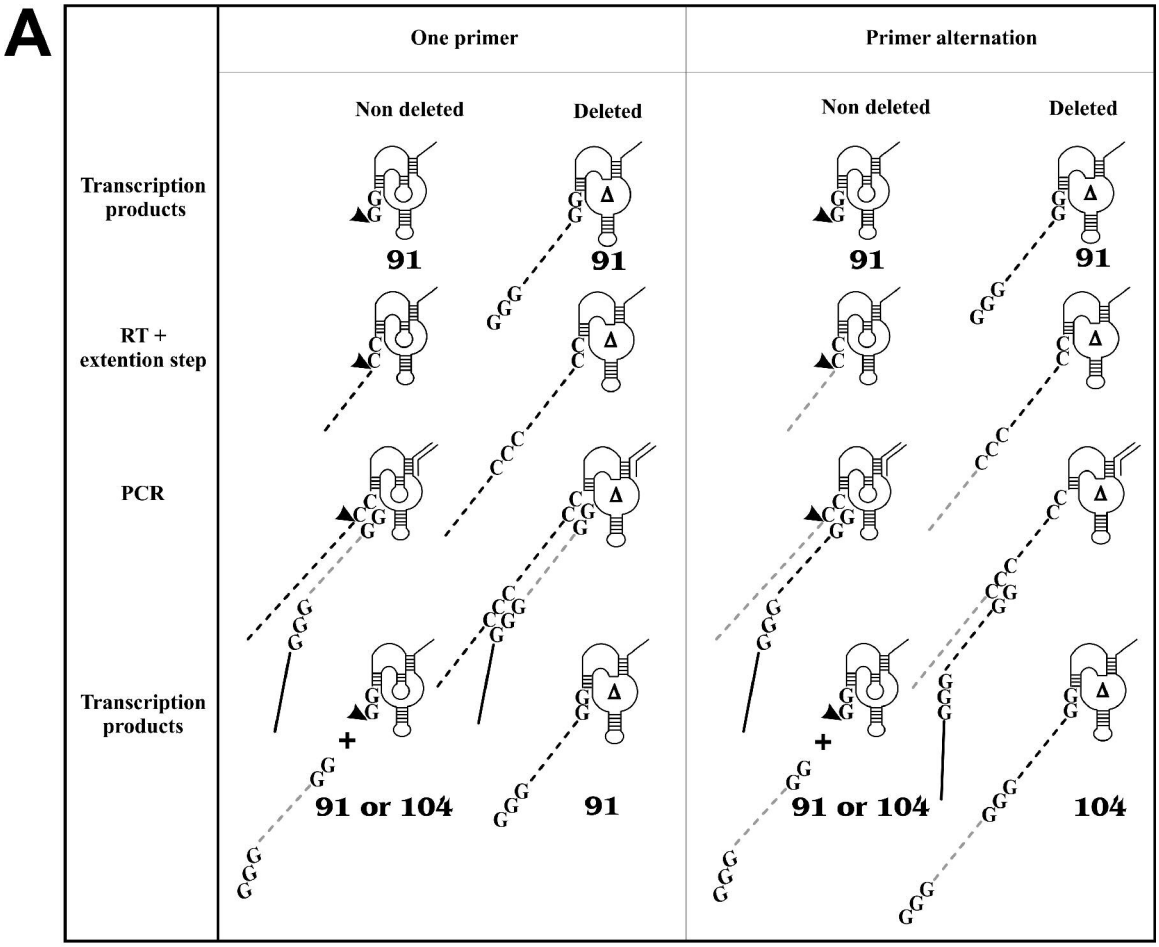

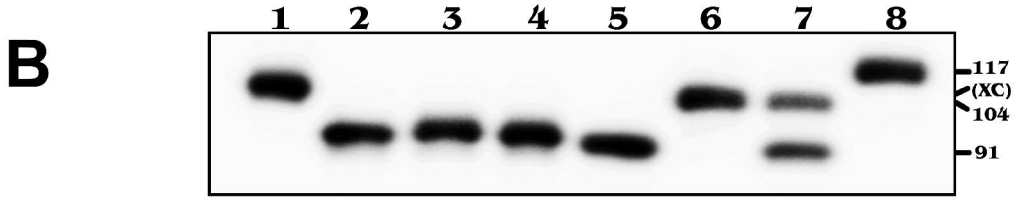

Supplementary data Figure 1
Nehdi and Perreault
HDV ribozyme *in vitro* selection

