vendruscolo, LF Vendruscolo	NIBIB
Biomedical Engineering and Biophysics (BIOENG)	7	An NMR-based fragment screening approach to identify LCAT modulators	EM Hausmann, SA Kotler, SL Saldana-Shumaker, MG Seidel, BR Woodward, M Fletcher, JW Carter, MI Konaklieva, CA LeClair	NCATS
Biomedical Engineering and Biophysics (BIOENG)	8	Automated, High Throughput mRNA-LNP Formation Using Adaptable Microfluidics	ND Jones, ML Figur, P Rezvan Sangsari, JM Groff, JM Burd, NY Morgan, DB Gowetski, EC Ihms	VRC
Biomedical Engineering and Biophysics (BIOENG)	9	Development of a Zebrafish Intubation Chamber for in vitro Longitudinal Imaging	T J Jones, J Krynskiy, P Gordon, T J Pohida, K Tanner	NIBIB
Biomedical Engineering and Biophysics (BIOENG)	10	Characterizing spontaneous movements during early development of mice	LF Cook, JA Krynskiy, L Zhang, AR Inacio, TJ Pohida, SH Lee	NIBIB
Biomedical Engineering and Biophysics (BIOENG)	11	Biofabrication of Immunocompetent 3D Skin Tissue Equivalents to Model Skin Wound Healing and Fibrosis.	YW Lim, H Zarkoob, MJ Song, M Ferrer	NCATS
Biomedical Engineering and Biophysics (BIOENG)	12	Sialic acid perturbation leads to profound remodeling of glycocalyx architecture and cellular mechanics in pancreatic cancer cells	AE Massey, S Behrman, G Altan-Bonnet, AX Cartagena-Rivera	NIBIB
Biomedical Engineering and Biophysics (BIOENG)	13	Insights into $\alpha$ -Synuclein Amyloid Formation: Effect of N- and C-terminal Truncations at the Residue-level	RP McGlinchey, X Ni, J Jiang, JC Lee	NHLBI
Biomedical Engineering and Biophysics (BIOENG)	14	Estimation of tissue properties in post-mortem brains to time from death using magnetic resonance elastography	J Mojumder, YC Lu, AM Diano, A Alshareef, AK Knutsen, M McGarry, CL Johnson, JA Butman, DL Pham	CC
Biomedical Engineering and Biophysics (BIOENG)	15	Microfabrication for Biomedical Research	P Rezvan Sangsari, ME Daminato, MA Kwarteng, HG Tran, NY Morgan	NIBIB
Biomedical Engineering and Biophysics (BIOENG)	16	Modulation of biophysical properties of nucleocapsid protein in the mutant spectrum of SARS-CoV-2	AN Nguyen, H Zhao, D Myagmarsuren, S Srinivasan, D Wu, J Chen, G Piszczek, P Schuck	NIBIB
Biomedical Engineering and Biophysics (BIOENG)	17	Tracking Muscle Deformation using Ultrasound Imaging During Functional Electrical Stimulation	SM Patwardhan, KE Alter, JA Stowers, DL Damiano, TC Bulea	CC
Biomedical Engineering and Biophysics (BIOENG)	19	3D High Throughput Bioprinted Vascularized Tissue Platform to Study Environmental Toxicant-Induced Angiogenesis and Vascular Dysfunction	M Rajput, MJ Song, D kuo, D Gerhold, M Ferrer, E Lee	NCATS
Biomedical Engineering and Biophysics (BIOENG)	20	Water bend-libration as a Raman probe of biological hydration: Applications to amyloid characterization in cellulo	S Ramos, JC Lee	NHLBI
Biomedical Engineering and Biophysics (BIOENG)	21	Continuing Development of Find-Seq for Gene Expression Analysis of Rare Cell Populations	P Rezvan Sangsari, N Dulin, P Ramdas, J Krynskiy, EA Boritz, NY Morgan	NIBIB
Biomedical Engineering and Biophysics (BIOENG)	22	Generation of human iPSC-derived cerebellar organoids and their application in development of gene therapeutics for Friedreich's Ataxia	S Ryu, J Inman, Y Gedik, V Jovanovic, A Simeonov, I Singee, C Tristan	NCATS
Biomedical Engineering and Biophysics (BIOENG)	23	Compact video system for automated mouse home cage activity and behavior monitoring	G Salem, M Garmendia-Cedillos, T Jones, S Qin, S Arumugam, I Farooq, L Wilson, S Bradley, D Kendrick, Y Chudasama, J Cushman, D Coble, J Dennis, T Pohida	NIBIB
Biomedical Engineering and Biophysics (BIOENG)	24	Amyloid formation of alternatively spliced variants of $\alpha$ -synuclein	DQ SanGiovanni, RP McGlinchey, JC Lee	NHLBI
Biomedical Engineering and Biophysics (BIOENG)	25	An Engineered Neurovascular Tissue Model with Perfusable Vascular Network for Disease Modeling and Drug Screening	YT Tung, MJ Song, M Ferrer	NCATS
Biomedical Engineering and Biophysics (BIOENG)	26	Phase separation and amyloid formation of TDP-43 C-terminal domain studied by Raman spectroscopy and site-specific p-ethynyl-phenylalanine probes	M D Watson, J C Lee	NHLBI
Biomedical Engineering and Biophysics (BIOENG)	27	Assembly of SARS-CoV-2 nucleocapsid protein with nucleic acid	H Zhao, AM Syed, MM Khalid, A Nguyen, A Ciling, D Wu, WM Yau, S Srinivasan, D Esposito, JA Doudna, G Piszczek, M Ott, P Schuck	NIBIB
Biomedical Engineering and Biophysics (BIOENG)	28	Pancreas Sub-region Segmentation on CT	Y Zhuang, A Suri, TS Mathai, B Khoury, RM Summers	CC
Biomedical Engineering and Biophysics (BIOENG)	29	Leveraging Augmented Reality for Visualization and Manipulation on Volumetric Medical Imaging Data	X Zou, A Martin-Gomez, R Freidlin, RD Leapman	NIBIB
Cancer Biology (CANCER)	1	Designing and utilizing a c-Rel specific bioassay in drug repurposing screen for HNSCC	KA Altwegg, KE King, D Blivis, TC Voss, NJ Martinez, WC Weinberg, MJ Henderson	NCATS

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Cancer Biology (CANCER)	2	Spatial transcriptomics of mouse parathyroid gland cells expressing an activating variant of Gcm2	P Bolel, JO Piña, FR Fauz, LS Weinstein, SK Agarwal	NIDDK
Cancer Biology (CANCER)	3	Investigating the role of intracellular Enterococcus faecalis in hepatocellular carcinoma	OY Mrad Bouali, MA Clavijo-Salomon, G Trinchieri	NCI
Cancer Biology (CANCER)	4	Whole-genome RNAi screen to identify modulators of prometastatic gene ASAP1	S Claffey, S Lin, Y Chen, PA Randazzo, K Cheng	NCATS
Cancer Biology (CANCER)	5	Development of novel CAR T cells targeting gamma delta T cell receptors	LC Cutmore, N Lam, C Amaty, K Weissler, DA Natrakul, JN Kochenderfer	NCI
Cancer Biology (CANCER)	6	Defining Neuroblastoma Cell Heterogeneity and Plasticity through in vivo Single-Cell RNA Sequencing	S Di Giulio, M Sun, Z Liu, Y Wu, R Nguyen, J Shern, CJ Thiele	NCI
Cancer Biology (CANCER)	7	Evaluation of Labeled Anti-B7-H3 Antibodies as Potential Theragnostic Agents for Cancer Immunotherapy	B Fernandes, CP Olkowski, F Basuli, B Ghaemi, PL Choyke, FI Lin, O Jacobson	NCI
Cancer Biology (CANCER)	8	Personalized screening in patient derived organoids for gastroenteropancreatic neuroendocrine tumors	SD Forsythe, S Yellapragda, SG Andrews, J del Rivero, JM Hernandez, N Nilubol, JP Madigan, SM Sadowski	NCI
Cancer Biology (CANCER)	9	Roles of methyltransferases in the development of resistance to thiol-based histone deacetylase inhibitors	OD Gbadegesin, RW Robey, MM Gottesman	NCI
Cancer Biology (CANCER)	10	Clonal T cell expansion drives spontaneous tumor regression in Merkel cell carcinoma	PH Hallaert, M Baker, JM Roman, A Reuben, N Hill, CW Hudgens, MT Tetzlaff, NF Logemann, I Brownell	NIAMS
Cancer Biology (CANCER)	11	Hepatitis virus-associated B cell non-Hodgkin's lymphoma involves dysregulated epigenetic and RNA-mediated regulatory gene expression and altered snoRNA transcription	AN Henning, ND Dashdorj, NJ Dashdorj, V De Giorgi	CC
Cancer Biology (CANCER)	12	Mechanism of G0S2 in tumor dormancy and treatment relapse	C Kieu, A Ahad, C Sellner, Y Gu, S Ratnayake, F Leng, D Meerzaman, JY So, L Yang	NCI
Cancer Biology (CANCER)	13	Glucose Utilization Differs Between RAS-like and BRAF-like Thyroid Cancer	S Kumari, E Chuki, J Klubo-Gwiedzinska	NIDDK
Cancer Biology (CANCER)	14	Synergism between NRAS and IL7R drives acute lymphoblastic leukemia	W Li, H Winer, G Rodrigues, T Gower, TJ Meyer, J Hixon, SK Durum	NCI
Cancer Biology (CANCER)	16	Use of whole genome CRISPR activation screens to identify genes whose overexpression affects sensitivity to drugs	CC Lipsey, E Ooko, H Wade, PJ Batista, RW Robey, MM Gottesman	NCI
Cancer Biology (CANCER)	17	Pericyte derived lipids alter disseminating tumor cell fate decisions	T McErlain, M Glass, E McCulla, L Ziemer, C Branco, M Murgai	NCI
Cancer Biology (CANCER)	18	Exploiting cancer stem cells' super-sensitivity to microenvironmental quality to block metastatic progression	JA Minin, B Tang, VM Gonzalez, Z Khan, Y Raviv, LM Wakefield	NCI
Cancer Biology (CANCER)	19	Investigating the lineage-specific roles of the Forkhead box (FOX) family in cancer	AV Mitchell, MM Gottesman	NCI
Cancer Biology (CANCER)	20	Spatial localization of cancer stem cell phenotypes. CD8+ cytotoxic T cells and hypoxia in 4T1 tumors: a mouse model of triple-negative breast cancer	RL Moffat, AL Gonzalez, LL Coutinho, L Ridnour, SJ Lockett, DA Wink	NCI
Cancer Biology (CANCER)	21	Investigating the Role of Smurf2 in the Regulation of Cohesin Protein Complex	MR Molla, CH Stuelten, T Xiao, Y Tang, JH Shin, KC Birendra, YE Zhang	NCI
Cancer Biology (CANCER)	22	Genome-Wide CRISPR Screening Identifies SLC47A1 (MATE1) As a Gene that Confers Resistance to Prexasertib, a CHK1 Inhibitor, in Ovarian Cancer Cells	P MONDAL, D CHEN, A.V MITCHELL, L JENKINS, M.M GOTTESMAN	NCI
Cancer Biology (CANCER)	23	Targeting IDH1-Mutated Oligodendroglioma with Acid Ceramidase Inhibitors	H Muley Vilamu, T Dowdy, F Zaibaq, H Song, M Zhang, W Zhang, Z Wong, M Larion	NCI
Cancer Biology (CANCER)	25	Investigating the molecular basis of oxaliplatin resistance in colorectal cancer (CRC) via genome-scale CRISPR screens	NR Pawar, HM Wade, RW Robey, MM Gottesman	NCI
Cancer Biology (CANCER)	26	XMEN disease increases cutaneous MCPyV viral burden and elevates the risk of early onset Merkel cell carcinoma	Y Saito, N Mohsin, J Strong, AJ Jabbour, P Nghiem, CB Buck, DV Pastrana, J Bergerson, S Conlan, AF Freeman, JA Segre, HH Kong, I Brownell	NIAMS
Cancer Biology (CANCER)	27	miR-1293 as a Potential Therapeutic Agent in Diffuse Pleural Mesothelioma: Targeting DNA Repair Pathways.	V Singh, A Singh, N Pruett, SH Yoon, S Sahu, CD Hoang	NCI
Cancer Biology (CANCER)	28	Study of the mechanisms of resistance to the Antibody-drug conjugate Enfortumab Vedotin in urothelial carcinoma	IT Stukes, M-J Lee, A Youseffi-Rad, AB Apollo, S Boudjadi	NCI
Cancer Biology (CANCER)	30	Periostin in Malignant Peripheral Nerve Sheath Tumors (MPNST): Insights into Its Functions and Therapeutic Potential	V Verdi, C Cero, BR Wei, HR Shive	NCI
Cancer Biology (CANCER)	31	Identifying cancer stem cells in an in vitro engineered model of cell-generated hypoxic gradients using adaptive thresholding of fluorescent reporters	G Vitale, B Tang, J Minin, S Lockett, L Wakefield, W Heinz	NCI
Cancer Biology (CANCER)	32	In Vitro Modeling of the Resistance to the Antibody-drug Conjugate Sacituzumab Govitecan in Urothelial Carcinoma	S Weng, I Stukes, M Lee, A Youseffi-Rad, S Boudjadi, AB Apollo	NCI
