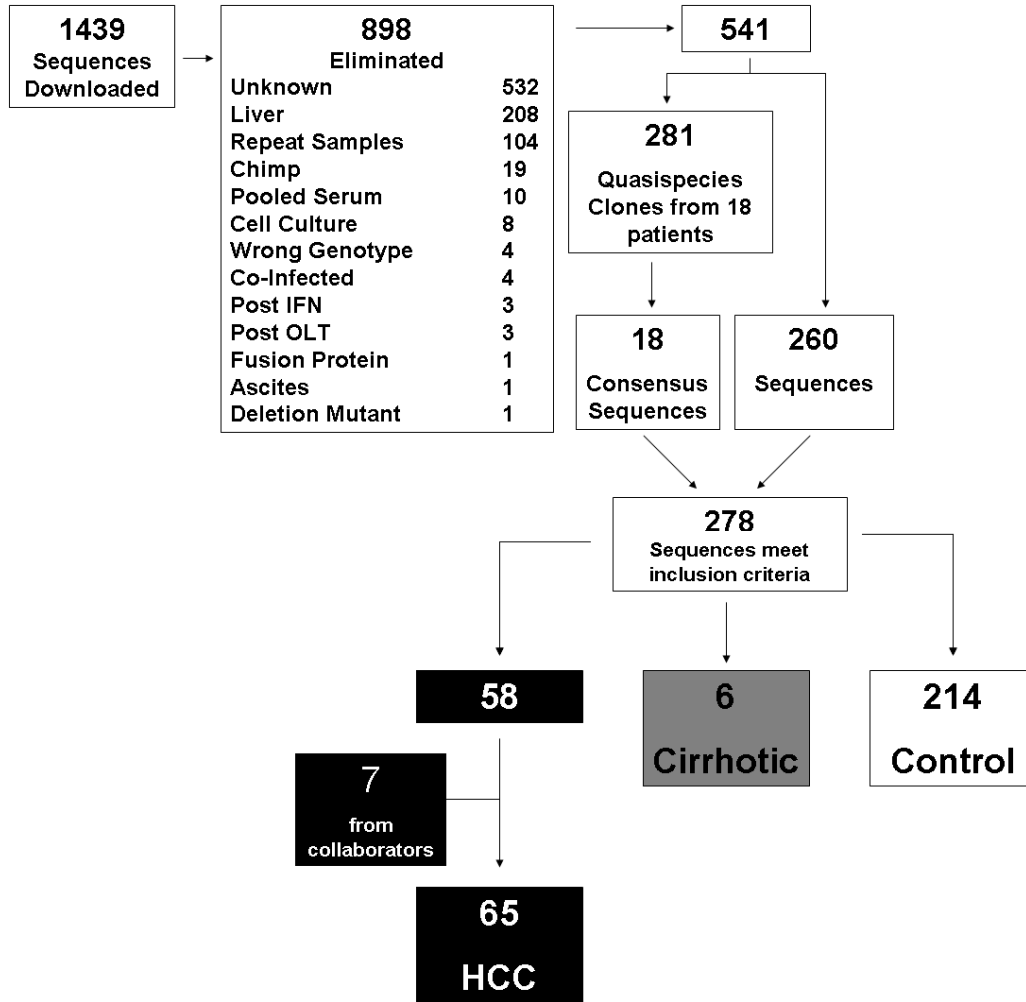


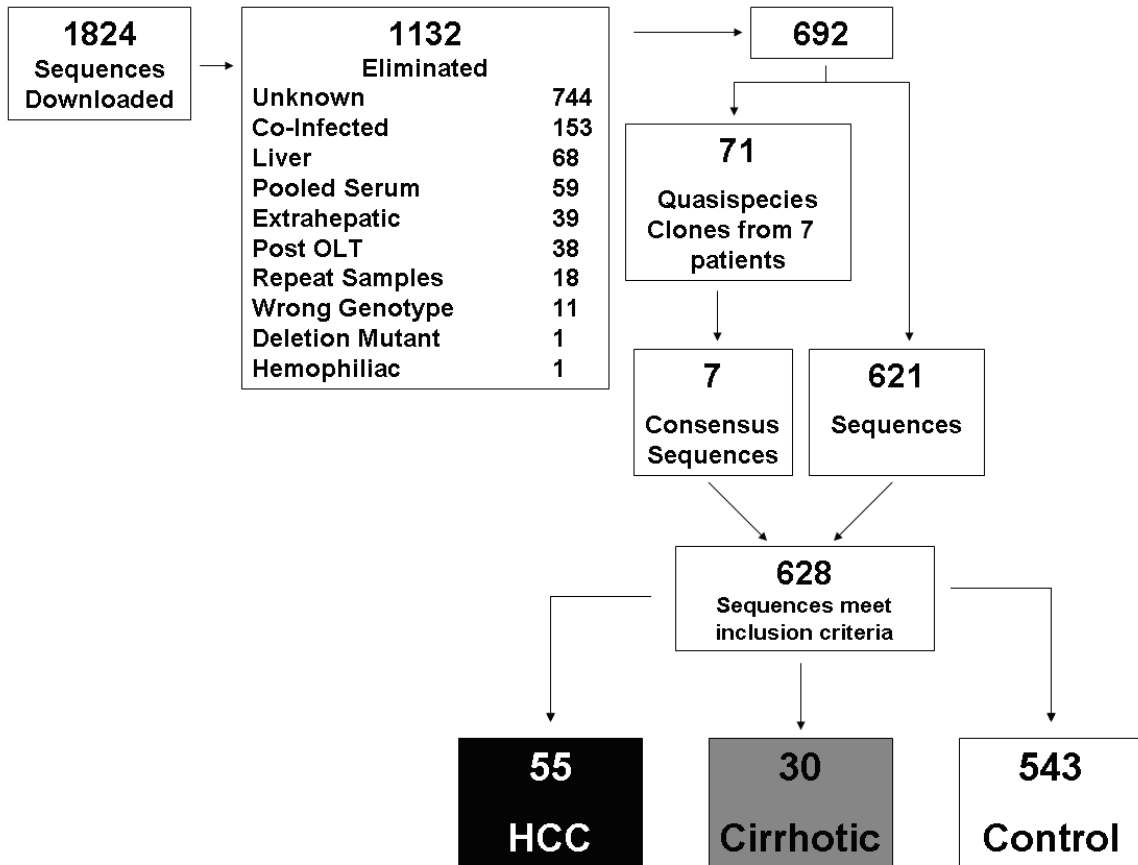
Supplemental Figures:

Figure S1: Sequence Annotation. **A)** 1439 sequences were downloaded from Genbank in November 2007. 898 were eliminated because they did not match our inclusion criteria. Of the remaining 541, 281 were quasispecies clones from 18 patients. Each set of clones was reduced to a consensus sequence. The 18 consensus sequences and remaining 260 sequences were distributed to three groups based on the liver status of the patient (HCC, Cirrhosis, Acute and Chronic HCV infection without cirrhosis or HCC). **B)** 1824 sequences were downloaded from Genbank in November 2007. 1132 were eliminated because they did not match our inclusion criteria. Of the remaining 692, 71 were quasispecies clones from 7 patients. Each set of clones was reduced to a consensus sequence. The 7 consensus sequences and remaining 621 sequences were distributed to three groups based on the liver status of the patient (HCC, Cirrhosis, Acute and Chronic HCV infection without cirrhosis or HCC).

