

NIDA and NIAAA Genetics and Epigenetics Research Meeting

January 14th to 15th, 2019

NIDA Headquarters, 6001 Executive Blvd. Rockville, MD 20892

Day 1

9:00

January 14th, 2018

Welcome

Jonathan D. Pollock, PhD, Branch Chief, Genetics, Epigenetics and Developmental Neuroscience Branch, Division of Neuroscience and Behavior, NIDA

9:05

Opening Remarks

Nora Volkow, MD, Director, NIDA

9:15 to 9:45

Session 1: A Patient's Perspective

Aimee Manzoni D'Arpino
Senior Director of State Chapters
Addiction Policy Forum

9:45 to 10:30

Session 2: Finding Genes for SUD in Humans and Animals

9:45

Gary Peltz, MD
Computational Genetic Discovery for SUD

10:05

Paul J. Kenny, PhD
Habenular Tcf712 links nicotine addiction to diabetes

10:20

Wade H. Berrettini, MD, PhD
Electronic Health Records in Evaluating the Potential for Opioid Use Disorder
Panel Discussion led by Laura Bierut, MD

10:35

11:00 to 12:30

Poster Session A

12:30 to 2:00

Lunch (Delivered by Bean Bag or at nearby locations – see website)

2:00 to 3:00

Session 3: From DNA Variant to Gene Network

2:00

Tuuli Lappalainen, PhD
Effects of Genomic Variation on Gene Expression

2:15

Rohan Palmer, PhD
Cross-Species Prioritization of Genomic Loci for Drug Addiction: An Example Using Alcohol Consumption

2:30

Wei Zhang, PhD
A global transcriptional network connecting noncoding mutations to changes in tumor gene expression

2:45

Discussion Session 2

3:00 to 4:30

Poster Session B

4:30 to 5:30

Session 4: Epigenetic Studies

4:30

Stella Dracheva, PhD
The role for DNA (hydroxy)methylation in epigenetic regulation of different brain cell types

4:45

Schahram Akbarian, MD, PhD
Epigenome Profiling in Prefrontal Cortex Neurons Exposed to Opiates

5:00

Philipp Mews, PhD
Epigenetic priming underlies transcriptional dysregulation in cocaine addiction

5:15

Discussion Session 3

5:30

Wrap Up Day 1

6:00

Optional Dinners at Various Nearby Restaurants – Details at the Meeting

Day 2

9:00 AM

January 15th, 2018

Welcome and Recap of Day 1

Abbas Parsian, PhD, Division of Neuroscience and Behavior, NIAAA

9:15 to 10:15

Session 5: Human Studies of Substance Use Disorders

9:15

Arpana Agrawal, PhD
Updates from the Psychiatric Genomics Consortium's Substance Use Disorders Working Group

9:30

Howard Edenberg, PhD
Updates from the Psychiatric Genomics Consortium: Alcohol

9:45

Eric Johnson, PhD
NIDA Genetics Consortium Genome-wide Association Study of Opioid Addiction – An Update
Discussion

10:00

10:15 to 11:45

Poster Session C

11:45 to 1:15

Lunch

1:15 to 2:15

Session 6: Genetic Architecture and Networks

1:15	Sandra Sanchez-Roige, PhD <i>Alcohol consumption vs. misuse: evidence for distinct genetic architecture</i>
1:30	Chelsie Banca-Bachman, PhD <i>Cross-Species Prioritization of Genomic Loci for Nicotine Consumption</i>
1:45	Shuo Chen, PhD <i>Large-scale mediation analysis to identify gene-brain network-nicotine addiction pathways using imaging-genetics data</i>
2:00	Discussion
2:15 to 3:45	Poster Session D
3:45 to 4:45	Session 7: Emerging Studies
3:45	Purnima Gupta, PhD <i>Magnetically guided non-invasive nanoformulations of Cas9/gRNA complemented with Opioid antagonist: A novel approach targeting HIV reservoirs in the brain</i>
4:00	Benjamin Reiner, PhD <i>L1 retrotransposons in cocaine addiction</i>
4:15	Elizabeth Heller, PhD <i>Chromatin-directed alternative splicing in brain reward regions</i>
4:30	Discussion
4:45	Wrap Up
5:00	Adjourn