Cancer Biology (CANCER)	33	The Influence of Cancer Associated Fibroblasts on the Growth of Pancreatic Neuroendocrine Tumors	SV Yellapragada, SD Forsythe, JP Madigan, SG Andrews, SM Sadowski	NCI
Cancer Biology (CANCER)	34	Functional characterization of mutant ALK5 (TGFBRI1) in endometrial cancer	E YU, DW BELL	NHGRI

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Cell Biology (CELLBIO)	1	Glycome profiling with a DNA-barcoded antibody library and microarray technology	AZ Bhakta, S Marglous, KM Gillmann, JC Gildersleeve	NCI
Cell Biology (CELLBIO)	2	Cardiac lipolysosome-like structures in IL-4 receptor $\alpha$ -deficient BALB/c mice with heart failure.	AS Gozalo, WR Elkins	NIAID
Cell Biology (CELLBIO)	3	The effects of estradiol and estriol secretion pattern on estrogen receptor dynamics and gene regulation	L Hoang, D Stavreva, K Wagh, H LaPoint, L Schiltz, A Upadhyaya, R Chari, G Hager	NCI
Cell Biology (CELLBIO)	4	Investigating the impact of non-myceloablative hematopoietic cell transplantation on organ pathology in the murine model of Sickle cell disease	A Idowu, D Gaskin, M Ali, D Kabore, X Xu, E Limerick, Z Quezada, D Springer, C Fitzhugh	NHLBI
Cell Biology (CELLBIO)	5	Saving the Liver: PCBP1 and PCBP2 Iron Chaperones are Essential for Hepatocyte Survival	E Messenger, O Protchenko, A J Tietgens, S Jadhav, S Grounds, M Shakoury-Elizeh, C Philpott	NIDDK
Cell Biology (CELLBIO)	7	Hyperglycemia disrupts vitamin C physiology in vitro and in vivo: translational glucotoxicity	K Patra, H Tu, Y Wang, M Levine	NIDDK
Cell Biology (CELLBIO)	8	Autophagy proteins differentially regulate extracellular vesicles (EVs) formation and secretion in the placenta	A Singh, D Johnson, J Williams, J Kuhn, CM Guardia	NIEHS
Chemical Biology (CHEMBIO)	1	Optimization of Ghrelin receptor bias modulators for the treatment of addictive disorders	K Afratis, D Kim, JD Gross, L Barak, X Hu, N Southall, M Ferrer, J Marugan	NCATS
Chemical Biology (CHEMBIO)	2	Identification of environmental compounds that modulate the human kisspeptin receptor	X Chen, S Yang, L Zhang, J Travers, R Huang, V Jovanovic, C Tristan, R Sukhawanit, C Klumpp-Thomas, KL Witt, A Simeonov, ND Shaw, M Xia	NCATS
Chemical Biology (CHEMBIO)	3	Isolation and Spectroscopic Analysis of Bioactive Natural Products from Soil Bacteria	JP Haro, G Zhao, CA Bewley	NIDDK
Chemical Biology (CHEMBIO)	4	Discovery of IRAK1/4/pan-FLT3 kinase inhibitors as treatments for acute myeloid leukemia	SB Hoyt, CJ Finocchio, E Croll, GJ Tawa, H Li, L Ma, K Li, L Liu, R Li, X Zhang, K Wilson, X Xu, P Shah, J Williams, LC Bolanos, G Gracia-Maldonado, A Kolt, C Robinson, J Fre, E Edmondson, S Drifflipantonio, JS Rosenbaum, DT Starczynowski, CJ Thomas	NCATS
Chemical Biology (CHEMBIO)	5	A chemical derivation MRM method for high-throughput MS-based screening to identify small-molecule modulators of deoxyhypusine synthase	CA LeClair, D Tao, Y Fang, KCC Cheng, W Zhao, R Tharakan, SM Yang, MH Park, MD Hall	NCATS
Chemical Biology (CHEMBIO)	6	a-Ammonium Carbamates Undergo Efficient Two-Step Linker Cleavage and Improve the Properties of Antibody Conjugates	X Li, N Patel, J Kalen, MJ Schnermann	NCI
Chemical Biology (CHEMBIO)	7	Design and synthesis of activity-based probes for granzyme A	SM Malespini III, M Kazim, E Yoo	NCI
Chemical Biology (CHEMBIO)	8	Assay Development for the identification of ALPK1 inhibitors	NJ Martinez, A Zakharov, G Rai, Si Son, D Esposito, JP Denson, C Kozycki, D Kastner, A Simeonov	NCATS
Chemical Biology (CHEMBIO)	9	Dissecting substrate interactions of zDHHC enzymes by in vitro biochemical reconstitution	T Mondal, A Banerjee	NICHHD
Chemical Biology (CHEMBIO)	10	RNA as a target: A new perspective for FDA-approved drug repurposing	SA Owens, M Yang, S Balaratnam, JA Spivey, AG Solomon, BJ Moore, JS Schneekloth Jr.	NCI
Chemical Biology (CHEMBIO)	11	Machine Learning-Driven Discovery of SARS-CoV-2 Nsp14-MTase Inhibitors	S Pal, Q Hanson, NJ Martinez, AV Zakharov	NCATS
Chemical Biology (CHEMBIO)	12	Design, Creation, and Implementation of On-Demand Reaction Screening Kits	A Radujevic, D David Calabrese, JC Klein, V Ujah, A Godfrey, T Masquelin	NCATS
Chemical Biology (CHEMBIO)	13	Dual targeting of GPCR assemblies using Nanobody-ligand conjugates	S Roy, S Sachdev, RW Cheloha	NIDDK
Chemical Biology (CHEMBIO)	14	Discovery and development of TRND482477/KER-047 for treating ALK2 dysfunction disorders: FOP and anemia resulting from Iron imbalance	K. Shamim, X. Hu, W. Zheng, P. Sanderson, A. Wang, X. Xu, W. Huang, J. Lachey, J. Seehra	NCATS
Chemical Biology (CHEMBIO)	15	Developing Selective Drug Like Inhibitors of Glycine and Histamine N-Methyl Transferases	S Sharma, S Karavadhi, VK Chenniappan, D Moya, JH Shrimp, L Crawford, QM Hanson, N Hoxie, H Sun, M Shen, MD Hall, S Patnaik	NCATS
Chemical Biology (CHEMBIO)	16	Development of pH Activatable SWIR Imaging Probes for Ratiometric pH Imaging and In Vivo Analysis of Antibody-Drug Conjugate Linkers	P Shrestha, MJ Schnermann	NCI
Chemical Biology (CHEMBIO)	17	Paralogue-specific degradation of the histone acetyltransferase EP300	J H Williams, M Crawford, D Tripu, Y Xiong, X Chen, A Shaik, S Barrit, Y Jing, D Gallimore, S Kales, N Bhanu, Y Fang, K Butler, C LeClair, N Coussens, A Simeonov, B Garcia, R Swenson, C Dibble, J L Meier	NCI
Chromosome Biology (CHROM)	1	High resolution maps of chromatin reorganization reveal a meiotic-specific architectural role for CTCF in mouse meiosis	G Cheng, F Pratto, K Brick, X Li, B Alleva, M Huang, G Lam, RD Camerini-Otero	NIDDK
Chromosome Biology (CHROM)	2	Unravelling Centromeric evolution by Nucleosome elasticity	J Kolay, DP Melters, M Bui, Y Dalal	NCI
Chromosome Biology (CHROM)	3	Biased Transmission of Mouse Selfish DNA: Internal Causes of Wild-Type Embryo Mortality and Differential Gene Expression	DMZ Silva, T Akera	NHLBI
Clinical Research (CLINICAL)	1	Preliminary Results for the NIH Protocol of the Mediterranean-like Unprocessed (CLEAN-MED) Diet Intervention Study of the Gut Microbiome of Healthy Adults	E Abiona, A Brichacek, M Florkowski, S Yang, S Turner, C Awuah, S Burrisson, JJ Barb, L Yang, N Farmer, G Wallen, J Dekker, K Frank	CC
Clinical Research (CLINICAL)	2	Harmonizing categorical and dimensional measures of manic episodes in bipolar disorder	IC Akwue, LN Lachawan, GW Hawariat, EK Besançon, A Freifeld, L Kassem, FJ McMahon	NIMH
Clinical Research (CLINICAL)	3	Effects of RANKL inhibition on osteotomy healing in a murine model of fibrous dysplasia	A Arif, KS Pan, LF de Castro, V Kram, AM Boyce	NIDCR

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Clinical Research (CLINICAL)	4	Meeting in the middle... ear! Characterizing multifrequency tympanometry measures in ears with and without endolymphatic hydrops	SM Avenilla, J Chisholm, J Telischi, T Wafa, J Butman, N Allemang, C Brewer, J Christensen, C Zalewski, AS Le, A Tran, M Hoa, GL Poling	NIDCD
Clinical Research (CLINICAL)	5	New Horizons within the CLIA Molecular Diagnostics Laboratory	RN Baugher, SD Mellott, HE Lawhorn, TB Young, KM Pike, TM Plona, BR Xu, DR Soppet, SK Narayanasamy, WE Bocik, SM Hewitt	NCI
Clinical Research (CLINICAL)	6	Comparison of the immune effects of different HDAC inhibitors	C Celades, J Schlom, RN Donahue	NCI
Clinical Research (CLINICAL)	7	The Diagnostic Assessment of the Spectrum of Health (DASH): Properties, advantages and clinical utility in the context of structured diagnostic interviews for adults and youth mental health	R Choudhari, E Ballard, F Belouad, K Conway, J Franco, K Georgiades, G Salum, P Sztamari, K Merikangas	NIMH
Clinical Research (CLINICAL)	8	The relationship between cognitive and adaptive functioning in Williams Syndrome	AE Chun, C Farmer, B Kozel, A Thurm	NIMH
Clinical Research (CLINICAL)	9	Feasibility of Gait Event Detection from Thigh Segment Kinematics in Children with Cerebral Palsy	JE Dembsky, NM Rubin, TC Bulea	CC
Clinical Research (CLINICAL)	10	Linking contextual information to common data elements for FAIR myositis research	MA Diller, LG Rider, RH Scheuermann	NLM
Clinical Research (CLINICAL)	11	Integrating Decentralized Trial Design Methods to Explore Clinical Trial Landscape in Rare Genetic Diseases: A Scoping Review	LM Edgar, L Koehly	NHGRI
Clinical Research (CLINICAL)	12	Fibrous dysplasia progression in patients with craniofacial involvement of the frontal and zygomatic bones	JE Freeman, II Elbashir, KS Pan, AM Boyce	NIDCR
Clinical Research (CLINICAL)	13	Effects of Metformin and Liraglutide on Gut Microbiota Composition in Youth-onset Type 2 Diabetes: The MIGHTY Study	SB Glaros, SL Cantor, NA Macheret, IN Kacker, L Mabundo, N Malandrino, ST Chung	NIDDK
Clinical Research (CLINICAL)	14	Effects of cancer treatments on sleep patterns in men with non-metastatic prostate cancer	SG Gonsalves, SR LaMunion, KA Clevenger, T Wu, K Dickinson, A Ross, ME Steele, LN Saligan	NINR
Clinical Research (CLINICAL)	15	Transcriptomic and Cytokine Profiles Associated with General Pain Symptoms in Head and Neck Cancer Patients with Oral Mucositis Receiving Dental Prophylaxis and Oral Mucosal Deterging Intervention	T Goto, P Corby, A Lin, J Lukens, S Sonis, LN Saligan	NINR
Clinical Research (CLINICAL)	16	Investigating the Immune Landscape and Clinical Features of Spinal Adhesive Arachnoiditis	SA Graff, HV Nalluri, D Maric, DB McGavern, M Quezada, JD Heiss	NINDS
Clinical Research (CLINICAL)	17	Vitamin E sequestration in MASLD and effect of supplementation in mitigating progression to MASH	TD Greene, S Teng, I Rozga, R Berman, N Munyan, I Ebenuwu, M Levine, PC Violet	NIDDK
Clinical Research (CLINICAL)	19	Drug development illustrated: infusing equity in preclinical research	SJ Haugabook, PS Huston, SH Kinling, JM Cohen, M Rahman, EK Taylor, M Washabaugh, CL Purdy, L Toney, T Rogers, J Cheung, E Ottinger	NCATS
Clinical Research (CLINICAL)	20	Safety, tolerability, and immunogenicity of a group 2 influenza hemagglutinin stem nanoparticle vaccine in healthy adults: a phase 1, dose-escalation trial	J Casazza, P Costner, L Holman, M Burgos-Florez, A OrtegaVilla, M Castro, J Trost, H Vanderven, I Gordon, R Gillespie, L Serebryanny, K Houser, R Koup, B Graham, T Pierson, S Andrews, M Kanekiyo, L Dropulic	NIAID
Clinical Research (CLINICAL)	21	Serum protein biomarkers linked to neurodegenerative processes are elevated in glioma patients and associated with severity of neurologic symptoms	E Hsieh, T Mendoza, D Raval, MC Kauss, K Slattery, M Wright, T Davis, A Choi, K Reinhart, H Miller, E Vera, TS Armstrong, VA Guedes	NCI
