Release Notes for BAO version 2.8.10

Contact: Stephan Schurer (sschurer at med dot miami dot edu)

Release Date:October 20, 2023

About BAO

The BioAssay Ontology (BAO) has been developed to formally describe biological screening assays and their results including high-throughput screening (HTS) data; specifically in the domain of small molecule drug and probe development. BAO enables categorization of assays and results by based on several concepts that are important to interpret and analyze screening data with the goal to infer the mechanism of action of small molecules based on the known aggregate screening results from many assays.

Changes in BAO v 2.8.10

Add external class

http://purl.obolibrary.org/obo/CHEBI 9590 http://purl.obolibrary.org/obo/CHEBI 50275 http://purl.obolibrary.org/obo/CHEBI_7936

Add axioms

BioAssay label	BAO property	Restriction	ChEBI Name
BCRP inhibition assay	has substrate	only	rosuvastatin
CYP induction assay	has substrate	some	phenacetin
CYP induction assay	has substrate	some	bupropion
CYP induction assay	has substrate	some	midazolam
CYP inhibition assay	has substrate	some	phenacetin
CYP inhibition assay	has substrate	some	s-mephenytoin
CYP inhibition assay	has substrate	some	bupropion
CYP inhibition assay	has substrate	some	amodiaquine
CYP inhibition assay	has substrate	some	diclofenac
CYP inhibition assay	has substrate	some	nifedipine
CYP metabolite formation kinetics	has substrate	some	sulfaphenazole
CYP metabolite formation kinetics	has substrate	some	furafylline
CYP metabolite formation kinetics	has substrate	some	quinidine
CYP metabolite formation kinetics	has substrate	some	montelukast
CYP metabolite formation kinetics	has substrate	some	troleandomycin
CYP time dependent inhibition IC50 shift assay	has substrate	some	phenacetin
CYP time dependent inhibition IC50 shift assay	has substrate	some	s-mephenytoin
CYP time dependent inhibition IC50 shift assay	has substrate	some	bupropion
CYP time dependent inhibition IC50 shift assay	has substrate	some	amodiaquine
CYP time dependent inhibition IC50 shift assay	has substrate	some	diclofenac

CYP time dependent inhibition IC50 shift assay	has substrate	some	dextromethorphan
CYP time dependent inhibition IC50 shift assay	has substrate	some	midazolam
CYP time dependent inhibition IC50 shift assay	has substrate	some	testosterone
CYP time dependent inhibition IC50 shift assay	has substrate	some	nifedipine
CYP time dependent inhibition Ki/kinact	has substrate	some	phenacetin
CYP time dependent inhibition Ki/kinact	has substrate	some	bupropion
CYP time dependent inhibition Ki/kinact	has substrate	some	amodiaquine
CYP time dependent inhibition Ki/kinact	has substrate	some	s-mephenytoin
CYP time dependent inhibition Ki/kinact	has substrate	some	diclofenac
CYP time dependent inhibition Ki/kinact	has substrate	some	dextromethorphan
CYP time dependent inhibition Ki/kinact	has substrate	some	midazolam
CYP time dependent inhibition Ki/kinact	has substrate	some	testosterone
CYP time-dependent inhibition assay	has substrate	some	phenacetin
CYP time-dependent inhibition assay	has substrate	some	s-mephenytoin
CYP time-dependent inhibition assay	has substrate	some	bupropion
CYP time-dependent inhibition assay	has substrate	some	amodiaquine
CYP time-dependent inhibition assay	has substrate	some	diclofenac
CYP time-dependent inhibition assay	has substrate	some	dextromethorphan
CYP time-dependent inhibition assay	has substrate	some	midazolam
CYP time-dependent inhibition assay	has substrate	some	testosterone
CYP time-dependent inhibition assay	has substrate	some	nifedipine
CYP1A2 induction assay	has substrate	some	phenacetin
CYP1A2 inhibition assay	has substrate	some	phenacetin
CYP2B6 induction assay	has substrate	some	bupropion
CYP2B6 inhibition assay	has substrate	some	bupropion
CYP2C8 inhibition assay	has substrate	some	amodiaquine
CYP2C9 inhibition assay	has substrate	some	diclofenac
CYP2C19 inhibition assay	has substrate	some	s-mephenytoin
CYP3A4 induction assay	has substrate	some	midazolam
CYP3A4 inhibition assay	has substrate	some	nifedipine
CYP3A4 inhibition assay	has substrate	some	midazolam
CYP3A4 inhibition assay	has substrate	some	testosterone
definitive CYP IC50	has substrate	some	phenacetin
definitive CYP IC50	has substrate	some	bupropion
definitive CYP IC50	has substrate	some	amodiaquine
definitive CYP IC50	has substrate	some	s-mephenytoin
definitive CYP IC50	has substrate	some	diclofenac
definitive CYP IC50	has substrate	some	dextromethorphan
definitive CYP IC50	has substrate	some	midazolam
definitive CYP IC50	has substrate	some	testosterone
definitive CYP IC50	has substrate	some	nifedipine
efflux transporter inhibition assay	has substrate	some	rosuvastatin
efflux transporter inhibition assay	has substrate	some	metformin