A



B



Supplemental Tables:

Table S1A: Full-length core gene sequences from Genbank

Accession Number	Reference	Source and/or origin	Group
AB008441-3	¹	Cell Culture	OUT
AB008445-7	¹	Cell Culture	OUT
AB016785	²	Patient Serum	CONTROL
AB037249	³	Patient Serum	CONTROL
AB049087-101	⁴	Patient Serum	HCC
AB061927-2026	⁵	Liver	OUT
AB062173-272	⁵	Liver	OUT
AB063485	⁵	Patient Serum	CONTROL
AB063486	⁵	Repeated Sample	OUT
AB077701-21	⁶	Patient Serum	CONTROL
AB077722-47	⁶	Patient Serum	HCC
AB080299	⁷	Cell culture	OUT
AB086043	⁶	Patient Serum	HCC
AB086044-51	⁶	Patient Serum	CONTROL
AB086052-54	⁶	Patient Serum	HCC
AB119282	⁸	Core-Neo Fusion	OUT
AB154177-206 (odds)	⁹	Patient serum	CONTROL
AB154177-206 (evens)	⁹	Repeated samples	OUT
AB19133	¹⁰	Patient serum	CONTROL

AF054247-59	11,12	Chimp	OUT
AF072824	No Paper	Insufficient Information	OUT
AF139594	13	Pooled sample	OUT
AF165045-64 (odds)	14	Patient Sera	CONTROL
AF165045-64 (evens)	14	Repeated Samples	OUT
AF176573	15-17	Patient Serum	CONTROL
AF207752-61	18	Patient Serum	CONTROL
AF207762-74	18	Patient Serum	HCC
AF208024	18	Patient Serum	CONTROL
AF313196	9	Patient Serum	CONTROL
AF333324	19	Chimp	OUT
AF356827	20	Patient Serum	CONTROL
AF483269	21	Patient Serum	CONTROL
AF531454	22	Patient Serum	CIRR
AF531455	22	Post Transplant	OUT
AJ00009	23	Patient Serum	CONTROL
AJ132996-97	24	Pooled Sample	OUT
AJ238799	25	Liver	OUT
AJ238800	25,26	Post Transplant	OUT
AM262455-66	No Paper	Patient Serum	CONTROL
AM262467-79	No Paper	Patient Serum	CONTROL
AM262480-93	No Paper	Patient Serum	CONTROL

AM262494-511	No Paper	Patient Serum	CONTROL
AM285684-6184	No Paper	Insufficient Information	OUT
AM397933-949	No Paper	Insufficient Information	OUT
AY045702	27	Patient Serum	CONTROL
AY070174	28	Patient Serum	CONTROL
AY070214	28	Recombinant	OUT
AY070215	28	Recombinant	OUT
AY308072	29-31	Chimp	OUT
AY365213	32	Patient Serum	CONTROL
AY460204	No Paper	Insufficient Information	OUT
AY521935-45	33	Patient Serum	CONTROL
AY521946-56	33	Repeated Sample	OUT
AY521981	33	Patient Serum	CONTROL
AY522009	33	Repeated Sample	OUT
AY522011-22	33	Patient Serum	CIRR
AY522023-33	33	Repeated Sample	OUT
AY522079-90	33	Patient Serum	CIRR
AY522097	33	Patient Serum	CIRR
AY522159-70	33	Patient Serum	CIRR
AY522235-40	33	Patient Serum	CONTROL
AY522241-51	33	Repeated Samples	OUT
AY522275,77,79	33	Patient Serum	CIRR

AY522284-93	33	Repeated Samples	OUT
AY587016	No Paper	Cell culture	OUT
AY587287-497	No Paper	Patient Serum	CONTROL
AY587844	28	Patient Serum	CONTROL
AY587845	28	Recombinant	OUT
AY652608	No Paper	Insufficient Information	OUT
AY940619-22	No Paper	Insufficient Information	OUT
D00574	34	Patient Plasma	CONTROL
D00832	35	Chimp	OUT
D10074	35	Patient Plasma	CONTROL
D10687	36	Patient Serum	CONTROL
D10688	36	Chimp	OUT
D10750	15	Chimp	OUT
D10934	37	Insufficient Information	OUT
D11168	38	Patient Serum	CONTROL
D11355	38	Repeated Sample	OUT
D13406	39,40	Repeated Sample	OUT
D13558	15	Chimp	OUT
D14484	No Paper	Insufficient Information	OUT
D30613	41	Patient Serum	CONTROL
D45172	42	Repeated Sample	OUT
D50480-82	43	Patient Serum	CONTROL