Clinical Research (CLINICAL)	22	The role of circadian rhythm dysregulation in individuals with alcohol use disorder (AUD) before and after relapse following inpatient treatment	AN Hughes, GR Wallen, KA Maki, A Ahmed, RTS Tuason, JJ Barb	CC
Clinical Research (CLINICAL)	23	Advanced lipoprotein analysis demonstrates residual atherosclerotic cardiovascular disease risk after remission of nephrotic syndrome	M Hwang, RJ Brown, L Howard, M Waldman	NIDDK
Clinical Research (CLINICAL)	24	The association of late-life depression with brain amyloid deposition: the ARIC-PET study	S Kanetkar, VN Morrill, MT Egle, KA Walker, DF Wong, RF Gottesman	NINDS
Clinical Research (CLINICAL)	25	Towards identifying genetic determinants of radioresistant prostate cancer	S Kartal, SY Trostel, RT Lis, AG Sowalsky, DE Citrin	NCI
Clinical Research (CLINICAL)	26	Single-nucleus and spatial transcriptomics of human pediatric ovary: Molecular insights into the dysregulated signaling pathways underlying premature ovarian insufficiency in classic galactosemia	R Kavarthapu, H Lou, T Badger, R Balasubramanian, V Huynh, M De La Luz Sierra, JC Yano, V Gomez-Lobo	NICHHD
Clinical Research (CLINICAL)	27	Biobehavioral investigations of cooking (BioCook): A novel approach to understanding the neural and psychosocial dynamics of cooking	S Lawler, NM Farmer, R Hingst, G Wallen	CC
Clinical Research (CLINICAL)	28	Characterization and application of a novel auditory brainstem response grading scale	AS Le, C Zalewski, A Mahurkar, V Kamath, T Oh, C Brewer, N Allemang, J Chisholm, J Christensen, T Wafa, A Tran, S Avenilla, R Hertzano, GL Poling	NIDCD
Clinical Research (CLINICAL)	29	Clinical outcomes following gene therapy in GM1 gangliosidosis correlate with structural and diffusion magnetic resonance imaging derived markers.	CJ Lewis, Z Vardar, AL Kühn, JM Johnston, P D'Souza, WA Gahl, MS Shazeeb, CJ Tifft, MT Acosta	NHGRI
Clinical Research (CLINICAL)	30	Lung transplant rejection: post-treatment cell-free DNA levels predict allograft failure	AY Lin, MB Keller, MK Jang, H Kong, W Park, X Tian, S Agbor-Enoh	NHLBI
Clinical Research (CLINICAL)	31	AAV gene therapy development: Early planning and regulatory considerations for advancing the NIH Platform Vector-Gene Therapy (PaVe-GT) Program	RM Lomash, J Dehdashti, OA Shchelochkov, RJ Chandler, L Li, I Manoli, J Sloan, P Terse, X Xu, R Stan, D Saade, PJ Brooks, DC Lo, CG Bonnemann, CP Venditti, AR Pariser, EA Ottinger	NCATS
Clinical Research (CLINICAL)	32	Clinical Practice Guideline Generation from Quality of Life Studies in Rare Diseases	S Moon, P Gahan, Q Zhu	NCATS
Clinical Research (CLINICAL)	33	Vitamin A and MTF regulation in disease progression of patients with Lymphangioleiomyomatosis (LAM)	G Pacheco-Rodriguez, WK Steagall, JC Valencia, M Stylianou, M Uhart, J Moss	NHLBI
Clinical Research (CLINICAL)	34	Long-term atrophy expansion rates in a prospective, longitudinal study of ABCA4 retinopathy using ultra-widefield fundus autofluorescence	AS Pathapadu, MP Boyle, LA Huryn, CA Cukras, WM Zein, BP Brooks	NEI

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Clinical Research (CLINICAL)	35	Lipid levels increase to the normal range after nonmyeloablative hematopoietic cell transplantation for sickle cell disease	JE Queen, E Limerick, N Jeffries, M Hsieh, CD Fitzhugh	NHLBI
Clinical Research (CLINICAL)	36	Coordinate protein regulation in adult and juvenile dermatomyositis reveals neutrophil and mononuclear leukocyte pathways, activation of upstream regulators, and candidate biomarkers	AC Sparling, JM Ward, K Sarkar, A Schifffenbauer, P Noroozi Farhadi, MA Smith, S Rahman, K Zerrouki, FW Miller, JL Li, KA Casey, LG Rider	NIEHS
Clinical Research (CLINICAL)	37	Exploring Self-Efficacy and Cognitive Control Across Anxiety Symptoms: Insights from an Anti-Saccade Task	A E Ross, A D Poe, K M Lewis, M E Byrne, E M Cardinale, S P Haller, P Khosravi, D S Pine	NIMH
Clinical Research (CLINICAL)	38	Human iPSC Derived 2D & 3D Neuronal Models for Antisense Oligo Nucleotide Associated Acute Neurotoxicity Screening	- Jyoti Roy, - William Borschel, - Elia R. Lopez, - Atena Farkhondeh Kalat, - Edward Wu, - Caroline Strong, - Emily Lee, - Marc Ferrer, - Elizabeth A. Ottinger, - Bryan J. Traynor	NCATS
Clinical Research (CLINICAL)	39	Pregestational Obesity Leads to Alteration in Inflammatory and Glycemic Markers During Pregnancy in the ETCHED Cohort	S Roy Choudhury, S Hamad, L Vazquez, R Caballero, H Looker, M Sinha	NIDDK
Clinical Research (CLINICAL)	40	Intravenous Sodium Thiosulfate Demonstrates Efficacy for Calcinosis Associated with Adult and Juvenile Idiopathic Inflammatory Myopathy	A Schifffenbauer, J Agafonova, A Derkyi, K Sarkar, J Wilkerson, A Ehrlich, G Joe, J Shrader, M Jain, L G Rider	NIEHS
Clinical Research (CLINICAL)	41	Distinct roles of SEC24D in procollagen quality control and trafficking	M Sellamani, E Makareeva, S Omari, L Sergey	NICHD
Clinical Research (CLINICAL)	42	The association between recency of suicide attempt and reattempt in adult emergency department patients	T Shi, R Merai, C Farmer, A Wei, E Boudreaux, M Pao, J Bridge, LM Horowitz	NIMH
Clinical Research (CLINICAL)	43	Pathophysiology and Clinical Manifestations of Topical Steroid Withdrawal Syndrome	N Shobnam, G Ratley, S Saksena, A Sun, K Mccann, M Yadav, S Ganesan, PP Chaudhary, K Kanakabandi, S Ricklefs, J Lack, M Gadkari, I Franco, I Myles	NIAMD
Clinical Research (CLINICAL)	44	Development of a PTH Receptor Inverse Agonist (PTH-IA) as a new investigational drug for treatment of patients with Jansen Metaphyseal Chondrodysplasia (JMC)	R Stan, RM Lomash, A Khatri, T Gardella, H Jueppner, S Jha, MT Collins, EA Ottinger	NCATS
Clinical Research (CLINICAL)	45	Vitamin C dysregulation in HIV: Cross-sectional study of renal leak in women with HIV	s Teng, T Greene, I Rozga, R Berman, PC Violet, K Wilkins, M Levine, I Ebeuwa	NIDDK
Clinical Research (CLINICAL)	46	The Impact of Intravenous Ketamine Treatment on Sleep and Suicidal Thoughts	AN Tillman, D Greenstein, N Hejazi, L Waldman, C Zarate, E Ballard	NIMH
Clinical Research (CLINICAL)	47	i3D-RARE: A Precision Medicine Platform of iPSC-derived 3D Cellular Models to Accelerate Therapeutic Development for Rare Diseases	DW Zong, C Chen, RM Lomash, E Mathé, SG Michaels, A Simeonov, MJ Song, C Tristan, W Zheng, M Ferrer, EA Ottinger	NCATS
Clinical Research (CLINICAL)	48	Peripheral immune analyses correlate with clinical outcome: A phase II trial of nivolumab, capecitabine, or the combination in patients with triple negative breast cancer	NJ Toney, F Lynce, C Mainor, C Isaacs, J Schlom, RN Donahue	NCI
Computational Biology (COMPBIO)	1	Evaluating an AlphaFold-based platform for the discovery and validation of dominant-negative protein fragments	AC Castroverde, JH Williams, AJ Hu, JL Meier	NCI
Computational Biology (COMPBIO)	2	Assessing reproducibility of metabolomic profiles generated using a multi-lab round-robin" study design"	HA Chatelaine, C Beecher, EA Mathé	NCATS
Computational Biology (COMPBIO)	3	RARE-SOURCE™: Integrated Bioinformatics Resource for Rare Diseases	J Cheung, U Mudunuri, M Alodadi, D Watson, A Che, E Lyons, GJ Tawa, RM Lomash, L Toney, C Purdy, S Mounaud, F Porter, SJ Haugabook, E Ottinger	NCATS
Computational Biology (COMPBIO)	4	RARE-SOURCE™ Literature AI: Rare Disease Genotype-Phenotype Associations from Biomedical Literature	M Alodadi, E Lyons, A Che, D Watson, GJ Tawa, F Porter, SJ Haugabook, E Ottinger, U Mudunuri	NCATS
Computational Biology (COMPBIO)	5	Development of a haplotype-aware assembly pipeline for analysis of rearrangements at the human CYP2D6-CYP2D7-CYP2D8 locus	D Dahiya, B Alleva, F Pratto, R D Camerini-Otero	NIDDK
Computational Biology (COMPBIO)	6	Integrative analysis of the rare endocrine cancers using multi-omics data	SV Daulatabad, A Jain, D Nosome, M Tandon, D Varghese, K Pendo, MFW Malone, J del Rivero, BC Widemann, KM Reilly	NCI
Computational Biology (COMPBIO)	7	Physiological Modeling and Parameter Inference with Deep Learning: A Lipolysis Example	X Duan, M Aggarwal, V Periwal	NIDDK
Computational Biology (COMPBIO)	8	Fusion of Spatiotemporal and Network Models to Quantify Variations in scRNA-seq data	OA Egbon, B Anchang	NIEHS
Computational Biology (COMPBIO)	9	Deep learning-based screening strategy for rapid identification of anilsoem cell-entry inhibitors	Pen Gao, Wei Zheng, Min Shen	NCATS
Computational Biology (COMPBIO)	10	Evaluating the utility of the MSTI assay results in predicting compound promiscuity and cytotoxicity	L Kruger, DK Ngan, T Xu, L Zhang, M Xia, A Simeonov, R Huang	NCATS
Computational Biology (COMPBIO)	11	Glaucoma-causing Myocilin mutational landscape in Olfactomedin 1 suggests protein aggregation mediated retinal ganglion cell insults in the eye	D Kumar, P Johnson, N Nakaya, SI Tomarev	NEI
Computational Biology (COMPBIO)	12	PubTator 3.0: an AI-powered Literature Resource for Unlocking Biomedical Knowledge	CH Wei, A Allot, PT Lai, R Leaman, S Tian, L Luo, Q Jin, Z Wang, Q Chen, Z Lu	NLM
Computational Biology (COMPBIO)	13	Explainable AI using large vision models for medical visual patterns detection	Z Liang, Z Xue, S Rajaraman, S Antani	NLM
Computational Biology (COMPBIO)	14	Prediction of chemical-induced acute toxicity using in vitro assay data and chemical structure	X Luo, T Xu, D.K Ngan, M Xia, J Zhao, S Sakamuru, A Simeonov, R Huang	NCATS
Computational Biology (COMPBIO)	15	RaMP-DB 3.0: a relational database for multi-omic data interpretation	KY Mehta, A Patt, T Sheils, A Tisch, J Sayer, J Braisted, KJ Kelleher, EA Mathé	NCATS
Computational Biology (COMPBIO)	16	In vitro profiling of pesticides within the Tox21 10K compound library for bioactivity and potential toxicity	DK Ngan, M Xia, A Simeonov, R Huang	NCATS

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Computational Biology (COMPBIO)	17	Studying Mechanisms of I112b Gene Regulation by NF-κB in Macrophages	Y Oh, KS Oh, MH Sung	NIA
Computational Biology (COMPBIO)	18	Mixed strain infections of tuberculosis in TB Portals: case characteristics and associated risk factors	MP Peyton, BM Jeffrey, G Rosenfeld, AE Gabrielian, KR Wollenberg, MR Galac, MA Harris, Z Yaniv, A Rosenthal, DE Hurt	NIAD
Computational Biology (COMPBIO)	19	ERK kinases in Cell Signaling: A Structural Study of Mechanisms and Cancer Therapeutics	C Regev, H Jang, R Nussinov	NCI
