

Probabilistic Approach to Generating MPOs and Its Application as a Scoring Function for CNS Drugs

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The term brain penetrant drugs refers to drugs that interact with the targets that are expressed in the central nervous system or in the brain or have been shown to partition into the brain or central nervous system in the literature. The list of drugs used in this manuscript was compiled by starting with the FDA approved drug molecules that have molecular weights less than 850 and TPSA values less than 200. In addition, all prodrugs were removed from the dataset and the remainder of the FDA approved drugs was clustered to remove very similar drug molecules from the dataset. In this stage, only the cluster centers were selected from each drug cluster. This allowed the dataset to be diverse and representative of the drug space (for example by removing all structurally similar but one antibiotic from the dataset.) After this stage, a literature search on all of the drug molecules that are not approved for a CNS indication was conducted to see if there is any literature precedence for CNS exposure. This resulted in a dataset of 299 brain penetrant drugs and 366 drugs that haven't been reported to get into the brain or CNS.

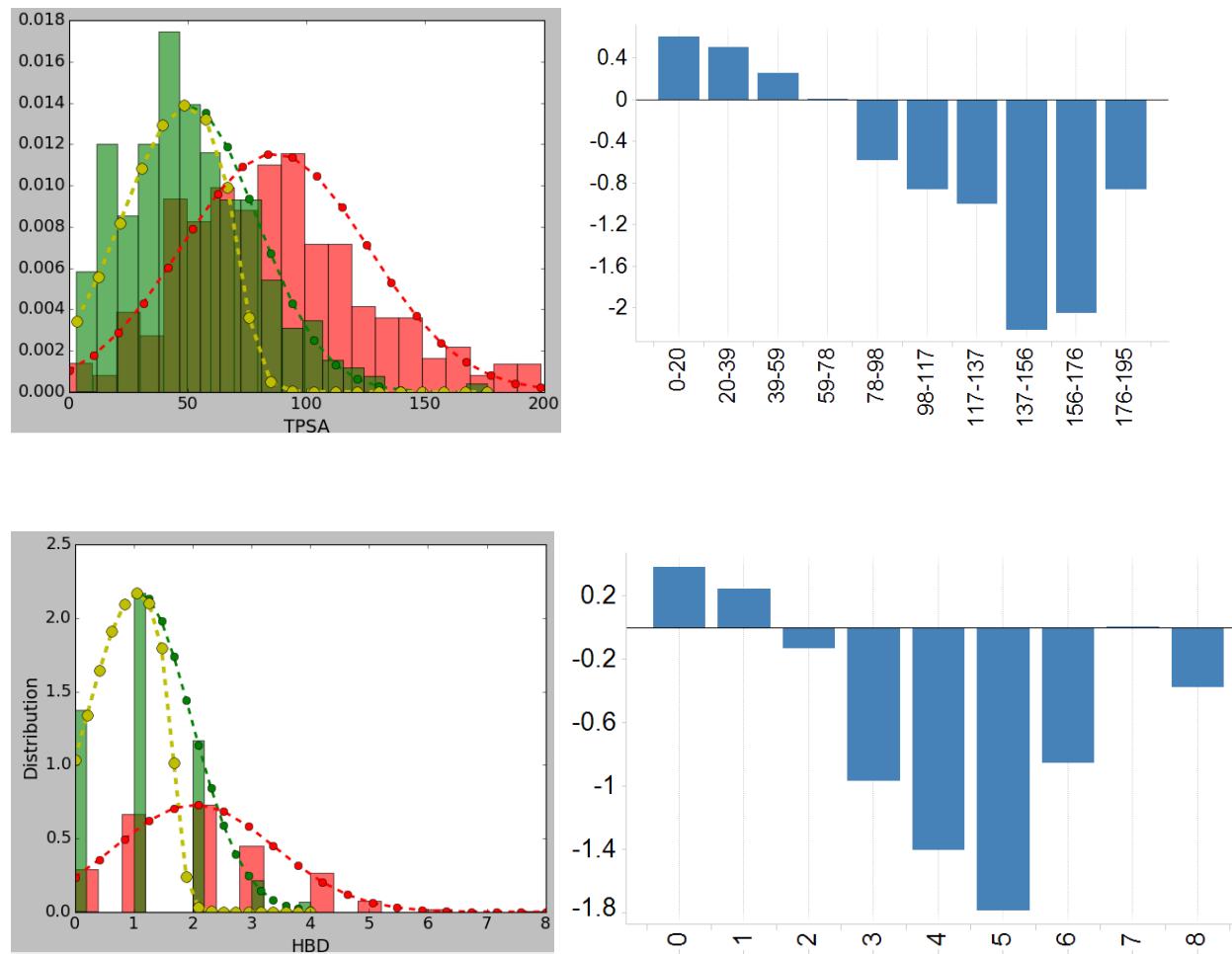
The Bayesian model that was used to compare the accuracy of the results obtained from pMPO algorithm relative to more elaborate models is a two-class Bayesian categorization model based on molecular descriptors as implemented in pipeline pilot program by Biovia.

500 diverse molecules with PGP data was selected by querying Merck database for molecules with measured PGP data. Compound with passive permeabilities less than 10 nm/s and efflux ratio ≥ 3 in the parental cell lines were removed from this list. After that, 500 diverse molecules were selected by using the pipeline pilot component for selecting diverse molecules by using properties FCFP_6, Molecular Weight, number of hydrogen bond donors and TPSA. This selection was biased towards picking molecules that had had equal distribution of molecules with effective PGP ratios ≤ 2 (175 molecules), between 2 and 10 (166 molecules) and greater than 10 (159 molecules).

Table S1: Descriptors and the parameters used for equation 2 and probability distributions for the desirability function in pMPO.

Descriptor	\bar{x}_d	σ_d	\bar{x}_{nd}	σ_{nd}	x	b	c
TPSA	51	28	87	39	66	0.152	0.794
HBD	1	1	2	1.4	1.5	0.094	9.52E-5
MW	305	94	399	136	328	0.032	0.913
cLogD_ACD_v15	1.8	1.9	0.8	2.8	1.4	0.021	1.32E+5
bmpKa	8.1	2.2	7.2	2.7	7.7	1.73E-2	1.46E+6

Figure S2: comparison between pMPO desirability functions and Bayesian probabilities for all 5 descriptors.



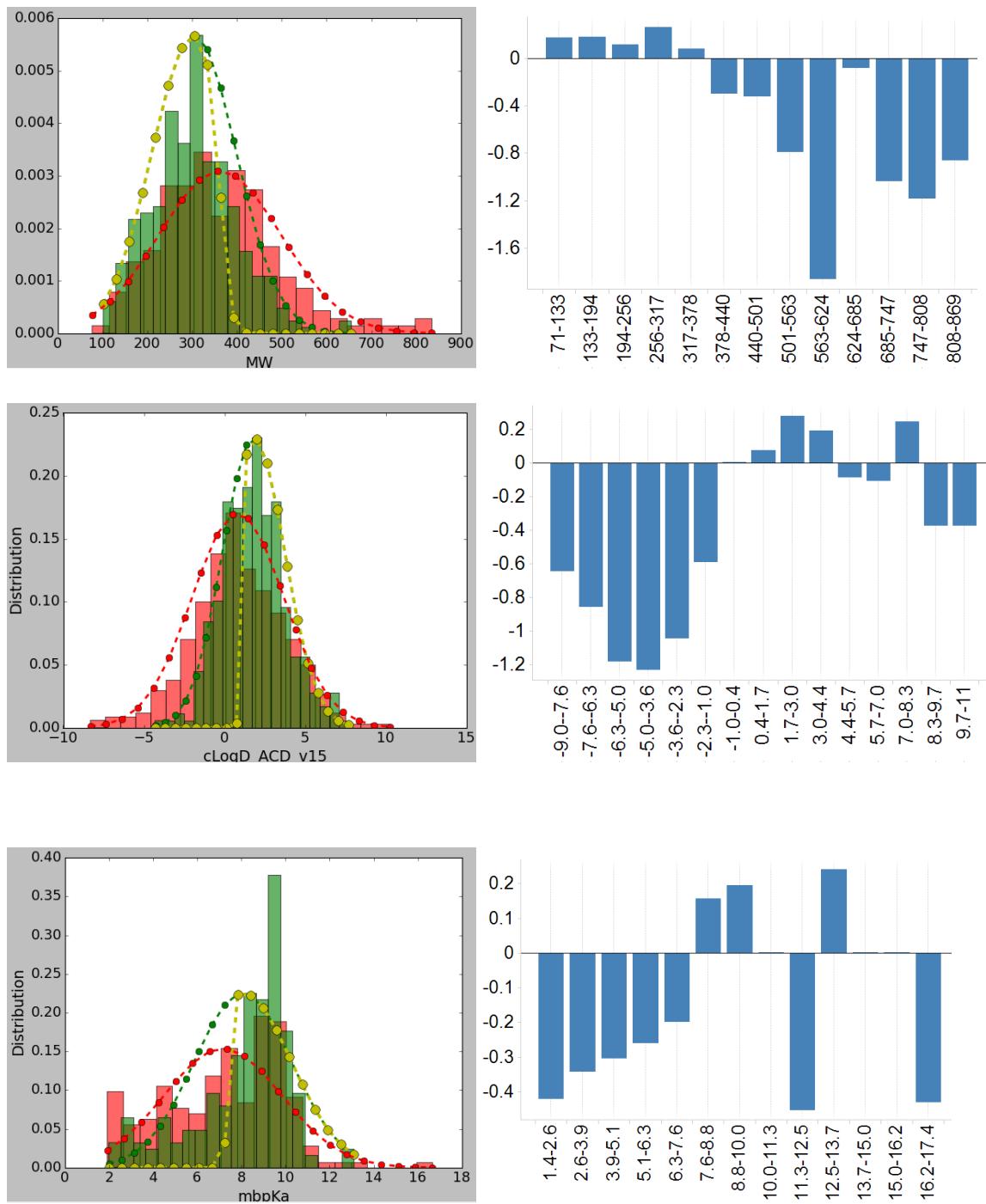


Figure S3: Comparison of the CNS MPO (along x-axis) and pMPO_{CNS} scores (along y-axis) for 500 molecules with measured efflux ratios.

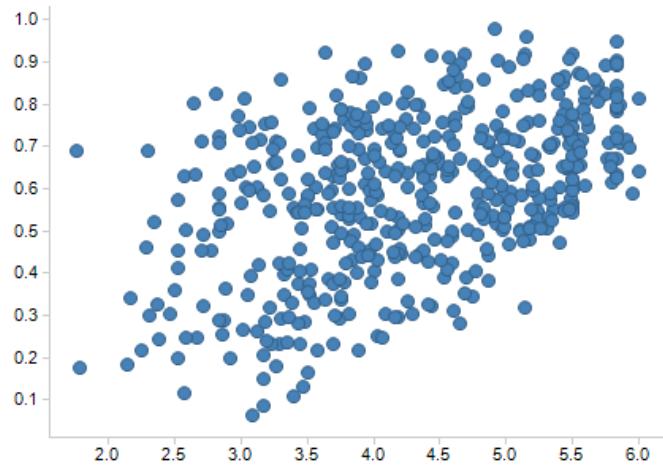


Figure S4: $pMPO_{CNS}$ against rPgp effective efflux ratio on the left and CNS MPO against rPgp effective efflux ratio on the right.

