

## **Supplementary materials**

### **Materials and Methods**

**Bacterial strains and biopsy samples.** The sources of purified DNA used in this study are listed in Table 1. Details of the biopsies and other tissue samples may be found in Tables 3 and S2. All human biopsies were obtained from studies, which had been approved by the appropriate IRB and after informed patient consent.

**Comparative genomics and array analyses.** High density membranes were prepared by spotting 1,741 PCR fragments, corresponding to the complete genome of the TN strain of *M. leprae*, using a QPIX gridding robot (Genetix, Hampshire, UK). Details of fragment locations in the genome may be found in Table S3. Genomic DNA (~1µg) was randomly labelled with [ $\alpha$ -<sup>33</sup>P]dCTP using Prime-it II kits (Stratagene Systems, Kirkland, WA). Unincorporated nucleotides were removed by exclusion chromatography with the QIAquick Nucleotide Removal kit (Qiagen, Inc., Valencia, Calif). Membranes were hybridized overnight at 65°C with the labelled probe followed by six washing steps in 50 ml of 0.01 x SSPE, 0.2% SDS. The first three washes were done at room temperature for 3 min followed by three washes at 65°C for 20 min. Membranes were exposed and scanned on a STORM phosphorimager (Amersham Biosciences, Arlington Heights, IL). The hybridization signals of each spot obtained with the genomic DNA from various strains were compared to a control membrane hybridized with the TN reference strain using the Array vision software (Imaging Research Inc., Ontario, Canada). Typical comparative hybridization results are shown in Figure S1. Loci, corresponding to all hybridization spots that fell outside the limits established in Figure S1 (i.e. whose signal was >2X or <0.5 of that obtained with the control), were investigated further by locus-specific PCR analysis of the corresponding genomic DNA but no deletions were detected. Furthermore, owing to the use of partially overlapping capture probes, if deletions of >1kb had occurred they would likely have been detected by reduction in

signal with two consecutive capture probes. Fingerprinting and end-sequencing of cosmids from a second Indian strain of *M. leprae* were performed as described previously (19).

**Real-time PCR.** To test for variations in the copy number of dispersed repeats the following real-time PCR protocol was used. Primers were chosen using Primer 3 software available via ([http://www-genome.wi.mit.edu/cgi-bin/primer/primer3\\_www.cgi](http://www-genome.wi.mit.edu/cgi-bin/primer/primer3_www.cgi)). These targeted the repetitive sequences LEPRPT (five copies), LEPREP (eight copies), REPLEP (15 copies), RLEP (37 copies) and a single copy sequence was used as the control.

Quant_LEPRPT-F	5'-ACGCGATCGACGTATATTGA-3'
Quant_LEPRPT-R	5'-CAGGTGATGACCAGCAAGAC-3'
Quant_LEPREP-F	5'-CGCGGATCTGGCATAAGT-3'
Quant_LEPREP-R	5'-GGGTCGGTAACGAACTTGAA-3'
Quant_REPLEP-F	5'-CACAATTTGTTTCGGGACTGT-3'
Quant_REPLEP-R	5'-GCTGCGTACGGAGATAGACA-3'
Quant_RLEP-F	5'-GCGCTAACAACTATCCTCACA-3'
Quant_RLEP-R	5'-CCGCAGTGGACACGATTA-3'
Quant_Control-F	5'-CGTTAGTGTTTCAGCGTCGTT-3'
Quant_Control-R	5'-AACCGATCTTCGGAAAGCTA-3'

All amplification reactions were performed in a total volume of 25µl with an ABI Prism 7700 sequence detector (Applied Biosystems, Foster City, Ca) with 96 microwell plates (Microamp; Applied Biosystems). To optimize real-time PCR four concentrations of each primer were tested. After adjusting primer concentrations, serial dilutions of each strain DNA (62.5pg to 0.25pg) were tested with Quant\_Control primers (200 nM). Each well (25µl) contained 5µl of diluted DNA, 12.5µl of SYBR Green I PCR Master Mix (Applied Biosystems), 5µl of diluted primers and 2.5µl distilled water. The reaction mixture was run using universal cycling parameters, 50°C for 2 min and 95°C for 10 min,

followed by 40 cycles at 95°C for 15 sec, 60°C for 1 min. Results were analysed according to the procedures recommended by Applied Biosystems.

**SNP and Variable Number Tandem Repeat analysis.** PCR fragments were generated from purified *M. leprae* genomic DNA, human biopsies or other tissue specimens, by standard procedures then sequenced using an AB3100 DNA sequencer (Applied Biosystems, Foster City, USA). The following primers were used for this purpose: SNP-14676-F AATGGAATGCTGGTGAGAGC and SNP-14676-R CAATGCATGCTAGCCTTAATGA; SNP-1642875-F TGCTAGTTTAACCGAGTACTGCTA and SNP-1642875-R GTAGTAGTCTTCCAAGTTGTGGTG; SNP-2935685-F ATCTGGTCCGGGTAGGAATC and SNP-2935685-R ACCGGTGAGCGCACTAAG. Briefly, PCR was carried out using 2.5 U of *Taq* DNA Polymerase (Invitrogen, life technologies) in a 50µl volume containing 250 pg of purified *M. leprae* DNA or 5µl of prepared biopsy samples, 200 nM of primers and reagents supplied by the manufacturer. The mixture was denatured at 94°C for 3 min followed by 45 PCR cycles (1 min at 94°C, 1 min at 55°C, extension at 72°C for 2 min) with a final extension at 72°C for 10 min in a thermocycler (PTC-100, MJ Research, Inc.). Primers were designed to amplify the DNA region flanking the target regions. As the primers used in sequencing were the same as for PCR, 10µl of PCR products were incubated with 5U of Exonuclease I (USB, Corp., Cleveland, Ohio) and 0.5U of Shrimp Alkaline Phosphatase (USB, Corp., Cleveland, Ohio) at 37°C for 30 min before enzyme inactivation at 80°C for 30 min. Then we added 4 µl of BigDye v3.1, 4 µl of BigDye v3.1 buffer (Applied Biosystems, Foster City, USA) and 200 nM of primer. The sequencing mixture was denatured at 96°C for 1 min followed by 40 cycles of denaturation at 96°C for 30 sec, annealing at 56°C for 15 sec and extension at 60°C for 4 min. Sequences were compiled and analysed using Gap4 and Artemis as described previously (5). In some instances, involving AT-rich regions, PCR products were purified using QIAquick PCR purification kit (Qiagen, Inc., Valencia, Calif.), and cloned into the pGEM®-T Easy Vector Systems (Promega, Woods Hollow Road, USA.) prior to sequencing. The complete results of SNP and VNTR analysis are summarized in Table S2.

**Table S1.** Sequenced loci from strain Br4923. Coding, non-coding and pseudogenes.

	Beginning	End	bp sequenced
PSEUDOGENE ML0035	42573	43595	1022
PSEUDOGENE ML0039	47405	48314	909
PSEUDOGENE ML0065	86913	87812	899
PSEUDOGENE ML0083	105675	106678	1003
PSEUDOGENE ML0090	111799	112698	899
PSEUDOGENE ML0148	209979	210981	1002
PSEUDOGENE ML0166	231829	232731	902
PSEUDOGENE ML0167	233549	234637	1088
PSEUDOGENE ML0194	260955	262011	1056
PSEUDOGENE ML0197	263403	264304	901
PSEUDOGENE ML0220	292337	293380	1043
PSEUDOGENE ML0259	338533	339574	1041
PSEUDOGENE ML0268	351994	352894	900
PSEUDOGENE ML0272	355524	356531	1007
PSEUDOGENE ML0305	390879	391785	906
PSEUDOGENE ML0326	416866	417879	1013
PSEUDOGENE ML0340	429666	430571	905
PSEUDOGENE ML0343	433786	434696	910
PSEUDOGENE ML0345	436510	437521	1011
PSEUDOGENE ML0360	454681	455719	1038
PSEUDOGENE ML0374	467080	467984	904
PSEUDOGENE ML0384	477537	478587	1050
PSEUDOGENE ML0401	499328	500348	1020
PSEUDOGENE ML0415	513508	514410	902
PSEUDOGENE ML0416	516501	517561	1060
PSEUDOGENE ML0433	533694	534705	1011
PSEUDOGENE ML0436	535944	536843	899
PSEUDOGENE ML0438	538750	539658	908
PSEUDOGENE ML0469	568533	569435	902
PSEUDOGENE ML0477	579093	580141	1048
PSEUDOGENE ML0504	612144	613197	1053
PSEUDOGENE ML0507	615666	616565	899
PSEUDOGENE ML0553	670224	671123	899
PSEUDOGENE ML0599	725692	726593	901
PSEUDOGENE ML0632	764582	765486	904
PSEUDOGENE ML0655	792524	793427	903
PSEUDOGENE ML0680	815103	816008	905
PSEUDOGENE ML0688	824253	825168	915
PSEUDOGENE ML0692	830062	830963	901
PSEUDOGENE ML0716	857280	858179	899
PSEUDOGENE ML0719	862196	863096	900
PSEUDOGENE ML0721	865034	866129	1095
PSEUDOGENE ML0744	886041	886940	899
PSEUDOGENE ML0767	909852	910755	903
PSEUDOGENE ML0789	932385	933287	902
PSEUDOGENE ML0795	940043	940945	902
PSEUDOGENE ML0822	973808	974710	902