Computational Biology (COMPBIO)	20	Reversal gene expression assessment for drug repurposing, a case study of glioblastoma	S Sun, Z Shyr, K McDaniel, Y Fang, D Tao, CZ Chen, W Zheng, Q Zhu	NCATS
Computational Biology (COMPBIO)	21	Models for characterization, diagnosis, and treatment of human cancers using comparative canine-human multi-omics.	GJ Tawa, A Leblanc, D Gerhold, M Breen, C Thomas, C Mazcko, S Hoyt, J Braisted, GC Wicaksono, S Huang, L Ren, C McNight, K Wilson, C Klumpp-Thomas, D Holland, X Zhang	NCATS
Computational Biology (COMPBIO)	22	Automating compound integration for efficient in-house database development using R	AM Tisch, D Bennouna, HA Chatelaine, EA Mathé	NCATS
Computational Biology (COMPBIO)	23	CURE ID: A Platform to Collect Real World Data of Drug Repurposing	KC Tumas, SR Strongin, EA Mathé	NCATS
Computational Biology (COMPBIO)	24	Multi-phase abdominal CT image enhancement for better segmentation	X Wang, TS Mathai, B Kim, RM Summers	CC
Computational Biology (COMPBIO)	25	Rapid processing of high-throughput thermal shift assay data for lead compound identification	SC Waterworth, SS Kurian, ND Sharma, C Wolcott, DE Donohue, BR O'Keefe, JA Beutler	NCI
Computational Biology (COMPBIO)	26	Biomedical Data Translator	MW Williams, SA Abdollahi	NCATS
Computational Biology (COMPBIO)	27	Expanded Tox21 biological assay panel improves prediction of drug-induced liver injury and cardiotoxicity	T Xu, D Ngan, J Zhao, M Ooka, S Sakamuru, L Zhang, S Yang, M Xia, A Simeonov, R Huang	NCATS
Computational Biology (COMPBIO)	28	Establishment of an in silico-based framework for repurposing existing therapeutic agents to identify potential drugs targeting SARS-CoV	Lin Ye, Kel Nance, Ste Kales, Emi Lee, Kha Shamim, Val Labay, Xin Hu	NCATS
Computational Biology (COMPBIO)	29	Rare Disease Alert System (RDAS) to Promote Rare Disease Research	D Leadman, T Sheils, J Valinejad, M Ao, S Sun, S Moon, Y Xu, Q Zhu	NCATS
Developmental Biology (DEV BIO)	1	Scalable Hypothalamic Arcuate Neuron Differentiation from Human Pluripotent Stem Cells Suitable for Modeling Metabolic and Reproductive Disorders	VM Jovanovic, N Nariu, LL Bonnycastle, R Tharakan, KT Mesch, HJ Glover, T Yan, N Sinha, C Sen, D Castellano, S Yang, D Blivis, S Ryu, DF Bennett, G Rosales-Soto, J Inman, P Ormanoglu, C LeClair, M Xia, M Schneider, EO Hernandez-Ochoa, MR Erdos, A Simeonov, S Chen, I Singee,	NCATS
Developmental Biology (DEV BIO)	2	Sympathetic neurons regulate cardiomyocyte maturation	WJ Kowalski, IH Garcia-Pak, W Li, H Uosaki, E Tampakakis, J Zou, Y Lin, K Patterson, C Kwon, Y-S Mukouyama	NHLBI
Developmental Biology (DEV BIO)	3	Fetal breathing deficiency and lung hypoplasia in osteogenesis imperfecta	E Makareeva, B Radant, M Sousa, M Sellamani, E Mertz, S Otsuru, S Leikin	NICHHD
Developmental Biology (DEV BIO)	4	Deciphering the Formation and Fate of Hybrid Cells in Zebrafish Axial Mesoderm: Insights from klf17 Mutant Studies	G Park, A Modak, C Chen, P Capar, J Farrell	NICHHD
Developmental Biology (DEV BIO)	6	Development and validation of enzyme-based CYP26A1 inhibition assay in a high-throughput screening platform	S Sakamuru, D Ma, JD Pierro, NC Baker, N Kleinstreuer, JJ Cali, TB Knudsen, M Xia	NCATS
Epidemiology (EPIG)	1	Relationship between chronic pain and psychological distress among immigrants: Mediated by life satisfaction and moderated by sexual identity	D Adzrago, F Williams	NIMHD
Epidemiology (EPIG)	2	Comorbidity and Familial Aggregation of Mood Disorders and Smoking Phenotypes in a Controlled Family Study	E Beyene, KP Conway, L Cui, KR Merikangas	NIMH
Epidemiology (EPIG)	3	Posttraumatic stress disorder, depressive symptoms, and cognitive function among middle-aged urban adults: Healthy Aging in Neighborhoods of Diversity across the Life Span study	MF Georgescu, MA Beydoun, RH Pietrzak, HA Beydoun, NN Hooten, S Banerjee, MK Evans, AB Zonderman	NIA
Epidemiology (EPIG)	4	Midlife vascular risk factors, Parkinson's disease, and Parkinson's disease-dementia in the Atherosclerosis Risk in Communities (ARIC) cohort	M Johri, V Morrill, DN Okine, J Seemiller, KJ Sullivan, L Rosenthal, S Shrestha, RF Gottesman, H Chen	NINDS
Epidemiology (EPIG)	5	A Scoping Review Exploring Cardiovascular Risk and Health Metrics and Cancer Prediction	JE Kim, GH Santos, SJ Kumar, AA Livinski, JB Vo, F Zhu, J Joo, JJ Shearer, M Hashemian, VL Roger	NHLBI
Epidemiology (EPIG)	6	Carcinogenic industrial air pollution and lung cancer risk in a large prospective U.S. cohort	JM Madrigal, JA Fisher, CN Pruitt, LM Liao, BI Graubard, MH ward, DT Silverman, RR Jones	NCI
Epidemiology (EPIG)	7	Molecular and serological analysis of linked blood donor and recipient samples to rule out transmission of parvovirus B19 infection by transfusion	MJ Miller, ML Virata, H Yan, L Zhong, S Tarafdar, S Fowler, P Zhang, HJ Alter, V De Giorgi	CC
Epidemiology (EPIG)	8	Intergenerational Educational Attainment and Risk for Incident Dementia: The Atherosclerosis Risk in Communities (ARIC) Neurocognitive Study	S Gupta, V Morrill, RC Groechel, A Kucharska-Newton, TH Mosley, PL Lutsey, E Meza, RF Gottesman	NINDS
Epidemiology (EPIG)	9	Racial Disparities in Mortality in the District of Columbia from 2000 to 2020	M Hashemian, KM Connors, TM Powell-Wiley, R Rafi, GH Santos, JJ Shearer, J Joo, M Shiels, VL Roger	NHLBI
Epidemiology (EPIG)	10	Exposure to extreme heat or cold temperatures in the US may increase the probability of early-term births in a dose-response" manner."	S Rawat, N Perkins, E DeVelbiss, B Scholl, T Petty, B Kidd, D Mav, U Grewal, SD Peddada	NIEHS
Epidemiology (EPIG)	12	Association between selenium levels and ESCC in Lilongwe Malawi	E Uduh, C Abnet, Y Yano	NCI
Epidemiology (EPIG)	13	Identification of Rare Disease Patients in EHR Systems and their COVID-19 Outcomes: A Retrospective Study Using the National Covid Cohort Collaborative (N3C) Data	A S Yadaw, Q Zhu, E Sid, E A Mathé	NCATS

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Epidemiology (EPIG)	14	Associations between neutrophil-to-lymphocyte ratio and autoimmune diseases: evidence from a large prospective cohort study	D Yoon, MA Beydoun, LJ Launer, M Song	NIA
Epidemiology (EPIG)	15	Immune Responses to Infection and Autoimmune Diseases in the UK Biobank	C Yun, M A Beydoun, L Launer, M Song	NIA
Epidemiology (EPIG)	16	Estimating Agreement by Chance for Sequence Annotation	D LI, C Rosé, A Yuan, C Zhou	CC
Genetics and Genomics (GEN)	1	Semi-automated hand annotation (SAHA) for mouse brain single cell and spatial datasets	DJ Acri, R Mustaklem, L Horan-Portelance, LC Dabin, JH Park, K Hartigan, H Kersey, M Mesecar, JR Gibbs, MR Cookson, J Kim	NIA
Genetics and Genomics (GEN)	2	Retrotransposon insertions associated with risk of neurologic and psychiatric diseases	HW Ahn, ZF Worman, A Lechinska, LM Payer, T Wang, N Malik, W Li, KH Burns, A Nath, HL Levin	NICHHD
Genetics and Genomics (GEN)	3	Development of a methodology for analysis of heritable rearrangements: A case study at the human Cyp2d6 locus	B Alleva, D Dahiya, F Pratto, RD Camerini-Otero	NIDDK
Genetics and Genomics (GEN)	4	Lung sensitizing monogenic variant carrier frequency in idiopathic bronchiectasis	J Berghout, AJ Oler, JB Lack, W Cao, E Karlins, R Ghosh, BA Siefert, MN Similuk, K Kumar, AJ Lipton, KP Fennelly, KN Olivier, SM Holland, MA Walkiewicz, J Yan	NIAID
Genetics and Genomics (GEN)	5	Pharmacogenomic genome-wide association study of LDL response to statins using high-throughput electronic health records analysis	SB Goleva, JM Keaton, BJ Wasse, A Williams, AH Awan, JC Denny	NHGRI
Genetics and Genomics (GEN)	6	CRISPR-mediated base editing of the Irish Infantile Tay-Sachs mutation	M Hernandez, T Lee, C Byrnes, A Crowell, RL Proia, CJ Tift	NHGRI
Genetics and Genomics (GEN)	7	Characterization of transcription factors controlling exocrine pancreas lineages and their role in pancreatic ductal adenocarcinoma	MT Ioh, MM Jezek, S Baek, TN Truong Vo, L Wang, HE Arda	NCI
Genetics and Genomics (GEN)	8	Plasma glycine levels are associated with a missense variant in Carbamoyl-Phosphate Synthase 1 (CPS1) in Nigerians	Bin Jalloh, Ayo Doumatey, Gua Chen, Jie Zhou, Lin Lei, Cha Rotimi, Ade Adeyemo	NHGRI
Genetics and Genomics (GEN)	9	Characterization of cell type-specific enhancers in the human pancreas using a massively parallel reporter assay	MM Jezek, M Ioh, S Baek, HE Arda	NCI
Genetics and Genomics (GEN)	10	Optimization of gene therapy for pulmonary fibrosis in Hermansky-Pudlak Syndrome Type 1 using AAV Vectors in mouse models	MN LaRoche, G Nieto, M Behan, M Hossain, MCV Malicdan, WA Gahl	NHGRI
Genetics and Genomics (GEN)	11	Harnessing the power of liquid biopsy for understanding the genetic and immunological mechanisms of immunotherapy failures in metastatic castration-resistant prostate cancer	C Li, A Baj, CY Seo, NT Terrigino, JR Bright, ST Hennigan, IM King, S Wilkinson, SY Trostel, WD Figg, WL Dahut, JM Lee, DY Takeda, F Karzai, AG Sowalsky	NCI
Genetics and Genomics (GEN)	12	Proportion testing for linkage in genomic studies of cosmopolitan populations	K Morisaki, Q Yuan, C Hodgkinson, D Goldman	NIAAA
Genetics and Genomics (GEN)	13	BCBB Clinical Genomics Analysis Team - Methods and projects	AJ Oler, E Karlins, C McNinch, Z Fazal, J Berghout, B Isaac	NIAID
Genetics and Genomics (GEN)	14	Regulatory potential of the human genome	J Srivastava, I Ovcharenko	NLM
Genetics and Genomics (GEN)	15	Characterization of a new aggressive subtype of cervical cancer more common in minority populations using long-read whole genome sequencing	S Tulsyan, Y Xie, I Rodriguez, E Robinson, E Gharzouzi, R Orozco, E Alvirez, M Dean	NCI
Health Disparities (HLTH DISP)	1	Neighborhood deprivation as a moderator for the relationship between negative affect and monocytes: data from the geospatial study of stress and cardiovascular health in the city	EM Aquino Peterson, MR Andrews, SD Regan, Y Baumer, A Dave, LR Ortiz-Whittingham, AS Baez, M Marah, AL Wells, LG Mendelsohn, A Saurabh, ST Reynolds, S Hicks, D Sandler, S Sharda, SM DeGuzman, AT Redai, K Tolentino, K Tamura, TM Powell-Wiley	NHLBI
Health Disparities (HLTH DISP)	2	FairLab what makes a good life study	Y Asada, A Welna, J Abelson, E Blacksher, M Danis, M Gold, SYH Kim	CC
Health Disparities (HLTH DISP)	3	Socio-demographic characteristics of patients with hematologic malignancies referred to the National Institutes of Health (NIH) for Hematopoietic Cell Transplant (HCT): a retrospective study of patient barriers to HCT access.	CA Eleanya, SL Doran, AH Chai, RM Schwartz, JR Andrade, D Dimitrova, J Hendricks, MA Hyder, KA Rechache, RS Sabina, JM Sponaule, CG Kanakry, JA Kanakry	NCI
Health Disparities (HLTH DISP)	4	Rheumatoid arthritis disease outcomes and social determinants of health in a majority Latine cohort: a preliminary analysis	G Gonzalez, S Villalobos, N Spencer, G Vines, S Hasni, A Fike	NIAMS
Health Disparities (HLTH DISP)	5	Racialized Economic Segregation, the Built Environment, and Assault-Related Injury: Moderating Role of Green Space and Vacant Housing	LA Marineau, KK Jones, AK Small, M Sona, E Liedtke, SN Zenk	NIMHD
Health Disparities (HLTH DISP)	6	Neighborhood Perceptions Associate with Lipid Biomarkers in African-American Women with Cardiovascular-Kidney-Metabolic Syndrome: Data from the Step It Up Digital Health-Enabled, Community-Engaged Physical Activity Intervention	ST Reynolds, MR Andrews, Y Baumer, D Sandler, S Sharda, SR Hicks, EMA Peterson, A Saurabh, MA Cintron, MA Pito, KJ Tolentino, M Marah, FO Baah, JF Troendle, C Ayers, LG Mendelsohn, S DeGuzman, AT Redai, A Wells, TM Powell-Wiley	NHLBI
Health Disparities (HLTH DISP)	7	Infusing equity in preclinical research and therapeutic development: Bridging the translational and clinical divide between diagnosis and treatment for rare diseases	TL Rogers, PS Huston, EK Taylor, JM Cohen, M Washabaugh, Y Shaikh, TM Habtu, SH Kinling, CL Purdy, L Toney, D Lo, E Ottinger, SJ Haugabook	NCATS
Health Disparities (HLTH DISP)	8	U.S. heat exposure and mental health hospitalization: Exploring disparities by race, ethnicity and insurance status	AK Small, KJ Jones, L Marineau, E Liedtke, M Sona, SN Zenk	NIMHD
Health Disparities (HLTH DISP)	9	Community-based participatory research to understand and promote immigrant mental health and well-being: Immigrants' cultural perspectives	F Williams, M Elhabashy, D Adzrago	NIMHD
Immunology (IMMUNO)	1	Atypical B cell expansion and immune dysregulation are promoted by an inflammatory milieu in STAT1GOF and STAT3DN patients	Z An, M Bosticardo, J Mackie, G Magro, HA Kenney, SG Tanye, DB Kuhns, L Pettiford, MD Keller, JR Bergerson, SM Holland, AF Freeman, LD Notarangelo, OM Delmonte	NIAID
Immunology (IMMUNO)	2	The transcription factor RUNX2 regulates a critical step in the extravasation of human, pathogenic type 17 CD4+ T cells	A. Bhasym, SP. Singh, N. Singh, F. Parween, PJ. Gardina, FO. Carrasquero, TE. Markowitz, JM. Farber	NIAID
Immunology (IMMUNO)	3	Investigating Bacterial Extracellular Vesicle Involvement in Molecular Mimicry	F S Borris, A R Varma, K Sadtler, P Fathi	NIBIB



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Immunology (IMMUNO)	4	Development of a Peptide Hydrogel for a Slow-Release HIV-1 Vaccination System	AS Carson, C Cheng, C Jenkins, Y Tsybovsky, A Biju, TC Pierson	NIAID
Immunology (IMMUNO)	5	Modulating Hyaluronic Acid in Osteosarcoma using Genetically Engineered Mesenchymal Stromal Cells (GEMesys): effects on Macrophage metabolism and phenotype	GE Forbes, AT Browne, RN Kaplan	NCI
Immunology (IMMUNO)	6	Development of novel agonists for human iNKT cells	A Hara, J DiSapio, M Coombs, G Khayrullina, V Joshi, M Watowich, M Watanabe, K Smith, MM Alam, H Kim, N Malik, E Steffke, L Latifi, J Hancock, J Gunperz, M Gilbert, A Howell, M Terabe	NCI
Immunology (IMMUNO)	7	Efficient Lentiviral Transduction of Genetically Barcoded AntiCD20-CAR-IL15 Cassette into Peripheral Blood-Derived Rhesus Macaque NK Cells Using Poloxamer 407 and CAR-NK In Vitro and In Vivo Effects	TB Hayal, C Wu, AA Mulla, DSJ Allan, BB Duncan, SG Hong, R Basar, K Rezvani, CE Dunbar	NHLBI
Immunology (IMMUNO)	8	Minimizing Tumor Antigen Escape by Triple CAR T Cells Simultaneously Targeting CD19 CD20 & CD22	K Highfill, L Chen, M Igboko, E Cherkasova, RM Nadal Rios, D Allan, K Carney, M Chakraborty, R Reger, W Murphy, R Childs	NHLBI
Immunology (IMMUNO)	9	Microanalytical Immunochemistry- How we can help!	Z Saleem, L Scarpelli, H Kalish	NIBIB
Immunology (IMMUNO)	10	Interrogating the MHC and Cytokine Requirements for CD4+CD8aa+ Intestinal Intraepithelial T cells	DJ Lanasa, C Li, JH Park	NCI
Immunology (IMMUNO)	11	A comprehensive toolkit to identify blood donors and recipients with a history of alpha-Gal allergy or suspected sensitization during pre-transfusion assessments	Z Osterwind, MJ Miller, V De Giorgi	CC
Immunology (IMMUNO)	12	Targeting IL7R with a monoclonal antibody for treating pediatric malignancy	GOL Rodrigues, JH Hixon, W Li, T Gower, U Saini, A Varadhachary, S Durum	NCI
Immunology (IMMUNO)	13	B cell receptor repertoire analysis in HCV chronically infected patients and Primary Sjogren's Syndrome	J Pardoe, A Henning, B Warner, V De Giorgi	CC
Immunology (IMMUNO)	14	Sexual dimorphism of the dysregulated lung immunometabolism and immunity induced by chronic alcohol consumption	L Pommerolle, M Arif, M Behee, C Apollonia, A Basu, KM Wolf, CN Zawatsky, N Johnson, O Rivellini, JK Park, R Cinar	NIAAA
Immunology (IMMUNO)	15	Qualitative Tissue Analysis Using Matrix-Assisted Laser Desorption/Ionization Time-of-Flight (MALDI-TOF)	Z Saleem, L Scarpelli, S Burks, J Frank, D Agrohia, H Kalish	NIBIB
Immunology (IMMUNO)	16	Pathway enrichment analysis identifies the FOXO pathway as essential for T cell licensing	G SHI, V NAGARAJAN, R CASPI	NEI
Immunology (IMMUNO)	17	Exploring amyloid beta-induced NF-κB dynamics in aging and Alzheimer's Disease in vitro	P Songkiatisak, M Aqdas, SMT Rahman, K Oh, MH Sung	NIA
Immunology (IMMUNO)	18	Impact of pre-existing immunity on clonal evolution and diversification of memory B cells in response to H2 influenza vaccination	AB Spangler, R Malek, GD Shimberg, GE Mantus, LY Cominsky, JE Raab, SR Gajjala, KV Houser, SF Andrews	NIAID
Immunology (IMMUNO)	19	Evolution of SARS-CoV-2-specific T cell responses from acute COVID-19 infection through convalescence	JD Webber, PA Przygonska, CR Selafini, PF Pryal, BG Lesch, CS Abdeen, RA Davey, J Voell, M Sneller, I Sereti, AF Suffredini, M Connors, SA Migueles	NIAID
Immunology (IMMUNO)	20	Exploring cGAS-STING Pathway in Sjögren's Disease: Driver of IFN production and Potential Therapeutic Target	E Yamada, M Abed, P Perez, S Jang, T Pranzatelli, J Chiorini, B Warner	NIDCR
Immunology (IMMUNO)	21	Identification of immunological and genetic markers of susceptibility to intracellular bacterial infection using the Collaborative Cross (CC) mouse model	LM Zhou, C Zhu, JS Bolton, WW Leitner, SP Riley, ES Bergmann-Leitner	USUHS
Microbiology and Infectious Diseases (MICROBIO)	2	Identification of elusive molecule from Dialysable leukocyte extracts mediating passive cellular immunity and their potential therapeutic utility	PP Chaudhary, M Yadav, IA Myles	NIAID
Microbiology and Infectious Diseases (MICROBIO)	3	Patients with WHIM syndrome have increased susceptibility to cutaneous fungal infections	JC Meltzer, J Strong, S Martinez, A Salancy, DH McDermott, PM Murphy, L Castelo-Soccio, I Brownell	NIAMS
Microbiology and Infectious Diseases (MICROBIO)	4	Leveraging the Townes mice to study interactions between sickle cell disease and schistosome (human blood fluke worm) infection	JPK Mukendi, COS Souza, O Kamenyeva, J Kabat, S Kamimura, M Smith, ZMN Quezado, P Loke	NHLBI
Microbiology and Infectious Diseases (MICROBIO)	5	Simulated Breathing Patterns Classification Using Two-Stream Convolutional Neural Network for Monitoring of Respiratory Disease Patients	J PARK, T NGUYEN, S PARK, B HILL, B SHADGAN, A GANDJBAKHCHE	NICHHD
Microbiology and Infectious Diseases (MICROBIO)	6	Detection and Serotyping of Dengue virus Infection using third generation sequencing technology.	LC Perinet, AN Henning, PC Baré, MJ Miller, V De Giorgi	CC
Microbiology and Infectious Diseases (MICROBIO)	7	Employing Fluorescence-Assisted Two-Step Allelic Exchange to Investigate MexVW in P. aeruginosa	A Ramkumar, PP Patil, AD Chiang, AG Moller, S Ghosh, JP Dekker	NIAID
Microbiology and Infectious Diseases (MICROBIO)	8	Effect of plasma from murine experimental cerebral malaria infection on constriction of aortic rings	GS Sanches, TSB Marins, CG Pontes, F Gomes, H Ackerman, LJM Carvalho	NIAID
Microbiology and Infectious Diseases (MICROBIO)	9	TRPA1 influences Staphylococcus aureus skin infection in mice and associates with HIF-1a and MAPK pathway modulation	M Yadav, P P Chaudhary, G Ratley, B D'Souza, M Kaur, S Ganesan, J Kabat, I A Myles	NIAID
Microbiology and Infectious Diseases (MICROBIO)	10	TB Portals Program: Exploring the association between biochemistry parameters and clinical outcomes in patients with tuberculosis	Y Yi, MP Peyton, G Rosenfeld, AE Gabrielián, ZR Yaniv, MA Harris, A Rosenthal, DE Hurt	NIAID
Molecular Biology and Biochemistry (MOLBIO)	1	Optimization of sample preparation and LC-MS analysis for high throughput untargeted lipidomics and metabolomics	D Bennouna, HAS Chatelaine, K Mehta, A Tisch, C Beecher, CA LeClair, EA Mathé	NCATS
Molecular Biology and Biochemistry (MOLBIO)	2	The PEDF/PEDF-R axis plays a regulatory role in photoreceptor survival and lipid metabolism	A. Bernardo Colon, S.E Crawford, P. Becerra	NEI
Molecular Biology and Biochemistry (MOLBIO)	3	HIV-1 inhibitory sequences improve vector titers and transduction efficiency with the minimal size of lentiviral vectors	AC Bradley, A Le, J Ball, S Demirci, X Liu, M Hsieh, JF Tisdale, N Uchida	NHLBI



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Molecular Biology and Biochemistry (MOLBIO)	4	Pigment epithelium-derived factor-receptor (PEDF-R/ATGL) exhibits phospholipase B activity	S Debnath, SP Becerra	NEI
Molecular Biology and Biochemistry (MOLBIO)	5	Photoreceptor survival mediated by PEDF is associated with Cone-Rod Homeobox (CRX) upregulation	S Dixit, SP Becerra	NEI
Molecular Biology and Biochemistry (MOLBIO)	6	Bioisosteres of a Potent and Efficacious MOR Antagonist in the 5-(3-Hydroxy)phenylmorphane Series	Z Hasanpour, A Sulima, L Spina, D Luo, T E Prisinzano, S Pranav, K Rintaro, X Xu, A E Jacobson, K C Rice	NIDA
Molecular Biology and Biochemistry (MOLBIO)	7	Androgen Receptor-Mediated Transcription Regulation under Pulsatile and Constant Hormone Stimulation	HK LaPoint, DA Stavreva, K Wagh, LM Hoang, A Upadhyaya, RL Schiltz, R Chari, GL Hager	NCI
Molecular Biology and Biochemistry (MOLBIO)	8	Optimization of various envelopes for efficient gene delivery with lentiviral vectors	A Le, A Bradley, J Ball, S Demirci, X Liu, M Hsieh, J Tisdale, N Uchida	NHLBI