D50483-85	43	Post IFN	OUT
D63857	No Paper	Insufficient Information	OUT
D83645	44	Patient Serum	CONTROL
D85516	45	Patient Serum	CONTROL
D89815	46	Patient Serum	CONTROL
D89872	No Paper	Insufficient Information	OUT
D90208	47	Pooled Sample	OUT
DQ061296	48	Patient Serum	CONTROL
DQ061297	48	Repeated Sample	OUT
DQ061298-99	48	Repeated Sample	OUT
DQ061331-74 (odds)	49	Patient Serum	CONTROL
DQ061331-74 (evens)	49	Repeated Samples	OUT
DQ061375-78	49	Pooled Sample	OUT
DQ228488-93	No Paper	Insufficient Information	OUT
DQ364460	50	Recombinant	OUT
DQ859967	No Paper	Patient Serum	CONTROL
EF407458-504	51	Patient Serum	CONTROL
EF420126	52	Patient Serum	CONTROL
EF420127	52	Deletion Mutant	OUT
EF560531	53	Patient Serum	CONTROL
EF560532-4	53	Repeated Sample	OUT
EF560551	53	Patient Serum	CONTROL

EF560552-4	53	Repeated Sample	OUT
L02836	No Paper	Insufficient Information	OUT
L12354	54	Patient Serum	CONTROL
L20498	55	Pooled Sample	OUT
L38318	56	Patient Serum	CONTROL
M58335	57	Pooled Sample	OUT
M74806	58	Patient Serum	CONTROL
M74807	58	Patient Serum	CONTROL
M74809	58	Patient Serum	CONTROL
M74810	58	Patient Serum	CONTROL
M74813	58	Patient Serum	CONTROL
M74814	58	Patient Serum	CONTROL
M74815	58	Patient Serum	CONTROL
M74888	59	Patient Serum	CONTROL
M84754	60	Liver	OUT
M86779	61	Post-OLT	OUT
M96362	No Paper	Insufficient Information	OUT
S62220	13	Patient Serum	CONTROL
S72727,8	62	Patient Serum	CONTROL
S76540	63	Patient Serum	CONTROL
S78528	64	Patient Serum	CONTROL
U01214	No Paper	Insufficient Information	OUT

U10189-234	⁶⁵	Patient Serum	CONTROL
U16362	No Paper	Insufficient Information	OUT
U45461-3	No Paper	Insufficient Information	OUT
U45476	No Paper,	Insufficient Information	OUT
U55282	⁶⁶	Patient Serum***	OUT
U55284	⁶⁶	Patient Serum***	OUT
U63376-9	⁶⁷	HBV Co-infected	OUT
U89019	⁶⁸	Ascites fluid	OUT
X61591-6	⁶⁹	Liver	OUT
X65924	No Paper	Insufficient information	OUT

*** These sequences were not included because information about those

sequences was unavailable at the time experiments were conducted.

Table S1B: Core gene sequence fragments in Genbank

Accession Number	Reference	Source/Origin	Group
AB014487	⁷⁰	Insufficient Information	OUT
AB030159-73	⁷¹	Insufficient Information	OUT
AB030959-1001	No Paper	Insufficient Information	OUT
AB039866-77	⁷²	Insufficient Information	OUT
AB162859-61	HCV site	Insufficient Information	OUT
AB245555-873	⁷³	Insufficient Information	OUT
AB269350-2	⁷⁴	Patient Serum	CONTROL
AB291002-28	⁷⁴	Patient Serum	CONTROL
AB301744-64	Abe, Kenji personal communic ation	Advanced Liver Disease	OUT
AB306333-404	Abe, Kenji personal communic ation	Advanced Liver Disease	OUT
AF086640	No Paper,	Insufficient Information	OUT
AF118580-83	⁷⁵	Risk of Co-infection	OUT
AF118622-24	⁷⁵	Risk of Co-infection	OUT
AF118630-32	⁷⁵	Risk of Co-infection	OUT
AF134740-49	⁷⁶	Patient Serum	CONTROL