PSEUDOGENE ML0830	985162	986062	900
PSEUDOGENE ML0856	1017548	1018450	902
PSEUDOGENE ML0884	1049220	1050136	916
PSEUDOGENE ML0931	1100926	1101989	1063
PSEUDOGENE ML0943	1113138	1114037	899
PSEUDOGENE ML0952	1120516	1121415	899
PSEUDOGENE ML0991	1157966	1158872	906
PSEUDOGENE ML1048	1214435	1215348	913
PSEUDOGENE ML1062	1227288	1228193	905
PSEUDOGENE ML1100	1271500	1272401	901
PSEUDOGENE ML1104	1277904	1278807	903
PSEUDOGENE ML1152	1346960	1347859	899
PSEUDOGENE ML1154	1349865	1350767	902
PSEUDOGENE ML1162	1360828	1361729	901
PSEUDOGENE ML1184	1383768	1384671	903
PSEUDOGENE ML1204	1421282	1422339	1057
PSEUDOGENE ML1212	1433140	1434039	899
PSEUDOGENE ML1235	1472257	1473156	899
PSEUDOGENE ML1252	1497090	1497992	902
PSEUDOGENE ML1281	1525036	1525938	902
PSEUDOGENE ML1308	1560516	1561418	902
PSEUDOGENE ML1345	1604209	1605109	900
PSEUDOGENE ML1356	1616968	1617882	914
PSEUDOGENE ML1378	1642236	1643151	915
PSEUDOGENE ML1385	1657968	1658867	899
PSEUDOGENE ML1416	1698012	1698918	906
PSEUDOGENE ML1436	1725103	1726005	902
PSEUDOGENE ML1449	1741841	1742884	1043
PSEUDOGENE ML1456	1749686	1750588	902
PSEUDOGENE ML1473	1774195	1775102	907
PSEUDOGENE ML1490	1795417	1796316	899
PSEUDOGENE ML1502	1811634	1812535	901
PSEUDOGENE ML1528	1842964	1843863	899
PSEUDOGENE ML1545	1868951	1869856	905
PSEUDOGENE ML1563	1888184	1889094	910
PSEUDOGENE ML1594	1919138	1920037	899
PSEUDOGENE ML1620	1941683	1942588	905
PSEUDOGENE ML1634	1968019	1968920	901
PSEUDOGENE ML1665	2006707	2007609	902
PSEUDOGENE ML1693	2039997	2040902	905
PSEUDOGENE ML1732	2092145	2093045	900
PSEUDOGENE ML1745	2106986	2107898	912
PSEUDOGENE ML1766	2140808	2141716	908
PSEUDOGENE ML1777	2153432	2154335	903
PSEUDOGENE ML1852	2235763	2236832	1069
PSEUDOGENE ML1869	2248965	2249864	899
PSEUDOGENE ML1893	2278625	2279525	900
PSEUDOGENE ML1984	2368175	2369091	916
PSEUDOGENE ML2024	2415168	2416083	915

PSEUDOGENE ML2036	2426837	2427738	901
PSEUDOGENE ML2089	2484050	2484950	900
PSEUDOGENE ML2097	2493319	2494223	904
PSEUDOGENE ML2115	2515432	2516333	901
PSEUDOGENE ML2132	2533999	2534913	914
PSEUDOGENE ML2146	2549359	2550258	899
PSEUDOGENE ML2149	2553224	2554292	1068
PSEUDOGENE ML2208	2622864	2623780	916
PSEUDOGENE ML2224	2640521	2641420	899
PSEUDOGENE ML2238	2657091	2657992	901
PSEUDOGENE ML2272	2696308	2697210	902
PSEUDOGENE ML2287	2711245	2712161	916
PSEUDOGENE ML2338	2772873	2773772	899
PSEUDOGENE ML2361	2826668	2827753	1085
PSEUDOGENE ML2364	2830114	2831017	903
PSEUDOGENE ML2383	2854276	2855189	913
PSEUDOGENE ML2408	2879084	2879988	904
PSEUDOGENE ML2462	2935196	2936097	901
PSEUDOGENE ML2520	3003092	3003991	899
PSEUDOGENE ML2553	3045440	3046466	1026
PSEUDOGENE ML2559	3051012	3051911	899
PSEUDOGENE ML2585	3087409	3088311	902
PSEUDOGENE ML2606	3110019	3110921	902
PSEUDOGENE ML2645	3165562	3166581	1019
PSEUDOGENE ML2658	3180406	3181306	900
PSEUDOGENE ML2662	3188108	3189007	899
PSEUDOGENE 17-AT-F	2597586	2597904	318
PSEUDOGENE 18-AT-F	984395	984762	367
PSEUDOGENE ML1353-int-F	1614220	1614068	152
<b>TOTAL</b>			<b>114659</b>
NON CODING RNC-01	1103945	1103489	456
NON CODING RNC-02	14721	14291	430
NON CODING RNC-03	2013052	2012649	403
NON CODING RNC-04	2801322	2800907	415
NON CODING RNC-05	479589	479087	502
NON CODING RNC-06	41494	41996	502
NON CODING RNC-07	688101	688604	503
NON CODING RNC-08	1376025	1376538	513
NON CODING RNC-09	2299083	2299593	510
NON CODING RNC-10	3138257	3138778	521
NON CODING B1133-MIRU1	1691953	1692315	362
NON CODING B1308-MIRU1	861747	862365	618
NON CODING B1549-MIRU1	1371912	1371576	336
NON CODING B1549-MIRU2	1368775	1368117	658
NON CODING B1764-MIRU1	1194587	1195134	547
NON CODING B1764-MIRU2	1206829	1207452	623
NON CODING B2168-MIRU1	2917764	2918252	488
NON CODING B2168-MIRU2	2883902	2884201	299
NON CODING B2168-MIRU3	2915088	2915409	321

NON CODING	B2235-MIRU1	1164458	1164069	389
NON CODING	B2266-MIRU1	2617967	2617619	348
NON CODING	B2266-MIRU2	2613593	2613196	397
NON CODING	B2266-MIRU3	2611031	2610664	367
NON CODING	B937-MIRU1	648097	648641	544
NON CODING	L471-MIRU1	1328014	1327566	448
NON CODING	Miru01	153455	153872	417
NON CODING	Miru02	534495	534905	410
NON CODING	Miru05	876962	877380	418
NON CODING	Miru12	1629493	1629925	432
NON CODING	Miru13	1777631	1778077	446
NON CODING	Miru15	1915234	1915642	408
NON CODING	Miru16	2044072	2044505	433
NON CODING	TTC-F	2785574	2785374	200
NON CODING	15-AT-F	948757	949072	315
NON CODING	9-GTA-F	2583649	2583965	316
NON CODING	14-AT-F	308614	308914	300
<b>TOTAL</b>				<b>15595</b>
CODING	murD	2379458	2379958	500
CODING	murD	2376152	2376652	500
CODING	ftsW	1082303	1083211	908
CODING	murG	1083002	1083996	994
CODING	murC	1083754	1084360	606
CODING	ML045	555472	555972	500
CODING	pgsA	552122	552622	500
CODING	ML1889	2270883	2271383	500
CODING	rpoC	2267526	2268026	500
CODING	ML2273	2698904	2699404	500
CODING	ML2274	2695552	2696052	500
CODING	HisS	602876	603376	500
CODING	HisS	599528	600028	500
CODING	ML0079	101929	102429	500
CODING	ML0081	98474	98974	500
CODING	ML1596	1923673	1924173	500
CODING	rpsB	1920378	1920878	500
CODING	rpoT	1190253	1190501	248
CODING	ML1180	1380201	1380701	500
CODING	ML1183	1382388	1382888	500
CODING	ML1053	1220074	1220574	500
CODING	ML1056	1221688	1222188	500
CODING	glnA	1094734	1094403	331
<b>TOTAL</b>				<b>12087</b>
REPEAT	Rlep12	1093004	1097760	1000
REPEAT	Rlep5	279908	280964	1056
REPEAT	Rlep11	1018881	1019641	760
REPEAT	Rlep32	2308847	2309816	969
REPEAT	RLEP22	1650920	1652062	1142
<b>TOTAL</b>				<b>4927</b>

