"CYP2C9 promoter variable number tandem repeat polymorphism (pVNTR) regulates mRNA expression in human livers" by D. Wang, X. Sun, Y. Gong, B.E. Gawronski, T.Y. Langaee, M.H.A. Shahin, S.I. Khalifa and J.A. Johnson, Drug Metabolism and Disposition

Supplemental Table 1. Primers and PCR conditions

1. Genotyping using Snapshot

PCR primers

SNP1 & SNP2	forward	TGTCCCACTGTAAGGTTTTCAGG
	reverse	TGCCCTTGTTCGTTGTTTCTATT
	condition	Denville PCR mix, 60°C annealing, ext 2min
SNP3 & SNP4	forward	CAAAAGAGAAAACACCAGACCCATA
	reverse	CACCTGTGGATATGATGATGAGAC
	condition	Denville PCR mix, 60°C annealing, ext 1 min
SNP5 & SNP6	forward	AGTATCATTTATATTAGCACC
	reverse	TGCATTTTATATTTGGATCTA
	condition	Denvile PCR mix, 56°C annealing, ext 1.5 min
SNP7, SNP9-SNP11	forward	GGTCTTTTCAACGAAGACTAATGGAGT
	reverse	CAAGCCCTAGCAACAAATAATC
	condition	Takara Primestar HS, 68°C annealing, ext 1.5 min
SNP12	forward	TTTCAAAAGCCTACTCTAATCCACC
	reverse	CACATCTCAGTCCAAATGATCAGG
	condition	Sigma PCR mix, 60°C annealing, ext 1min
SNP13 - SNP18	forward	AAGGTCTAGGAAGGAGCCGC
	reverse	GCCACACAGCTCATAGCTGG
	condition	Sigma PCR mix, 60°C annealing, ext 1.5 min
SNP19 & SNP 20	forward	TCCCTCCTAGTTTCGTTTCTCTTC
	reverse	AAGGTCAGTGATATGGAGTAGGGT
	condition	Sigma PCR mix, 55°C annealing, ext 1min
SNP21	forward	TCTGGTTAGAATTGATCCTCTGGT
	reverse	ACAAATCACAAATTCACAAGCAG
	condition	Sigma PCR mix, 55°C annealing, ext 1min
SNP22 - SNP24	forward	TGTTTGGATACCTTCATGATTCA
	reverse	GGAGTTGCAGTGTAGGAGAAACA
	condition	Sigma PCR mix, 55°C annealing, ext 1min
SNP25	forward	CACTGTTCTGAATGCCTGTGTACA
	reverse	AAGAATTGGATTAACTCCCCAAAGT
	condition	Sigma PCR mix, 60°C annealing, ext 1min

SNP26 - SNP28	forward	AGGAGTAACTGCTCTCTGTGTTTGCTA
	reverse	TGAAACATAGGAAACTCTCCGTAAT
	condition	Sigma PCR mix, 55°C annealing, ext 1min

Primer extension primers

SNP1	TGTGTTCTTCTACGACTCATTTTCTTTTA
SNP2	GCACATAATACGGAAACTACAAAAAAGTA
SNP3	CCCCATAAAATGAGTTAAGAATAGAAGAATT
SNP4	TTTTTTTTTTTTAATAAAAGATTAGCAAATTGCATCCAAT
SNP5	GATATAAATAAATACACAAATATTTCATGTTCATG
SNP6	TCGAGACCATCCTGGCTAACA
SNP7	TTTTACTACAATGAAGGTATAATCCATGAAATAAAGAAT
SNP9	CATTGGGGTTTTAGTTTGCAGGTC
SNP10	TTTTTTTTTTTTTGTTTACCACATTATCTGGTAGTTGTGCTC
SNP11	AAGGCTACATACTGTATGATTCCAACC
SNP12	TTTTTTTTTTGGAGTATCAACATTAAGCCCTCCA
SNP13	TTTTTTTTTTTTTTCATGAGTCAGGGACCAAGTTA
SNP14	TTTTTTTTTTTTTTTTTTTTTTTTTGCTTTTCTTTGCCCTGTATAAAGG
SNP15	TCAAGGCTCAGCTTCCTCATTC
SNP16	TTTTTTTTTTGTCCCTTTTGAATCTCTCAATTACCT
SNP17	TTTTTTTGTGATTTCCCTACCTCCCATCTT
SNP18	CGTTTCACTTCTGCAGTGATGGA
SNP19	TTTTTTTTTTTTTTTTTTTTGGGAAGAGGAGCATTGAGGAC
SNP20	TTTTTTTTTTTTTTTTTTTTTTTTTTTCTCAACTCCTCCACAAGGCAG
SNP21	TTGCTTCCTGATGAAAATGGAGA
SNP22	TGCATGCAGGGGCTCC
SNP23	GTGCACGAGGTCCAGAGATAC
SNP24	CAGGCTGGTGGGGAGAAG
SNP25	GCCCAATAATTAGGATGTATCATGA
SNP26	TTTTTGGCGGCACAGAGGCAAA
SNP27	TTTTTTTTTTTTTTTCCTTCTACCAGCTGTGCTTCATT
SNP28	TTTTTTTTTTAATGCCTTTTCTCACCTGTCATCT

note: for multiplex purpose, different number of Ts were added to the 5' to adjust the length of primers

