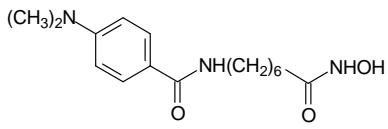
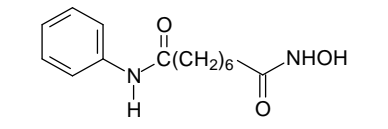
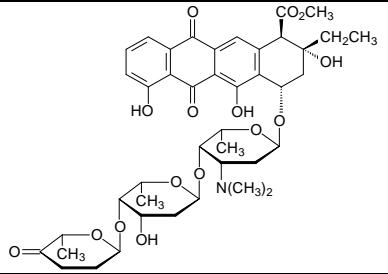
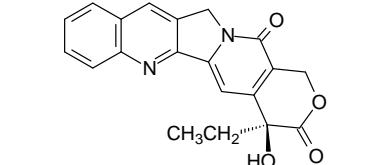
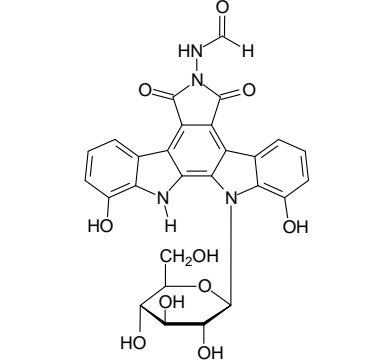
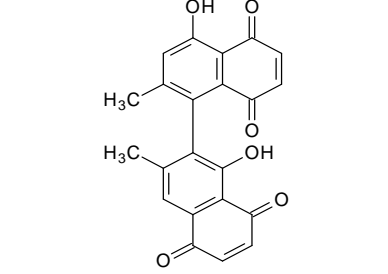
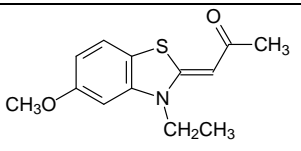
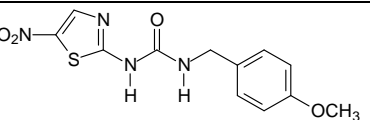
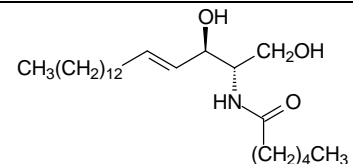
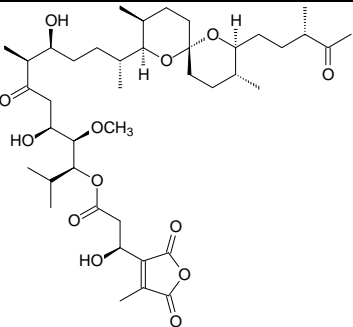
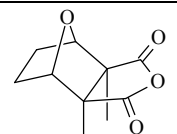


Table 1: Names, putative mechanisms, regulated exons and structures for low molecular weight substances that influence alternative splice site selection.

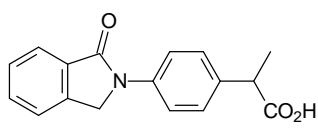
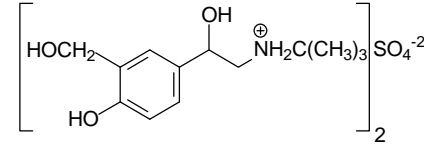
#	Small Molecule Name	Mechanism	Regulated Exon	Structure	Reference
Histone Deacetylase (HDAC) Inhibitors					
1	sodium butyrate	HDAC inhibitor	SMN2 exon 7	$\text{CH}_3(\text{CH}_2)_2\text{CO}_2\text{Na}$	www.ncbi.nlm.nih.gov/pubmed/11504946?ordinalpos=5&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
2	valproic acid	HDAC inhibitor	SMN2 exon 7	$(\text{CH}_3\text{CH}_2\text{CH}_2)_2\text{CHCO}_2\text{H}$	www.ncbi.nlm.nih.gov/pubmed/12915451?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
3	sodium 4-phenylbutyrate	HDAC inhibitor	SMN2 exon 7	$\text{C}_6\text{H}_5(\text{CH}_2)_3\text{CO}_2\text{Na}$	www.ncbi.nlm.nih.gov/pubmed/14560316?ordinalpos=3&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
4	N-hydroxyl-7-(4-(dimethylamino)benzoyl)aminoheptanamide (M344)	HDAC inhibitor	SMN2 exon 7		www.ncbi.nlm.nih.gov/pubmed/16724231?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
5	suberoylanilide hydroxamic acid (SAHA)	HDAC inhibitor	SMN2 exon 7		www.ncbi.nlm.nih.gov/pubmed/16805808?ordinalpos=3&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
Kinase Inhibitors					
6	aclarubicin	Topo I	SMN2 exon 7		www.ncbi.nlm.nih.gov/pubmed/11734549?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
7	camptothecin	Topo I	CASP-2 exon 9		www.ncbi.nlm.nih.gov/pubmed/14757846?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
8	6-N-formylamino-12,13-dihydro-1,11-dihydroxy-13-(β-D-glucopyranosyl)5H-indolo [2,3-a]pyrrolo [3,4-c]carbazole-5,7(6H)-dione (NB-506)	Topo I	Bcl-X and CD 44		www.ncbi.nlm.nih.gov/pubmed/11559564?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
9	isodiospyrin	Topo I	Not defined (ND)		www.ncbi.nlm.nih.gov/pubmed/14599556?ordinalpos=9&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum

10	(Z)-1-(3-ethyl-5-methoxy-2,3-dihydrobenzothiazol-2-ylidene) propan-2-one (TG003)	CLK kinases	<i>Clk1/sty</i> exon 2 and E1A		www.ncbi.nlm.nih.gov/pubmed/15010457?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
11	lithium chloride	GSK3	<i>Tau</i> exon 10	LiCl	www.ncbi.nlm.nih.gov/pubmed/14602710?ordinalpos=5&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
12	N-(4-methoxybenzyl)-N'-(5-nitro-1,3-thiazol-2-yl)urea (AR-A014418)	GSK3	<i>Tau</i> exon 10		www.ncbi.nlm.nih.gov/pubmed/14602710?ordinalpos=5&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum www.ncbi.nlm.nih.gov/pubmed/12928438?ordinalpos=6&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum

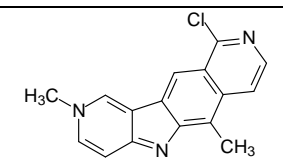
Phosphatase Inhibitors

13	sodium orthovanadate	non-specific inhibitor	<i>SMN2</i> exon 7	Na ₃ VO ₄	www.ncbi.nlm.nih.gov/pubmed/11704813?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
14	N-(hexanoyl)sphingosine (C6-ceramide)	PP1 regulation	<i>Bcl-X</i> and <i>CASP-9</i>		www.ncbi.nlm.nih.gov/pubmed/11801602?ordinalpos=6&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
15	tautomycin	PP1 inhibition	<i>SMN2</i> exon 7 and multiple other exons		www.ncbi.nlm.nih.gov/pubmed/17913700?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
16	cantharidin	PP1 inhibition	<i>SMN2</i> exon 7		www.ncbi.nlm.nih.gov/pubmed/17913700?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum

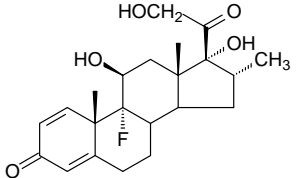
cAMP Pathway

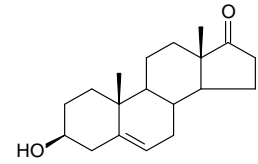
17	rac-2-[4-(1-oxo-2-isoindolinyl)phenyl]propionic acid (indoprofen)	phosphodiesterase inhibitor?	<i>SMN2</i>		www.ncbi.nlm.nih.gov/pubmed/15555999?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
18	2-(tert-butylamino)-1-(4-hydroxymethylphenyl)ethanol sulfate (salbutamol)	adrenergic antagonist	<i>SMN2</i> exon 7		www.ncbi.nlm.nih.gov/pubmed/17932121?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum

Protein-Protein Interactions

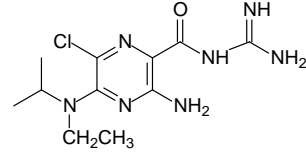
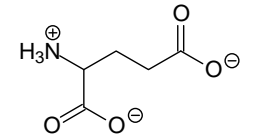
19	10-chloro-2,6-dimethyl-2H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinoline (IDC16)	SR-protein interaction	HIV-1 mRNA		www.ncbi.nlm.nih.gov/pubmed/15939885?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum www.ncbi.nlm.nih.gov/pubmed/17967062?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
----	---	------------------------	------------	--	--