**Table S2.** VNTR and SNP analysis of *M. leprae* from humans and animals.

Strain	Country of origin	Source	TTC	GTA	AT(14)	AT(15)	AT(17)	14676	1,642,875	2,935,685
Bra-01	Brazil	ILSL	11	8	14	12	13	C	T	C
Bra-03	Brazil	ILSL	11	9	13	21	12	C	T	C
Br4923	Brazil	CSU/NHDP	12	12	20	20	15	T	T	C
Bra-04	Brazil	ILSL	12	10	13	16	10	C	T	C
Bra-06	Brazil	ILSL	13	8	25	14	15	C	T	C
Bra-07	Brazil	ILSL	14	9	15	11	11	C	T	C
Bra-05	Brazil	ILSL	-	-	-	-	-	T	T	C
Bra-11	Brazil	ILSL	-	-	-	-	-	C	T	C
Bra-13	Brazil	ILSL	-	-	-	-	-	C	T	C
Bra-16	Brazil	ILSL	-	-	-	-	-	C	T	C
Bra-17	Brazil	ILSL	-	-	-	-	-	C	T	C
Bra-21	Brazil	ILSL	-	-	-	-	-	C	T	C
Bra-22	Brazil	ILSL	-	-	-	-	-	C	T	C
Bra-24	Brazil	ILSL	-	-	-	-	-	C	T	C
Ethiopia	Ethiopia	IP	29	8	14	19	13	C	T	A
Eth-3017	Ethiopia	CSU-NHDP	29	8	14	19	11	C	T	A
82073	France	IP	-	-	-	-	-	C	T	C
2310	France	HSL	-	-	-	-	-	C	T	C
89002	French West Indies	IP	12	7	22	14	10	T	T	C
89001	French West Indies	IP	13	8	10	21	11	C	G	A
81030	French West Indies	IP	14	9	14	15	12	T	T	C
89003	French West Indies	IP	14	11	13	13	14	T	T	C
85054	French West Indies	IP	14	8	9	13	13	C	T	C
86030	French West Indies	IP	15	9	14	15	11	T	T	C
1624	French West Indies	HSL	15	9	16	18	12	C	G	A
95015	French West Indies	IP	15	7	14	14	9	T	T	C
97011	French West Indies	IP	15	15	20	16	16	T	T	C
97016	French West Indies	IP	15	7	18	13	10	T	T	C
98007	French West Indies	IP	15	11	22	20	17	T	T	C
92002	French West Indies	IP	16	7	14	9	9	T	T	C
95034	French West Indies	IP	17	19	19	11	21	C	G	A
88056	French West Indies	IP	21	8	13	12	10	C	G	A
82007	French West Indies	IP	-	-	-	-	-	T	T	C



87038	French West Indies	IP	-	-	-	-	-	-	T	T	C
89033	French West Indies	IP	-	-	-	-	-	-	T	T	C
94030	French West Indies	IP	-	-	-	-	-	-	T	T	C
1261	French West Indies	HSL	-	-	-	-	-	-	C	T	C
2318	French West Indies	HSL	15	9	14	15	12		T	T	C
Guinea-C30	Guinea	CNAM	-	-	-	-	-	-	T	T	C
India-825	India	IP	12	8	11	21	13		C	G	A
India-823	India	IP	13	8	24	16	12		C	G	A
India2	India	IP	15	11	18	14	13		C	G	A
Tamil Nadu	India	IP	21	9	14	15	17		C	G	A
C-I-04	Ivory Coast	IP	12	8	13	14	15		T	T	C
C-I-06	Ivory Coast	IP	12	10	13	14	15		T	T	C
C-I-07	Ivory Coast	IP	12	10	13	14	16		T	T	C
C-I-02	Ivory Coast	IP	13	13	22	16	15		T	T	C
C-I-08	Ivory Coast	IP	-	-	-	-	-		T	T	C
C-I-09	Ivory Coast	IP	-	-	-	-	-		T	T	C
Korea-02	Korea	YU	16	8	19	18	14		C	T	C
Korea-03	Korea	YU	20	10	24	15	12		C	T	C
Korea-04	Korea	YU	22	11	14	15	13		C	G	A
Korea-05	Korea	YU	22	9	15	22	16		C	G	A
Korea-01	Korea	YU	-	-	-	-	-		C	G	A
B110	Madagascar	IPM	13	8	16	11	16		C	G	A
B137	Madagascar	IPM	13	12	14	14	13		C	G	A
B146	Madagascar	IPM	15	9	16	19	10		C	G	A
B172	Madagascar	IPM	17	10	24	19	11		C	G	A
B152	Madagascar	IPM	24	11	24	19	12		C	G	A
B107	Madagascar	IPM	-	-	-	-	-		C	G	A
Malawi-02	Malawi	ITD	13	8	-	-	-		C	G	A
Malawi-08	Malawi	ITD	10	9	-	-	-		C	G	A
Malawi-09	Malawi	ITD	10	9	-	-	-		C	G	A
Malawi-01	Malawi	ITD	21	8	-	-	-		C	T	A
Malawi-04	Malawi	ITD	16	8	-	-	-		C	T	A
Malawi-05	Malawi	ITD	13	9	-	-	-		C	T	A
Malawi-06	Malawi	ITD	11	9	-	-	-		C	T	A
Malawi-07	Malawi	ITD	10	9	-	-	-		C	T	A
Malawi-10	Malawi	ITD	10	9	-	-	-		C	T	A
Malawi-	Malawi	CSU/N	-	-	-	-	-		C	G	A

2936		HDP								
Mali-C39	Mali	CNAM	11	10	14	12	14	T	T	C
94004	Mali	CNAM	13	9	12	16	12	T	T	C
Mali-C22	Mali	CNAM	13	13	20	21	12	T	T	C
Mali-C13	Mali	CNAM	14	9	22	13	12	T	T	C
Mali-S14	Mali	CNAM	14	9	12	21	12	T	T	C
Mali-S31	Mali	CNAM	15	9	15	13	12	T	T	C
98004	Mali	CNAM	-	-	-	-	-	T	T	C
98011	Mali	CNAM	-	-	-	-	-	T	T	C
2508	Mali	CNAM	-	-	-	-	-	T	T	C
Mali-S27	Mali	CNAM	-	-	-	-	-	T	T	C
Mali-S29	Mali	CNAM	-	-	-	-	-	T	T	C
Mali-C39	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-01	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-02	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-04	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-05	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-06	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-07	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-08	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-09	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-10	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-11	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-13	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-14	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-15	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-16	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-17	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-18	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-19	Mali	CNAM	-	-	-	-	-	T	T	C
Bamako-20	Mali	CNAM	-	-	-	-	-	T	T	C
Mali-C10	Mali	CNAM	16	9	14	15	14	T	T	C
Mali-S41	Mali	CNAM	16	9	14	15	12	T	T	C
NHDP98	Mexico	CSU/N	10	9	22	14	11	C	T	C
		HDP								
2704	Morocco	HSL	14	9	25	13	11	C	T	C

2804	Morocco	HSL	15	8	19	15	12	C	T	C
Nepal-27	Nepal/North-India	IP	9	10	12	12	13	C	G	A
Nepal-39	Nepal/North-India	IP	10	9	22	16	11	C	G	A
13766	Nepal/North-India	IP	16	10	14	26	13	C	G	A
Nepal-56	Nepal/North-India	IP	17	9	20	13	13	C	G	A
Nepal-34	Nepal/North-India	IP	19	8	13	14	10	C	G	A
Nepal-29	Nepal/North-India	IP	20	9	20	21	10	C	G	A
Nepal-26	Nepal/North-India	IP	13	8	14	10	14	C	T	A
Nepal-50	Nepal/North-India	IP	13	8	14	10	14	C	T	A
Nepal-61B	Nepal/North-India	IP	12	11	12	10	11	C	T	A
Nepal-02	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-21A	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-32	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-38	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-40	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-44	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-45	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-49	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-57	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-60	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-63	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-64	Nepal/North-India	IP	-	-	-	-	-	C	G	A
Nepal-788	Nepal/North-India	IP	-	-	-	-	-	C	G	A
13786	Nepal/North-India	IP	-	-	-	-	-	C	G	A
13806	Nepal/North-India	IP	-	-	-	-	-	C	G	A
12389	Nepal/North-India	IP	-	-	-	-	-	C	G	A
9069	Nepal/North-India	IP	-	-	-	-	-	C	G	A
13784	Nepal/North-India	IP	-	-	-	-	-	C	T	A
13877	Nepal/North	IP	-	-	-	-	-	C	T	A