Supplementary Figure

Figure 1. Discrimination between the active and inactive 91-nt RNA species. (**A**) Schematic representation of the species produced using the 2 selection strategies. The left and right panels illustrate the strategies involving the use of either one sense primer, or of an alternation of 2 sense primers. (**B**) Autoradiogram of the transcription mixture fractionated on a 6% PAGE gel performed in order to verify the efficiency of the alternation strategy. Lanes 1 to 4 are run-off transcription from DNA templates containing poly-dT tails (i.e. cycle 1). Lanes 5 to 8 are run-off transcription from DNA templates produced after alternation of the sense primers (i.e. cycle 2). Lanes 1 and 8 are run-off transcriptions of the inactive (G_{76}) RNA species (i.e. producing transcripts of 104 and 117 nt, respectively). Lanes 2 and 5 are run-off transcriptions of the active (C_{76}) RNA species (i.e. producing transcripts of 104 that self-cleaved to yield RNA molecules of 91 nt in both cases). Lane 3 and 6 correspond to a run-off transcription of the 13-nt truncated version (i.e. producing transcripts of 91 and 104 nt, respectively). Lane 4 and 7 correspond to a run-off transcription obtained when a mixture of DNA templates encoding the active (C_{76}) and the truncated version is used (i.e. producing transcripts of both 91 and 104 nt). The size of the RNA species in nucleotides and the position of xylene cyanol (XC) are indicated beside the gel.

Table 1. Sequence of all the nucleotides used in this study	
Name	**Sequence**
T7PolyA	5' CTAATACGACTCACTATAGGGAAAAAAAAAAGG 3'
T7PolyT	5' CTAATACGACTCACTATAGGGTTTTTTTTTTGG 3'
T7PolyANNN	5' CTAATACGACTCACTATAGGGAAAAAAAAAAGG**NNN** 3'
T7PolyTNNN	5' CTAATACGACTCACTATAGGGTTTTTTTTTTGG**NNN** 3'
OP2	5' GTTTGTTTGTTTGTTGAGGTGGCTCGC 3'
C122	5' GTTTGTTTGTTTGTTGAGGTGGCTCGCCCTTA**G**CCATGCGAAGCCGCATGCCCAGGTCGGACCGCGAGGAGGTGGCGAGCCATGCCGACCCTTTTTTTTTTTCCCTATAGTGAGTCGTATTAG 3'
G122	5' GTTTGTTTGTTTGTTGAGGTGGCTCGCCCTTA**C**CCATGCGAAGCCGCATGCCCAGGTCGGACCGCGAGGAGGTGGCGAGCCATGCCGACCCTTTTTTTTTTTCCCTATAGTGAGTCGTATTAG 3'
J4/2N	5' GTTTGTTTGTTTGTTGAGGTGGCTCGCC**NNNNNN**CATGCGAAGCCGCATGCCCAGGTCGGACCGCGAGGAGGTGGCGAGCCATGCCGACCCTTTTTTTTTTTCCCTATAGTGAGTCGTATTAG 3'
25N	5' GTTTGTTTGTTTGTTGAGGTGGCTCGC**NNNNN**G**N**CATGCGAAGCCGCATGNCCAG**NNN**GG**NNNNNNN**GG**NNNNN**GCGAGCCATGCC**NNN**CCTTTTTTTTTTTCCCTATAGTGAGTCGTATTAG 3'