Molecular Biology and Biochemistry (MOLBIO)	9	Aberrant vitamin C physiology in diabetes: a mouse model	SE Levitt, MA Levine, K Patra	NIDDK
Molecular Biology and Biochemistry (MOLBIO)	10	Identifying compounds that modulate autophagy using high-throughput screening and high-content imaging analysis	L Mitchell, M Ooka, J Zhao, L Zhang, Z Wei, R Huang, M Xia	NCATS
Molecular Biology and Biochemistry (MOLBIO)	11	Whole Genome Study of Nucleotide Excision Repair and Translesion Synthesis in <i>Saccharomyces cerevisiae</i>	M Monsur, SA Lujan, AB Burkholder, TA Kunkel	NIEHS
Molecular Biology and Biochemistry (MOLBIO)	12	The ER/PM junctions tether ANO8 regulates Orai1-STIM1 function by recruiting ORP8 to the junctions to determine PI(4)P and PI(4,5)P2 Levels.	A Movahed Abtahi, B LeBlanc, W Chung, S Muallem	NIDCR
Molecular Biology and Biochemistry (MOLBIO)	13	Resolving the molecular determinants underlying the conformational stability of STIM2	S Narayanasamy* (Co-first authors), HL Ong*, S Choi, D Bonhenry, M Sallinger, PB Stathopoulos, R Schindl, I Ambudkar	NIDCR
Molecular Biology and Biochemistry (MOLBIO)	14	Discovery of ITPK1 inhibitors Using a Luciferase-based High-Throughput Screen and X-Ray Crystallography	MY Ng	NCI
Molecular Biology and Biochemistry (MOLBIO)	15	Critical Role of Fibrinolysis in Hematopoietic Recovery After Myelosuppression	TP Nguyen, YG Jiang, F Ferraresso, CJ Kastrup, MJ Flick, TH Bugge, LM Silva	NIDCR
Molecular Biology and Biochemistry (MOLBIO)	16	Candida auris Metabolism Genes upregulated in Skin-Like Media	J Nicklas, C Deming, D Proctor, J Segre	NHGRI
Molecular Biology and Biochemistry (MOLBIO)	17	Profiling of Environmental Mixtures Containing Heavy Metals for Their Toxicity Pathways and Mechanism of Action	M Ooka, J Zhao, L Zhang, R Huang, S Sakamuru, J Hsieh, B Collins, J Dunnick, D Dixon, M Xia	NCATS
Molecular Biology and Biochemistry (MOLBIO)	18	The role of MSH2 in CGG repeat stability and methylation at the FMR1 locus in Fragile X Syndrome	J Grant-Bier, K Ruppert, B Hayward, K Usdin, D Kumari	NIDDK
Molecular Biology and Biochemistry (MOLBIO)	19	Applications of Microscale Thermophoresis to Small Molecule Drug Discovery and Optimization in the Molecular Targets Program	RS Shah	NCI
Molecular Biology and Biochemistry (MOLBIO)	20	Hydrophobic Interaction Liquid Chromatography Mass Spectrometry Enables Cellular Assay Development to Identify Inhibitors of Glycine N-Methyltransferase	JH Shrimp, QM Hanson, N Hoxie, J Janiszewski, V Chenniappan, C Kelly, M Shen, S Patnaik, MD Hall	NCATS
Molecular Biology and Biochemistry (MOLBIO)	21	PMS2 has both pro-mutagenic and anti-mutagenic effects on repeat instability in the Repeat Expansion Diseases	A Walker, DA Jimenez, K Usdin, X Zhao	NIDDK
Molecular Biology and Biochemistry (MOLBIO)	22	The viral serpin SPI-1 inhibits the host cell serine protease FAM111A	AL Welter, S Palani, Y Machida, MJ Schellenberg, SH Kaufmann, YJ Machida	NCI
Molecular Biology and Biochemistry (MOLBIO)	23	Allosteric modulation of NF1 GAP activity	L Xu, H Jang, R Nussinov	NCI
Molecular Biology and Biochemistry (MOLBIO)	24	Lack of PNPLA2 accelerates progression of AMD-like features in mice	J Yang, A Bernardo-Colón, SP Becerra	NEI
Molecular Pharmacology (PHARM)	1	Toxicity profiling of metal compounds using the Tox21 screening data	PA Adesina, M Ooka, R Huang, S Ferguson, D Reif, A Simeonov, M Xia	NCATS
Molecular Pharmacology (PHARM)	2	Development of a risk register for Adeno-Associated Virus (AAV) based gene therapies	L Bar, RM Lomash, N Terry, J Todd, R Stan	NCATS
Molecular Pharmacology (PHARM)	3	Inhalational delivery of MRI-1867 (zevaquenabant) as an effective multi-targeted therapeutic modality in pulmonary fibrosis	A Basu, M Arif, K M Wolf, M Behee, N Johnson, L Pommerolle, R Pineda, C N Zawatsky, S Dvoracko, N J Coffey, J K Park, G Godlewski, T Jourdan, J Harvey-White, M Königshoff, M R Iyer, R Cinar	NIAAA
Molecular Pharmacology (PHARM)	4	Screening towards a CYP3A7-specific marker reaction against CYP3A4 and CYP3A5	EC Padilha, P Shah, X Xu	NCATS
Molecular Pharmacology (PHARM)	5	Allosteric modulation of glucocerebrosidase for the purpose of Parkinson's disease modification involves two distinct classes of small molecules: non-inhibitory pharmacological chaperones and enzymatic activators	TC Chen, LM Glasstetter, D Williams, TT Jong, AN Hogan, JJ Marungan, MJ Henderson, Y Chen, E Sidransky	NHGRI
Molecular Pharmacology (PHARM)	6	Characterization of a Novel Binding Site for a Positive Allosteric Modulator of the D1 Dopamine Receptor	ST Dimova, JN Hanson, AN Nilson, F Wang, J Rayadurgam, A Goldberg, KD Luderman, L Shi, KJ Frankowski, DR Sibley	NINDS
Molecular Pharmacology (PHARM)	7	Acute electronic cigarette vaping induces pulmonary inflammation, emphysema phenotype and cardio-pulmonary dysfunctions in a sex dependent manner	Y Getiye, P Pacher	NIAAA
Molecular Pharmacology (PHARM)	8	Advancing Antisense Oligonucleotide Therapies for Rare Diseases	- Atena Farkhondeh Kalat, - William Borschell, - Elia R. Lopez, - Jyoti Roy, Edward Wu, - Elizabeth A. Ottinger, - Bryan J Traynor	NCATS
Molecular Pharmacology (PHARM)	9	Using high-throughput small molecule matrix screening to unlock novel therapeutic synergies in Merkel cell carcinoma	K A Garman, D Anastakis, T Gelb, M Shen, K C Cheng, M D Hall, M Hafner, I Brownell	NIAMS

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Molecular Pharmacology (PHARM)	10	Precise Detection of Multiple Myeloma Using 18F-Labeled Anti- B-cell Maturation Antigen Nanobody	B Ghaemi, CP Olkowski, F Basuli, J Shi, E Hill, O Jacobson, PL Choyke	NCI
Molecular Pharmacology (PHARM)	11	Analysis of adenylosuccinate in biological matrices using hydrophilic interaction ultra-performance liquid chromatography-tandem mass spectrometry	MM Hall, AQ Wang, X Xu	NCATS
Molecular Pharmacology (PHARM)	12	Increased Metabolic Stability and Reduced MOR Efficacy of a Potent C9-Substituted Phenylmorphane	DE Hernandez, A Sulima, D Luo, TE Prisinzano, SS Negus, N Nassehi, DE Selley, P Shah, R Kato, X Xu, AE Jacobson, KC Rice	NIDA
Molecular Pharmacology (PHARM)	13	High-Resolution Acoustic Ejection Mass Spectrometry for High-Throughput Library Screening	N Hoxie, DR Calabrese, Z Itkin, G Gomba, M Shen, M Verma, JS Janiszewski, JH Shrimp, KM Wilson, S Michael, MD Hall, L Burton, TR Covey, C Liu	NCATS
Molecular Pharmacology (PHARM)	14	Drug Repurposing Screening for Two Ultra-Rare Maternally Inherited Mitochondrial Diseases—MELAS and LHON-Plus	D Li, M Uittenbogaard, A Chiaramello, C Chen, W Zheng	NCATS
Molecular Pharmacology (PHARM)	15	Neuroprotection in C. Elegans Parkinson's Disease Models: Discovering Therapeutic Insights via RNAi and Small Molecule High Throughput Screening	MA Martinez, AA Surtel, EO Akano, PK Dranchak, CT Ash, EE Anderson, AE Moritz, RB Free, JP Steiner, J Inglese, DR Sibley	NINDS
Molecular Pharmacology (PHARM)	16	AI-driven drug repurposing for glioblastoma therapy: experimental validation of promising candidates	KD McDaniel, ZA Shyr, S Sun, D Tao, Q Zhu, CZ Chen, W Zheng	NCATS
Molecular Pharmacology (PHARM)	17	Discovery of Inhibitors of the Kinases LATS1 and LATS2	PJ Morris, DD Duveau, M Ceribelli, FA Tosto, L Evsen, DN Love, BS Scherer, G Rai, SB Hoyt, CJ Thomas	NCATS
Molecular Pharmacology (PHARM)	18	Thiol-based Conjugation for the Generation of ADA Bridging Assay Reagents to Detect Antibodies to PTH-1A in Human Plasma	AJ Nduwumwami, E Wagner, AQ Wang, Y Fang, D Tao, X Xu	NCATS
Molecular Pharmacology (PHARM)	19	Fatty acid amide hydrolase inhibition impairing development of chronic renal fibrosis is CB2R dependent	B Paes-Leme, E Trojanar, C Matyas, B Yokus, P Mukhopadhyay, M Arif, J Palocz, R Cinar, K Susztak, S Zhao, P Pacher	NIAAA
Molecular Pharmacology (PHARM)	20	Melanocortin 4 Receptor-Mediated Metabolic Effects Require Beta-Arrestin-2 Signaling	M Rashid, L Wang, O Gavrilova, Z Cui, J Wess	NIDDK
Molecular Pharmacology (PHARM)	21	Building Robust Human Liver Microsomal Stability Prediction Models: Leveraging Inter-Species Correlation with Rat Data	P Shah, V.B Siramshetty, X Xu	NCATS
Molecular Pharmacology (PHARM)	22	High-throughput screening to identify novel STAT-5 pathway activators for potential HIV latency reversal therapeutics.	E Vanla, M Xu, CZ Chen, A Bosque	NCATS
Molecular Pharmacology (PHARM)	23	Ultra-Performance Liquid Chromatography-Tandem Mass Spectrometry Method Development and Pharmacokinetics of 10 $\beta$ ,17 $\beta$ -Dihydroxyestra-1,4-dien-3-one (DHED) in Mice	A.Q Wang, C. Ryu, M. Hall, E. Padilha, P. Morris, A.F Postle, C.F Powels, T.D Gould, X. Xu	NCATS
Molecular Pharmacology (PHARM)	24	A biosynthetic and taxonomic atlas of the global lichen holobiont	SC Waterworth, S Egbert, J Sorensen, BR O'Keefe, JA Beutler	NCI
Molecular Pharmacology (PHARM)	25	AI based Novel Target Identification Based on Biological Activity Profiles, towards Drug Repurposing	B Xue, Y Xu, R Huang, Q Zhu	NCATS
Molecular Pharmacology (PHARM)	26	Cannabinoid receptor 2 activation is a novel approach to reducing renal inflammation and fibrosis	B Yokus, B Paes Leme Ferreira, P Mukhopadhyay, P Pacher	NIAAA
Neuroscience (NEURO)	1	Electrophysiological properties of the hippocampal and medial-entorhinal circuit during spatial learning	SO Vasu, JH Shin, Y Ma, Y Gu, VA Alvarez	NIMH
Neuroscience (NEURO)	2	Axonopathy Underlying Neurodegeneration In The Central Nervous System Under the Impact of Iron Dyshomeostasis	K Arvind, TA Rouault	NICHHD
Neuroscience (NEURO)	3	Non-teratogenic pomalidomide analog, 3-monothiopomalidomide inhibits nitrite and proinflammatory cytokines in vitro	B Batsaikhan, PH Parekh, SC Hsueh, D Tweedie, BJ Hoffer, N Vargesson, DS Kim, NH Greig	NIA
Neuroscience (NEURO)	4	Characterizing Neurodegeneration-Linked Protein Stathmin-2 In Response to Chemical Injury	V. Bhat, A. Stavsky, C. Le Pichon	NICHHD
Neuroscience (NEURO)	5	Understanding the role of Wnt signaling in neural stem cell trajectories during injury induced regeneration	B M Brooks, W Heavner, J Ngai	NINDS
Neuroscience (NEURO)	6	Parental-Offspring Associations between Migraine Subtypes and Symptoms: Sex and Age Specific Manifestations	E Campbell, T Lateef, L Cui, K Merikangas	NIMH
Neuroscience (NEURO)	7	Presynaptic and postsynaptic molecular complexes linked through transsynaptic assemblies, visualized by electron tomography of rat hippocampal synapses	AA Cole, TS Reese	NINDS