	-India									
97021	New-Caledonia	IP	11	9	11	18	10	C	G	A
96008	New-Caledonia	IP	14	10	22	12	15	C	T	C
95010	New-Caledonia	IP	15	10	21	11	15	C	T	C
94003	New-Caledonia	IP	29	9	15	14	15	C	G	A
82061	New-Caledonia	IP	-	-	-	-	-	C	G	A
92041	New-Caledonia	IP	-	-	-	-	-	C	T	C
99001	New-Caledonia	IP	27	9	21	21	14	C	T	A
Philippine s-08	Philippines	LWM	16	9	20	14	12	C	T	C
Philippine s-03	Philippines	LWM	19	9	17	15	16	C	G	A
Philippine s-04	Philippines	LWM	20	8	21	13	12	C	T	C
Philippine s-02	Philippines	LWM	25	9	14	14	15	C	G	A
Philippine s-05	Philippines	LWM	26	9	21	20	15	C	G	A
Philippine s-01	Philippines	LWM	27	10	19	14	17	C	G	A
Philippine s-06	Philippines	LWM	28	11	17	17	14	C	G	A
Philippine s-07	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-09	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-10	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-11	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-12	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-13	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-14	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-15	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-16	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-17	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-18	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-19	Philippines	LWM	-	-	-	-	-	C	G	A
Philippine s-20	Philippines	LWM	-	-	-	-	-	C	G	A
LWM26	Philippines	LWM	-	-	-	-	-	C	G	A

88063	Senegal	IP	18	10	11	19	14	T	T	C
2662	Senegal	HSL	13	10	24	22	10	T	T	C
Thai53	Thailand	IP	15	9	16	17	10	C	G	A
NHDP63	USA	CSU/NHDP	10	10	18	18	13	C	T	C
NHDP10	USA	NHDP	11	10	23	17	13	C	T	C
WARM1	USA	NHDP	11	10	26	16	14	C	T	C
*										
W260*	USA	NHDP	11	10	-	-	12	C	T	C
W415*	USA	NHDP	10	10	-	-	13	C	T	C
W508*	USA	NHDP	10	10	-	-	13	C	T	C
NHDP55	USA	NHDP	12	10	20	17	13	C	T	C
V-01	Venezuela	IBM	-	-	-	-	-	C	T	C
V-02	Venezuela	IBM	-	-	-	-	-	C	T	C
V-A	Venezuela	IBM	-	-	-	-	-	C	T	C
V-B	Venezuela	IBM	-	-	-	-	-	C	T	C
V-C	Venezuela	IBM	-	-	-	-	-	C	T	C

\* Wild armadillo (natural infection)

- Not available

IP Institut Pasteur, Paris, France

IPM Institut Pasteur, Antananarivo, Madagascar

ILSL Instituto "Lauro de Souza Lima", Bauru, Sao Paulo, Brazil

NHDP National Hansen's Disease Program, Louisiana State University, USA

CSU Colorado State University, Fort Collins, Colorado, USA

HSL Hôpital Saint Louis, Paris, France

CNAM Centre National d'Appuis à la lutte Contre la Maladie, Bamako, Mali

YU Yonsei University, Seoul, Republic of Korea

ITD Karonga Prevention Study, Chilumba Malawi and London School of Hygiene and Tropical Medicine

LWM Leonard Wood Memorial Leprosy Research Center, Cebu, Philippines

IBM Instituto Biomedicina, Caracas, Venezuela

**Table S3.** Tiling path of PCR fragments used to construct the microarray. Names of clones and PCR fragments are given together with the genome coordinates.

Probes	Start	End	Probes	Start	End	Probes	Start	End
lep184e4	45	1683	lep71a10	1105877	1107538	lep59b5	2227495	2228974
lep98g12	681	2688	***Hole19	1107538	1108314	PCR17	2228962	2229657
lep204g11	1986	5434	lep362c10	1108314	1109799	lep283c4	2229571	2231015
lep143f5	4673	7019	lep360d3	1109808	1111357	lep189e1	2230995	2232669
lep114d3	6745	8888	lep23a6	1111356	1113471	lep125f4	2231800	2233990
lep128b12	8210	11178	lep213e08	1112886	1115576	lep22a1	2234205	2237104
lep109e3	10673	13040	lep16b6	1114734	1117220	lep236h12	2236344	2238825
lep163a1	12852	15091	lep122c12	1116374	1119856	lep209b5	2238270	2240276
lep125e7	14890	16952	lep131c9	1119514	1121943	PCR23	2240250	2241206
lep121a7	16116	18504	lep324g3	1121599	1124394	***Hole33	2241125	2241330
lep136h1	17111	19948	lep208h11	1124241	1126591	lep149e11	2241330	2244293
lep9b1	19173	21490	lep148c2	1126112	1128497	lep333b03	2243593	2246246
lep114g12	21222	23297	lep123f9	1127603	1130672	lep95c1	2245783	2248613
lep121h9	23297	25523	lep110d7	1130667	1132715	lep10b11	2247386	2250831
lep148h12	24634	27828	lep203b12	1132651	1135064	lep89f10	2250542	2252824
lep117f10	27210	29212	lep204d6	1134098	1137474	lep123a8	2251994	2254138
lep120g2	28700	31017	lep325c3	1136638	1139750	lep140c8	2254179	2256840
lep370h11	30172	31717	lep170d11	1139657	1141394	lep9g5	2256053	2259899
lep260d06	31179	33254	lep206b7	1140909	1143413	lep102h5	2259207	2262409
lep282a11	33214	34767	lep110c2	1143238	1146513	lep70e6	2261954	2263672
lep213f04	34701	37142	lep351c7	1146268	1148257	lep110e8	2262818	2265976
lep326d4	36920	39327	lep371a09	1147858	1149396	lep7g5	2265524	2268524
lep334e09	38606	40865	lep214a4	1149086	1151748	lep217a1	2268408	2270493
lep204b4	40801	43008	lep96b2	1151674	1154283	lep120f1	2270113	2272245
lep157g8	42855	44877	lep220c08	1153261	1156623	lep334b07	2271689	2274897
PCR24	44838	47875	lep34c10	1154981	1158394	lep119c9	2274226	2276808
lep145g11	47829	51050	lep109a7	1158033	1160138	lep110d10	2276217	2278710
lep336d10	50708	53446	lep116d6	1159838	1162380	lep155a7	2278440	2281422
lep119c8	52794	56485	lep123b10	1162278	1164730	lep19a8	2281068	2284194
lep215f01	55867	59190	lep107g7	1164148	1166880	lep220h05	2284098	2287140
lep230a8	58995	61540	lep20h9	1166329	1168484	lep201d7	2285561	2288826
lep121h10	61512	64391	lep261b09	1167908	1170398	lep208e8	2287990	2291989
lep20c8	64332	66623	lep29a10	1169665	1172664	lep142c2	2291479	2294391
lep126h6	66540	69509	lep44h10	1172153	1174499	lep116e10	2293949	2296688
lep121d6	69468	72181	lep254e06	1174271	1177559	lep215g07	2296166	2299261
lep334a09	71156	73649	lep223f3	1176701	1179846	lep113h3	2298694	2302025
lep109f5	72767	75089	lep103h12	1179204	1181321	lep117f11	2301840	2303970
lep228e02	74784	77395	lep120g4	1180220	1182715	lep128d7	2303372	2305641
lep220a02	76911	80845	lep109b8	1181821	1184630	lep15b9	2305225	2307777
lep113g10	80713	83196	lep157h1	1184394	1187535	lep127b4	2307743	2310370
PCR02	83125	85874	lep18c3	1186732	1189037	lep88a2	2309842	2311935
lep9e12	85778	88395	lep15b11	1187957	1190000	lep76d10	2311427	2313130
lep203e1	88047	90771	lep55c11	1189314	1190761	lep285a5	2312009	2313522
lep91e8	90081	93312	lep195g12	1190373	1191782	lep91c4	2313281	2315889
lep334e02	92906	95342	lep228e07	1191199	1193812	lep220c02	2315124	2317470
lep100f1	94553	97277	PCR13	1193771	1196720	lep223d4	2316972	2319732