AF205595	No Paper	Insufficient Information	OUT
AF210895-901	No Paper	Insufficient Information	OUT
AF213648-54	77	Insufficient Information	OUT
AF213894-95	78	Insufficient Information	OUT
AF233703-14	79	Insufficient Information	OUT
AF271819	80	Risk of co-infection	OUT
AF350914-17	81	Patient Serum	CONTROL
AF379040-67	82	Patient Serum	CIRR
AF379068-118	82	Patient Serum	HCC
AF482729	83	Blood Donors	CONTROL
AF484974	83	Blood Donors	CONTROL
AF484975	83	Blood Donors	CONTROL
AF506614-20	84	Risk of Co-infection	OUT
AF525887-94	83	Blood Donors	CONTROL
AJ507016-7035	No Paper	Insufficient Information	OUT
AJ582128-30	85	Insufficient Information	OUT
AJ582131	85	Insufficient Information	OUT
AJ781119	86	Insufficient Information	OUT
AJ781122-23	86	Insufficient Information	OUT
AJ849973-74	87	Patient Serum	Control
AM114084-98	No Paper	Insufficient Information	OUT
AM422808-29	No Paper	Insufficient Information	OUT
AM494544-83	No Paper	Insufficient Information	OUT

AM500641-43	No Paper	Insufficient Information	OUT
AY070167-174	28	Wrong genotype	OUT
AY070195-210	28	Patient Serum	CONTROL
AY079244-86	88	Risk of Co-infection	OUT
AY089747-64	83	Patient Plasma	CONTROL
AY190328-74	76	Patient Serum	CONTROL
AY256786	89	Risk of Co-infection	OUT
AY344020-24	90	Insufficient Information	OUT
AY446021-23	91	HIV Co-infection	OUT
AY506668-95	92	Patient Serum	CONTROL
AY548590	93	Patient Serum	CONTROL
AY548630	93	Patient Serum	HCC
AY548656	93	Patient Serum	HCC
AY576547-51	94	Patient Serum	CONTROL
AY576552-64	94	Advanced Liver Disease	OUT
AY576565-77	94	Patient Serum	CIRR
AY576578-85	94	Advanced Liver Disease	OUT
AY576586-87	94	Patient Serum	CONTROL
AY576588-603	94	Advanced Liver Disease	OUT
AY587465-81	No Paper	Patient Serum	CONTROL
AY600628-44	95	Liver	OUT
AY600645-54	95	Patient Serum	CONTROL
AY600655-66	95	Extrahepatic	OUT

AY600667-77	⁹⁵	Liver	OUT
AY600678-91	⁹⁵	Patient Serum	CONTROL
AY600692-706	⁹⁵	Extrahepatic	OUT
AY600707-17	⁹⁵	Liver	OUT
AY600718-27	⁹⁵	Patient Serum	CONTROL
AY600728-39	⁹⁵	Extrahepatic	OUT
AY652609-13	No Paper	Insufficient Information	OUT
AY739365-84	⁹⁶	Patient Serum	CONTROL
AY765237-239	Nelson, Kenrad personal communic ation	Patient Serum	CONTROL
AY766709-8358	⁹⁷	Risk of Co-infection	OUT
AY835076-317	⁹⁸	Patient Serum	CONTROL
AY878435	⁹⁹	HIV Co-infection	OUT
AY898811	¹⁰⁰	Post OLT	OUT
AY898812-32	¹⁰⁰	Patient Serum	CONTROL
AY898833-54	¹⁰⁰	Post OLT	OUT
AY921165-72	¹⁰¹	Patient Serum	CONTROL
AY921608	¹⁰¹	Patient Serum	CONTROL
D00689-91	¹⁰²	Pooled Serum	OUT
D11153-56	¹⁰²	Patient Serum	CONTROL