efflux transporter inhibition assay	has substrate	some	taurocholate
MATE1 inhibition assay	has substrate	some	metformin
MATE2 inhibition assay	has substrate	some	metformin
monoamine oxidase inhibition assay	has substrate	some	kynuramine
OATP1B1 inhibition assay	has substrate	some	rosuvastatin
OATP1B3 inhibition assay	has substrate	some	rosuvastatin
OCT1 inhibition assay	has substrate	some	metformin
OCT2 inhibition assay	has substrate	some	metformin
P-gp inhibition assay	has substrate	some	taurocholate
transporter inhibition assay	has substrate	some	rosuvastatin
transporter inhibition assay	has substrate	some	taurocholate
transporter inhibition assay	has substrate	some	metformin
UGT inhibition assay	has substrate	some	estradiol
UGT inhibition assay	has substrate	some	trifluoperazine
UGT inhibition assay	has substrate	some	propofol
UGT inhibition assay	has substrate	some	oxazepam
UGT inhibition assay	has substrate	some	zidovudine
UGT1A1 with BSA assay	has substrate	some	estradiol
UGT1A1 without BSA assay	has substrate	some	estradiol
UGT1A4 with BSA assay	has substrate	some	trifluoperazine
UGT1A4 without BSA assay	has substrate	some	trifluoperazine
UGT1A9 with BSA assay	has substrate	some	propofol
UGT1A9 without BSA assay	has substrate	some	propofol
UGT2B15 with BSA assay	has substrate	some	oxazepam
UGT2B15 without BSA assay	has substrate	some	oxazepam
UGT2B7 with BSA assay	has substrate	some	zidovudine
UGT2B7 without BSA assay	has substrate	some	zidovudine
uptake transporter inhibition assay	has substrate	some	rosuvastatin
uptake transporter inhibition assay	has substrate	some	estropipate
uptake transporter inhibition assay	has substrate	some	metformin
CYP chemical inhibition	has substrate	some	tienilic acid
CYP chemical inhibition	has substrate	some	esomeprazole
CYP chemical inhibition	has substrate	some	paroxetine
BCRP inhibition assay	has_organism	some	Homo sapiens
BCRP substrate assay	has_organism	some	Homo sapiens
BCRP substrate assay	has_organism	some	Canis lupus familiaris
blood to plasma ratio assay	has_organism	some	Homo sapiens
blood to plasma ratio assay	has_organism	some	Rattus norvegicus
blood to plasma ratio assay	has_organism	some	Mus musculus
blood to plasma ratio assay	has_organism	some	Canis lupus familiaris
BSEP inhibition assay	has_organism	some	Homo sapiens
CYP chemical inhibition assay	has_organism	only	Homo sapiens
CYP induction assay	has_organism	only	Homo sapiens