Spplementary data Table 1
Nehdi and Perreault
HDV ribozyme *in vitro* selection

Table 2. J4/2 selected sequences

Selected ribozymes		J4/2 random sequence						
Cycle (number)	**Name**	**75**	**76**	**77**	**78**	**79**	**80**	**+**
2(2), 3(3), 4(3)	**WT**	G	C	T	A	A	G	
3(1)	**J4/2N310**	G	C	T	A	G	A	
1(1)	**J4/2N15**	G	C	T	A	T	G	
4(1)	**J4/2N43**	G	C	T	G	A	-	
4(1)	**J4/2N47**	G	C	T	G	T	G	
3(1)	**J4/2N31**	A	C	T	G	A	G	
3(1)	**J4/2N32**	A	C	T	G	A	T	
1(1), 2(1)	**J4/2N111**	G	C	T	T	A	C	
4(1)	**J4/2N412**	G	C	T	T	A	A	
4(1)	**J4/2N413**	G	C	T	T	A	G	
1(1)	**J4/2N116**	A	C	A	C	T	T	
2(1)	**J4/2N29**	G	C	A	C	T	C	
4(1)	**J4/2N416**	G	C	A	C	A	A	
4(1)	**J4/2N417**	G	C	A	C	A	C	
3(1)	**J4/2N37**	G	C	A	A	C	-	
4(1)	**J4/2N46**	G	C	A	A	G	A	
3(1)	**J4/2N39**	G	C	A	A	G	C	
1(1)	**J4/2N14**	G	C	A	A	G	C	
4(1)	**J4/2N419**	G	C	A	A	A	T	
2(1)	**J4/2N24**	G	C	A	G	G	C	
2(1)	**J4/2N23**	G	C	A	G	G	A	A
4(2)	**J4/2N418**	G	C	A	G	A	T	
3(1)	**J4/2N38**	G	C	A	T	G	A	
1(1), 2(1), 4(1)	**J4/2N29**	A	C	A	T	A	G	
3(1)	**J4/2N314**	G	C	A	T	A	A	
2(1)	**J4/2N25**	G	C	G	A	G	G	
4(1)	**J4/2N411**	A	C	G	A	A	T	
1(1)	**J4/2N113**	G	C	G	T	A	T	
4(1)	**J4/2N415**	G	C	G	T	T	G	
1(1)	**J4/2N11**	A	C	G	G	G	A	
3(1)	**J4/2N33**	G	C	G	G	C	G	
1(1)	**J4/2N115**	G	C	G	C	A	C	
3(1)	**J4/2N311**	G	C	C	A	A	G	
2(1)	**J4/2N28**	G	C	C	A	A	T	
3(1)	**J4/2N313**	G	C	C	A	A	C	
1(1)	**J4/2N19**	A	C	C	C	A	A	
1(1)	**J4/2N110**	C	C	C	G	A	A	
1(1)	**J4/2N112**	G	C	C	T	A	-	
4(1)	**J4/2N414**	A	C	C	T	T	G	
2(1)	**J4/2N26**	G	T	C	T	A	A	
4(1)	**J4/2N49**	G	T	C	T	A	C	
4(1)	**J4/2N420**	G	A	C	T	C	G	
3(1)	**J4/2N35**	G	G	C	T	G	A	
3(1)	**J4/2N312**	A	G	C	C	A	A	
4(1)	**J4/2N48**	G	A	C	C	A	A	
1(1), 2(1)	**J4/2N17**	G	T	C	G	A	A	
1(1)	**J4/2N18**	A	A	C	G	A	A	
4(1)	**J4/2N410**	T	A	C	G	A	A	
2(1), 3(1), 4(2)	**J4/2N22**	T	G	C	G	A	A	
3(1), 4(1)	**J4/2N34**	T	G	C	G	G	A	
2(1), 4(1)	**J4/2N42**	T	A	C	C	G	A	
4(2)	**J4/2N44**	G	G	C	C	G	A	
1(1)	**J4/2N13**	T	G	C	C	G	G	
4(1)	**J4/2N45**	G	T	C	A	G	A	

+ and - indicate insertion and deletion of a nucleotide, respectively.