#	Session	Last Name	First Name	Title
T11	5	Agrawal	Arpana	Updates from the Psychiatric Genomics Consortium's Substance Use Disorders Working Group
T9	4	Akbarian	Schahram	Epigenome Profiling in Prefrontal Cortex Neurons Exposed to Opiates
T15	9	Benca-Bachman	Chelsie	Cross-Species Prioritization of Genomic Loci for Nicotine Consumption
T4	2	Berrettini	Wade	Electronic Health Records in Evaluating the Potential for Opioid Use Disorder
T16	6	Chen	Shuo	Large-scale mediation analysis to identify gene-brain network-nicotine addiction pathways using imaging-genetics data
T8	4	Dracheva	Stella	The role for DNA (hydroxy)methylation in epigenetic regulation of different brain cell types
T12	5	Edenberg	Howard	TBD
T17	7	Gupta	Purnima	Magnetically guided non-invasive nanoformulations of Cas9/gRNA complemented with Opioid antagonist: A novel approach targeting HIV reservoirs in the brain
T19	7	Heller	Elizabeth	Chromatin-directed alternative splicing in brain reward regions
T13	5	Johnson	Eric	NIDA Genetics Consortium Genome-wide Association Study of Opioid Addiction – An Update
T3	2	Kenny	Paul	Habenular Tcf712 links nicotine addiction to diabetes
T5	3	Lappalainen	Tuuli	TBD
T1	1	Manzoni-D'Arpino	Aimee	A Parent's Perspective: Personal Stories of Substance Use Disorder
T10	4	Mews	Philipp	Epigenetic priming underlies transcriptional dysregulation in cocaine addiction

T6	3	Palmer	Rohan	Cross-Species Prioritization of Genomic Loci for Drug Addiction: An Example Using Alcohol Consumption
T2	2	Peltz	Gary	Computational Genetic Discovery for SUD
T18	7	Reiner	Benjamin	L1 retrotransposons in cocaine addiction
T14	6	Sanchez-Roige	Sandra	Alcohol consumption vs. misuse: evidence for distinct genetic architecture
T7	3	Zhang	Wei	A global transcriptional network connecting noncoding mutations to changes in tumor gene expression

#	Session	Last Name	First Name	Title
1	A	Zhuang	Xiaoxi	N6-methyladenosine and Epitranscriptomic Regulation of Learning and Responses to Cocaine
2	A	Zhong	Shuping	Role of epigenetic regulation by histone H3 phosphorylation in non-coding RNA, tRNA transcription of breast cancer
3	A	Zhang	Mike	The influence of carrier proteins on the immunological efficacy of nanoparticle-based vaccines against nicotine addiction
4	A	Zhang	Xinyu	Feature Selection of Smoking-Associated DNA methylation for Prediction on HIV Prognosis and Mortality
5	A	Zhang	John	Extracellular Vesicle miRNA Screening On-Chip: Technology, Progress and Potential Application in Opioid Abuse Screening
6	A	Zhang	Bo	Revealing the dynamic epigenetic changes of nucleus accumbens induced by methamphetamine overdose
7	A	Zhang	Baohong	Nicotine exposure caused significant transgenerational impact on microRNA expression and related disorder in <i>C. elegans</i>
8	A	Ye	Fengchun	Modulation of HIV-1 replication in microglial cells by the competing orphan nuclear receptors Nurr1 and Nor1
9	A	Yadid	Gal	Dialogue between epigenetic mechanisms and microbiome in the progress of drug addicts' rehabilitation
10	A	Xie	Han	Validated Antibody Database: a curated database of antibodies cited in formal publications
11	A	Wood	Marcelo	Epigenetic mechanisms in the medial habenula control reinstatement
12	A	Woo	Christina	New chemical tools to elucidate the genetics and epigenetics of opioid addiction
13	A	Won	Hyejung	Functional genomics resources for the human brain elucidates the neurobiological basis of schizophrenia.
14	A	Wolstenholme	Jennifer	Neighbor housing alleviates the behavioral and neurobiological consequences of social stress-induced drinking in a sex-dependent manner

15	A	Wolf	Fred	A transcriptional control pathway for behavioral plasticity induced by ethanol
16	A	Wimmer	Mathieu	The apple never falls far: paternal exposure to morphine has deleterious consequences on male progeny
17	A	Wilson	Katherine	Cocaine-induced remodeling of the nuclear lamina and 3D genome organization in neurons?
18	A	Williams-Nguyen	Jessica	The importance of measuring substance use: A Mendelian randomization of chronic Hepatitis C and myocardial infarction
19	A	Wilkerson	Jenny	Non-coding RNAs as markers of opioid use and pathological pain
20	A	Weinstock	George	Microbes, Novelty-Related Behavior, and Cocaine Addiction
21	A	Weathington	Nathaniel	Assessing the impact of opioid exposure on lung immune function and in acute ICU care after drug overdose
22	A	Wang	Qun	Overdosed Vitamins Generated Epigenetic Changes to Intestinal Stem Cells
23	A	Walss-Bass	Consuelo	Epigenetics of Cocaine Use Disorder: A Collaborative Case-Control Initiative in Blood and Brain
24	A	Verhulst	Brad	Developing Genome-Wide Structural Equation Modeling (GW-SEM) to analyze the genetic associations with substance use phenotypes
25	A	Vassileva	Jasmin	Machine learning reveals common and specific predictors of alcohol, cannabis, and nicotine dependence
26	A	Vallender	Eric	Gene expression in the prefrontal cortex associated with impulsivity
27	A	Vaillancourt	Kathryn	Cocaine-related DNA methylation of IRX2 alters local 3D chromatin architecture in human brain cells.
28	A	Tyagi	Mudit	Cocaine-stimulated signaling pathways enhance HIV gene expression by inducing the establishment of euchromatin structure via modulating the recruitment of different epigenetic enzymes at HIV LTR.
29	A	Turner	Jill	Altered Microglial Transcriptomic Changes and Signaling in the Nucleus Accumbens during Nicotine Withdrawal
30	A	Troiani	Vanessa	Quantitative Traits Associated with Opioid Use Disorder
31	A	Trampush	Joey	GWAS of Cognitive Abilities and Risk for Substance Abuse
32	A	Tischfield	Jay	The NIDA Genomics Center Updated
33	A	Thangavel	Samikkannu	Cocaine and HIV- Tat Impact Brain Energy Metabolism: Role in Mitochondrial Epigenetic Signature of DNA Methylation

34	A	Taylor	George	Selectively bred rats with low motivation to exercise may also be vulnerable to abuse drugs
35	A	Tarantino	Lisa	Initial drug sensitivity and sensitization in the Collaborative Cross/Diversity Outbred founders
36	A	Talal	Andrew	Understanding How HIV and Hepatitis C Virus (HCV) Infection Affects CYP2B6 Enzymatic Activity and Methadone Pharmacokinetics
37	A	Tabakoff	Boris	Does the liver or the brain control voluntary alcohol consumption: using the HRDP
38	A	Sump	Bethany	Molecular Mechanisms for Epigenetic Transcriptional Poised Memory State
39	A	Su	Jinni	Interactive Effects Between Polygenic Risk and Social Support in Relation to Alcohol Dependence Symptoms Among European American and African American Adults
40	A	Stephenson	Mallory	Describing Polygenic Associations for Alcohol Use, ADHD Symptoms, Cigarette Use, and Educational Attainment: A Within-Family Comparisons Study.
41	A	Smith	Susan	Collaborative Cross RIS as a Mouse Model to Identify Genetic Polymorphisms that Modify Alcohol-Related Outcomes
1	B	Smith	Ryan	Mapping Cell Types in the Human Putamen from Cocaine Abusers
2	B	Shu	Chang	Peripheral blood DNA methylation markers are associated with HIV progression
3	B	Shu	Chang	Epigenome-Wide Association Scan (EWAS) of opioid use among chronic injection drug users and in a post-mortem opioid overdose brain sample.
4	B	Shtutman	Michael	Inhibition of the DEAD Box RNA Helicase 3 prevents HIV-1 Tat- and cocaine-induced neurotoxicity by targeting microglial activation
5	B	Schoenrock	Sarah	QTL mapping for initial sensitivity to cocaine using an F2 intercross of low and high responder inbred strains
6	B	Saul	Michael	Genetics and sex govern the striatum transcriptional response to cocaine
7	B	Sabunciyar	Sarven	Repetitive Element Expression is Altered in the Brain Following Glucocorticoid Exposure
8	B	Ruan	Qiu	CLIP-seq analysis of the RNA binding protein hnRNP H in striatum following methamphetamine administration in Hnrnp1 +/- mice
9	B	Rogers	Jim	Large Scale Dynamical Model of Macrophage/HIV Interaction for the Mathematical Analysis of Methamphetamine Emergent/Epigenetic Effects on HIV/AIDS Disease Progression
10	B	Richards	Tamara	A Single Nucleotide Replacement Restores Methamphetamine Traits to Low Addiction Risk Levels