lep11h8	96966	99518	lep139g6	1196623	1198820	lep105c6	2319082	2321380
lep322b2	99078	101816	lep21e11	1198560	1200874	lep209e2	2320964	2324010
lep116e3	101490	104223	lep201f12	1200609	1203193	lep324d3	2323798	2326417
lep44b8	104145	107676	lep102a12	1203010	1205393	lep32e11	2325508	2327887
lep119a2	107089	110240	lep191f12	1205145	1206612	lep395g11	2326167	2327970
lep201h7	109460	111832	lep259a05	1206302	1208742	lep333g02	2330006	2332175
lep333c11	111092	113294	lep44f6	1208285	1211239	lep250a08	2331780	2334077
lep152b11	113151	115339	lep30c9	1211067	1213212	lep140d9	2332884	2335964
lep130f10	114587	116646	lep219h9	1213079	1215561	lep234h7	2334882	2336961
lep284h12	116243	117987	lep315h12	1215257	1216809	lep215g04	2336896	2339000
lep362b08	117632	119070	lep42h5	1216072	1218969	lep123h11	2338274	2341638
lep60d4	119016	120660	lep321d1	1218254	1220317	lep216c06	2341611	2343728
lep22f10	120548	122659	***Hole20	1220317	1221302	lep128c8	2343951	2346153
lep36e12	121769	124862	lep220b11	1221302	1224074	lep203f10	2346046	2348062
lep228c03	123490	126037	lep9c7	1224063	1227331	lep206h7	2348008	2350877
lep334b11	125467	127545	lep189h4	1227099	1228814	lep254b05	2350641	2353175
lep44b2	127408	129841	lep125c1	1228716	1230998	lep336g11	2351481	2353771
lep324e11	129032	132195	lep42f1	1230568	1232753	***Hole34	2353771	2354146
lep106b9	131526	134913	lep309g8	1232562	1234225	lep259e04	2354146	2357148
lep71f8	134621	136472	lep152b3	1233940	1236267	lep148f2	2356469	2359355
lep76b10	135940	137409	lep123g7	1236012	1239320	lep333a08	2357633	2360882
lep351c11	137373	138873	lep254h08	1238607	1241841	lep118g8	2359891	2362005
lep372b09	138543	140213	lep121a8	1239857	1241977	lep104a10	2362028	2364280
lep333g03	140201	142428	lep376b1	1239867	1241459	lep221g11	2364218	2366510
lep223a4	141376	143546	***Hole21	1241459	1241990	lep86a8	2366251	2368313
lep109g1	142673	145395	lep220d11	1241990	1244889	lep152a11	2367745	2371342
lep195g3	143617	145362	lep145a4	1244694	1247699	lep265b3	2371157	2373305
***Hole1	145362	145512	lep293h12	1247214	1249015	lep108h10	2373143	2375213
lep218g1	145512	147751	lep87g5	1247911	1251074	lep370c03	2374238	2375857
lep145d5	146627	149231	lep127f8	1250866	1253066	lep372f08	2375737	2377348
lep349d6	149156	150688	lep71g8	1253009	1254783	lep139c10	2376801	2378853
lep365h7	150507	152370	lep211g10	1253095	1255454	lep227d12	2378838	2381049
lep212b6	151968	154446	lep15a8	1255364	1257539	lep121e7	2380695	2382785
lep369g12	154087	155787	lep364a07	1256499	1258183	lep95f6	2382529	2384609
PCR01	155760	157740	lep44b9	1257835	1260038	lep95d9	2384014	2386698
lep88g9	157774	159839	lep82d10	1259631	1261334	lep98g10	2386219	2388683
lep114h7	159835	161945	lep205h7	1261309	1263365	lep114e12	2387041	2389076
lep153a5	161390	163573	lep149d10	1262568	1264935	***Hole35	2389076	2389798
lep9h5	163289	165379	lep205f3	1264653	1266784	lep44c6	2389798	2392247
lep11g8	165179	168125	lep218h12	1266240	1269143	lep309b8	2391970	2393664
lep126f2	168068	170368	lep120c5	1268822	1271669	lep215f02	2393641	2396059
lep11a11	170126	173868	lep42e6	1271445	1274356	lep91h11	2395994	2398196
lep10d4	172637	175906	lep145e9	1272805	1275636	lep119g2	2397981	2401255
lep10g9	174331	177580	lep207d10	1275062	1278105	lep323c11	2400404	2403298
lep137f1	177556	180210	lep336c10	1277955	1281111	lep329b5	2402825	2405238
lep163h8	179155	181252	lep28h9	1280746	1283615	lep137b4	2404538	2406659
lep109g8	180218	182473	lep16f7	1283401	1285836	lep202h3	2405916	2408425
***Hole3	182473	182846	lep220g11	1285935	1288058	lep351b11	2408303	2409804
lep113f5	182846	185140	lep228f04	1286683	1289654	lep98d3	2409790	2412191

lep211a5	185027	187854	lep228c01	1288104	1291549	lep22e4	2411671	2413981
lep1b7	187442	189657	lep71e7	1291461	1293361	lep137a10	2413860	2415899
lep117d5	189561	192124	lep336g07	1292637	1294957	lep89d7	2414921	2417475
lep102d6	191596	194793	lep121d2	1293772	1297096	lep262c3	2416918	2418963
lep243e11	194545	197223	lep334a12	1296720	1298841	***Hole36	2418963	2419013
lep116h8	196797	198816	lep49b4	1298184	1299653	lep195h5	2419013	2420840
lep149d7	198764	200856	lep110g11	1299462	1301863	lep9d9	2420519	2423851
lep42f4	199412	202039	lep99c12	1301371	1303468	lep323d2	2423159	2425384
lep85h4	201215	203785	lep254f09	1303450	1305481	lep333c02	2425256	2427883
lep129g11	202863	205217	lep228d07	1304545	1306651	lep96d11	2427500	2429944
lep360f1	204095	205824	lep260b04	1306334	1308853	lep311f3	2430189	2431724
***Hole4	205824	206773	lep86d7	1308727	1311434	lep350g7	2431479	2433138
lep83b3	206773	208420	lep107e12	1310733	1313330	lep16d4	2432551	2435213
lep68h7	207821	209587	lep165a4	1313314	1315540	lep158d12	2434931	2437110
lep216d11	209251	211769	lep10e2	1315443	1317521	lep145b10	2436103	2438201
lep148b1	211218	213810	lep352e5	1317881	1319744	lep137b10	2437848	2440103
lep155a3	213317	216997	lep202d5	1318255	1321384	lep206b1	2440086	2442213
lep201h2	216080	219871	lep167d8	1320515	1323133	lep345f12	2441363	2443211
lep234a10	219302	221924	lep291c1	1322820	1324634	lep257b06	2442753	2445034
lep86e5	220419	224417	lep192h8	1323646	1325210	lep88g7	2444689	2446837
lep125f7	224128	226287	lep257d06	1324903	1326975	lep85b8	2446825	2449200
lep128e1	226086	228871	lep32e8	1326506	1328649	lep329c10	2449159	2452447
lep125e1	227566	230768	lep85b11	1328109	1330321	lep116d11	2452328	2454491
lep114a4	230573	232663	lep128b3	1330003	1332870	lep254f04	2454196	2456396
lep30c4	231394	234788	lep30g8	1332377	1334883	lep264g9	2456130	2458846
lep168h10	234610	237387	lep19c7	1333408	1336709	lep110c3	2458113	2460577
lep224f10	236673	238682	lep260a05	1336294	1339108	lep260f07	2459878	2462708
lep203a7	238367	241059	lep209h3	1338222	1340871	lep110f5	2461544	2463782
lep20b6	240162	242682	lep125h1	1339785	1341892	lep86a10	2463698	2466108
lep104c10	242639	245103	lep91d4	1341797	1344365	lep43h10	2466069	2468212
lep145b12	244851	246952	lep23h7	1343670	1346233	lep120f7	2467910	2469985
lep102h10	246750	248760	lep265f3	1345921	1349209	lep352f4	2469653	2471440
lep137b7	248751	250835	lep337h10	1348372	1350822	lep323e1	2470952	2473377
lep15b1	249843	253281	lep137g11	1350719	1353309	lep137e10	2471003	2473025
lep259c05	253119	255417	lep254f07	1353151	1355326	lep363e08	2471106	2472876
lep110a12	254105	256399	lep116g8	1355305	1358226	***Hole37	2472876	2474145
lep201f11	255550	258170	lep109c11	1357083	1360618	lep355c6	2474145	2475845
lep133a5	258076	260538	lep211c7	1360259	1362456	lep16f4	2475719	2478092
lep130f8	259258	261371	lep237c3	1361842	1364356	lep276g12	2477720	2479185
lep81a12	259478	261031	lep92f11	1363237	1365761	***Hole38	2479185	2479785
***Hole5	261031	261720	lep119a10	1365756	1368781	lep361c02	2479785	2481537
lep233f9	261720	263854	lep16b3	1367435	1370025	lep220e12	2481184	2483299
lep324d4	263624	266189	lep18c6	1369619	1372716	lep72d6	2482818	2484573
lep255e08	264414	267489	lep24g3	1372125	1374280	lep327d12	2483868	2487301
lep91f1	266197	268629	lep119e3	1373946	1376356	lep373a1	2486515	2488163
lep291g5	268114	269729	lep348g12	1376190	1377761	lep87d11	2488153	2490684
lep234d11	269658	272268	lep92b12	1377117	1379636	lep118e5	2489460	2492269
lep329b9	272159	274247	lep213e01	1378908	1381662	lep201g3	2491582	2493633
lep257d11	273716	275990	lep170h7	1381649	1383564	lep6c3	2493217	2495676