Supplemental data: Table 2.
Nehdi and Perreault
HDV ribozyme *in vitro* selection

Table 3. Sequence variants obtained from the 25N pool

Selected ribozymes			25N random sequence																											
Constant primer (25/50variants)	Random primer (255 variants)		P1			P2	P3			L3					P3			P1					J4/2				P2
Cycle (number)		Name	3	4	5	18	19	20	21	22	25	26	27	28	29	30	31	34	35	36	41	58	77	78	79	80	81
13(3) / 14-16(5)	13(1), 14(2), 15(2), 16(3), 17(3)	W.T	G	T	C	C	A	C	C	T	T	C	G	C	G	G	T	G	A	C	G	G	T	A	A	G	G
	16(1), 17(1)	25N1625	C	A	C	A	A	C	G	T	A	C	G	T	C	G	T	G	A	G	A	A	T	G	A	T	G
	14(2), 15(2), 16(1), 17(2)	25N1423	C	G	C	A	A	C	G	T	A	C	G	T	C	G	T	G	A	G	A	A	T	G	A	T	G
	13(1), 15(3), 16(2), 17(3)	25N1322	C	G	C	A	A	C	G	T	A	C	G	T	C	G	T	G	A	G	A	A	T	G	A	T	A
	14(1), 15(2), 16(2), 17(2)	25N1401	C	G	C	A	A	C	G	T	A	C	G	T	C	G	T	G	T	G	A	A	T	G	A	T	A
	15(1), 16(2), 17(1)	25N1505	C	A	C	T	A	C	G	T	T	C	G	T	C	G	T	G	T	G	A	A	T	G	A	G	A
	16(1), 17(1)	25N1620	C	G	C	A	A	C	G	T	T	C	G	A	C	G	T	T	T	G	A	A	T	G	A	T	G
	14(1), 17(2)	25N1415	T	G	C	A	A	C	G	T	A	C	G	T	C	G	T	G	T	G	A	A	T	G	A	T	G
	13(1), 15(1)	25N1313	C	G	G	A	G	C	A	T	A	C	G	T	T	G	C	G	T	G	A	A	T	G	A	T	G
	14(1), 15(1), 17(2)	25N1406	G	T	C	C	A	C	T	T	T	C	G	C	G	G	T	G	A	C	G	G	T	A	A	G	G
	14(1), 16(1), 17(1)	25N1407	G	C	C	C	A	C	C	T	T	C	G	C	G	G	T	G	A	C	G	G	T	A	A	G	G
	15(1), 16(1), 17(2)	25N1525	G	C	C	C	A	C	C	T	T	C	G	C	G	G	T	G	A	C	G	G	T	A	A	G	G
	14(1), 17(1)	25N1425	G	C	C	C	A	C	C	T	T	C	G	C	G	G	T	G	A	T	G	G	T	A	A	G	G
	15(1), 16(1)	25N1520	G	C	C	C	A	C	C	T	T	C	G	C	G	G	T	G	A	G	G	G	T	A	A	A	G
	15(1), 16(2)	25N1501	G	T	C	C	A	C	C	T	T	C	G	C	G	G	T	G	A	C	A	G	T	A	A	G	G
	15(1), 17(1)	25N1519	G	G	C	C	A	C	C	T	T	G	C	C	G	C	T	G	A	C	G	G	T	A	A	G	G
	15(1), 16(1), 17(1)	25N1504	G	G	T	C	A	C	C	T	T	C	G	C	G	G	T	G	A	C	G	G	T	A	A	G	G
	15(1), 16(1)	25N1515	A	T	C	*	A	C	C	T	T	C	G	C	G	G	T	G	A	T	G	G	T	A	A	G	G
	16(1), 17(1)	25N1622	T	G	C	A	T	T	C	A	C	T	G	G	T	A	A	G	T	G	T	*	C	T	T	G	A
13(1) / 14-16(1)	13(5), 14(3), 15(3), 16(2), 17(3)	25N1311	T	G	T	T	T	C	C	T	A	C	G	A	G	G	A	A	C	A	A	A	T	G	A	T	G
	14(2), 15(2), 17(1)	25N1416	T	G	C	T	T	C	C	T	A	C	G	G	G	G	A	A	C	A	A	A	T	G	A	T	G
13(3) / 14-16(8)	13(4), 14(3), 15(1), 16(2), 17(1)	25N1325	T	G	T	T	T	C	C	T	A	C	G	C	G	G	A	A	C	A	A	A	T	G	A	T	G