Coupling of Transcription and Splicing

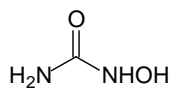
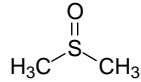
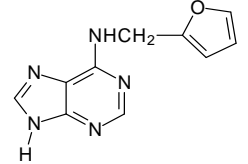
20	dexamethazone	coupling of transcription and splicing	Insulin receptor mRNA		www.ncbi.nlm.nih.gov/pubmed/7657666?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
----	---------------	--	-----------------------	--	--

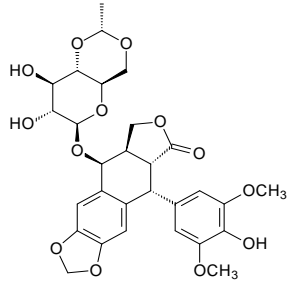
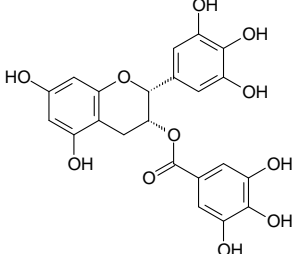
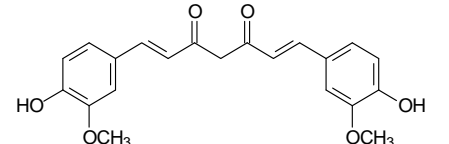
21	dihydroepiandrosterone (DHEA)	coupling of transcription and splicing	Stress axis-regulated (STREX) exon		www.ncbi.nlm.nih.gov/pubmed/12032350?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
22	steroid hormones	ND	Reporter CD44 mini-gene	Misc.	www.ncbi.nlm.nih.gov/pubmed/12376702?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum

Ion Channels and Electrochemical Gradients

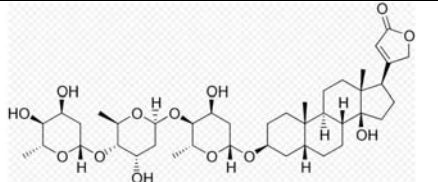
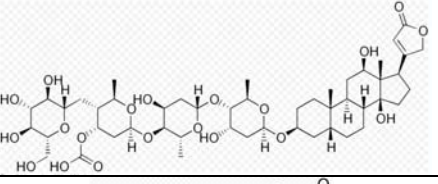
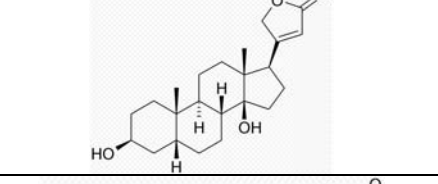
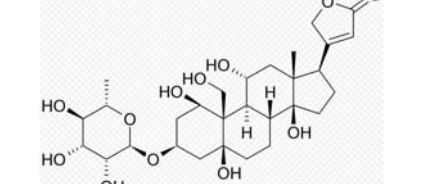
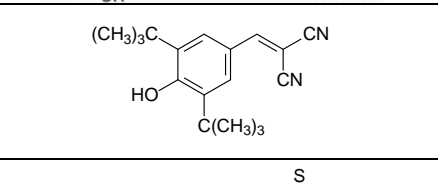
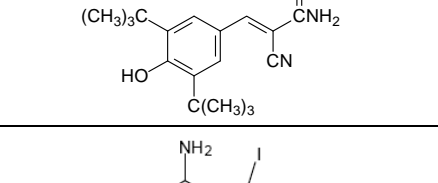
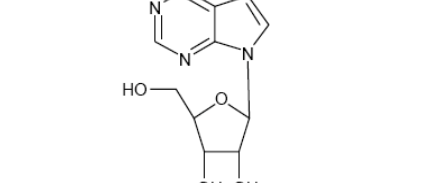
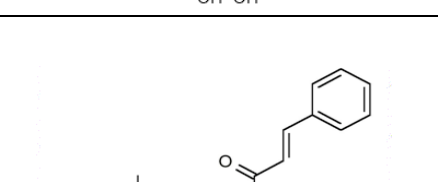
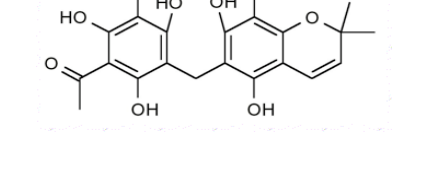
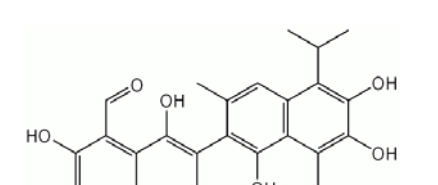
23	5-(N-ethyl-N-isopropyl)amiloride (EIPA)	change in ion gradient	SMN2		www.ncbi.nlm.nih.gov/pubmed/17924536?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
24	glutamate	change in ion gradient	Ania-6 mRNA		www.ncbi.nlm.nih.gov/pubmed/12807435?ordinalpos=4&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum www.ncbi.nlm.nih.gov/pubmed/8863502?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum

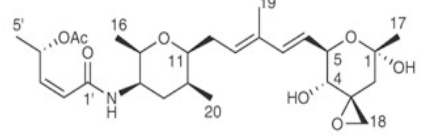
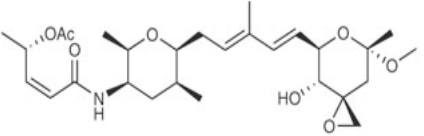
Unknown Role

25	hydroxyurea	Not defined (ND)	SMN2 exon 7		www.ncbi.nlm.nih.gov/pubmed/16049920?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
26	ethanol	ND	L-type Ca ²⁺ channel mRNA	<chem>CH3CH2OH</chem>	www.ncbi.nlm.nih.gov/pubmed/10835432?ordinalpos=4&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
27	dimethyl sulfoxide (DMSO)	ionic interaction			www.ncbi.nlm.nih.gov/pubmed/11278983?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
28	6-furfuryladenine (kinetin)	ND	IKBKAP mRNA		www.ncbi.nlm.nih.gov/pubmed/14709595?ordinalpos=3&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum

29	etoposide (VP16)	Topo II inhibition?	CASP-2 exon 9		www.ncbi.nlm.nih.gov/pubmed/17166655?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
30	epigallocatechin gallate (EGCG)	down-regulate the expression of hnRNP A2/B1	SMN2 exon 7, IKBKAP mRNA		www.ncbi.nlm.nih.gov/pubmed/17962980?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum www.ncbi.nlm.nih.gov/pubmed/14521957?ordinalpos=3&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
31	cucurmin	ND	SMN2 exon 7		www.ncbi.nlm.nih.gov/pubmed/17962980?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum

Cardiotonic Steroids

33	Digitoxin	Not defined (ND)	MAPT exon 10		http://www.ncbi.nlm.nih.gov/pubmed/18678901?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
34	Lanatoside C	ND	MAPT exon 10		http://www.ncbi.nlm.nih.gov/pubmed/18678901?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
35	Digitoxigenin	ND	MAPT exon 10		http://www.ncbi.nlm.nih.gov/pubmed/18678901?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
36	Ouabain	ND	MAPT exon 10		http://www.ncbi.nlm.nih.gov/pubmed/18678901?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
37	Tyrphostin 9	ND	MAPT exon 10		http://www.ncbi.nlm.nih.gov/pubmed/18678901?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
38	Tyrphostin AG879	ND	MAPT exon 10		http://www.ncbi.nlm.nih.gov/pubmed/18678901?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
39	5- Iodotubercidin	ND	MAPT exon 10		http://www.ncbi.nlm.nih.gov/pubmed/18678901?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
40	Rottlerin	ND	MAPT exon 10		http://www.ncbi.nlm.nih.gov/pubmed/18678901?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
41	Gossypol	ND	MAPT exon 10		http://www.ncbi.nlm.nih.gov/pubmed/18678901?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
42	2',4'-Dichlorobenzamil	ND	MAPT exon 10		http://www.ncbi.nlm.nih.gov/pubmed/18678901?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum

43	FR901464	Binding to SF3 sub complex of the U2 snRNP	ND		http://www.ncbi.nlm.nih.gov/pubmed/17643111?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed
44	Spliceostatin A	Binding to SF3 sub complex of the U2 snRNP	ND		http://www.ncbi.nlm.nih.gov/pubmed/17643111?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed