Resource Summary Report

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Knowledgebase for Addiction Related Genes

RRID:SCR_002687
Type: Tool

Proper Citation

Knowledgebase for Addiction Related Genes (RRID:SCR_002687)

Resource Information

URL: http://karg.cbi.pku.edu.cn

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Description: Database of data and knowledge linking genes and chromosome regions to addiction that were extracted from reviewing more than 1,000 peer-reviewed publications from between 1976 and 2006. This list of publications included review papers on addiction selected from results of PUBMED query "(addiction OR drug abuse) AND review" as well as research papers selected from PUBMED query "(addiction OR drug abuse) AND (gene OR microarray OR proteomics OR QTL OR population association OR genetic linkage)". The data spanned multiple technology platforms including classical hypothesis-testing of single genes, identification of significantly differentially expressed genes in microarray experiments, identification of significantly differentially expressed proteins in proteomics assays, identification of addiction-vulnerable chromosome regions in animal QTL studies, genetic linkage studies, population association studies, and OMIM annotations. From each publication they collected the genes, proteins, or chromosome regions linked to addiction, as well as metadata such as species, nature of the addictive substance, studied brain regions, technology platforms, and experimental parameters. In total, they collected 2,343 items of evidence linking 1,500 human genes to addiction. Among them 396 genes were supported by two or more items of evidence. The interface supports browsing of the genes by chromosome or pathways, advanced text search by gene ID, organism, type of addictive substance, technology platform, protein domain, and/or PUBMED ID, and sequence search by BLAST similarity. All data, database schema, and MySQL commands are freely available for download.

Abbreviations: KARG

Synonyms: KARG: Knowledgebase for Addiction-Related Gene, Knowledgebase for Addiction-Related Gene, KARG: Knowledgebase for Addiction Related Genes

Resource Type: data or information resource, database

Defining Citation: PMID:18179280

Keywords: molecular neuroanatomy resource, gwas, meta-analysis, genetic susceptibility, gene, protein, chromosome, pathway, drug of abuse, blast, addiction, substance abuse, drug abuse, microarray, proteomics, qtl, population association, genetic linkage

Funding:

Availability: Free, Public

Resource Name: Knowledgebase for Addiction Related Genes

Resource ID: SCR_002687

Alternate IDs: nif-0000-00411

Record Creation Time: 20220129T080214+0000

Record Last Update: 20250507T060056+0000

Ratings and Alerts

No rating or validation information has been found for Knowledgebase for Addiction Related Genes.

No alerts have been found for Knowledgebase for Addiction Related Genes.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 8 mentions in open access literature.

Listed below are recent publications. The full list is available at dkNET.

Vannan A, et al. (2021) microRNA regulation related to the protective effects of environmental enrichment against cocaine-seeking behavior. Drug and alcohol dependence, 221, 108585.

Blum K, et al. (2020) Polygenic and multi locus heritability of alcoholism: Novel therapeutic targets to overcome psychological deficits. Journal of systems and integrative neuroscience, 7.

Bastle RM, et al. (2018) In silico identification and in vivo validation of miR-495 as a novel regulator of motivation for cocaine that targets multiple addiction-related networks in the nucleus accumbens. Molecular psychiatry, 23(2), 434.

Oliver RJ, et al. (2018) Neuronal RNA-binding protein HuD regulates addiction-related gene expression and behavior. Genes, brain, and behavior, 17(4), e12454.

Blum K, et al. (2017) Common Neurogenetic Diagnosis and Meso-Limbic Manipulation of Hypodopaminergic Function in Reward Deficiency Syndrome (RDS): Changing the Recovery Landscape. Current neuropharmacology, 15(1), 184.

Xie XQ, et al. (2014) Chemogenomics knowledgebased polypharmacology analyses of drug abuse related G-protein coupled receptors and their ligands. Frontiers in pharmacology, 5, 3.

Blum K, et al. (2014) Genetic Addiction Risk Score (GARS): molecular neurogenetic evidence for predisposition to Reward Deficiency Syndrome (RDS). Molecular neurobiology, 50(3), 765.

Bubier JA, et al. (2012) Accelerating discovery for complex neurological and behavioral disorders through systems genetics and integrative genomics in the laboratory mouse. Neurotherapeutics : the journal of the American Society for Experimental NeuroTherapeutics, 9(2), 338.