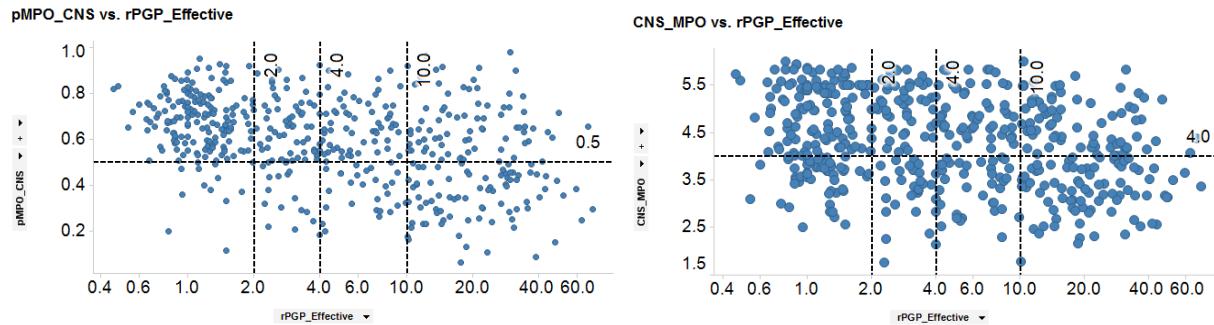
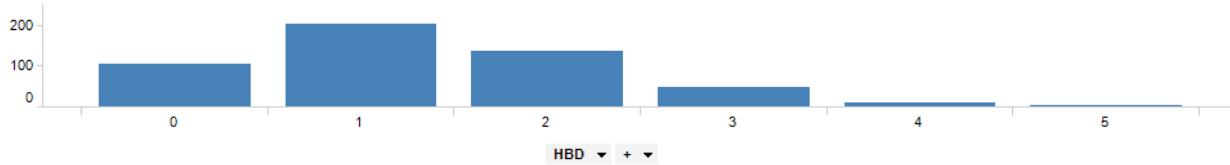
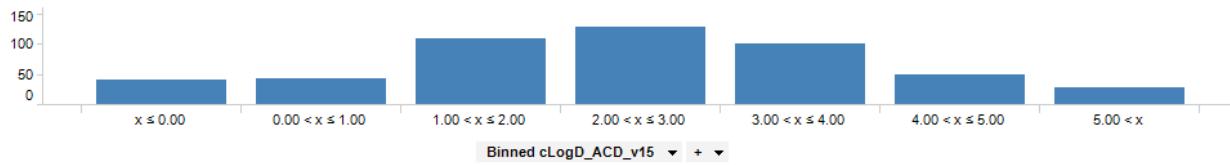


Figure S5: Property distributions for the 500 molecules with measured efflux ratios.



Chart



Chart



Chart



Python script for plotting distributions of CNS and non-CNS drugs:

```
#!/usr/bin/env python

import random
import sys
import matplotlib.pyplot as plt
import numpy
import scipy
from scipy.stats import norm

rn_cutoff = 1.0
q_cutoff = 0.05

def fitfn(x, p0, p1, p2):
    return p0*numpy.exp(-(x-p1)**2/(2.*p2**2))

def sigfn(x, x0, b, c):
    return 1.0/(1.0+b*numpy.power(c,-1.0*(x-x0)))

def findhistmax(x, y, meanvalue):
    n = -1
    for i in range(len(x)):
        n += 1
        if x[i] > meanvalue: break
    return max([y[n], y[n-1], y[n+1]])

def find_cutoff(desired, notdesired):
    '''pass the arrays in the form of [mean, std] for the desired and notdesired groups
       return an array in this form of [cutoff_intercept, cutoff_pref, cutoff_notpref, std_pref, std_notpref]'''
    if desired[0] < notdesired[0]:
        cutoff = ((notdesired[0]-desired[0])/(desired[1]+notdesired[1]))*desired[1]+desired[0]
        cutoff_pref = max(desired[0], notdesired[0]-notdesired[1])
        cutoff_notpref = max(desired[0]+desired[1], notdesired[0])
        std_pref = desired[1]
        std_not = notdesired[1]
    else:
        cutoff = ((desired[0]-notdesired[0])/(desired[1]+notdesired[1]))*notdesired[1]+notdesired[0]
        cutoff_pref = min(notdesired[0]+notdesired[1], desired[0])
        cutoff_notpref = max(notdesired[0], desired[0]-desired[1])
        return [cutoff, cutoff_pref, cutoff_notpref, desired[1], notdesired[1]]

def sigmoidal_fn(boundaries):
    """
    f(x) = 1 / (1 + e^(-b(x - c)))
    when c > 1, it starts from 0 and goes up to 1
    when 0 < c < 1, it starts from 1 and goes down to 0
    """
    f(x) = 1 / (1 + e^(-b(x - c)))
```

```

inflection point is 1/(1+b)
slope is related to the magnitude of c'''
global q_cutoff
if boundaries[1] < boundaries[2]:
    inf_point_y = fitfn(boundaries[0], 1.0, boundaries[1], boundaries[3])
    b = 1./inf_point_y - 1.0
    n = 1.0/q_cutoff - 1.0
    c = numpy.power(10.0, ((numpy.log10(n/b))/(-1.0*(boundaries[2]-boundaries[0]))))
elif boundaries[1] > boundaries[2]:
    inf_point_y = fitfn(boundaries[0], 1.0, boundaries[1], boundaries[3])
    b = 1./inf_point_y - 1.0
    n = 1.0/q_cutoff - 1.0
    c = numpy.power(10.0, ((numpy.log10(n/b))/(-1.0*(boundaries[2]-boundaries[0]))))
return [b, c]

fin = open('drugs_props.txt','r')
line = fin.readline()
line = line.replace('\n','')
header = line.split('\t')

n_column = [y for y, x in enumerate(header) if (x == 'MW')][0]
n_column = [y for y, x in enumerate(header) if (x == 'TPSA')][0]
#n_column = [y for y, x in enumerate(header) if (x == 'TPSA_S')][0]
#h_column = [y for y, x in enumerate(header) if (x == 'cLogP_ACD_V15')][0]
#n_column = [y for y, x in enumerate(header) if (x == 'cLogP_ACD_V15')][0]
#n_column = [y for y, x in enumerate(header) if (x == 'mbpka')][0]
#n_column = [y for y, x in enumerate(header) if (x == 'mapka')][0]
#n_column = [y for y, x in enumerate(header) if (x == 'HBA')][0]
#n_column = [y for y, x in enumerate(header) if (x == 'HBD')][0]
#n_column = [y for y, x in enumerate(header) if (x == 'cLogP_Biobbyte')][0]
#n_column = [y for y, x in enumerate(header) if (x == 'ALogP98')][0]
#n_column = [y for y, x in enumerate(header) if (x == 'nAtoms')][0]
#n_column = [y for y, x in enumerate(header) if (x == 'nArom')][0]
#n_column = [y for y, x in enumerate(header) if (x == 'fsp3')][0]

cns = []
notcns = []

while 1:
    line = fin.readline()
    if not line: break
    line = line.replace('\n','')
    line = line.split('\t')
    if line[1] == 'TRUE' and int(line[[y for y, x in enumerate(header) if (x == 'nAtoms')][0]]) > 5:
        try:
            if random.random() <= rn_cutoff:
                cns.append(float(line[n_column]))
        except:
            pass
    elif line[1] == 'FALSE' and int(line[[y for y, x in enumerate(header) if (x == 'nAtoms')][0]]) > 5:
        try:
            if random.random() <= rn_cutoff:
                notcns.append(float(line[n_column]))
        except:
            pass

print 'stats for descriptor: %s' % (header[n_column])
print 'p-value: %.2e (%.4f)' % (scipy.stats.ttest_ind(cns, notcns, equal_var=False)[1], scipy.stats.ttest_ind(cns, notcns, equal_var=False)[1])
print '%s:\%.3f +/- %.3f' % ('for CNS drugs', numpy.mean(cns), numpy.std(cns))
print '%s:\%.3f +/- %.3f' % ('for non-CNS drugs', numpy.mean(notcns), numpy.std(notcns))

print ''
print 'len(cns) :', len(cns)
print 'len(notcns):', len(notcns)
print ''

cutoffs = find_cutoff([numpy.mean(cns), numpy.std(cns)], [numpy.mean(notcns), numpy.std(notcns)])
print 'cutoff: %.3f t<x_d: %.3f t<x_und: %.3f \tstd_d: %.3f \tstd_und: %.3f' % (cutoffs[0], cutoffs[1], cutoffs[2], cutoffs[3], cutoffs[4])
sig_fn_coeff = sigmoidal_fn(cutoffs)
print 'b: %.2e tc: %.2e' % (sig_fn_coeff[0], sig_fn_coeff[1])

a, b, c = plt.hist(notcns, color='r', alpha=0.6, bins=20, normed=True)
x, p = plt.hist(cns, color='g', alpha=0.6, bins=20, normed=True)
x = numpy.linspace(min(x), max(x), len(y))
b = numpy.linspace(min(b), max(b), len(a))

pdf = fitfn(x, findhistmax(x, y, numpy.mean(cns)), numpy.mean(cns), numpy.std(cns))
plt.plot(x, pdf, 'k', linewidth=2.5, color='g', linestyle='--', marker='o', markersize=8)
pdf3 = []
for i in range(len(pdf)):
    pdf3.append(pdf[i]*sigfn(x[i], cutoffs[0], sig_fn_coeff[0], sig_fn_coeff[1]))
plt.plot(x, pdf3, 'k', linewidth=3.5, color='y', linestyle='--', marker='o', markersize=10)

pdf2 = fitfn(b, findhistmax(b, a, numpy.mean(notcns)), numpy.mean(notcns), numpy.std(notcns))
plt.plot(b, pdf2, 'k', linewidth=2.5, color='r', linestyle='--', marker='o', markersize=8)

plt.xlabel(header[n_column], size='x-large')
plt.ylabel('distribution', size='x-large')
plt.tick_params(axis='both', which='major', labelsize=16)

plt.show()

```

Python script for plotting determining uncorrelated descriptors for pMPO generation:

```

#!/usr/bin/env python

import random
import sys
import numpy
import scipy
from scipy.stats import norm
from operator import itemgetter, attrgetter

rn_cutoff = 1.0
q_cutoff = 0.05
r2_cutoff = 0.53
pval_cutoff = 0.01