lep243h10	275984	278203	lep201a4	1383210	1385254	lep264a10	2494691	2497760
lep95b9	276432	279320	lep27h4	1385230	1387781	lep22f7	2497413	2500177
lep189g3	278809	280428	lep228f03	1386954	1389187	lep15a3	2500147	2502207
lep106h10	280354	282395	lep350e6	1389017	1390812	lep212a5	2501426	2503796
lep364b08	281720	283350	lep125g7	1390568	1393378	lep323c6	2503610	2506274
PCR03	283317	283679	lep44f8	1391634	1394405	lep337d10	2506197	2508229
lep219e12	283606	285919	lep167g11	1394316	1396809	lep27e11	2508122	2510630
lep324h8	285465	288805	lep237g9	1395850	1398866	PCR18	2510623	2514002
lep27f3	288451	291339	lep43h9	1397551	1400284	lep86f6	2513911	2515921
lep94f5	290258	293091	lep100e8	1397717	1399911	lep92g6	2515905	2518076
lep292b2	292494	294130	***Hole22	1399911	1400369	lep118c9	2516541	2520118
lep276f9	293478	294932	lep74e11	1400369	1402107	lep10d10	2519240	2522315
lep113c2	294736	296736	lep29b11	1400552	1403673	lep16a11	2520906	2523267
lep44e4	296297	299331	lep239h9	1402444	1404631	lep399h5	2521607	2523015
lep323d9	298310	301059	lep21h4	1403824	1406974	PCR19	2523024	2524167
lep88f8	300392	302514	lep294a7	1406348	1408123	lep375e2	2524070	2525538
lep315g9	301850	303369	lep30c8	1408078	1412005	lep43f8	2524642	2527538
lep114b9	303228	305820	lep133h12	1411197	1413249	lep259d06	2527224	2529517
lep113b12	305290	308063	PCR25	1413181	1415225	lep51g7	2528708	2530245
lep95g9	307072	309536	lep126g3	1415190	1417770	lep74f4	2529735	2531426
lep23c4	309335	311408	lep237h2	1417834	1420175	lep191h8	2531287	2533066
lep206c4	310319	312639	lep130e3	1418041	1420418	lep2g7	2532991	2534656
lep355h2	310409	312096	lep32a11	1419547	1422685	lep213e05	2533426	2536107
PCR04	311982	313079	PCR28	1422621	1424669	lep259h02	2536101	2538346
lep61g6	313070	314677	lep313c4	1424640	1426374	lep117d4	2537268	2540607
lep104h2	314481	316895	lep90a11	1425328	1428228	lep44h7	2540090	2543501
lep329e7	316760	320427	lep44d12	1427655	1429860	lep42f9	2542831	2545869
lep334c06	320249	322334	lep324e5	1429858	1432393	lep92f3	2545608	2548756
lep153d12	321791	324420	lep131b12	1432328	1435175	lep216a04	2547993	2550185
lep251d07	324075	326162	lep30g6	1434773	1437083	lep116b10	2549793	2551908
lep119d11	326153	328159	lep182f4	1436886	1438853	lep220h09	2551561	2553898
lep265a2	327851	330152	lep110b3	1437339	1440242	lep30h6	2553283	2556913
***Hole8	330152	331697	lep160f12	1439973	1442475	lep203h11	2555565	2557645
lep209g8	331697	333801	lep354a5	1441499	1443389	lep280a1	2555979	2557563
lep301g11	333522	335450	lep139h1	1443258	1446408	lep292a10	2556032	2557461
lep233a3	335051	337217	lep7h3	1445922	1448582	***Hole40	2557461	2558083
lep324a10	337029	339649	lep276f12	1446301	1447779	lep117e3	2558083	2561468
lep110h3	339594	341668	PCR14	1447728	1449320	lep167f10	2561389	2564063
lep157b6	341429	343587	lep195h1	1449285	1451054	lep217a8	2564014	2566375
lep30e12	343478	345562	PCR15	1451740	1453830	lep96a12	2565558	2568264
lep204a7	345431	347592	lep323g4	1453732	1456503	lep257b11	2568178	2570390
lep145g10	347589	351008	lep123c2	1456212	1459511	lep233d3	2570126	2572732
lep137f6	350194	352848	lep108h6	1458758	1461551	lep224b10	2571706	2574767
lep107a10	352028	354043	lep120c8	1461009	1463947	lep20e1	2574673	2576864
lep331c5	354020	356683	lep19d10	1463692	1466650	lep369a09	2576847	2578260
lep218g12	356407	359215	lep211e1	1465541	1467911	lep21h3	2578220	2580840
lep333f06	359250	362184	lep99a2	1467892	1470185	lep44a5	2579536	2582473
lep15b8	360489	364043	lep99a1	1469729	1473111	lep99c10	2582287	2584724
lep121h11	363563	365610	lep128e5	1472267	1475278	lep153d1	2583673	2586192

lep71g1	365501	367206	lep117b3	1474803	1477654	lep225f02	2586229	2588378
lep46e4	366172	367709	lep20f2	1477058	1479078	lep329d5	2588280	2590869
lep165a11	367454	369587	lep85d2	1478969	1481302	lep42f3	2590703	2593822
lep220g06	369354	371404	lep355e12	1481291	1482779	lep254h09	2592944	2596648
lep235g10	370129	373063	lep83d5	1482296	1484045	lep264h4	2596376	2599020
lep137f3	371841	374770	lep360f5	1483788	1485306	lep213f08	2598626	2601639
lep259f12	374592	376619	lep114e3	1486688	1488983	lep116b11	2601190	2604765
lep114h6	375413	378730	lep363a12	1488215	1489906	lep11d12	2604389	2606609
lep128c11	378642	381232	lep27e12	1489546	1491918	lep310a7	2606316	2607814
lep215h03	381202	384135	lep351h2	1491787	1493325	lep245f3	2607690	2611045
lep213c11	383858	386145	lep211b1	1493141	1495237	lep352a6	2610939	2612507
lep313b4	384943	386530	lep195a12	1493867	1495782	lep291a8	2612489	2614121
***Hole9	386530	386688	lep96a7	1495531	1498132	lep87e7	2614126	2617630
lep208a3	386688	389649	lep34d9	1497228	1499624	lep333b09	2617376	2619435
lep220b09	388754	391640	lep56h1	1498215	1499803	lep113b1	2617835	2620164
lep18g12	391223	394139	***Hole24	1499803	1500657	lep240h9	2620086	2623086
lep108b4	393688	396166	lep301b4	1500657	1502196	lep283b12	2622830	2624456
lep136h5	396087	398918	lep95b7	1501594	1503853	lep308h5	2624417	2626028
lep22g12	398482	401069	lep230d12	1503020	1506029	lep182h5	2624772	2626602
lep76d8	400517	402285	lep220b10	1505441	1507781	lep44a4	2626779	2628899
lep209a7	401122	403243	lep116g7	1506707	1509465	lep207d6	2628721	2631034
lep208c12	402616	404765	lep127a8	1509283	1511535	lep23b8	2630341	2632531
lep213d05	404383	406512	lep126e3	1510883	1513140	lep334h02	2631833	2633926
lep70b3	406490	408321	lep289a12	1512913	1514518	lep9h8	2633382	2635641
lep10g1	408423	410871	lep124h7	1514303	1517070	lep129h7	2635125	2638559
lep212e2	410804	412850	lep115d7	1515885	1518060	lep137g10	2637505	2640225
lep44h11	412824	415697	lep209f11	1517355	1519804	lep250d03	2640161	2643169
lep189d10	415606	417261	lep211h3	1519724	1522180	lep149c5	2642268	2645173
lep116g4	416989	420443	lep264h7	1521784	1524148	lep211d10	2644159	2646532
lep82c3	419937	421791	lep143h4	1524129	1526687	lep121g8	2645390	2647462
lep136h7	421300	423492	lep22c1	1526216	1528269	lep239g11	2647113	2649483
lep225c11	422407	425777	lep297f12	1528096	1530030	lep355a4	2648455	2650018
lep167c9	425496	428472	lep118f7	1529894	1532015	lep130g11	2649783	2651848
lep89b1	427686	430068	lep250e10	1531161	1534041	lep19a11	2650825	2654272
lep251e08	429804	432270	lep20c12	1532780	1534940	lep9f11	2653535	2656368
lep23b4	431682	434388	lep143g5	1534347	1536538	lep140a6	2656211	2659082
lep109b5	434294	436558	lep122a3	1536304	1538445	lep149g10	2658399	2662025
lep32d8	434472	438408	lep219g7	1537653	1540511	lep23b5	2661474	2663917
lep44b11	437596	441228	lep149a7	1539754	1542306	lep88g5	2663030	2665312
lep123b2	441218	443647	lep92c3	1541335	1544500	lep389e5	2665181	2666654
lep30c3	442857	446030	lep262c4	1544047	1546835	lep265b5	2666335	2668681
lep220h01	445887	448110	lep110c4	1545910	1548387	lep324b12	2667590	2670392
lep216h06	447523	450453	lep292g5	1547954	1549658	lep125b2	2670234	2672383
lep141d2	449398	452614	lep90d6	1549420	1552007	lep204d9	2670953	2674429
lep128c9	452311	455428	lep149g7	1551255	1554926	lep15a5	2673980	2677071
lep225d04	454465	457321	lep87c2	1552918	1556150	lep329e2	2676716	2678763
lep322a4	456434	459322	lep326e9	1555663	1559293	lep145g1	2678250	2680755
lep334a04	458631	461218	lep220f10	1559332	1561782	lep334d08	2680555	2683023
lep5h10	461192	463757	lep89c10	1561024	1563111	lep122a6	2681947	2684944