D13729-35	¹⁰³	Advanced Liver Disease	OUT
D14116	¹⁰⁴	Patient Serum	CONTROL
D14829	¹⁰⁵	Patient Serum	CONTROL
D14830-31	¹⁰⁵	Repeated Sample	OUT
D16694-806	No Paper	Insufficient Information	OUT
D26394-408	¹⁰⁶	Repeated Samples	OUT
D28918-28933	¹⁰⁵	Patient Serum	CONTROL
D30614	⁴¹	Repeated Sample	OUT
D49455, 62	¹⁰⁷	Patient Serum	CONTROL
DQ001223- 70	No Paper	Insufficient Information	OUT
DQ065829, 36	¹⁰⁸	Patient Serum	CONTROL
DQ155449-98	¹⁰⁹	Patient Serum	CONTROL
DQ233304-14	¹¹⁰	Patient Serum	CONTROL
DQ249537-641	¹¹¹	Pooled Sample	OUT
DQ374420-21	⁹²	Patient Serum	CONTROL
DQ417428-33	¹¹²	Wrong genotype	OUT
DQ485285	¹¹³	Patient Serum	CIRR
DQ518404	No Paper	Insufficient Information	OUT
DQ529987-530016	No Paper	Insufficient Information	OUT
DQ640336-54	¹¹⁴	Patient Serum	CONTROL
DQ641950-77	¹¹⁵	Liver	OUT
DQ648495-97	¹¹⁶	Risk of Co-infection	OUT
DQ776842-809	¹¹⁷	Risk of Co-infection	OUT

DQ839181- 220	¹¹⁸	Insufficient Information	OUT
DQ859926-61	No Paper	Insufficient Information	CONTROL
EF115778-97	¹¹⁹	Insufficient Information	OUT
EF175795-98	¹²⁰	Insufficient Information	OUT
EF185933-90	No Paper	Insufficient Information	OUT
EF205221-29	⁷⁹	Insufficient Information	OUT
EF394373-425	No Paper	Insufficient Information	OUT
EF543226-38	HCV Site	Patient Serum	CONTROL
EU155217- 382	HCV Site	Patient Plasma	CONTROL
L38343-421	⁵⁶	Patient Serum	CONTROL
L39285-311	¹²¹	Advanced Liver Disease	OUT
L44598-99	⁵⁶	Patient Serum	CONTROL
L50543-55	¹²²	Blood Donors	CONTROL
M84830-863	¹²³	Patient Serum	CONTROL
M86765	⁶¹	Post OLT	OUT
S46012	¹²⁴	Pooled Sample	OUT
S50215	¹²⁵	Post OLT	OUT
S63245	¹²⁶	Insufficient Information	OUT
S64510	¹²⁷	Patient Serum	CONTROL
S67463	¹²⁸	Pooled Sample	OUT
S71864	¹²⁹	Patient Serum	HCC
S83169	¹³⁰	Liver	OUT
U05028	¹¹⁹	Insufficient Information	OUT

U23385-90	¹³¹	Patient Serum	CONTROL
U23744	¹³¹	Patient Serum	CONTROL
U28029	¹³²	Patient Serum	CONTROL
U31232	¹³³	Hemophiliacs	OUT
U37592-609	¹³⁴	Patient Serum	CONTROL
U45464-75	HCV Site	Post OLT	OUT
U89015	⁶⁸	Patient Serum	HCC
U94722	¹³⁵	Possible transplant	OUT
X76408-13	¹³⁶	Patient Serum	CONTROL
X78950-51	¹³⁷	Patient Serum	CONTROL
X91297	¹³⁸	Patient Serum	CONTROL
X91302	¹³⁸	Patient Serum	CIRR
X91304	¹³⁸	Patient Serum	CONTROL
X91305	¹³⁸	Patient Serum	CONTROL
Z29445-454	¹³⁹	Patient Serum	CONTROL

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