CVD to bill the conservation	t	1	11
CYP inhibition assay	has_organism	only	Homo sapiens
CYP metabolite formation kinetics assay	has_organism	only	Homo sapiens
CYP reaction phenotyping assay	has_organism	only	Homo sapiens
CYP time dependent inhibition IC50 assay	has_organism	only	Homo sapiens
CYP time dependent inhibition Ki/kinact assay	has_organism	only	Homo sapiens
CYP time-dependent inhibition assay	has_organism	only	Homo sapiens
CYP1A2 induction assay	has_organism	only	Homo sapiens
CYP1A2 inhibition assay	has_organism	only	Homo sapiens
CYP2B6 induction assay	has_organism	only	Homo sapiens
CYP2B6 inhibition assay	has_organism	only	Homo sapiens
CYP2C19 induction assay	has_organism	only	Homo sapiens
CYP2C19 inhibition assay	has_organism	only	Homo sapiens
CYP2C8 induction assay	has_organism	only	Homo sapiens
CYP2C8 inhibition assay	has_organism	only	Homo sapiens
CYP2C9 induction assay	has_organism	only	Homo sapiens
CYP2C9 inhibition assay	has_organism	only	Homo sapiens
CYP3A4 induction assay	has_organism	only	Homo sapiens
CYP3A4 inhibition assay	has_organism	only	Homo sapiens
cytosol stability assay	has_organism	some	Homo sapiens
definitive CYP IC50 assay	has_organism	only	Homo sapiens
hepatocyte relay with inhibitors	has_organism	some	Homo sapiens
hepatocyte stability assay	has_organism	some	Homo sapiens
MAO reaction phenotyping	has_organism	some	Homo sapiens
MATE1 inhibition assay	has_organism	only	Homo sapiens
MATE1 substrate assay	has_organism	only	Homo sapiens
MATE2 inhibition assay	has_organism	only	Homo sapiens
MATE2 substrate assay	has_organism	only	Homo sapiens
microsomal binding assay	has_organism	some	Homo sapiens
microsomal stability assay	has_organism	some	Homo sapiens
monoamine oxidase inhibition	has_organism	some	Homo sapiens
MRP2 inhibition assay	has_organism	some	Homo sapiens
OAT1 inhibition assay	has_organism	only	Homo sapiens
OAT1 substrate assay	has_organism	only	Homo sapiens
OAT2 inhibition assay	has_organism	only	Homo sapiens
OAT2 substrate assay	has_organism	only	Homo sapiens
OAT3 inhibition assay	has_organism	only	Homo sapiens
OAT3 substrate assay	has_organism	only	Homo sapiens
OATP1B1 inhibition assay	has_organism	only	Homo sapiens
OATP1B1 substrate assay	has_organism	only	Homo sapiens
OATP1B3 inhibition assay	has_organism	only	Homo sapiens
OATP1B3 substrate assay	has_organism	only	Homo sapiens
OATP2B1 substrate assay	has_organism	only	Homo sapiens
OCT1 inhibition assay	has_organism	only	Homo sapiens
,	_ 5	,	- 1

OCT1 substrate assay	has_organism	only	Homo sapiens
OCT2 inhibition assay	has_organism	only	Homo sapiens
OCT2 substrate assay	has_organism	only	Homo sapiens
P-gp inhibition assay	has_organism	only	Homo sapiens
P-gp substrate assay	has_organism	only	Homo sapiens
P-gp substrate assay	has_organism	only	Canis lupus familiaris
plasma protein binding assay	has_organism	some	Homo sapiens
plasma protein binding assay	has_organism	some	Rattus norvegicus
plasma protein binding assay	has_organism	some	Canis lupus familiaris
plasma protein binding assay	has_organism	some	Mus musculus
plasma stability assay	has_organism	some	Homo sapiens
plasma stability assay	has_organism	some	Rattus norvegicus
plasma stability assay	has_organism	some	Canis lupus familiaris
plasma stability assay	has_organism	some	Mus musculus
recombinant CYP reaction phenotyping	has_organism	only	Homo sapiens
recombinant UGT reaction phenotyping	has_organism	only	Homo sapiens
S9 stability assay	has_organism	only	Homo sapiens
tissue binding assay	has_organism	some	Rattus norvegicus
tissue binding assay	has_organism	some	Mus musculus
tissue binding assay	has_organism	some	Homo sapiens
transporter inhibition assay	has_organism	some	Homo sapiens
transporter substrate assay	has_organism	some	Homo sapiens
transporter substrate assay	has_organism	some	Canis lupus familiaris
UGT inhibition assay	has_organism	only	Homo sapiens
UGT1A1 with BSA assay	has_organism	only	Homo sapiens
UGT1A1 without BSA assay	has_organism	only	Homo sapiens
UGT1A4 with BSA assay	has_organism	only	Homo sapiens
UGT1A4 without BSA assay	has_organism	only	Homo sapiens
UGT1A6 with BSA assay	has_organism	only	Homo sapiens
UGT1A6 without BSA assay	has_organism	only	Homo sapiens
UGT1A9 with BSA assay	has_organism	only	Homo sapiens
UGT1A9 without BSA assay	has_organism	only	Homo sapiens
UGT2B15 with BSA assay	has_organism	only	Homo sapiens
UGT2B15 without BSA assay	has_organism	only	Homo sapiens
UGT2B7 with BSA assay	has_organism	only	Homo sapiens
UGT2B7 without BSA assay	has_organism	only	Homo sapiens

Github

https://github.com/BioAssayOntology/BAO/issues/112 https://github.com/BioAssayOntology/BAO/issues/113

Public Location:

http://www.bioassayontology.org/bao

License/Disclaimer

This document as well as the Reference and OWL ontology document are released under the <u>Creative Commons Attribution 4.0 International Public License</u> ("Public License").