```

```

def fitfn(x, p0, p1, p2):
    return p0+numpy.exp(-(x-p1)**2/(2.*p2**2))

def sigfn(x, x0, b, c):
    return 1.0/(1.0+b*numpy.power(c,-1.0*(x-x0)))

def findhistmax(x, y, meanvalue):
    n = -1
    for i in range(len(x)):
        n += 1
        if x[i] > meanvalue: break
    return max([y[n], y[n-1], y[n+1]])

def find_cutoff(desired, notdesired):
    '''pass the arrays in the form of [mean, std] for the desired and notdesired groups
    return an array in this form of [cutoff_intercept, cutoff_pref, cutoff_notpref, std_pref, std_notpref]'''
    if desired[0] < notdesired[0]:
        cutoff = ((notdesired[0]-desired[0])/(desired[1]+notdesired[1]))*desired[1]+desired[0]
        cutoff_pref = max(desired[0], notdesired[0]-notdesired[1])
        cutoff_notpref = max(desired[0]+desired[1], notdesired[0])
        std_pref = desired[1]
        std_not = notdesired[1]
    else:
        cutoff = ((desired[0]-notdesired[0])/(desired[1]+notdesired[1]))*notdesired[1]+notdesired[0]
        cutoff_pref = min(notdesired[0]+notdesired[1], desired[0])
        cutoff_notpref = max(notdesired[0], desired[0]-desired[1])
    return [cutoff, cutoff_pref, cutoff_notpref, desired[1], notdesired[1]]

def sigmoidal_fn(boundaries):
    '''f(x) = 1 / (1 + b * c^( -1 * (x - <x>) ) )
    when c > 1, it starts from 0 and goes up to 1
    when 0 < c < 1, it starts from 1 and goes down to 0
    inflection point is 1/(1+b)
    slope is related to the magnitude of c'''
    global q_cutoff
    if boundaries[1] < boundaries[2]:
        inf_point_y = fitfn(boundaries[0], 1.0, boundaries[1], boundaries[3])
        b = 1./inf_point_y - 1.0
        n = 1.0/q_cutoff - 1.0
        c = numpy.power(10.0, ((numpy.log10(n/b))/(-1.0*(boundaries[2]-boundaries[0]))))
    elif boundaries[1] > boundaries[2]:
        inf_point_y = fitfn(boundaries[0], 1.0, boundaries[1], boundaries[3])
        b = 1./inf_point_y - 1.0
        n = 1.0/q_cutoff - 1.0
        c = numpy.power(10.0, ((numpy.log10(n/b))/(-1.0*(boundaries[2]-boundaries[0]))))
    return [b, c]

def findr2(x, y):
    correlation = numpy.corrcoef(x, y)[0,1]
    return correlation**2

fin = open('drugs_props.txt','r')
line = fin.readline()
line = line.replace('\n','')
header = line.split('\t')

desired = []
notdesired = []
cluster = []

while 1:
    line = fin.readline()
    if not line: break
    line = line.replace('\n','')
    line = line.split('\t')
    cluster_num = int(line[1] for y, x in enumerate(header) if (x == 'cluster')[0])
    if cluster_num not in cluster:
#       cluster.append(cluster_num)
        if line[1] == 'TRUE':
            if random.random() <= rn_cutoff:
                desired.append(line[2:16])
        elif line[1] == 'FALSE':
            if random.random() <= rn_cutoff:
                notdesired.append(line[2:16])
    else:
        pass

descs = header[2:16]
statistics = []

for i in range(len(descs)):
    cns = []
    notcns = []
    for j in range(len(desired)):
        try:
            cns.append(float(desired[j][i]))
        except:
            pass
    for j in range(len(notdesired)):
        try:
            notcns.append(float(notdesired[j][i]))
        except:
            pass
    pval = scipy.stats.ttest_ind(cns, notcns, equal_var=False)[1]
    statistics.append([descs[i], pval, numpy.mean(cns), numpy.std(cns), numpy.mean(notcns), numpy.std(notcns), len(cns), len(notcns)])

statistics = sorted(statistics, key=itemgetter(1))

corr_matrix = [[0 for xx in range(len(statistics))] for xx in range(len(statistics))]
for m in range(len(statistics)):
    for n in range(len(statistics)-1-m):
        n1 = [y for y, x in enumerate(descs) if (x == statistics[m][0])][0]
        n2 = [y for y, x in enumerate(descs) if (x == statistics[m+n+1][0])][0]
        des1 = []
        des2 = []
        for i in range(len(desired)):
            if desired[i][n1] != '' and desired[i][n2]:
                des1.append(float(desired[i][n1]))
                des2.append(float(desired[i][n2]))
        corr_matrix[m][n] = scipy.stats.pearsonr(des1, des2)[0]
```

FDA approved drugs used as a training set for the pMPO_{CNS}:

Drug	CNS	TPSA	TPSA_S	HBA	HBD	MW	nAtoms	cLogD_ACD_v15	mapka	cLogP_BioByte	
	mbpKa	cLogP_ACD_v15		ALogP98	fsp3	nArom	Smiles				
Abacavir	FALSE	101.88 0.63	101.88 0.5	6 2	3	286.33232	21	0.72	0.81	6.53 0.72	
Acetohexamide	FALSE	92.34 2.44	100.72 2.119	n3clc[ncn1[CH]2/C=C\[[CH@H](CO)C2)c([nc3N)NC4CC4 1 O=C(NC1CCCC1)NS(=O)(=O)c2ccc(C(=O)c)cc2	4 1	2 4	324.39529 806.97574	22 57	0.46 3.1	4.3 3.46	2.25
Acetyldigitoxin	FALSE	188.9 3.1	188.9 0.91	14 0	4	806.97574	57	3.1			
Acrivastine	FALSE	53.43 4.601	53.43 0.27	4 2	1	348.43816	26	2.03	1.46	8.88 4.55	
Acyclovir	FALSE	114.76 -1.423	114.76 0.38	7 1	3	225.20464	16	-1.76	-2.6	3.15 -1.76	
Adefovir	FALSE	146.19 -1.289	146.19 0.38	8 2	3	273.18574	18	-5.96	2.1	-1.87 4.32	
Albuterol	FALSE	72.72 0.941	72.72 0.54	4 1	4	239.31073	17	-2.12	0.06	0.01	
Alendronate	FALSE	180.92 -1.203	180.92 1	8 0	6	249.09604	14	-7.91	1.42	-5.64 10.31	
Alfuzosin	FALSE	111.83 1.418	111.83 0.53	8 2	2	389.44877	28	-1.91	2.55	8.6 -1	
Aliskiren	FALSE	146.13 3.327	146.13 0.73	7 1	4	551.75831	39	0.07	3.51	9.78 2.74	
Allopurinol	FALSE	74.69 5.10E-02	74.69 0	4 2	2	136.11146	10	-4.29	1.12	0.63 10.06	
Alogliptin	FALSE	93.66 1.795	93.66 0.39	5 1	1	339.39163	25	-0.48	1.54	9.89 1.84	
Alosetron	FALSE	53.92 1.654	53.92 0.29	2 3	1	294.35101	22	0.72	1.74	7 0.88	
Altretamine	FALSE	48.39 1.995	48.39 0.67	6 1	0	210.27941	15	2.32	1.67	6.07 2.42	
Alvimopan	FALSE	89.87 3.545	89.87 0.44	5 2	3	424.53257	31	0.74 -2.85	3.43 0.18	2.16 -2.85	
Ambenonium	FALSE	58.2 2.186	58.2 0.5	2 2	2	537.56467	36				

Ivacator	FALSE	78.43	78.43	4	3	392.49071	29	6.34	3.82	6.34		
Ketoconazole	FALSE	45.16	0.33	2	69.06	6	531.43092	36	3.43	4.14		
Ketorolac	FALSE	3.55	3.61	0.38	3	0=C(N5CCN(c4CC[O]C[C@H]1O[C@H](O1)C2=CC(c1)C)c3ccn3)cc4)CC5)C				6.88		
Labetalol	FALSE	2.832	59.53	59.3	3	1	255.26862	19	-0.94	4.29		
Lactulose	FALSE	2.355	2.355	0.2	2	0=C(c1cccc2n1CC2C(=O)=O)c3ccccc3			1.62	2.08		
Lapatinib	FALSE	-4.311	189.52	189.52	2	0=C(C1ccccc1O)C(C)CC2cccc2)N				-3.21		
Lenvatinib	FALSE	6.041	106.35	114.73	1	11	342.29647	23	-3.21	-3.59		
Levofloxacin	FALSE	2.832	0.19	0.19	5	7	581.05754	40	5.1	5.96		
Lisinopril	FALSE	0.84	132.96	132.96	3	CS(=O)=O)CCN1ccccc1(o1)C2=CC(c2)C(c3)Nc4cccc(c4C1)OCC5cccc(c5)F			6.61	5.14		
Lomitapide	FALSE	1.51	1.661	0.44	4	5	426.85295	30	3.39	3.35		
Linagliptin	FALSE	3.243	113.47	113.47	1	3	C4CC4NC(=O)NC3ccc(c3C1)O1ccccc2)C1cc2C(=O)N			4.69	3.39	
Linezolid	FALSE	0.894	71.11	71.11	1	73.32	7	361.3675	26	-1.41	5.19	
Lopinavir	FALSE	4.926	120	120	1	1	C[C@H]1co2c3n1cc(c=O)=C2[cc4NCC(F)C)F)C(=O)O			0	7.37	
Loracabef	FALSE	4.00E-03	112.73	112.73	1	7	472.54222	35	-0.34	2.46	10.01	
Lubiprostone	FALSE	2.85	61.44	61.44	4	3	CC#CCN1C2=C[N=C1N3CCC([C@H](C3)N(C(=O)N(C2=O)CC4=NC5=CC=CC=C5(=N4)C)C			1.99		
Macitentan	FALSE	3.671	43.78	43.78	3	5	1	337.3461	24	0.29	0.67	5.75
Mepenzolate	FALSE	1.888	4.635	4.635	0	0=C10[C@H](CNC(=O)C)CN1c3CC(F)(C)N2CCOC2)C3			0.3			
Medroxyprogesterone acetate	FALSE	4.11	3.755	0.79	0	7	405.48793	29	-1.82	-1.82	10.5	
Mefenamic acid	FALSE	5.33	49.33	0.13	1	1	2N(C(=O)[C@H]2N(C(=O))[C@@H](N(C(=O)O)C)CC1cccc1)CCCC)CCC2			1.19		
Meloxicam	FALSE	99.59	136.22	0.14	2	3	3	693.72039	50	6.21	8.56	
Melphalan	FALSE	0.585	66.55	66.55	2	7	472.54222	35	-0.34	7.78		
Mepenzolate	FALSE	2.366	46.53	0.46	3	3	477.07352	34	3.73	4.66		
Mercaptoperine	FALSE	1.19	46.53	0.26	3	5	628.80082	46	6.26	8.26		
Mercaptopurine	FALSE	-0.63	8.90E-02	8.90E-02	2	5	349.76894	24	-4.38	6.56	-1.14	
Mesalamine	FALSE	0.471	83.55	83.55	1	3	83.83	5	390.46188	27	0.25	3.83
Mesna	FALSE	-0.686	57.2	104.38	0	0	FC(F)(CCCC)C[C@]2(O)O[C@H]1CC(O)[C@H]([C@H]1CC2)CCCCC(=O)O			5.41		
Metaproterenol	FALSE	0.13	72.72	72.72	0	0	8	588.2729	32	3.48	4.3	
Metaxalone	FALSE	2.468	47.56	47.56	1	0	Brc1ccc(cc1)C3c(ncnc3Cc0c2nc(CC(Br)C)N)S(=O)(=O)NCCC			6.26		
Methanetheline	FALSE	-1.26	35.53	0.38	2	0	60.44	40	386.52436	28	4.11	4.2
Methazolamide	FALSE	0.13	2.426	2.426	0	0	0	349.76894	24	-4.38	6.56	
Methenamine	FALSE	3.00E-02	12.96	12.96	0	0	0	477.07352	34	-0.47	-1.14	
Methimazole	FALSE	8.50E-02	1	0	0	0	0	241.28509	18	2.37	3.73	
Methscopolamine	FALSE	-0.305	1.099	0.45	1	0	49.33	3	152.17705	10	-0.64	-1.33
Methyltestosterone	FALSE	-2.29	47.56	47.56	2	0	85.16	4	152.17705	10	-0.64	8.89
Metolazone	FALSE	4.02	59.06	0.25	1	0	1	S=C2/N=C1ncncl2			2.42	
Metronidazole	FALSE	-0.01	3.678	0.61	0	0	4	153.13538	11	-2.66	2.29	
Metyrosine	FALSE	-0.337	105.19	105.19	0.5	0	4	305.20022	19	-0.71	2.12	
Midodrine	FALSE	0.13	3.678	0.4	1	0	4	141.18929	7	-4.7	1.5	
Miglitol	FALSE	1.19	104.39	104.39	0	0	4	140.18627	10	2.17	-1.55	
Miltefosine	FALSE	4.866	68.4	68.4	0	0	1	114.16884	7	-0.34	-0.34	
Minocycline	FALSE	9.70E-02	164.63	164.63	0	0	1	0	0	0	-0.34	
Minoxidil	FALSE	88.94	164.63	1	0	0	1	0	0	0	0.08	
Mirabegron	FALSE	5.20E-02	89.94	89.94	0	0	1	0	0	0	9.53	
Mitotane	FALSE	2.464	100.27	100.27	0	0	1	0	0	0	2.42	
Montelukast	FALSE	5.745	93.81	93.81	0	0	1	0	0	0	-0.34	
Moxifloxacin	FALSE	8.284	104.39	104.39	1	0	0	0	0	0	-0.34	
Mycophenolic acid	FALSE	1.6	2.003	0.52	1	0	0	0	0	0	-0.34	
Nabumetone	FALSE	2.92	93.06	93.06	0	0	0	0	0	0	-0.34	
Montelukast	FALSE	5.157	93.81	93.81	0	0	0	0	0	0	-0.34	
Nadolol	FALSE	0.146	81.95	81.95	1	0	0	0	0	0	-0.34	
Nalidixic acid	FALSE	1.146	80.42	80.42	0	0	0	0	0	0	-0.34	
Naproxen	FALSE	2.849	1.176	0.25	1	0	0	0	0	0	-0.34	
Nateglinide	FALSE	2.943	46.53	46.53	0.21	0	0	0	0	0	-0.34	
Niflornipril	FALSE	3.981	66.4	66.4	0.58	0	0	0	0	0	-0.34	
Nelfinavir	FALSE	101.9	3.981	0.58	1	0	0	0	0	0	-0.34	
Neostigmine	FALSE	5.285	127.19	127.19	0	0	0	0	0	0	-0.34	
Nevirapine	FALSE	0.511	50.19	50.19	0.27	0	0	0	0	0	-0.34	
Niacin	FALSE	3.595	50.19	50.19	0.309	0	0	0	0	0	-0.34	
Niclosamide	FALSE	95.15	50.19	50.19	0.309	0	0	0	0	0	-0.34	