11	B	Prosser	Rebecca	Paternal cocaine consumption in mice sex-specifically alters F1 offspring cocaine preference, circadian rhythm responses, and striatal gene expression.
12	B	Pozhidayeva	Dar'ya	Effects of Chronic Stimulation of Nucleus Accumbens on Binge Drinking and Transcriptome
13	B	Polimanti	Renato	Genome-wide association study of opioid dependence from the Psychiatric Genomics Consortium
14	B	Peterson	Roseann	Cross-ancestry Genome-wide Analyses of Substance Use Behaviors in Schizophrenia: Findings from the Genomic Psychiatry Cohort.
15	B	Periyasamy	Palsamy	Cocaine-mediated microglial activation involves miR-148b-lncRNA XIST-DNMT1 axis-mediated epigenetic promoter DNA methylation of an anti-inflammatory gene, PPARG
16	B	Parker	Clarissa	Measuring negative affective withdrawal in CFW mice: Implications for GWAS
17	B	Pan	Ying-Xian	Pharmacological functions of alternatively spliced mu opioid receptor variants in conditional Oprm1 rat models generated by Easi-CRISPR
18	B	Pan	Ying-Xian	Alternatively spliced mu opioid receptor intracellular C-termini encoded by exon 7 are important for fentanyl actions
19	B	Palumbo	Sarah	Electronic Health Records in Evaluating the Potential for Opioid Use Disorder
20	B	Palmer	Abraham	Center for genetic studies of drug abuse in outbred rats
21	B	Odegaard	Katherine	Transgenerational transcriptomic changes associated with prescription opioids abuse: How far has the apple fallen from the tree?
22	B	Nelson	Elliot	A GWAS of Opioid Withdrawal Symptom Count
23	B	Neale	Michael	Effects of Age, Sex and Race on Substance Abuse and Dependence Assessments
24	B	Nadeau	Joe	The mean-ness of noisy biological systems
25	B	Mulligan	Megan	Identification of Sex, Strain, and Entourage Effects in the Behavioral and Physiological Response to Cannabinoids
26	B	Morris	Kevin	Recombinant protein guided activation of HIV; a means for target specific purging of proviral reservoirs in the brain
27	B	Mohan	Mahesh	Long noncoding RNA landscape in the intestinal epithelium of delta-9-tetrahydrocannabinol treated chronically SIV-infected rhesus macaques
28	B	Miles	Michael	Genetic Analysis of Intermittent Access Ethanol Consumption in Diversity Outbred (DO) Mice
29	B	Meyers	Jacquelyn	Polygenic Influences on Alcohol Related Neurophysiological and Neurocognitive Processes across the Lifespan