	13(8), 14(5), 15(3), 16(2), 17(2)	25N1320	T	G	T	T	T	C	C	T	A	C	G	C	G	G	A	A	C	A	A	A	T	G	A	T	G
	16(1), 17(1)	25N1621	G	G	T	T	T	C	C	T	A	C	G	C	G	G	A	A	C	A	A	A	T	G	A	T	G
	13(2), 14(2), 15(1), 16(2)	25N1303	A	G	T	T	T	C	C	T	A	C	G	C	G	G	A	A	C	A	A	A	T	G	A	T	G
	13(1), 14(2), 17(1)	25N1309	T	G	T	T	T	C	C	T	A	C	G	C	G	G	A	A	C	A	A	A	T	G	A	C	GG
13(1) / 14-16(2)	13(4), 14(4), 15(1), 17(2)	25N1307	T	G	T	T	T	C	C	T	A	C	G	C	G	G	A	A	C	A	A	A	T	A	A	T	G
	13(2), 14(3), 15(2), 16(1), 17(2)	25N1318	T	G	T	T	T	C	C	T	A	C	C	C	G	G	A	A	C	A	A	A	T	A	A	*	G
	13(3), 14(3), 15(1), 16(2), 17(1)	25N1312	T	G	T	T	T	C	C	T	A	C	G	C	G	G	A	A	C	A	A	G	T	A	A	G	G
	13(2), 14(1), 15(1)	25N1315	T	G	T	T	T	C	C	T	A	C	G	C	G	G	T	A	C	A	A	A	T	A	A	A	G
	13(2), 14(2), 15(1), 16(1)	25N1314	T	G	G	T	T	C	C	T	A	C	G	C	G	C	T	A	G	T	A	A	A	A	A	T	C
	15(1), 16(1)	25N1503	G	G	T	A	A	G	G	T	AA	C	G	T	C	C	T	A	T	T	T	T	T	G	A	T	G
13(3) / 14-16(9)	13(1), 14(1), 17(2)	25N1317	A	A	T	A	A	G	G	T	A	C	G	T	C	C	T	A	T	T	T	T	T	G	A	T	G
	13(1), 14(1), 16(1), 17(1)	25N1319	A	A	T	A	A	G	G	T	A	C	G	A	C	C	T	A	C	T	A	A	A	G	A	A	T
	13(1), 14(1)	25N1308	A	A	T	T	A	G	C	T	A	C	G	C	G	C	T	A	G	T	A	A	G	A	A	A	G
13(1) / 14-16(2)	13(2), 14(1), 15(1)	25N1304	A	C	A	C	A	G	T	T	A	C	G	T	A	C	T	T	G	T	A	A	G	T	G	G	T
13(1) / 14-16(2)	14(1), 15(2), 16(2)	25N1420	A	C	A	C	A	G	T	T	A	C	G	T	A	C	T	T	G	T	A	A	G	T	G	T	G
	15(1), 16(1)	25N1521	A	C	A	C	A	G	T	T	A	C	G	A	C	T	*	T	G	T	A	A	G	G	T	G	T
	13(1), 14(1),17(1)	25N1310	A	C	A	C	A	G	T	T	A	G	C	T	A	C	T	T	G	T	A	A	G	G	T	G	T
13(12) / 14-16(21)	13(8), 14(5), 15(5), 16(3), 17(2)	25N1316	A	C	A	C	A	G	T	T	A	C	G	T	A	C	T	T	G	T	A	A	G	G	T	G	T
	13(2), 14(2), 15(2), 16(1), 17(2)	25N1326	A	C	A	C	A	G	T	T	A	C	G	T	A	C	T	T	G	T	A	A	G	A	T	G	T
	15(1), 16(2)	25N1523	A	C	T	G	A	G	T	T	G	T	G	*	A	C	T	A	G	T	A	A	T	G	A	T	G
	13(3), 14(2), 15(2), 17(2)	25N1321	A	C	A	A	A	C	T	T	T	C	G	T	A	G	T	T	G	G	A	A	T	G	A	T	A
	15(1), 16(1)	25N1509	A	C	G	G	A	C	C	T	A	C	G	T	G	G	T	T	G	T	A	A	G	T	A	C	G
	16(1), 17(2)	25N1610	G	C	G	A	G	C	T	T	A	C	G	T	A	G	C	C	G	T	A	A	A	A	C	T	G

*** indicates deletion of a nucleotide**

Spplementary data Table 3
Nehdi and Perreault
HDV ribozyme *in vitro* selection