Tolazamide	FALSE	78.5	86.89	4	2	311.39983	21	-0.13	5.03	1.34	3.26	1.71
Tolrestat	FALSE	2.483	0.5	1	0=S(=O)(c1ccc(cc1)C)NC(=O)NN2CCCCC2							
Torsemide	FALSE	3.458	49.77	81.86	4	1	357.34746	24	-0.25	3.49	3.43	3.41
Tranexamic acid	FALSE	2.133	0.25	2	CN(CC(=O)=O)C(=S)C1=CC=CC=C1=CC(=C2(F)F)OC							
Treprostinil	FALSE	0.32	100.19	108.57	5	3	348.41999	24	1.54	2.63	3.36	5.33
Triamterene	FALSE	4.4	0.725	63.32	63.32	0=S(=O)(c2c(Nc1cc(ccc1)cccn2)NC(=O)NC(C)c						
Trihexethylbenzamide	FALSE	1.278	0.725	0.88	0	NC[C@H]1CC[C@H](CC1)C(O)=O						
Trimethoprim	FALSE	1.85	4.435	86.99	86.99	O=C(O)COCl=C2C[C@H]3[C@H]C[C@H](O)[C@H](CC[C@H]1O)CCCCC[C@H]3[C@H]CC2=CC=C1						
Trimethoprim	FALSE	0.79	1.278	0.7	1	O=C(O)COCl=C2C[C@H]3[C@H]C[C@H](O)[C@H](CC[C@H]1O)CCCCC[C@H]3[C@H]CC2=CC=C1						
Trioxsalen	FALSE	3.281	1.543	129.62	129.62	C3=C(Cl)=C(N=2C(=N)C(=NC(=N)N)N)C=C=C3						
Troloandomycin	FALSE	3.36	0.21	0	3	253.26264	19	1.3	1.61	6.3	1.34	
Trospium	FALSE	2.349	20.23	20.23	1	318.51663	23	-1.81				
Trovafloxacin	FALSE	0.96	3.191	0.71	1	Oc(c1cccc1)(cc[N+](CC)CC)C2CCCC2						
Uracil mustard	FALSE	1.13	69.26	69.26	6	1	388.45741	28	0.6			
Valsartan	FALSE	4.448	2.213	105.51	2	O=C(c1cc(OC)(OC)c(OC)c1)NCC2cc(OC(=O)C)c2						
Vemurafenib	FALSE	5.087	0.284	112.07	112.07	105.51	7	2	290.31772	21	0.67	
Vismodegib	FALSE	4.813	0.284	184.19	184.19	O=C/30c2c1c(c1cc(c1cc2\c(\c3)C)C)						
Vorapaxar	FALSE	5.261	0.284	0	0	813.96838	57	2.79				
Zafirlukast	FALSE	1.926	115.73	124.11	3	392.51059	29	0.7	-1.16			
Zidovudine	FALSE	-0.163	6.299	100.3	2	OC(c1cccc1)(c2cccc2)C(=O)O[C@H]3[C@H]5CC[C@H](C3)[N+](C4)5CCCC4						
Zileuton	FALSE	1.926	0.29	0	91.92	99.76	7	2	416.3533	30	-1.11	
Abiraterone	TRUE	4.223	4.813	0	5.8	O=C(O)C2=CN(c1nc(c(F)c1)C2=O)N3[C@H]4[C@H](N)N[C@H]4C3)c5ccc(F)cc5F						
Acetaminophen	TRUE	1.615	0.5	0	0	O=C1C(\N(CC1)CC1)=C/NC(=O)N1						
Acetaminophen	TRUE	0.34	0.38	0	6	O=c(OC)[C@H](N(C(=O)CCC)Cc3ccc(cc1cc2nnnn)Cc3)C(C)c						
Acetazolamide	TRUE	-0.26	59.51	59.51	6	435.51876	32	0.01	3.53	4.86	4.74	
Acetophenazine	TRUE	3.22	0.36	0	1	397.35396	30	4.01				
Acitretin	TRUE	5.666	46.53	46.53	4	489.92212	33	3.19	4.17			
Afatinib	TRUE	3.917	88.61	88.61	4	421.29706	27	2.98	2.74	3.73	2.98	
Albendazole	TRUE	3.065	67	92.31	5	CS(=O)(=O)c1cc=C(c=C1)C(=O)NC2=CC(=C(C=C2)C1)C3=C=CC=N3)C1						
Almotriptan	TRUE	2.103	6.299	0	2	Fc1cccc(c1)C2cc(cnc2)\c([C@H]4[C@H]3[C@H]5CC[C@H](C3)[N+](C4)5C(=O)O[C@H]([C@H]45)C						
Alprazolam	TRUE	4.307	128.62	128.62	6	575.67522	41	4.28	4.01	7.09	6.15	
Alprenolol	TRUE	3.513	0	0	0=S(=O)(c1cccc1)NC(=O)c2ccc(c2)C=C3Cc3(ccc(C4)C)NC(=O)Oc5cccc5							
Amantadine	TRUE	2.639	26.02	26.02	2	267.24132	19	-0.53	0.04			
Aminoglutethimide	TRUE	1.495	1	0	0=C1NCC(C)=N1[C@H]2O[C@H](C)[C@H](C)N(=[N+]=[N-])C2=O							
Amitriptyline	TRUE	1.479	72.19	72.19	2	349.50904	26	5.7	5.17	5.31	5.7	
Amlodipine	TRUE	4.92	3.24	0	5	O[@H]2c/c1c/C[C@H]4[C@H]([C@@]1C)C2)CC[C@H]3[C@H](C(=C/C[C@H]34)\c5cccn5)C						
Anileridine	TRUE	1.634	55.56	55.56	1	O=C(Nc1ccc(cc1)C)C						
Aniracetam	TRUE	3.603	0.33	0	1	151.16256	11	0.34				
Apomorphine	TRUE	1.791	49.33	49.33	1	CC(NC1=CC=C(O)C1)=O						
Aprepitant	TRUE	3.116	43.7	43.7	1	O=S(=O)(c1nnc(s1)NC(=O)N						
Aripiprazole	TRUE	4.635	75.19	75.19	2	O=C(c2c1N(c3cc1c(Cc2C1)ccc2)Ccnc1cc3Cc4CcOc4Cc4)						
Armodafini	TRUE	5.59	43.7	44.81	2	335.46429	23	-0.02	1.79	9.48	1.89	
Atomoxetine	TRUE	1.733	43.7	79.37	3	O=C1NCC1=CC=C(O)C1						
Atropine	TRUE	3.577	21.26	21.26	1	O=S(=O)(N1cccc1)Cc3cc2(cnc2cc3)CCN4CCN(CCO)Cc4						
Axitinib	TRUE	1.721	49.77	49.77	2	308.76491	22	2.5	2.56	2.28	2.5	
Azataidine	TRUE	1.419	16.13	16.13	3	C1Cl=CC2=C(c=C1)N3Cc(=NN=C2Cc4=C=C=C4						
Baclofen	TRUE	1.419	63.31	63.31	4	249.34862	18	0.79	2.65	9.45	2.88	
Benzphetamine	TRUE	4.43	0.35	0	0=C1cccc1c1C(=C/C(=C2/(=O)CC)COCN1C)C							
Benztropine	TRUE	4.084	4.185	4.185	1	151.24868	11	-0.69	2	10.76	2.22	
Bepridil	TRUE	3.875	15.71	15.71	2	348.47791	26	5.63	4.08	8.19	8.55	
Bethanidine	TRUE	1.213	37.29	37.29	2	O=C(O)c1ccc(cc1)C						
Bexarotene	TRUE	6.405	0.38	0	0=C(C)Cc1ccc(cc1)C/C2Cc3Cc(C2)Cc3Cc(C)C							