30	B	Metpally	Raghu	Genomic analyses of prescription opioid dose in chronic opioid exposure
31	B	McLaren	Paul	Polygenic analysis of genome-wide genotype data reveals genetic overlap between HIV acquisition and addiction traits
32	B	Maturin	Lisa	The Cocaine Biobank: A repository of biological samples from genetically characterized outbred rats that exhibit compulsive-like escalation of cocaine self-administration
33	B	Markunas	Christina	Epigenome-wide analysis uncovers a blood-based DNA methylation biomarker of lifetime cannabis use.
34	B	Marcondes	Maria	Stable histone modifications in post-mortem brain tissue can help overcome quality issues to help identify neuroHIV signatures
35	B	Mallard	Travis	Insights into the multivariate genetic architecture of externalizing spectrum behaviors and disorders: Preliminary results from the Externalizing Consortium
36	B	Mahmoudi	Morteza	Development of Innovative Protein Corona Nanosystem Technology for Early Detection of Substance Abuse Disorders
37	B	Luo	Rui	Transgenerational Effect of Smoking During Pregnancy on DNA Methylation of the Newborn
38	B	Lu	Qing	A Kernel-Based Neural Network for High-dimensional Risk Prediction on Massive Genetic Data
39	B	Lockery	Shawn	Neuronal and genetic basis of the munchies in <i>C. elegans</i>
40	B	Liu	Jingyu	Opposite Epigenetic Modifications between Alcohol Use and Exercise Intervention
41	B	Liu	Yunlong	Alcohol Abuse Associated Allele Specific Expression and Regulation in Human Brain Tissue
42	B	Liu	Dajiang	Phenotype imputation integrating GWAS summary association statistics, deeply phenotyped cohorts and large biobanks Identifies novel loci for cotinine levels
1	C	Liang	Xiaoyu	DNA methylation signature of Phosphatidylethanol Predicts Hazardous Alcohol Use
2	C	Li	Jun	Genetics of Novelty Seeking and Propensity for Drug Abuse in Outbred Rats
3	C	Li	Yanchun	The histone demethylase KDM6B in the medial prefrontal cortex epigenetically regulates cocaine reward memory
4	C	Lawson	Kaycie	Methamphetamine alters innate immune signaling by inducing an IL-1 β -miR-146a negative feedback loop and contributes to anti-retroviral drug resistance in CD4+ T-cells
5	C	Lardner	Casey	Elucidating the cell type-specific transcriptional patterns differentiating stimulant versus opiate addiction

6	C	Kumari	Meena	Do exosomes hold the key to genetic and epigenetic modifications in drug addiction?
7	C	Kumar	Vivek	Integrated analysis of JAX-KOMP2 data reveals a cluster of genes predictive of addiction phenotypes.
8	C	Ksinan	Albert	Externalizing and Internalizing Genetic Pathways to Alcohol Consumption and Alcohol Use Disorder Symptoms in College Students
9	C	Klase	Zachary	Drugs of abuse as drivers of epigenetic change in HIV-1 infection
10	C	Kim	Sam-Moon	Strain Differences of Molecular Circadian Rhythms in Primary Fibroblasts Derived from Founders of Collaborative Cross and Diversity Outbred Mice
11	C	Kidambi	Srivatsan	METH elicits dose- and time-dependent autophagic cytotoxicity in primary astrocytes
12	C	Kennedy	Pamela	Epigenetic mechanisms mediating cocaine-induced shifts from hippocampal to dorsolateral striatal behavioral learning and control
13	C	Kaul	Marcus	Neurotransmission-related gene expression reveals sexual dimorphism in long-term effects of methamphetamine and HIV-associated brain injury
14	C	Karam	Caline	Flying high: Delineating the genetic basis of amphetamine sensitivity using a Drosophila behavioral model
15	C	Kaprio	Jaakko	A Genome-wide association meta-analysis of the nicotine metabolite ratio and five other smoking related traits in smokers of European descent
16	C	Kamens	Helen	Adolescent social stress influences later ethanol and nicotine behaviors and microRNA expression
17	C	Kallupi	Marsida	Pharmacological treatments for opioid dependence in Heterogeneous Stock rats
18	C	Johnson	Emma	Large genome-wide association study of cannabis abuse and dependence: an update from the PGC Substance Use Disorders working group
19	C	Jee	Changhoon	Compulsive behaviors in <i>C. elegans</i> as a model to study Substance Use Disorders
20	C	Im	Hae Kyung	Exploring the mechanism behind drug addiction integrating predicted transcriptomic and radiomic data
21	C	Iancu	Ovidiu	Network Approaches Identify Brain Regions and Gene Hubs Associated with Genetic Predisposition for Methamphetamine Intake
22	C	Hughey	Jordan	Fine Mapping Causal Variants of Smoking and Drinking Addiction Related Traits
23	C	Huang	Jun	The histone methyltransferase EZH2 primes the differentiation of follicular helper T cells during acute viral infection

24	C	Hu	Goku	Extracellular Vesicle-mediated small RNA delivery into the CNS
25	C	Hong	Mingi	Gene-environment interactions in holoprosencephaly
26	C	Hofford	Rebecca	The gut microbiome as a homeostatic regulator of striatal gene expression in response to opioids
27	C	Hoffman	William	Trace Amine Associated Receptor 1 (TAAR1) SNP rs8192620 is associated with increased craving and altered striatal functional connectivity in methamphetamine use disorder (MUD)
28	C	Hinds	Terry	E-cigarette nicotine exposure increases hepatic fat content reducing liver-derived fuel for the brain
29	C	Highfill	Chad	Genetics of cocaine and methamphetamine consumption and preference in <i>Drosophila melanogaster</i>
30	C	Hancock	Dana	Genome-wide DNA methylation differences in nucleus accumbens of smokers vs. nonsmokers
31	C	Han	Kyung-An	Impulsive flies shed light on new players for dysfunctional inhibitory control
32	C	Hamra	F. Kent	Knockin Rat Model Production by Germline Gene Targeting in Sperm Stem Cells
33	C	Grisel	Judy	Sex-Differences in Drug Sensitivity: Gonads or Non-coding RNAs?
34	C	Goldberg	Lisa	Identification of a locus on chromosome four mediating nicotine withdrawal deficits in hippocampal learning
35	C	Gillespie	Nathan	GWAS of lifetime cannabis use reveals new risk loci, genetic overlap with psychiatric traits, and a causal influence of schizophrenia
36	C	Ghanbari	Reza	An Untargeted NMR-based Metabolomics Analysis to Investigate the Urinary Metabolites in Opium Users
37	C	Gewirtz	Jonathan	Withdrawal-induced anhedonia as a protective factor in opioid addiction
38	C	George	Olivier	The Oxycodone Biobank: A repository of biological samples from genetically characterized outbred rats that exhibit compulsive-like escalation of oxycodone self-administration
39	C	Garavan	Hugh	ENIGMA-Addiction: Gene-brain associations with SUD
40	C	Ganesh	Suhas	Molecular intersections of cannabis exposure and psychosis expression using patient derived HiPSC neurons
41	C	Frye	Hannah	CNIH3 expression in female mice modulates hippocampal synapse stability and AMPAR-dependent memory and learning
42	C	Filali-Mouhim	Abdelali	Non-coding RNAs drive increased fatty acid synthesis and reduce inflammation in cART treated HIV infected cocaine users

1	D	Feng	Jian	Neuron subtype-specific role of methylated DNA cytosine dioxygenase TET1 in cocaine addiction
2	D	Fabris	Dan	Exploring the CNS Epitranscriptome by MS-Based Approaches
3	D	Engeln	Michel	Transcriptional adaptations in the ventral pallidum following cocaine self-administration.
4	D	El-Hage	Nazira	Morphine counteracts the antiviral effect of antiretroviral drugs and causes upregulation of p62/SQSTM1 and histone modifying enzymes in HIV-infected astrocytes
5	D	Elam	Kit	Using Gene Set Enrichment Analysis to Create Polygenic Risk Scores for Childhood Aggression: A Developmental Examination
6	D	Ehringer	Marissa	Inbred Mouse Strains Selected for High and Low Open Field Activity Also Show Differences in Alcohol-Related Behaviors
7	D	Duan	Jubao	Understanding the molecular basis of nicotine addiction by integrative genomic analyses in a rat model and hiPSC-derived DA neurons
8	D	Dickson	Price	Systems genetics discovery of genetic, genomic, and gene-by-environment mechanisms driving substance use and sensation seeking
9	D	DeMarino	Catherine	Effects of Marijuana on Viral Transcription in HIV-1 Infected Cells and Resulting Extracellular Vesicle Release
10	D	de Guglielmo	Giordano	Nociceptin/orphanin FQ reverses the escalation of oxycodone self-administration by normalizing GABA transmission in the amygdala in rats with high addiction-like behaviors
11	D	Datta	Prasun	Modulation of glutamate transporter, EAAT2 expression by epigenome editing.
12	D	Dapp	Michael	Impact of HIV and Methamphetamine Use on the Nucleome in Individuals on Antiretroviral Therapy
13	D	Damaj	M. Imad	A comparative phenotypic analysis of nicotine pharmacological effects and dependence behaviors in C57BL/6J and C57BL/6N mouse strains
14	D	Damaj	M. Imad	Strain-dependent oral nicotine intake using a free-choice paradigm in mice
15	D	Corradin	Olivia	Identifying pathogenic cell type of disease associated variants
16	D	Ciborowski	Pawel	Secreted metabolome of methamphetamine treated human primary macrophages
17	D	Choquet	Hélène	Genetic Ancestry and Tobacco Smoking Behavior
18	D	Chidambaran	Vidya	Biopsychosocial clusters based on genetic risk scores for chronic post-surgical pain in children undergoing spine fusion