Neuroscience (NEURO)	8	Optimization of Brain Clearing and Expansion Microscopy Protocols to Explore the Topographic Organization of Oligodendrocytes in White Matter	JC Combista, TD Merson	NIMH
Neuroscience (NEURO)	9	Transcriptomic characterization of induced pluripotent stem cell-derived neural cells from patients with Williams Syndrome	CV da Silva Camargo, S Detera-Wadleigh, N Akula, A Schulmann, A Elkahoul, M Gregory, D Eisenberg, K Berman, F McMahon	NIMH
Neuroscience (NEURO)	10	Active filtering of sequences of neural activity by recurrent circuits of sensory cortex	CD Deveau, Z Zhou, PK LaFosse, Y Deng, S Mirbagheri, N Steinmetz, MH Histed	NIMH
Neuroscience (NEURO)	12	cAMP signaling in GLPIR-expressing Area Postrema cells is necessary for semaglutide-induced neuronal activation	I C Geneve, C Gao, A Lutas	NIDDK
Neuroscience (NEURO)	13	Generating Functioning Pituitary Gland Organoids From Patient-Derived Induced Pluripotent Stem Cells (iPSCs)	ML Ghermay, AC Wcislak	NINDS
Neuroscience (NEURO)	14	An ENIGMA voxel-based morphometry (VBM) meta-analysis of structural brain differences in generalized anxiety disorder (GAD)	E Giampetruzzi, A Zugman, K Kircanski, DS Pine	NIMH

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Neuroscience (NEURO)	15	Investigating the role of E/I imbalance in auditory and language processing challenges in ASD: a potential pathway for intervention	E Greenstein, M Jaime, S Dammalapati, LM Oberman, SM Francis, J Stout, S Van Der Veen, SH Lisanby	NIMH
Neuroscience (NEURO)	16	Tackling CCK/CB1R expressing GABAergic interneurons in BLA for their role in fear extinction.	O Gunduz-Cinar, N Crow, M Xia, E Van Leer, M Wilson, L Zweifel, N Hajos, A Holmes	NIAAA
Neuroscience (NEURO)	17	Neuroimaging abnormalities among 10 individuals with Phelan-McDermid Syndrome	A Hehn, O Rensberg, E Gordon-Lipkin, C Farmer, A Thurm	NIMH
Neuroscience (NEURO)	18	Recurrent networks of the cerebral cortex: Circuits, neural computations, and sequence processing using two-photon optogenetics	MH Histed, B Akitake, Y Deng, C Deveau, N Friedman, P LaFosse, J O'Rawe, C Phillips, V Scott, R Yovanno, Z Zhou	NIMH
Neuroscience (NEURO)	19	Cell-type-specific transcriptional signatures of cocaine relapse in the rat medial prefrontal cortex	KE Savell, R Madangopal, DJ Thompson, OR Drake, DQ Pham, KD Woods, P Saravanan, MB Brenner, RG Palaganas, BT Hope	NIDA
Neuroscience (NEURO)	20	Toward the development of novel small-molecule GIRK channel modulators	ST Hubbard, SI Son, HH Nguyen, N Martinez, IW Glaaser, A Schlessinger, A Simeonov, A Zakharov, PA Slesinger, G Rai	NCATS
Neuroscience (NEURO)	21	Cocaine and amphetamine-regulated transcript (CART) is expressed in spino-thalamic projection neurons	MJ Iadarola, AK Sharma, G Serrano-Berrios, MR Sapio, ML Weiss, DM King, D Maric, ES Staedtler, MC Kelly, J Singh, AJ Mannes	CC
Neuroscience (NEURO)	22	Identification of Genetic Regulator of TDP-43 patient mutation mediated Cytosolic Aggregation	B M Jones, Y Chen, K Cheng, W Zheng, C Chen, Q Zhang	NCATS
Neuroscience (NEURO)	23	An atlas of cholinergic innervation in the superior colliculus of the mouse	C.A Mejias-Aponte, Z.K Joy, R.J Krauzlis	NEI
Neuroscience (NEURO)	24	The role of lateral hypothalamic GABAergic and glutamatergic neurons in thermoregulation and thermal nociception	H Kim, A Garcia, Y Aponte	NIDA
Neuroscience (NEURO)	25	Keratinocyte-nociceptor interactions via NGF-TrkA-PI3K signaling axis promote pain behaviors and sensory hypersensitivity in diabetic small fiber neuropathy	Y Kou, S Song, Y Mukoyama	NHLBI
Neuroscience (NEURO)	26	Transcriptomic effects of mood stabilizing drugs on the gene regulatory network in cell villages of human iPSC-derived cortical neurons	LN Lacbawan, SD Detera-Wadleigh, N Akula, FJ McMahon	NIMH
Neuroscience (NEURO)	27	Cellular-resolution optogenetics reveals attenuation-by-suppression in visual cortical neurons	PK LaFosse, Z Zhou, HN Mulholland, JF O'Rawe, NG Friedman, VM Scott, Y Deng, MH Histed	NIMH
Neuroscience (NEURO)	28	Deciphering the molecular transcriptome underlying nociceptive sensitization through human intraoperative tissue sampling	E Li, MR Sapio, AF Domenichiello, T Goto, D Maric, A Manalo, TS Williams, DS Schrupp, JL Davis, JM Hernandez, AM Blakeley, MJ Iadarola, AJ Mannes	CC
Neuroscience (NEURO)	29	GPR110 modulates anxiety-like behaviors and memory function in mice potentially through neuronal and neuroimmune alterations during neurodevelopment	M Melkumyan, J Toro, B Huang, HY Kim	NIAAA
Neuroscience (NEURO)	30	Mu- and Delta-Opioid Receptors Differentially Express and Modulate Inhibitory Interneurons in the Prefrontal Cortex	CY Noh, VS Tsai, HE Yarur, KA Zaghloul, EN Ventriglia, H Patel, H Wang, HA Tejeda	NIMH
Neuroscience (NEURO)	31	Targeting neuroinflammation: The role of 3-monothiopomalidomide (3-MP) in neurodegenerative disorders	P Parekh, SC Hush, B Batsaikhan, D Tweedie, C Patel, N Vargesson, BJ Hoffer, DS Kim, NH Greig	NIA
Neuroscience (NEURO)	32	Effect of a ketone-based diet and nicotinamide riboside on mitochondrial mechanisms in a DNA repair deficient 3xTg/POLB (-/-) Alzheimer's disease mouse model	RJ Pawlosky, TG Demarest, MT King, D Estrada, VA Bohr, RL Veech	NIAAA
Neuroscience (NEURO)	34	The impact of somatostatin peptide transmission on cortical circuit activity during learning	N Ross, M Arenivar, H Wang, C Noh, H Patel, HA Tejeda	NIMH
Neuroscience (NEURO)	35	Reproducing the facilitatory effects of transcranial random noise stimulation on motion processing	R Ruhde, MB Carroll, G Edwards, CI Baker	NIMH
Neuroscience (NEURO)	36	Efficient removal of naturally occurring autofluorescence from human nervous system tissue using high-intensity white light	MR Sapio, DM King, SR Shah, D Maric, T Talbot, A Ghetti, MJ Iadarola, AJ Mannes	CC
Neuroscience (NEURO)	37	Automation of mouse wipe behavior in animal behavioral studies using machine learning	J Semseddin, G Salem, M Garmendia, S Arumugam, H McNabb, N Mokhasi, J Zhang, T Pohida, WF Simonds	NIDDK
Neuroscience (NEURO)	38	The Targetable Human Nociceptome: 300-Plex Spatial Transcriptomics in Human Dorsal Root Ganglion (DRG) for Analgesic Discovery	SR Shah, MR Sapio, O Blivis, MJ Iadarola, AJ Mannes	CC
Neuroscience (NEURO)	39	Glucocorticoid receptor antagonism reverses opioid and alcohol withdrawal-induced hyperalgesia in rats	N Skandan, VP Acosta, JCM Vendruscolo, MA McGinn, LF Vendruscolo	NIDA
Neuroscience (NEURO)	40	Extrasynaptic GlyR $\alpha 1$ subunits regulate startle response in a cell-type specific mechanism	S Wei, HL Pan, Y XU, DM Lovinger, L Zhang	NIAAA
Neuroscience (NEURO)	41	How the most common pathology in ALS, loss of nuclear TDP-43, leads to motor neuron dysfunction and death	JJ Wlaschin, PG Lee, H Siberberg, M Sohn, CE Le Pichon	NICHD
Neuroscience (NEURO)	42	Correlative light and electron microscopic study on 3D reconstruction of lateral habenular axon terminals with distinct synapses releasing glutamate and GABA	S Zhang, A Shevelkin, K Yu, H Wang, M Morales	NIDA
Neuroscience (NEURO)	43	Human iPSCs-derived microglia-containing 3D brain-region specific neural spheroids for disease modeling and therapeutic development	J Zhang, Y Lim, A Medina, M Carrasco Carvajal, E Lee, M Ferrer	NCATS
Neuroscience (NEURO)	44	Parcellation of cAMP-dependent IEG activation in D1 dopaminergic neurons	HZ Zhang, SZ Jiang, GH Bi, ZX Xi, W Xu, LE Lee	NIMH
Research Support Services (RSCHSUPP)	2	Communications hub and research management system (CHARMS)	RC Bremer, JN Hatton, L Brem, GM Ney, MN Frone, S Avantsa, S Yang, C Ani, S Pan, J Shilling, SA Savage	NCI

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Research Support Services (RSCHSUPP)	3	NIH 3D: Comprehensive library and advanced creation tools for scientific and medical visualization	KM Browne, MC McCarthy, P Cruz, D Liou, DE Hurt	NIAID
Research Support Services (RSCHSUPP)	4	Integration of Direct Nano-volume OPI-MS with Unchained Labs Junior for rapid sampling high throughput reaction screening in drug discovery	DR Calabrese, N Hoxie, J Janiszewski, P Bende, JC Klein, A Godfrey, S Michael, T Masquelin	NCATS
Research Support Services (RSCHSUPP)	5	Safety in the autopsy suite: assessing safety training gaps in Medical Examiner and Coroner communities	MA Diaz, J McCormick-Ell	NIAID
Research Support Services (RSCHSUPP)	6	Video analysis system for behavior and activity assessment of fruit flies in high-throughput studies	I Farooq, G Salem, M Garmendia-Cedillos, A Somenhalli, N Khandekar, L Argueta, N Cubert, M Jamie, J Holsopple, S Smoot, T Kaufman, J Tennesen, T Pohida, B Oliver	NIDDK
Research Support Services (RSCHSUPP)	7	NIH scientists and the Federal Laboratory Consortium for Technology Transfer (FLC) in 2018	TL Kirby, SM Ferguson, WA Hastings	OD
Research Support Services (RSCHSUPP)	8	The development of a scalable synthesis for S-MRI1867, a novel dual inhibitor to the CB1R and iNOS	J Huang, A Alimardanov	NCATS
Research Support Services (RSCHSUPP)	9	NCI/CCR/LRBGE Optical Microscopy Core (Building 41)	TS Karpova, DA Ball, M Fazel	NCI
Research Support Services (RSCHSUPP)	10	Microscopy and Digital Imaging in the CCR Microscopy Core	MJ KRUHLAK, L LIM, A TRAN	NCI
Research Support Services (RSCHSUPP)	11	Radiolabeling of peptides, nanobodies, and aptamers for positron emission tomography (PET)	D Kiesewetter, L Lang, J Gonzalez-Guzman	NIBIB
Research Support Services (RSCHSUPP)	12	The NIAID "BioViz" Lab: building resources and cyberinfrastructure to support NIAID staff with virtual reality technology and immersive experiences	MC McCarthy, P Cruz, V Starr-Kramer, C Caesar, A Leavey, L Mills, T Pugh, W Sadoff, DE Hurt	NIAID
Research Support Services (RSCHSUPP)	13	The Division of Comparative Medicine in the Office of Research Infrastructure Programs Supports Animal Model and Related Biological Materials Resources for Innovation in Biomedical Research	SJ Murphy, B Buhring, S Chandran, M Contreras, O Mirochnitchenko, R Tandon, B Tian, D Vonkollmar, S Zou	OD
Research Support Services (RSCHSUPP)	14	ORIP's S10 Instrument Program – The Best Resource You Never Knew Existed	H Nelson, M Aggarwal, Y Chen, XN Li	OD
Research Support Services (RSCHSUPP)	15	The NIAID 3D Printing Lab: The evolution of 3D printing services at BCBB	V Starr Kramer, P Cruz, K Browne, MC McCarthy, DE Hurt	NIAID
Research Support Services (RSCHSUPP)	16	The NIA Nonhuman Primate Core: Archived Translational Aging Research Samples and Longitudinal Data	MC Stewart, KL Vaughan, JA Mattison	NIA