Biperiden	TRUE	23.47	23.47	2	1	311.46106	23	2.17	4.94	9.58	4.01
3.648		0.62	1	0	0C(c1cccc1)(CCN2CCCC2)C4C3\c=C(C3)C4						
Bromazepam	TRUE	54.35	54.35	3	1	316.1527	19	1.65	1.7	2	1.65
2.327		0.07	2	0	Brc1=C2=C(C=c1)NC(CN=C2C3=CC=CC=N3)=O						
Bromocriptine	TRUE	118.21	118.21	6	3	654.5945	43	5.08	6.58	6.72	
5.15		4.363	0.59	2							
					Brc1=C(C=C@H)2N(CC)C)C4=C=C=C=C2=C[C@H]3C(N[C@H]5(C(C)C)O[C@H]6(N[C@H](CC(C)C)C(N7CC[C@H]76)=O)C5=O)O)=O)N1						
Bromodiphenhydramine	TRUE	12.47	12.47	2	0	334.2508	20	3.11	4.32	8.71	
4.43		4.133	0.29	2	Brc1ccc(cc1)C(OC(C)C)c2cccc2						
Brompheniramine	TRUE	16.13	16.13	2	0	319.23946	19	1.63	3.3	9.33	
3.56		3.78	0.31	2	Brc1ccc(cc1)(C(2cnc2)CCN(C(C)C)C)C3						
Buclizine	TRUE	6.48	6.48	2	0	433.02801	31	6.11	8.06	6.98	6.22
7.121		0.36	3	1	C1c1ccc(cc1)(C(2cccc2)N3CCN(CC3)Cc4ccc(cc4)C(C)C)C						
Budipine	TRUE	3.24	3.24	2	0	293.44577	22	1.91	5.58	9.92	4.64
4.691		0.43	2	1	c1(cccc1)C3(c2cccc2)CCN(C(C)C)C3						
Bumetanide	TRUE	118.72	127.1	6	3	364.4161	25	-0.19	3.18	3.37	4.48
2.862		0.24	2	0	=O=S(=O)(c2cc(C(NCCC)C2)c1cccc1)C(=O)O)N						
Buprenorphine	TRUE	62.16	62.16	5	2	467.64013	34	2.46	3.99	8.31	
3.44		3.923	0.79	1	0c7ccc5c1c7o[C@H]3[C@H]6([O])[C@H]([C@H]2[C@H]13[N(C[C@H]123)C4Cc4C4)C5)C6)[C@H](O)(C)C(C)C						
Bupropion	TRUE	29.1	29.1	2	1	239.74112	16	3.27	3.21	7.16	3.47
3.12		0.46	1	0	=O=C(C)NC(C(C)C)C1=CC=C(C1)=C1						
Buspirone	TRUE	69.64	69.64	6	0	385.50313	28	3.08	2.69	7.01	3.43
2.545		0.71	1	0	=O=C\N(CCCN2CCN(CC2)C3=NC=CN3)C(CC4(CCCC4)C1)=O						
Butabarbital	TRUE	75.27	75.27	3	2	212.24564	15	1.41	7.71	1.58	
1.52		1.841	0.7	0	=O=CNC(=O)NC(=O)C1(C(C)C)C						
Cabergoline	TRUE	71.67	71.67	4	2	451.60427	33	0.55	4.17	9.41	2.43
3.56		0.54	2	0	=C(NCC)N(C(=O)[C@H]2[C@H]3[C4cccc1c4(cn1)C[C@H]3(N2)C(\C=C)CCN(C)C						
Caffeine	TRUE	58.44	58.44	3	0	194.19059	14	-0.13	-0.04		-0.13
0.424		0.38	1	0	CN1C=NC2=C1C(=O)N(C(=O)N2)C						
Carbamazepine	TRUE	46.33	46.33	1	1	236.26858	18	2.67	2.38		
2.67		2.679	0	2	C1ccc2c(c1)C=c3cccc3N2(=O)N						
Carbinoxamine	TRUE	25.36	25.36	3	0	290.78786	20	1.5	2.67	8.65	
2.76		3.22	0.31	2	C1c1ccc(cc1)(OC(OC)C)c2cccc2						
Carisoprodol	TRUE	90.65	90.65	4	2	260.32996	18	2.15	2.34		
2.15		2.199	0.83	0	O=C(OCC(OCC(=O)COC)C(C)C)N						
4.014		0.25	4	5	406.47424	30	3.1	4.04	8.38	4.12	
Cevimeline	TRUE	12.47	37.77	3	0	199.31308	13	-0.84	1.14	9.51	1.23
1.035		1	0	01[C@H](SC[C@H]12cN3CCC2c3)C							
Chlophedianol	TRUE	23.47	23.47	2	1	289.7998	20	2.16	3.63	9.43	
3.81		3.559	0.29	2	C1c1cccc1c1(c2cccc2)CNC(C)C						
chloramphenicol	TRUE	115.38	115.38	5	3	323.12937	20	1.02	1.28		
1.02		1.025	0.36	1	C1cc(c1c1c1c1c1c1)C([C@H](CO)NC(=O)C(C1)C1)O[N+](=O)[O-]						
Chlordiazepoxide	TRUE	53.14	53.14	3	1	299.75486	21	2.16	3.79	2.38	
2.16		2.297	0.12	2	C1C1=CC2=C(N=C(NC)C[N+]([O-])=C2C3=CC=C-C3)C=C1						
Chlormezanone	TRUE	54.45	62.83	3	0	273.73587	17	0.86	1.57		
0.86		1.559	0.36	1	=O=S1(CCC(NC)C1C2=CC=C(C=C2)C1)=O						
chlorthprimidine	TRUE	26.02	31.78	1	1	183.67786	12	0.46	2.85	9.76	
2.75		2.503	0.4	1	C1c1ccc(cc1)C(C)C						
chlormpromazine	TRUE	6.48	31.78	3	0	318.86415	21	3.26	5.3	9.41	
5.2		4.739	0.29	2	NC(C)CCN1c2cccc2Sc3c1cc(Cc3)C1						
chlormprothixene	TRUE	3.24	28.54	2	0	315.86021	21	4.41	5.48	9.05	
6.05		5.124	0.22	2	C1c2cc1c(\c3c1cc2)cccc3)=C(CCN(C)C						
chlorzoxazone	TRUE	38.33	38.33	2	1	169.56515	11	2.15	1.87		
2.19		2.004	0	1	C1c2cc1c(OC(=O)N1)C2						
Cilostazol	TRUE	81.93	81.93	5	1	369.46067	27	3.05	3.53	2.19	3.05
3.579		0.6	2	0	=C4Nc3(cc(OC(OC)C1nnnn12CCCC2)C3)C4						
Cinacalcet	TRUE	12.03	12.03	1	1	357.41198	26	3.96	6.35	9.19	5.74
5.956		0.27	3	1	FC(F)F)c1ccc(c1)CCN[C@H]1c3c2cccc2c3)C						
Citalopram	TRUE	36.26	36.26	3	0	324.39194	24	0.39	3.13	9.57	2.51
3.721		0.35	2	0	FC1ccc(cc1)C3(OC(2cc(C#N)ccc2)CCN(C)C						
Clemastine	TRUE	12.47	12.47	2	0	343.89024	24	3.04	5.45	10.23	5.69
4.806		0.43	2	1	C1c1ccc(cc1)C([C@H]2N(C)CC2)C3cccc3)C						
Clidinium	TRUE	46.53	46.53	3	1	352.44674	26	0.83	-0.05	0.83	
1.795		0.41	2	0	=O=C(OC2C1CC[N+]1C1)C(C2)C(O)c3cccc4c4cccc4						
Clobazam	TRUE	40.62	40.62	2	0	300.73962	21	1.67	2.44	1.69	
2.738		0.12	2	1	C1C1=CC(N(C2=CC=CC=C2)C(CC(N3C)=O)=O)=C3=C1						
Clomipramine	TRUE	6.48	6.48	2	0	314.85232	22	3.41	5.92	9.46	
5.39		5.052	0.37	2	C1C1=CC(N(CCCN(C)C2=C(C(C)C)C=C2)=C3C=C1						
Clonazepam	TRUE	87.28	87.28	4	1	315.71119	22	2.34	2.38	2.34	
2.859		0.07	2	0	[O-][N+](C1=CC2=C(C=C1)NC(CN=C2C3=CC=C3C1)=O)=O						
Clozapine	TRUE	30.86	30.86	4	1	326.82326	23	1.96	3.71	7.14	2.36
3.422		0.28	2	0	CN1CCN(CC1)C2=NC3cc(c3c3N4cc4cccc4)C1						
Cycloserine	TRUE	64.34	64.34	3	2	102.09194	7	-1.85	-1.19	5.93	-1.84
-1.788		0.67	0	0=C1NOC[C@H]1N							
Danazol	TRUE	46.26	46.26	2	1	337.45527	25	4.7	3.93	4.7	
4.874		0.68	1	#C[C@H]5(CC)C[C@H]4[C@H]3[C@H]2/C=C(c1cccc1c2)CC3)CC[C@H]45C							
1.439		0	2	4	248.30088	17	0.94	0.89	0.94		
Dasatinib	TRUE	106.51	134.75	8	3	488.00553	33	1.84	3.03	6.59	2.25
3.769		0.36	3	2	Cc1cccc(c1NC(=O)c2nc(s2)Nc3cc(nc3)C)N4CCN(CC4)CCO)C1						
Desloratadine	FALSE	24.92	24.92	2	1	310.82056	22	4.11	3.83	10.27	
6.77		4.213	0.32	2	C1c4cc2c(c1cccc1c2)C3=CCN(C)C4						
Desvenlafaxine	TRUE	43.7	43.7	3	2	263.3752	19	0.52	2.68	9.33	
2.26		2.796	0.62	1	OC2CC(c1cccc1c1)CNC(C)C						
Dexmethylphenidate	TRUE	38.33	38.33	3	1	233.30615	17	0.47	2.56	9.51	
2.54		2.18	0.5	1	=O=C([C@H](C([C@H]1NCC1)C2=C(C=C2)C3=C(C=C=C)C4=C)C#N						
Dextromethorphan	TRUE	12.47	12.47	2	0	271.3972	20	2.39	3.94	9.13	
4.11		3.674	0.67	1	CN1CC[C@H]2c3cccc2c3[C@H]2c1cc4c3cc(cc4)OC						
Dicyclomine	TRUE	29.54	29.54	3	0	309.4867	22	4.23	6.14	9.24	6.05
5.105		0.95	0	0=C(OC(=O)CC)C1CCCC1C2CCCC2							
Diethylpropion	TRUE	20.31	20.31	2	0	205.29606	15	1.84	2.85	8.49	
2.95		2.757	0.46	1	=O=C(=C1cccc1c1)C(N(C)CC)C						
Difenoxin	TRUE	64.33	64.33	4	1	424.53412	32	2.53	3.55	2.13	9.17
5.114		0.29	3	1	C(CCN1CCC1)C(O)C2=C(C=C2)C3=C(C=C=C)C4=C(C=C=C)C#N						
Dihydrocodeine	TRUE	41.93	41.93	4	1	301.38011	22	0.26	1.26	8.43	
1.39		1.947	0.67	1	O[C@H]1[C@H]2c3cccc2c3[C@H]2c1cc4c3cc(cc4)OC						
Diltiazem	TRUE	59.08	84.38	6	0	414.51783	29	2.26	3.65	8.94	3.63
3.093		3.036	2	0	O[C@H]1[C@H]2c3cccc2c3[C@H]2c1cc4c3cc(cc4)OC						
Diphenylpyraline	TRUE	12.47	12.47	2	0	281.39202	21	3.49	3.21	8.78	
4.54		3.357	0.37	2	O(C(c1cccc1c1)C2cccc2)C3CCN(C)CC3						
4.551		6.48	0	4	296.5392	16	3.88	3.88			
Disulfiram	TRUE	121.26	121.26	4	1	324.3737	24	2.79	2.34	6.22	2.82
2.035		0.8	0	4	379.49195	28	3.27	4.6	8.84	4.71	
Donepezil	TRUE	38.77	38.77	2	0	=C2C1cc(C(OC)C)C1CC2C4CCN(C)CC3					
4.569		0.46	2	2	314.4617	23	7.68	7.24			
Dronabinol	TRUE	29.46	29.46	1	cccccc1cc(c2c1)OC([C@H]3[C@H]2c3cccc2c3)C						
6.109		0.62	1	5	556.75645	39	5.4	8.57	9.44	7.58	
Dronedarone	TRUE	88.85	97.22	3	0	=O=S(=O)(Nc3cc1cc(c1c(=O)c2ccc(cc2)N(CC)CC)C2)CC3					
7.015		0.52	0	0							