lep119h7	463711	466061	lep117f9	1562926	1565752	lep9f8	2684555	2687569
lep114c2	464065	466338	lep324e12	1565537	1568247	lep329f6	2687109	2690476
***Hole10	466338	466353	lep108g2	1567323	1570559	lep344c12	2690110	2692024
lep211d4	466353	468495	lep213c09	1570314	1572485	lep170f2	2691836	2693648
lep55h9	468026	469663	lep119a6	1572166	1574748	lep108b2	2693903	2696219
lep213h05	469417	471544	lep32d11	1574742	1577620	lep239c9	2696175	2698333
lep34d4	471458	473656	lep139a8	1577296	1580378	lep44f4	2698077	2701105
lep154b10	471783	475321	lep94f11	1580242	1582318	lep334e06	2699450	2702811
lep115e2	474502	477188	lep315c8	1582249	1583683	lep209h1	2702394	2705522
lep22d8	476282	478454	lep116f3	1583138	1586308	lep149h3	2704835	2707590
lep145e1	478305	480895	lep209g9	1584952	1588332	lep365c2	2707360	2709095
lep107c3	480314	482341	lep89d2	1588135	1590371	lep88e3	2708724	2710796
lep109g4	481913	483964	lep220c12	1590086	1592395	lep203a11	2709341	2712219
lep125h6	483263	486585	lep51e1	1592015	1593838	lep22h1	2712108	2714932
lep297h3	486473	487924	lep25a2	1592598	1594818	lep212b2	2714464	2717083
lep86g11	487709	491009	lep50g1	1594679	1596201	lep72e12	2716813	2718403
lep260e03	490639	493630	***Hole25	1596201	1596306	lep87d7	2717757	2720511
lep219b10	492667	495524	lep399f6	1596306	1597951	lep257a12	2718951	2722923
lep10a8	495482	497509	lep187h9	1597815	1599276	lep71d3	2721939	2723801
lep114c7	497141	499446	lep22b3	1599177	1601909	lep336c03	2723776	2726361
lep35f1	499353	501367	lep215g06	1600693	1604630	lep107g1	2725677	2728534
lep9h12	501215	504059	lep206d3	1604423	1606508	lep118d2	2728466	2731246
lep121g12	503886	506733	lep119h8	1605803	1607957	lep18f4	2730142	2732835
lep206a12	505532	508947	lep362c01	1607901	1609443	lep98e2	2732153	2734344
lep97h6	507721	510722	lep390g2	1609111	1611037	lep130g3	2734071	2736675
lep311e3	510509	512266	lep94g6	1610084	1612682	lep216b04	2736557	2739458
lep96b3	511595	515219	lep152a4	1611866	1614289	lep19h6	2739098	2742716
lep109h7	513760	516781	lep99e1	1613452	1616382	lep41b1	2742422	2744791
lep228d02	515336	518489	lep128g12	1615694	1617909	lep167b8	2744551	2746679
lep50f2	517727	519553	lep352d3	1617416	1618964	lep208e3	2745742	2748046
lep131a8	519080	521784	lep208b4	1619046	1621297	lep346a9	2747425	2749385
lep99d2	521100	524168	lep30c10	1620969	1623400	lep15a12	2748944	2751577
lep160g7	523587	525980	lep324g8	1622553	1624712	lep73e5	2751355	2752921
lep110a11	525088	527126	lep240d7	1623823	1627256	lep259h08	2752205	2754366
lep203f11	526997	529254	lep324h9	1626139	1628200	lep336d01	2754069	2756744
lep35e9	528595	531404	lep10c2	1627992	1630845	lep336f08	2756100	2758813
lep29d5	530970	533079	lep27g5	1630254	1632921	lep91c8	2758491	2760555
lep103h5	531975	534667	lep219g3	1632813	1635118	lep158f1	2758917	2761321
lep251h08	534213	537086	lep208c4	1634631	1638339	lep9c4	2761206	2763510
lep68f8	537364	538811	lep98e11	1637384	1639526	***Hole41	2763510	2763517
lep136h12	538779	541732	lep108f8	1639471	1641703	lep123a2	2763517	2766223
lep108d10	540684	542884	lep10f3	1641835	1644370	lep60e12	2766060	2767510
lep95c12	542672	544686	lep116b7	1642979	1645237	lep292b3	2767336	2768960
lep95f9	543989	547130	lep137g1	1644242	1646344	lep21h8	2768524	2772287
lep95h7	547113	549532	lep37a2	1646177	1648707	lep331d5	2772200	2774430
lep86d5	549164	551313	lep215b01	1648444	1650844	lep128c7	2774338	2776343
lep216d10	550238	553020	lep116d10	1650300	1652704	lep213a10	2776341	2778403
lep19b11	553019	555611	lep334d07	1652159	1654799	lep203e10	2777884	2780530
lep189g8	554862	556442	lep90a7	1653800	1656456	lep221g10	2779767	2782344