Research Support Services (RSCHSUPP)	17	The NIA Nonhuman Primate Core Program: Translational Aging Research	KC Toepfer, KL Vaughan, JA Mattison	NIA
Research Support Services (RSCHSUPP)	18	New Enterprise Technology Transfer system revolutionizes tech transfer at NIH	T Leahy, B Bigelow, A Wingo, T Goodell, F Sanghani, S Roy, R Holnick, M Ha, P Raja, T Siriam, J Raedels, J Yu, S Claxton, A Bhardwaj, A Dahl, B Gallagher	OD
Research Support Services (RSCHSUPP)	19	Empowering your research with services from the CCR Genomics Core	S Shema, Q Wei, D Tillo, M Wong, E Conner	NCI
Research Support Services (RSCHSUPP)	20	Trans-NIH Electron Microscopy Shared Facility	Guo Zhang	NIBIB
Research Support Services (RSCHSUPP)	21	Overview of the NIH Religion, Spirituality, and Health Scientific Interest Group: Background, Purpose, Aims, and Future Directions	J C Romaine, J S Wilson, F J Rubio, R Z Litten, D Y Roach, M Halula, D Xi, C Brackna, R Gupta, G Riscuta, A Berger	NIAAA
Research Support Services (RSCHSUPP)	22	Optimization of fibrin microbeads used in cartilage formation with two stem cell populations	SK Pyatt, PG Robey	NIDCR
RNA Biology (RNA)	1	Systemic identification of functionally conserved lncRNA metabolic regulators between humans and mice	CF Jiang, Z Li, P Li, YH Ma, S Seok, SK Podguski, S Moturi, N Yoneda, K Kawai, S Uehara, Y Ohnishi, H Suemizu, JW Zhang, HM Cao	NHLBI
RNA Biology (RNA)	2	MicroRNA-5581-5p: A Novel tumor suppressor in Mesothelioma	S Sahu, V Singh, A Singh, N Pruett, SH Yoon, CD Hoang	NCI
RNA Biology (RNA)	3	A new kinetic assay that monitors helicase unwinding of G-quadruplexes	HS Shamroukh, MT Banco, AR Ferre-D'Amare	NHLBI
RNA Biology (RNA)	5	miR-342-5p as a Tumor Suppressor: A Promising Therapeutic Candidate for Diffuse Pleural Mesothelioma	SH Yoon, A Singh, N Pruett, V Singh, S Sahu, CD Hoang	NCI
Social and Behavioral Sciences (SOCIAL)	1	Challenges and opportunities facing cancer genetic counselors as implementers of rapidly evolving genomic evidence	S Arlen	NCI
Social and Behavioral Sciences (SOCIAL)	2	Social, Emotional, and Cognitive Challenges and Depressive Symptoms in Emerging Young Adults with Youth-Onset Type 2 Diabetes	SL Cantor, SB Glaros, IN Kacker, NA Macheret, GP Thota, N Malandrino, L Mabundo, M Monaghan, M Lightbourne, ST Chung	NIDDK
Social and Behavioral Sciences (SOCIAL)	3	Understanding Sociocultural Determinants of Attitudes to Blood Donation in Black Ethnic Subgroups Enrolled in Higher Education Institutions	M Chaplin, K West-Mitchell, G Dinwiddie	CC
Social and Behavioral Sciences (SOCIAL)	4	An interpretative phenomenological analysis of the experiences of caregivers of children diagnosed with CLN3 Batten Disease: The diagnostic odyssey and adjustment to the new normal	MC Fisher, PM Cooper, NG Colombo, ES Rubovits, LM Koehly	NHGRI
Social and Behavioral Sciences (SOCIAL)	5	Firearm violence exposures and cannabis, commercial tobacco, and harmful alcohol consumption: findings from a nationally representative survey of U.S. adults	LA Marineau, K Hacker, A Azeem, K Zarei, K Hamilton-Moseley, B Jewett, SN Zenk, K Choi	NIMHD
Social and Behavioral Sciences (SOCIAL)	6	Waterpipe (WP) smoking patterns in the US	AN Sanchez, H Goss-Holmes, S Volz, C Reyes-Guzman	NCI

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Social and Behavioral Sciences (SOCIAL)	7	Examining associations between regional food-related implicit biases and regional obesogenic and environmental risk factors	MB Sirotty, JL Howell, JMP Bittner, BK Cheon	NICHD
Social and Behavioral Sciences (SOCIAL)	8	Identifying cohesion of barriers and viewpoints across different stakeholders in drug repurposing	SR Strongin, KC Tumas, A Simeonov, EA Mathé	NCATS
Social and Behavioral Sciences (SOCIAL)	9	Do you have good communication skills? Cultural deterrence of family health history communication	S Zuniga, I Cordova, R Bishop, K Judy, L Koehly	NHGRI
Stem Cell Biology (STEMCELL)	1	Characterizing functional and molecular signatures of inflammatory sensitization in human pluripotent stem cell-derived sensory neurons	D Castellano, VM Jovanovic, R Tharakan, Y Qu, K Gerrish, P Ormanoglu, D Tao, CA LeClair, CA Tristan	NCATS
Stem Cell Biology (STEMCELL)	2	iPSC derived hepatic organoids for disease modeling and drug development	GB Chen, I Pavlinov, XL Huang, AR Lopez, C Chen, Wei Zheng	NCATS
Stem Cell Biology (STEMCELL)	3	Development of an iPSCs-derived macrophage model of Gaucher disease to enable high-throughput screening and drug discovery.	D Dabral, Y Chen, Y Fang, Y Lin, T Poudel, D Tao, J Marugan, E Sidransky, M Henderson	NCATS
Stem Cell Biology (STEMCELL)	4	Generation of isogenic gene-corrected lines originating from two individuals with JAG1-mutated Alagille Syndrome by CRISPR/Cas9	E Evans, G Chen, I Pavlinov, X Huang, K Linask, C Liu, A Rodriguez Lopez, RE Hartke, C Chen, J Zou, W Zheng	NCATS
Stem Cell Biology (STEMCELL)	5	Potential use of iPSC-derived hepatocyte-like cells to develop precision medicine for ASH	SH Hoey, AJ Sanyal, B Mukhopadhyay, D Goldman	NIAAA
Stem Cell Biology (STEMCELL)	6	Generation of Human iPSC-derived skeletal myotubes to evaluate DOK7 and COLQ targeted therapeutics	B M Jones, Y Zou, C G Bönnemann, C Chen	NCATS
Stem Cell Biology (STEMCELL)	7	In vitro Pharmacological Evaluation in Mucopolysaccharidosis (MPS) IIIB Patient Derived Neural Stem Cells	MG Lorino, A Rodriguez-Lopez, G Chen, C Chen, W Zheng	NCATS
Stem Cell Biology (STEMCELL)	8	Distinct roles of INO80 in Naive and Primed state of Pluripotency	A Shaukat, X Wang, B Lackford, G Hu	NIEHS
Stem Cell Biology (STEMCELL)	9	Functional characterization of NGLY1 induced pluripotent stem cell-derived glutamatergic neurons in vitro	ZA Shyr, WF Borschel, A Farkondeh Kalat, W Zheng	NCATS
Stem Cell Biology (STEMCELL)	10	Unraveling impacts of a Tgfb2 mutation on endothelial cells through a murine iPSC-derived disease model	AH Slekar, B He, O Duverger, JS Lee	NIDCR
Stem Cell Biology (STEMCELL)	12	Establishment of iPSC derived 2D and 3D Niemann Pick Disease Type C2 Disease Models and Therapeutics Evaluation	M Xu, Y Shu, C Chen, W Zheng	NCATS
Stem Cell Biology (STEMCELL)	14	Comparison of iPSC-derived liver organoids and other liver cell models using proteomic analysis and CYP450 assays	S Yang, J Hao, M Xia	NCATS
Structural Biology (STRUCTBIO)	1	A novel mechanism of ubiquitination suggests direct interaction between UBA1 and E3	VV Courouble, W Yan, F Shengyun, CA LeClair, D Tao	NCATS
Structural Biology (STRUCTBIO)	2	Optimizing the Cryo-FIB Milling Pipeline for Cryo-ET	EP Dobbs, ZZ Chaudhry, N Mizuno	NHLBI
Structural Biology (STRUCTBIO)	3	Machine learning segmentation in 3D electron microscopy.	S Fulton, C Baenen, J Yang, J Kim, RD Leapman, MA Aronova	NIBIB
Structural Biology (STRUCTBIO)	4	PPM1D Phosphatase: insights from crystal structure, kinetic analysis, and structure-based virtual screening	JP Kumar, D Kosek, SR Durell, N Tarasova, LM Jenkins, S Debnath, NP Coussens, MD Hall, DH Appella, F Dyda, SJ Mazur, E Appella	NCI
Structural Biology (STRUCTBIO)	5	Capturing dynamin-mediated fission intermediates in Drosophila with Cryo-ET	P Kunamaneni, KA Sochacki, CJ Fagerstrom, MR Hannaford, C Khan, NM Rusan, JW Taraska, JE Hinshaw	NIDDK
Structural Biology (STRUCTBIO)	6	Snapshots of dynamin-mediated membrane fission by cryo-EM	N Kundu, S Nyenhuis, JR Jimah, H Breen, JT Harrison, B Canagarajah, JE Hinshaw	NIDDK
Structural Biology (STRUCTBIO)	7	CryoEM of OPA1 helical Structures give perspective to mitochondrial dysfunction	SB Nyenhuis, X Wu, MP Strub, YI Yim, AE Stanton, B Canagarajah, JA Hammer, JE Hinshaw	NIDDK
Structural Biology (STRUCTBIO)	8	Capturing oligomeric states of Lon protease involved in its regulation using CryoEM	I Rathore, A Gustchina, D Zhang, A Andrianova, A Kudzhaev, I Smirnov, T Rotanova, A Wlodawer	NCI
Structural Biology (STRUCTBIO)	9	RNA and DNA folds: insights into tertiary structure elements	SN Shaffer, LFM Passalacqua, AR Ferre-D'Amare	NHLBI
Structural Biology (STRUCTBIO)	10	CDK2 and CDK4: Cell Cycle Functions Evolve Distinct, Catalysis- Competent Conformations, Offering Drug Targets	W Zhang, Y Liu, H Jang, R Nussinov	NCI
Systems Biology (SYSBIO)	1	Data-driven transcriptomics analysis identifies PCSK9 as a novel key regulator in liver aging	M Arif, C Matyas, P Mukhopadhyay, B Yokus, E Trojnar, J Palocz, B Paes-Leme, S Zhao, FW Lohoff, G Hasko, P Pacher	NIAAA
Systems Biology (SYSBIO)	2	CRISPR/Cas9 screening identifies key transcription factors regulating Aqp2 gene transcription	L Chen, AR Murillo De Ozores, E Park, SM Ou, MA Knepper	NHLBI
Systems Biology (SYSBIO)	3	DAS and the Ludwig deep learning toolbox	RM Henderson	NIAID
Systems Biology (SYSBIO)	4	Saliva shapes gut microbiome and innate immunity: beyond of what we thought.	J Aoun, A Kabara, B LeBlanc, M Ahuja, C Zhang, S Muallem	NIDCR
Systems Biology (SYSBIO)	5	Data-driven modeling of the mouse macrophage Toll-like receptor signaling pathway	NP Manes, SA Hassan, AA Armstrong, F Zhang, RA Gottschalk, MJ Marino, ID Fraser, RN Germain, M Meier-Schellersheim, A Nita-Lazar	NIAID

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Systems Biology (SYSBIO)	6	CRISPR/Cas9 screening for protein kinases that regulate aquaporin-2 gene transcription in collecting duct	E Park, L Chen, MA Knepper	NHLBI
Systems Biology (SYSBIO)	7	Long-term in vivo Calcium Imaging of Neuromedin-S Neurons Reveals a Multi-model Timekeeping Mechanism in Mammal Suprachiasmatic Nucleus	Q Tang, J Cook, M Yurgel, J Jones, S Hattar	NIMH
Systems Biology (SYSBIO)	8	Anticancer Target Combinations: A Network-Informed Signaling-Based Approach to Discovery	B.R Yavuz, H. Jang, R. Nussinov	NCI
Virology (VIROL)	1	Deep mutational scanning of EV-D68 3D RNA-dependent RNA-polymerase	BA Catching, PT Dolan	NIAID
Virology (VIROL)	2	Macrodomain Mac1 of SARS-CoV-2 nonstructural protein 3 hydrolyzes diverse ADP-ribosylated substrates	C Chea, DY Lee, J Kato, H Ishiwata-Endo, J Moss	NHLBI
Virology (VIROL)	3	Escalating dose priming increases VRC01-class B-cell precursors and leads to robust cross-strain serum neutralization in a stringent mouse model	KT Nguyen, X Chen, S Charaf, S O'Dell, M Choe, AS Olia, M Suleiman, S Luo, C Cheng, T Zhou, PD Kwong, NA Doria-Rose, FW Alt, JR Mascola, TC Pierson	NIAID
Virology (VIROL)	4	Development of High Throughput Screening and High Content Platforms for La Crosse Virus	SC Ogden, YM Ahn, A Medina, N Ibrahim, N Martinez, EM Lee	NCATS