Duloxetine	TRUE	21.26	49.5	2	1	297.41456	21	1.24		4.26	10.02	3.73	
	3.618	0.22	3	CNCC[C@H](C1=CC=CS1)OC2=CC=CC3=CC=C32									
Dutasteride	TRUE	58.2	58.2	2	2	528.52971	37	5.61		4.94		5.61	
	5.703	0.63	1	FC(F)(F)c1cc(c(c1C(F)(F)NC(=O)[C@H]3[C@]2(CC[C@H]4[C@H](C[C@H]2CC3)CC[C@H]5NC(=O)\C=C/[C@]4SC)C									
Efavirenz	TRUE	38.33	38.33	2	1	315.67496	21	4.84		3.73		4.84	
	4.381	0.36	1	FC(F)([C@]1(O(CNC2=CC=C(C=C21)C1)=O)#[C#CC3C3])F									
Eletiptan	TRUE	53.17	61.55	3	O=S(=O)(c1cccc1)CCC4CCC2Cc(Ccn2)[C@H]3N(C)CCC3)C4								
	4.438	0.36	3										
Eliglustat	TRUE	71.03	71.03	5	404.54293	29	2.08		4.83		9.59	3.61	
	3.808	0.7	1	CCCCCCCC(=O)[N]C(OH)(CN1CCC1)[C@H](C2=CC=C(C=C2)OCOC3)O									
Entacapone	TRUE	130.38	130.38	6	305.286	22	0.36		5.15		1.76	2.38	
	1.658	0.29	1	[o-][N+](=O)c1cc(\C=C([C@N]C(=O)N(CC)CC)O)c10									
Enzalutamide	TRUE	76.44	108.53	4	464.43595	32	2.13				3.35		
	2.13	4.334	2	N#Cc1c(C(F)(F)CC(N2CC(C(C)C)NC3CCC(C(N(C)H)=O)C(F)C3)C2=S)=O)Cc1									
Erlotinib	TRUE	74.73	74.73	7	393.43572	29	2.38		4.34		5.06	2.39	
	4.309	0.27	3	COCCOC1CC2(CClOCCOC)CCNC2NC3CCC(C3)C#C									
Eszopiclone	TRUE	91.76	91.76	7	0	388.80827	27	-0.41		1.25		6.29	
	1.386	0.35	2	O=C(O[C@H]3C1CCNC1C(=O)N3C2CCN(Cl)CC2)NACCN(C)CC4								-0.33	
Ethchlorvynol	TRUE	20.23	20.23	20.23	1	1	144.59876	9	2.06			1.57	
	2.06	2.263	0.43	O=C1[C@H]=CC([C@C](O)CC									
Ethinamate	TRUE	52.32	52.32	2	167.20502	12	1.47				1.92	1.47	
	2.717	0.67	0	O=C(OCl(C#C)CCCC1)N									
Ethionamide	TRUE	38.9	71	2	166.2434	11	1.22				1.73	4.34	
	1.53	0.25	1	S=C(ClCCNC(C)CC)N								1.22	
Ethopropazine	TRUE	6.48	31.78	3	0	312.47225	22	3.51			5.46	9.88	
	5.84	5.088	0.37	2	S2c1CCCC1N(c3c2ccc3)CC(N(CC)CC)c								
Ethosuximide	TRUE	46.17	46.17	0	O=C1NC(=O)CC1(C)CC							0.4	
	0.38	0.737	0.71	O=C2NC(c1cccc1)C(=O)N2CC									
Ethotoxin	TRUE	49.41	49.41	2	1	204.22518	15	0.77			1.48	0.86	
	1.637	0.27	1	O=C(OC)N1CCCC(C1)NCC2CC(F)CC2									
Ezogabine	TRUE	76.38	76.38	4	303.33142	22	0.8				2	5.25	
	2.793	0.19	2	O=C(OC)N1CCCC(C1)NCC2CC(F)CC2								0.81	
Famotidine	TRUE	175.83	237.75	9	337.4454	20	-1.03				-0.58	7.93	
	-1.135	0.38	1	O=S(=O)(N=C(N)CCSC1nc(/N=c(=N)N)sc1)N								-0.4	
Febuxostat	TRUE	83.21	111.45	5	316.37483	22	1.73				4.1	3.18	
	3.514	0.31	2	N#Cc1c(OCC(C)C)ccc(c1)c2nc(c(s2)c(=O)o)c								4.87	
Felbamate	TRUE	104.64	104.64	4	238.23986	17	1.2				0.5	1.2	
	0.984	0.27	1	O=C(OC(c1cccc1)coc(=O)N)N									
Felodipine	TRUE	64.63	64.63	5	384.25375	25	4.83				5.3	2.73	
	3.549	0.33	1	O=C(OC)C1=C\N/C(=C/C(=O)OC)C1c2cccc(c1)c21)C)c								4.83	
Fenofibrate	TRUE	52.6	52.6	4	360.83134	25	4.8				5.23	4.8	
	5.111	0.3	2	O=C(c1ccc(C1)C1)C2ccc(OC(=O)OC(C)C)CC)c2									
Fentanyl	TRUE	23.55	23.55	2	336.47052	25	2.81				3.62	8.78	
	3.838	0.41	2	O=C(CC)N1CCNC1)CC2=CC=C2)C3=C=C=C3								3.89	
Finasteride	TRUE	58.2	58.2	2	372.54414	27	3.24				3.01	3.24	
	3.174	0.83	0	O=C(N(C)C)C)[C@H]2[C@]1(CC[C@H]3[C@H]1CC2)CC[C@H]4NC(=O)\C=C/[C@]34C)c									
Fingolimod	TRUE	66.48	66.48	3	307.47082	22	2.8				5.06	8.71	
	4.199	0.68	1	OCC(N)(C)C1CCCC(C1)CCCCC)CO								5.25	
Flibanserin	TRUE	38.82	38.82	3	390.40214	28	4.01				5.24	7.98	
	3.609	0.35	2	FC(F)(F)c4cc(N3CCN(CCNC2=CC=C2)C3)c4								4.07	
Fluconazole	TRUE	81.64	81.64	5	306.27078	22	0.5				-0.44	2.94	
	0.75	0.23	3	FC1cccc(C(F)C)O)(Cn2ncn2)Cn3ncn3								0.5	
Flucytosine	TRUE	67.48	67.48	3	129.09246	9	-2.81				-1.64	2.9	
	-0.618	0	2	FC=1\c=N/C(=O)NC=1N								-2.36	
Fluoxetine	TRUE	21.26	21.26	2	309.32612	22	1.56				4.57	10.06	
	4.033	0.29	2	CNCCC(c1cccc1)O2ccc(cc2)CC(F)F								4.09	
Flurazepam	TRUE	35.9	35.9	3	387.87822	27	1.64				4.21	9.79	
	4.213	0.33	2	FC1=CC=CC=C1C2=NCC(N(CCN(CC)CC)C3=C2=C(C=C3)C)C=0								4	
Flurbiprofen	TRUE	37.29	37.29	37.29	2	1	244.26092	18	0.98		4.14	3.75	
	4.12	3.68	0.13	2	Fc2cc(ccc2c1cccc1)c(=O)o)c								
Fluvoxamine	TRUE	56.84	56.84	4	318.33464	22	1.15				3.32	9.39	
	2.738	0.53	1	FC(F)(F)c1ccc(C=C\N/C(=C[C@H]4C[C@H]1CC2)CC[C@H]34NC(=O)\C=C/[C@]34C)c1								3.11	
Frovatriptan	TRUE	70.91	70.91	2	287.35353	21	1.12				4.75	3.94	
	0.85	1.414	0.36	O=C2c1lo[C@H]4C[C@H](O)/C=C/[C@]14c1c(Cc2c(C)C)CC3=C								4.39	
Gabapentin	TRUE	63.31	63.31	3	217.23678	12	-1.31				4.72	-0.66	
	0.993	0.89	0	O=C(O)C1CC1CCCC1								1.19	
Galantamine	TRUE	41.93	41.93	4	250.33337	18	1.77				1.02	7.92	
	1.442	0.53	1	O=C2c1lo[C@H]4C[C@H](O)/C=C/[C@]14c1c(Cc2c(C)C)CC3=C								1.75	
Gemfibrozil	TRUE	46.53	46.53	3	250.33337	18	1.77						
	4.172	0.53	1	O=C(O)C(C)C)CCOc1cc(c1C)C									
Gransetron	TRUE	50.16	50.16	3	312.40936	23	-1.42				1.72	10.5	
	2.401	0.56	2	CN4[C@H]1CCc1c(C1)C1NCC(=O)c3nn(C)c2cccc23								1.47	
Guanabenz	TRUE	76.75	76.75	4	231.08192	14	2.05				1.35	7.66	
	2.192	0	1	C1c1cccc(C1)c1c=N=c(=N)N								2.49	
Guanfacine	TRUE	81.47	81.47	4	246.09326	15	1.6				1.25	5.29	
	2.03	0.11	1	C1c1cccc(C1)c1c(=O)\N=c(=N)N								1.61	
Halazepam	TRUE	32.67	32.67	2	352.73818	24	4.22				3.75	2.61	
	4.178	0.18	2	FC(F)(CN1Cc=C2=CC=C2)C3=C1C=CC(C1)=C=0)F								4.22	
Halofantrine	TRUE	23.47	23.47	23.47	2	500.4237	33	6.74				9.31	9.44
	8.72	8.2	0.46	FC(F)(F)c3ccc2(cc1c(C)cc1)cc1c2c3(C)C(OC)CCN(CCCC)CCCC									
Haloperidol	TRUE	40.54	40.54	3	375.86422	26	2.19				3.85	8.49	
	3.887	0.38	2	c1cc(ccc1C=O)CCN2CC(C2)(C3)C(c3cc(C)C)O)F								3.01	
Hydroxyzine	TRUE	35.94	35.94	4	374.90427	26	1.95				4	7.79	
	3.467	0.43	2	C1c1ccc(cc1)C(c2cccc2)N3CCN(CC)CCOCO								2.03	
Ibuprofen	TRUE	37.29	37.29	2	206.26082	15	0.8				3.68	3.72	
	3.607	0.46	1	CC(C)C1ccc(cc1)C(C)=O									
Iloperidone	TRUE	64.8	64.8	5	426.48058	31	2.74				3.92	8.68	
	4.016	0.42	3	O=C(c4ccc(OCCN3CCC(C2)oc1cc2(F)cc1)C)C4								3.81	
Indomethacin	TRUE	68.53	68.53	68.53	4	357.78763	25	-0.16			4.26	4.18	
	3.1	4.235	0.16	C1cc1c(C2ccc(cc1C=O)c3ccc(C3)C)C(OC)CC(=O)O									
Isocarboxazid	TRUE	67.16	67.16	67.16	3	254.28056	19	-0.25			4.23	2.76	
	1.03	1.546	0.17	CC(C)c1cccc(C1)c(=O)c2cccc2C(=O)O								3.32	
Isotretinoin	TRUE	37.29	37.29	37.29	2	250.29361	18	0.9			0.39	0.9	
	6.83	5.551	0.45	O=C1NC(=O)CCC1c2cccc2C(=O)O									
Irradipine	TRUE	103.55	103.55	7	371.38714	27	3.59				3.92	2.56	
	2.168	0.37	2	O=(C)C\N(C)=C(C(=O)C(C)C)C3c1cc2cnonc12)C								3.59	
Ketoprofen	TRUE	54.37	54.37	3	254.28056	19	-0.25						
	3.361	0.12	2	CC(C)c1cccc(C1)c(=O)c2cccc2C(=O)O									
Lacosamide	TRUE	67.43	67.43	3	256.09137	16	-0.19				2.53	5.39	
	2.10E-02	0.38	1	O=C(N[C@H](C(=O)NCC1cccc2C(=O)O)C)C1								-0.19	
Lamotrigine	TRUE	90.71	90.71	5	259.26061	19	-1.39				-0.41	2.77	
	2.426	0	2	O=C1NC(=O)CCC1c2cccc2C(=O)O									
Lenalidomide	TRUE	92.5	92.5	92.5	4	300.43512	22	4.14			4.67	6.74	
	-1.39	-0.32	0.31	O=C1NC(=O)CCC1N3C(=O)c2cccc2C(=O)N									
Letrozole	TRUE	78.29	78.29	4	285.30274	22	1.92				1.43	1.92	
	2.749	0.06	3	O#Cc1ccc(cc1)C(c2ccc(C#N)cc2)n3ncn3									
Levamisole	TRUE	15.6	40.9	3	304.29137	14	-0.06				1.84	10	
	2.29	0.36	1	N#2c1SCN1c2c(C=O)C								1.84	
Levetiracetam	TRUE	63.4	63.4	63.4	2	170.20896	12	-0.67			-0.34		

Levomepromazine	TRUE	15.71	41.01	4	0	328.47166	23	3.04	4.83	9.32	
Levomethadyl	TRUE	4.94	4.507	0	0.37	0(c2cc1nC(=O)c3(S(=O)(=O)C)c2)C(=O)[C@H](C)CN(C)C	2	3.48	4.59	9.4	
Levomilnacipran	TRUE	5.45	4.738	0.43	29.54	3	353.49773	26	3.48	4.59	
Levopropoxyphene	TRUE	1.23	1.288	0.53	46.33	2	[C@H]([C](Cl)=CC=CC=C1)(C(=C=C(C=C2)[C@H](N(C)C)(OC(=O)C)C	1	-1.52	1.91	
Lidocaine	TRUE	5.44	4.71	0.41	29.54	1	CCN(CC)(C(=O)[C@H]1[C(=O)N]C)C2=CC=C2	246.34798	18	10.36	
Lidocaine	TRUE	2.626	32.34	0.5	29.54	2	CC(=O)OCC(c1cccc1)(c2cccc2)C(C)CN(C)C	339.47116	25	5.21	
Lofexidine	TRUE	2.765	33.61	1	2	O=C(Nc1(cccc1C)CN(CC)C)	234.33728	17	1.95	8.53	
Lomustine	TRUE	3.469	61.77	0.36	3	C1c2(CC(=O)(C/C(=1\N)/CCN1)C)C(Cl)ccc2	259.13178	16	1.73	3.46	
Loratadine	TRUE	5	42.43	0.36	2	0=C(=O)N(C)C(=C=C(C=C2)[C@H](N(O)C)C)C1	231.15809	21	2.47	3.59	
Lorazepam	TRUE	3.509	61.69	0.07	2	C1C1=CC=C=C1C2=NC(CNC3=C2C(=C(C=C3)C)=O)O	370.91558	26	3.18	2.37	
Lorcainide	TRUE	23.55	23.55	2	1	C1c3ccc(N(C(=O)Cc1cccc1)C2CCN(CC(C)C)C)C2cc3	195.68856	13	4.48	9.31	
Lorcaserin	TRUE	4.356	12.03	0.41	1	C1clcc2Cc(Cc1)CNC([C@H])C	422.91062	30	0.41	3.24	
Losartan	TRUE	2.747	92.51	0.45	1	C1lnc(n(C1CO)Cc4cc(C(=C2Cc3C2C3nnnn3)C)C)CCC	404.53963	29	5.94	5.05	
Lovastatin	TRUE	4.59	4.218	0.27	72.83	5	0=C([O][C@H]1[C@H]3C=([C@H](C1)C)C=C/[C@H]([C@H]2O)C(=O)C[C@H](O)C2C)[C@H](C)CC	4.07	4.08		
Lurasidone	TRUE	5.375	56.75	0.75	0	5	0=C([O][C@H]1[C@H]2CCN(C)C)C3=NS4=CC=CC=C4)CNC5(=O)[C@H]6[C@H]7CC[C@H](C7)[C@H]6C5=O	492.67603	3	6.12	
Maprotiline	TRUE	2.963	12.03	0.19	12.03	1	C1CC([C@H]([C@H]1C)CN2CCN(C)C)C3=NS4=CC=CC=C4)CNC5(=O)[C@H]6[C@H]7CC[C@H](C7)[C@H]6C5=O	277.40331	21	4.52	
Mecamylamine	TRUE	4.116	3.06	0.4	1	CNCCCC@H]12C3=CC=C3[C@H](C4=CC=C(C=C1)C)C2	167.29113	12	1.66	10.62	
Maraviroc	TRUE	3.921	63.05	0.69	1	CNCCCC@H]12C3=CC=C3[C@H](C4=CC=C(C=C1)C)C2	513.66554	37	1.07	10.24	
Mazindol	TRUE	4.218	35.83	0.5	2	CC5nn[n(C5[C@H]1C[C@H]4CC[C@H]1C)C1]N4CC[C@H](NC(=O)C2CC(F)(F)C)C2c3cccc3)C(C)C	284.74022	20	-0.72	3.38	
Mesoridazine	TRUE	3.98	2.445	0.43	23.55	1	C1C1=CC=C(C2(C3=CC=CC=C3C4=NCCN4O)C)C1	120.3	1	2.31	
Mefloquine	TRUE	4.451	45.15	0.47	1	CNCCCC@H]12C3=CC=C3[C@H](C4=CC=C(C=C1)C)C2	403.51666	30	4.04	4.51	
Memantine	TRUE	4.249	26.02	0	0	FC(F)(F)c2cccc1c(cc(nC12)C(F)(F)C)B(O)[C@H]3NNCCC3	179.30184	13	0.26	10.79	
Meperidine	TRUE	1.907	29.54	1	1	NC12CC3(CC(C1)CC(C2)C3)C	247.33274	18	1.78	3.18	
Methamphetamine	TRUE	2.066	12.03	0.53	1	0=C(C1(CC(C1)C)C2=CC=C2)OCC	12.03	1	0.01	2.83	
Metharbital	TRUE	1.669	66.48	0.4	1	68.06	4	0	2.83	11.35	
Methdilazine	TRUE	4.91	66.48	0.67	0	0=C1N(C(=O)NC(=O)C1(CC)C)	0	N([C@H]2[C([C@H]1C)C1][C2]C(C)C)C	378.31215	26	
Methixene	TRUE	5.073	4.65	0.33	28.54	3	2	1.14	3.67	9.24	
Methocarbamol	TRUE	0.55	91.01	0.4	2	2	FC(F)(F)c2cccc1c(cc(nC12)C(F)(F)C)B(O)[C@H]3NNCCC3	129.16364	9	-4.3	2.87
Methylergonovine	TRUE	2.063	67.58	0.36	1	1	0=C(C1(CC(C1)C)C2=CC=C2)OCC	149.2328	11	-0.79	1.18
Methyprylon	TRUE	1.677	46.17	0.45	1	68.36	4	0	1.14	10.38	
Metoclopramide	TRUE	1.473	67.58	0	1	0=C(C1(CC(C1)C)C2=CC=C2)OCC	68.36	3	0	1.18	
Metoprolol	TRUE	2.22	50.72	0.5	1	67.58	4	0	2.42	10.09	
Metyrapone	TRUE	1.757	42.85	1	1	0=C1cc1c(c(O)C)C1N(C(=O)NCCN(CC)C)C	309.46831	22	3.43	5.84	
Mexiletine	TRUE	1.847	35.25	0.21	1	2	0=C([C@H]1C)C2Cc(Cc1)C(C)C	226.27376	17	1.19	9.81
Mifepristone	TRUE	2.334	45.33	0.45	1	2	0=C([C@H]1C)C2Cc(Cc1)C(C)C	183.24748	13	0.23	5.46
Minaprine	TRUE	4.95	50.28	0.55	1	68.36	4	0	1.19	1.19	
Mirtazapine	TRUE	2.819	50.28	0.41	1	0=C1N(C(=O)NC(=O)C1(CC)C)	309.46831	22	3.43	1.49	
Moclobemide	TRUE	3.094	41.57	0.35	19.37	3	0	0	1.49	9.45	
Molindone	TRUE	1.528	41.57	0.46	41.57	4	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	651.78472	46	-0.31	1.79
Nabilone	TRUE	2.14	45.33	0.69	1	2	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	276.37396	20	0.35	1.77
Naloxegol	TRUE	6.055	46.53	0.71	50.28	5	0	0	0.35	2.23	
Naratriptan	TRUE	4.495	65.2	0.55	73.58	1	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	429.59369	32	4.94	9.65
Nebivolol	TRUE	3.557	70.95	0.45	2	6	0=C5\c=C4/c=C3[C@H](Cc1ccc(CN(C)C)C)C2[C@H](C)(CC)C[C@H]3CC4C)C	372.54083	27	7.05	5.49
Nefazodone	TRUE	4.415	51.62	0.62	51.62	5	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	265.35286	20	2.15	3.19
Nemonapride	TRUE	3.504	53.6	0.38	45.33	3	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	268.73928	18	0.77	7.09
Nicardipine	TRUE	3.488	113.69	0.53	2	3	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	335.46429	23	-0.65	1.83
Nicergoline	TRUE	5.65	56.59	0.31	56.59	4	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	405.435	29	2.34	3.32
Nicotine	TRUE	3.461	16.13	0.42	3	5	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	470.00687	33	3.29	8.1
Nifedipine	TRUE	1.242	110.44	0.5	1	6	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	162.23155	12	-0.47	2.25
Nortriptyline	TRUE	1.766	110.44	0.29	1	7	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	387.90304	27	2.02	8.69
Noscapine	TRUE	4.236	12.03	0.26	29.54	8	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	346.33462	25	2.97	8.36
Ondansetron	TRUE	3.012	39.82	0.41	2	9	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	263.37674	20	3.17	3.08
Ospemifene	TRUE	2.634	29.46	0.33	3	10	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	378.89121	27	6.98	5.13
Oxiprenolol	TRUE	5.62	50.72	0.17	29.46	1	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	413.42051	30	2.79	7.78
Oxiprenolol	TRUE	2.232	50.72	0.47	3	2	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	293.36296	22	1.72	8.25
Oxiprenolol	TRUE	1	1	0	0=C1cc1c(c(O)C)C1N(C(=O)NCCN2CCO2)	265.34802	19	0.18	2.09	2.29	