Multiplex groups:

group 1: SNP1+SNP3+SNP4

group2: SNP2+SNP5+SNP6

group3: SNP7+SNP9

group4: SNP10+SNP11+SNP12

group5: SNP13+SNP14+SNP15+SNP16+SNP17+SNP18

group6: SNP19+SNP20+SNP21+SNP22+SNP23

group7: SNP24+SNP26+SNP27+SNP28

2. Genotyping using allele specific PCR

SNP8	forward (common)	CTTGATTTAAAAAATGGGCAACAGAT
	reverse (wt)	CAGGTCCGTAGTGACGTTTAATCAT
	Reverse (SNP)	CAGGTCCGTAGTGACGTTTAATCAC
	condition	Cyber green mix, 60°C annealing, ext 1min

3. Genotyping using FAM labeled primer

promoter repeat	forward (FAM)	TGTAGTCCCAGGTTGTCAAGAGG
	reverse	CCAGTCTCTGTCTTTTCATCTCATTC
	condition	Sigma Jumpstart PCR mix, 60°C annealing, ext 1 min
	PCR produts	long=512~522, medium=453~461, short=417~434

4. Sequencing

PCR primers

Promoter fragment 1	forward	AGGGAACCAGAGAAAGAAGGACA
-6343 to-3518	reverse	TGGATTTTAGCCATTGTATAAGTGTGTAG
	condition	Takara prime star HS, 68°C annealing, ext 3min
Promoter fragment 2	forward	CTCACCCAAGAAGAAATACAGATGG
-3646 to -44	reverse	CCTTTTATAACACTCCATGCTAATTCG
	condition	Takara prime star HS, 68°C annealing, ext 4min

Sequencing primers

fragment 1	
seq 1	AGGGAACCAGAGAAAGAAGGACA
seq 2	GAAAAGTCTCATCATCATATCCACAGG
seq 3	AGTATCATTTATATTAGCACC
seq 4	TGGATTTTAGCCATTGTATAAGTGTGTAG
fragment 2	
seq 5	CTCACCCAAGAAGAAATACAGATGG
seq 6	TTTCAAAAGCCTACTCTAATCCACC
seq 7	AAGGTCTAGGAAGGAGCCGC
seq 8	GTTAGAATCCCTGTTAAAAATGACCAGTAA
seq 9	CCTTTTATAACACTCCATGCTAATTCG

5. Primers for cloning

reporter gene, 5P	forward (add XhoI site)	CCGCTCGAGCGGTCTTTTCAACGAAGACTAATGGAGT
-4512 to -3025	reverse (add NcoI site)	CATGCCATGGTGG CAAGCCCTAGCAACAAATAATC
	condition	Takara prime star HS, 68°C annealing, ext 1.5 min
reporter gene, 3P	forward (add XhoI site)	CCGCTCGAGCCTCACCCAAGAAGAAATACAGATGG
-3646 to -48	reverse (add NcoI site)	CATGCCATGGTGG CCTTTTATAACACTCCATGCTAATTCG
	condition	Takara prime star HS, 68°C annealing, ext 4 min
repeat region topo clon	forward	GGTCTTTTCAACGAAGACTAATGGAGT
	reverse	TGGATTTTAGCCATTGTATAAGTGTGTAG
	condition	Takara prime star HS, 68°C annealing, ext 1.5 min
CAR V1 cDNA	forward	AGATCAGAGGAAAACCAGCAACAG
	reverse	CCAGTGTATCCAGGGTGTTCCA
	condition	Sigma Jump start PCR mix, 60 C annealing, ext 1.5 min
HNF1α cDNA	forward	GGCAGCCGAGCCATGGTTTC
	reverse	GCCCAGGTGCCGTGGTTACTG

	condition	Takara prime star HS, 68°C annealing, ext 2 min
HNF4α cDNA	forward	GGCGTGGAGGCAGGG
	reverse	TTAGAACAGTGACTGGCACGTG
	condition	Sigma Jump start PCR mix, 60 C annealing, ext 1.5 min
CEBPA	forward	CTCGCCATGCCGGGAG
	reverse	AGATCCGGCGACCCCAA
	condition	Sigma Jump start PCR mix, 60 C annealing, ext 2min
PXR v1 cDNA	forward	GGAGCCGCTTAGTGCCTACA
	reverse	GAGGTAGCAATGAAAAGACTCAGGAAG
	condition	Takara prime star HS, 68°C annealing, ext 2 min
RXRα cDNA	forward	CGGGCATGAGTTAGTCGCA
	reverse	CAACACATCTCTTAGGCAGAGCA
	condition	Takara prime star HS, 68°C annealing, ext 2 min
GATA4 cDNA	forward	CATATTATCGTTGTTGCCGTCG
	reverse	GATTACGCAGTGATTATGTCCCC
	condition	Takara prime star HS, 68°C annealing, ext 2 min