19	D	Chen	Renchao	Transcriptome and functional characterization of nucleus accumbens neurons reveal Tac2+ D1 neurons in regulating psychostimulant effect of cocaine
20	D	Chen	Hao	Intermittent oral oxycodone self-administration in inbred strains of rats is heritable
21	D	Chandra	Ramesh	Cocaine-induced histone methylation on Egr3 and Nab2 promoters
22	D	Ceko	Marta	Predicting placebo analgesia - literature review and new perspectives
23	D	Cates	Hannah	Revealing the chromatin-bound long noncoding RNA landscape of the brain
24	D	Buczynski	Matthew	Enhanced nicotine reward in a mouse model of the P129T FAAH gene polymorphism
25	D	Bubeir	Jason	Genetic Variation in Opioid Induced Respiratory Depression in Mice
26	D	Bryant	Camron	Gene mapping and editing of an intronic variant in Gabra2 in methamphetamine sensitivity and naloxone-induced aversion behaviors in a reduced complexity cross
27	D	Brennan	Caroline	Population based forward genetic screen of mutagenized zebrafish identifies loci associated with nicotine preference and human smoking behavior
28	D	Borrelli	Kristyn	Reward sensitivity in Hnrnp1 ^{+/-} mice following acute methamphetamine administration as measured via intracranial self-stimulation
29	D	Bogue	Molly	Mouse Phenome Database 2.0: New tools and data resources for curated and integrated primary mouse phenotype data
30	D	Bielas	Stephanie	Genetic regulation of personalized opioid response in cerebral organoids
31	D	Bidlack	Jean	Fibroblast Growth Factor 21 Attenuates the Preference for Morphine in a Conditioned Place Preference Assay
32	D	Bi	Jinbo	Inferring Phenotypes from Substance Use via Collaborative Matrix Completion
33	D	Bergen	Andrew	Biosignatures of Opioid Addiction Treatment Success (BOATS)
34	D	Beierle	Jacob	Mouse inbred strain survey of oxycodone addiction traits in an opioid multi-stage addiction assessment protocol
35	D	Baurley	James	Prediction of nicotine biomarkers from genotypes
36	D	Baker	Brandon	Dissecting the Genetic Basis of Variation in Cocaine and Methamphetamine Consumption in <i>Drosophila melanogaster</i>
37	D	Bagley	Jared	Heritable variation in voluntary alcohol drinking and blood ethanol concentrations in a genetically diverse inbred mouse panel

38	D	Bacanu	Silviu-Alin	Novel pathway transcriptomics method greatly increases detection of molecular pathways associated with substance use disorder
39	D	Bacanu	Silviu-Alin	Direct imputation of summary statistics using large reference panels increases the resolution of genetic signals coming from metanalysis of substance use disorder
40	D	Atluri	Venkata	Magneto electric nanoparticle based CRISPR-Cas9/gRNA delivery to eradicate latent HIV infection and neuropathology in the brain
41	D	Anholt	Robert	Genetic Variation in Alcohol Induced Modulation of Drosophila snoRNAs
42	D	Alvarez-Carbonell	David	Virus on the brain: Inflammation and cross-talk between microglia and neurons regulate HIV latency