Sulindac	TRUE	54.37	73.58	3 1 356.41058 25 0.55 4.26 3.16 3.59
	3.639	0.15	2	0=S(c1ccc(cc1)\C=C3/c2ccc(\C=C2\)\C(=C3)CC(=O)O)C
Suvorexant	TRUE	80.29	80.29	5 0 450.92071 32 3.62 5.4 4.12 3.62
	4.108	0.3	4	C[C@H]1CCN(CCN1C(=O)C2=C(CC=C2)C)N3N=CC=N3)C4=NC5=C(O4)C=CC(=C5)C1
Tacrine	TRUE	38.9	38.9	2 1 198.26366 15 1.26 3.27 9.64 3.32
	2.789	0.31	2	n1c3c(c(c2c1cccc2)N)CCCC3
Tadalafil	TRUE	74.87	74.87	4 1 389.40396 29 1.43 2.58 1.43
	2.183	0.27	3	0=C1N(CC(N2[CH]1CC3=C([C@H]2C4=CC5=C(O4)C=CC(=C5)C)N6=C3C=CC=C6)=O)C
Talipexole	TRUE	42.15	70.38	3 1 209.3112 14 1.02 1.14 7.22 1.2
	1.644	0.5	1	n1c2c(sc1N)CCN(CC2)C(=C
Tamoxifen	TRUE	12.47	12.47	2 3 371.51455 28 6.58 6.82 8.69 7.88
	6.319	0.23	3	O(c1ccc(cc1)\C(c2cccc2)=C(\c3cccc3)CC)CCN(C)C
Tapentadol	TRUE	23.47	23.47	2 1 221.33852 16 1.21 3.15 9.45 3.22
	3.466	0.57	1	0=c1cc(ccc1)[C@H]([C@H]C(C)C)CC
Tasimelteon	TRUE	38.33	38.33	2 1 245.31686 18 1.75 1.89 1.75
	2.203	0.53	1	CCC(=O)NC[C@H]1C[C@H]1C2=C3CCOC3=CC=C2
Telmisartan	TRUE	72.94	72.94	4 1 514.61689 39 4.74 3.83 7.29 5.87 7.73
	7.799	0.18	6	0=C(O)Clcccc1c2ccc(cc2)Cn3cccc(C(=O)c4nc3ccc)Cn5cccc6n5C
Temozolamide	TRUE	105.94	105.94	5 1 194.15083 14 -1.31 -0.81
	-1.31	5.20E-02	0.17	1 0=C(Cl)ncn2C(=O)N(\N1C1)N
Terbinafine	TRUE	3.24	3.24	1 0 291.42989 22 6.49 5.96 6.92 6.61
	5.335	0.33	2	C(#C\C=C(CN(C)Cc2cccc1cccc2)C)C(C)C
Terguside	TRUE	51.37	51.37	2 2 340.46252 25 2.65 2.78 9.78 3.31
	2.65	0.55	2	CCN(CC)C(=O)N[C@H]1C[C@H]2[C@H](C)C(C3=CC4=CC=CC=C4)N(C1)C
Teriflunomide	TRUE	73.12	73.12	3 2 270.20726 19 0.08 5.2 2.13
	2.51	2.091	0.17	1 0=C(Nc1ccc(cc1)C(F)(F)F)C(=C#N)=C(C)O
Tetrabenazine	TRUE	38.77	38.77	4 0 317.42257 23 3.43 3.46 6.46
	3.48	3.365	0.63	1 0=C3(C(CC)CN2C(Cl)c3cc(OC)c(OC)c1)CC2)C3
Thiopental	TRUE	61.69	93.78	4 2 242.33782 16 -0.92 1.85 10.72 2.38
	3.12	0.73	0	0=C1NC(=S)/N=C(C(=O)C1(C(CC)CC)CC
Thiothixene	TRUE	43.86	77.53	5 0 443.62525 30 3.42 3.23 8.17 3.94
	3.533	0.39	2	0=S(=O)(N(C)C)cc1cc(\c3cc(Cl)c2)cccc3)=C/CCN(C)CC4
Tiagabine	TRUE	40.54	97.02	3 1 375.54799 25 3.18 3.86 2.77 9.48 5.68
	4.832	0.45	2	O=C(O)[C@H]1CCN(CCC1)CC/C=C(\c2ccccc2)C3cccc3C
Tianepinte	TRUE	86.71	95.09	5 2 436.95219 29 0.02 4.75 1.52 7.47 2.56
	3.927	0.38	2	C1cc2c(cc1)C(c3c(N(C)S2(=O)=O)cccc3)NCCCCC(=O)O
Timolol	TRUE	79.74	107.98	7 2 316.41966 21 -1.2 1.72 9.57 0.68
	1.127	0.85	1	0[C@H](COC1ncn2C(=O)COC2)CNC(C)C
Tizanidine	TRUE	62.2	90.44	5 2 253.71131 16 0.31 2.09 8.67 0.65
	1.817	0.22	2	C1cccc3nnC1N2CCOCC2)CNC(C)C
Tocainide	TRUE	55.12	55.12	2 2 192.25754 14 0.32 0.26 8.1 0.76
	1.445	0.36	1	0=C(Nc1cccc(C)C)C(N)C
Tolcapone	TRUE	103.35	103.35	5 2 273.24084 20 1.8 4.78 3.25 4.07
	3.13	0.07	2	[O-][N+](=O)C2cc(C(=O)c1ccc(cc1)C)CC(=O)c2O
Tolmetin	TRUE	59.3	59.3	3 1 257.28449 19 -1.52 4.22 2.21 1.55
	3.267	0.2	2	0=C(c1ccc(n1)CC(=O)O)c2cc(C)C
Topotecan	TRUE	103.2	103.2	7 1 421.44581 31 0.44 0.73 7.65 1.08
	1.577	0.35	2	0=C\N4\c(=C/C2=C/1COc(=O)[C@]2(O)CC3nc5c(C3c4c(C)C)Cn(C)C
Tramadol	TRUE	32.7	32.7	3 1 263.37519 19 0.49 3.1 9.61 2.51
	2.7	0.62	1	CN(C)C[C@H]1CCCC[C@H]1C2=CC(=C=C2)C)O
Tranylcypromine	TRUE	26.02	26.02	26.02 1 1 133.19034 10 0.36 1.48 8.78
	1.25	1.193	0.33	c1cccc(c1)[C@H]2[C@H]2N
Trazodone	TRUE	42.39	42.39	4 0 371.86388 26 1.49 4.35 8.11 1.66
	2.418	0.37	1	C1c4cccc(N3CCN(CCCN1/N=2/C=C/C=C/N2C1=O)CC3)C4
Trimipramine	TRUE	6.48	6.48	6.48 0 294.43383 22 3.21 5.44 9.38
	5.15	0.4	2	C1cc3c(cc1)CCc2c(cccc2)N3CC(C)CN(C)C
Triprolidine	TRUE	16.13	16.13	16.13 2 0 278.39138 21 2.7 3.63 8.99
	4.22	4.075	0.32	2 n3c(\C(=C\N1CCCC1)c2ccc(cc2)C)cccc3
Troglitazone	TRUE	84.86	110.16	6 2 441.53987 31 3.94 6.34 5.58
	4.99	5.876	0.42	2 0=C1NC(=O)SC1cc4cccc(OC3(OC2(C(C(O)c1cc(C)C)c2)C)C)C)cc4
Tropisetron	TRUE	45.33	45.33	3 1 284.35289 21 1.04 2.88 10 3.55
	2.608	0.47	2	CN4[C@H]1C[C@H]4C[C@H](C)C1OC(=O)c3nc2cccc23
Valdecoxib	TRUE	86.19	94.57	3 1 314.35895 22 1.7 1.83 1.71
	2.6	0.06	3	0=S(=O)(N)c3ccc(c2c(=O)nc2c1cccc1)cc3
Valproic acid	TRUE	37.29	37.29	37.29 2 1 144.21143 10 0.16 4.82 2.76
	2.72	2.749	0.88	0 =O=C(O)(C)CCC
Varenicline	TRUE	37.81	37.81	3 1 211.26242 16 -1.33 0.9 9.6 0.74
	1.038	0.38	2	n1c2cc3c(cc2ccn1)[C@H]4CNC[C@H]3C4
Vilazodone	TRUE	102.29	102.29	4 2 441.52487 33 4.58 8.57 3.98
	4.536	0.31	4	N#Cc1ccc2c(c1)C(c2n)CCCCN5CCN(c4cc3c(oc3c)C(=O)O)CC5
Vinpocetine	TRUE	34.47	34.47	3 0 350.45403 26 4.54 4.83 7.8 5.14
	4.294	0.5	2	O=(OCC)C=4nc3c(c2cccc12)CCN5[C@H]3[C@](C(=4)(CC)C)CC
Voriconazole	TRUE	76.72	76.72	76.72 5 1 349.31046 25 0.93 0.52 2.72
	0.93	2.072	0.25	3 Fc1ncncl1[C@H]([C@O](O)c2ccc(F)cc2)Cn3ncn3C
Vorinostat	TRUE	78.43	78.43	3 3 264.3202 19 0.86 0.99 0.86
	1.838	0.43	1	0=C(Nc1cccc(=O)NO
Vortioxetine	TRUE	15.27	40.57	40.57 3 1 298.44568 21 3.08 5.42 8.85
	4.26	4.504	0.33	2 CC(C(=C(C)C)C1)=C1sc2=C(N3CCN3)C=CC=C2
Zaleplon	TRUE	74.28	74.28	4 0 305.33389 23 0.86 1.44 0.86
	1.865	0.18	3	O=(C)C(C)C1=CC=CC(=NC3=C(C=NN23)C#N)=C1
Ziprasidone	TRUE	48.47	76.71	4 1 412.93564 28 3.19 4.71 8.41 4
	4.214	0.33	3	0=C5Nc1c(cc(c(Cl)c1)CCN4CCN(c3nc2cccc23)CC4)C5
Zolmitriptan	TRUE	57.36	57.36	57.36 3 2 287.35683 21 -0.29 1.29 9.52
	1.64	2.457	0.44	2 O=C1OC[C@H](N1)cc2ccc3c(c2)Cn3)CCN(C)C
Zolpidem	TRUE	37.61	37.61	2 0 307.38953 23 3.01 3.03 6.25 3.07
	3.628	0.26	3	0=C(cc1=C(c2=CC=C(C)C=C2)N=C3=CC(C)=C1)N(C)C
Zonisamide	TRUE	86.19	94.57	3 1 212.22571 14 -0.1 -0.36 -0.1
	0.411	0.12	2	0=S(=O)(N)Cc2noc1cccc12