lep117e1	556206	558223	lep209g7	1655280	1658345	lep18f10	2782233	2784325
lep107h11	558010	560057	lep91g3	1658215	1662212	lep30d5	2782427	2786215
lep18d7	560348	562374	lep137e2	1662076	1664369	lep328g10	2784917	2788319
lep104c9	561113	563579	lep204e4	1664135	1667114	lep122a10	2787342	2789432
lep65g11	563122	564562	lep114b4	1667060	1669530	lep201b8	2789069	2791257
lep98f4	563757	565828	lep230d9	1668205	1671456	lep102h7	2791218	2793353
lep125g11	565547	568624	lep334d11	1670067	1672239	lep346d3	2792856	2794535
lep114h12	568352	571761	lep366b5	1672371	1673889	lep366h9	2793985	2795520
lep326c7	571577	574200	lep259d09	1673450	1675907	lep201b5	2794758	2797731
lep35e12	573944	576189	lep94g12	1675087	1678097	lep191h6	2796539	2798348
lep107g5	575756	578394	lep223e4	1677998	1680214	lep228d10	2797868	2799892
lep149c3	577634	580044	lep122d7	1680206	1683412	lep51a12	2798203	2799672
lep30d2	578856	581067	lep297e12	1683173	1684895	***Hole42	2799672	2800202
lep104b8	580132	582799	lep102a6	1684755	1686966	lep292g4	2800202	2802007
lep34d10	582535	586008	lep167d2	1686695	1689383	lep27e8	2801910	2803949
lep137f12	585372	588297	lep144g5	1689312	1692208	lep213d12	2803895	2806265
lep336h01	587957	590118	lep202e5	1692132	1695759	lep152h8	2805590	2808807
lep209f10	590032	592590	lep42e10	1694553	1698332	lep108f1	2807548	2810443
PCR27	592519	593748	lep90c2	1697590	1699610	lep331b1	2809943	2812519
lep325d1	593724	596576	lep15b3	1699271	1701629	lep255a06	2812443	2815040
lep370g04	596427	598243	lep114h3	1701505	1703844	lep120c6	2814966	2817469
lep89b5	597816	600405	lep118d12	1702646	1705310	lep145f12	2815849	2819003
lep264a7	600339	602835	lep155g9	1704859	1707431	lep102a8	2818060	2820742
lep108b3	602145	604451	lep128g3	1706752	1708832	lep121f10	2819428	2821555
lep137f9	603938	606696	lep89d8	1708720	1710809	lep213d02	2820856	2824807
lep115d5	605903	608285	lep108b1	1710875	1713167	lep1c8	2824533	2826719
lep398e11	608145	609975	lep323d8	1712996	1715009	lep326f1	2825352	2828124
lep73e12	609885	611518	lep216h11	1714080	1716144	lep236a10	2827262	2829699
lep323a10	611514	614574	lep115b1	1715766	1719274	lep98d5	2829358	2831950
lep22b9	613680	616682	lep121c11	1718976	1721470	lep215d08	2831341	2834220
lep148a10	616220	619138	lep24e1	1721033	1723625	lep86g5	2833595	2836378
lep262d11	618384	621811	lep224a12	1723399	1725746	lep68b5	2836124	2837910
lep293a4	621330	622846	lep207g6	1725548	1727931	lep87a11	2837904	2840573
lep155b2	622755	624924	lep74h3	1727882	1729382	lep216b09	2839905	2841934
lep118h10	624908	627512	lep250g05	1728519	1731469	lep324b10	2841621	2844654
lep235e12	627154	629469	lep44c4	1731079	1734080	lep323d10	2844450	2847184
PCR05	629374	631716	lep125f2	1733913	1736031	lep311d5	2846980	2848496
lep336b07	631683	634742	lep277c9	1735806	1737229	lep324f2	2847708	2851304
lep239c7	633682	635798	lep324e8	1736937	1739426	lep70c1	2851197	2852981
lep9d8	635454	638151	lep373b10	1738727	1740413	lep233c2	2852386	2854507
lep16h11	636930	639966	lep98h5	1739967	1742326	lep28g8	2854217	2856534
lep157h2	639832	642906	PCR16	1742290	1743513	lep337h12	2856059	2858421
lep259f08	642501	645326	lep90c4	1743452	1745723	lep257h06	2858198	2861273
lep117b4	644242	646680	lep89f9	1745716	1747946	lep110e10	2861086	2863186
lep123d7	646072	648729	lep76e3	1747707	1749594	lep118e7	2862452	2865060
lep108d8	648596	650605	lep24f11	1749701	1752245	lep149c10	2864524	2868037
lep20f6	650333	653059	lep16d10	1751155	1753828	lep158g9	2867950	2870084
lep94e8	652685	655001	lep336b08	1753615	1756789	lep220a01	2868588	2870900
lep364h07	654291	655967	lep97h9	1756351	1758693	lep372b12	2870287	2871827

lep203e2	655976	659047	lep108f6	1757438	1759852	lep257e08	2871114	2874382
lep18d2	657837	659968	lep126g1	1759527	1761883	lep22a8	2873464	2875820
lep325a8	658901	662446	lep127g2	1761368	1764497	lep184h1	2875742	2877452
lep333f11	662110	665119	lep120d1	1762445	1765490	lep311a8	2877439	2878914
lep156a6	664576	667343	lep63g4	1764500	1766183	lep106h11	2878655	2881025
lep90a5	667086	669946	lep273b5	1766136	1767640	lep223d5	2880930	2882986
lep316a10	669723	671510	lep220c07	1767176	1770570	lep125e3	2882485	2885055
lep124e8	671105	673599	lep115a6	1770268	1772619	lep25b3	2884088	2887159
lep169e7	672895	674686	lep260b02	1772382	1775405	lep43e9	2884885	2887019
lep127a1	673918	676113	lep92f2	1774155	1776505	***Hole43	2887019	2887469
lep148b8	675586	677609	lep27g3	1776228	1778322	lep9g12	2887469	2889755
lep220a05	676653	678843	lep208c9	1777676	1780969	lep145f1	2889507	2892148
lep30g12	678826	681399	lep254e05	1779524	1783107	lep68g2	2890823	2892634
lep96c6	680442	683790	lep104b11	1782214	1784610	lep284g6	2892606	2894105
lep281d10	683407	685368	lep228c02	1784290	1787870	lep206e12	2893795	2896516
lep321f12	684622	688279	lep237h1	1787342	1790004	lep92g3	2895702	2898104
lep119a8	687727	690410	lep212f5	1788649	1791490	lep89a4	2898438	2900622
lep22c7	689059	692850	lep395g12	1790938	1792765	lep262g2	2900180	2902676
lep208e6	692750	695044	lep232b2	1791730	1794592	lep42f6	2902034	2904908
lep257g08	695298	698169	lep325c8	1794217	1797149	lep16b9	2904608	2906871
lep324c12	698052	700592	lep254d11	1796680	1798801	lep251e10	2906357	2908405
lep284g1	699202	700772	lep98f9	1798811	1802151	lep11f8	2907910	2909998
lep103g3	700664	703051	lep11d9	1802011	1804478	lep325e2	2908832	2911070
lep116e8	702231	704857	lep330c4	1802759	1805249	PCR21	2910972	2913631
lep19a6	704225	707200	lep59d2	1805022	1806788	lep114a6	2913630	2915726
lep213d11	706818	709220	lep32d1	1805786	1808153	lep384d08	2915695	2917467
lep22h9	707338	709394	lep329g9	1807062	1809799	lep234f7	2916101	2918489
lep123f12	709247	711485	lep116g5	1809559	1811948	lep158a7	2918395	2921557
lep331g5	710374	712481	lep259h11	1811135	1813458	lep189b10	2921310	2922924
lep121c3	711952	713952	lep364d12	1813189	1814812	lep30h10	2921768	2924075
lep203a3	713696	715697	lep215d01	1814631	1817158	lep9g10	2923369	2926119
lep78h12	714795	716349	lep158f9	1815896	1819839	lep350f8	2925810	2927415
lep321f5	715898	718523	lep105h6	1819710	1822260	lep336a01	2926687	2928981
lep55g6	718333	719922	lep128d11	1821537	1823632	lep323h8	2928120	2930624
lep91e3	719607	722408	lep365c8	1823071	1824743	lep113b7	2929892	2932546
lep98d11	720512	723591	lep107f3	1824539	1826847	lep52h4	2932414	2933896
lep211d6	722797	725130	lep324b1	1825955	1828245	lep120g8	2933250	2936452
lep212c1	724822	726977	lep189a11	1828155	1830005	lep16g3	2936251	2938767
lep170e9	726789	728372	lep215d06	1829746	1832798	lep250c03	2938692	2940816
lep148a7	728303	730499	lep63h6	1832572	1834023	lep24e6	2940805	2944708
lep225c03	730258	732451	lep350d5	1833623	1835558	lep313d3	2943971	2945702
lep215e01	732166	734245	lep72b8	1834753	1836586	lep27g7	2945045	2948273
lep215a08	733937	736209	lep121g6	1836427	1839932	lep44a8	2947167	2949831
lep42e7	736141	738282	lep158b12	1838887	1840927	lep205f1	2949377	2951413
lep325g3	738231	740945	lep293c2	1840122	1841968	lep11a7	2950954	2953034
lep395a7	740874	742581	lep293c1	1840126	1841968	lep116a11	2952928	2955153
lep365a11	742209	743781	***Hole27	1841968	1844171	lep91f5	2954544	2956644
lep9b5	743253	746537	lep19a4	1844171	1846604	lep127b2	2956154	2958766
lep20c6	746152	748736	lep85b1	1846076	1848960	lep44c8	2958309	2961392

lep101f12	748367	750495	lep204g4	1847970	1851350	lep334h05	2961260	2963364
lep123f8	750257	752693	lep105d3	1850712	1853357	lep34e1	2962763	2965074
lep264c11	752537	755189	lep34d3	1852115	1854967	lep53b2	2964878	2966372
lep220c06	754603	757186	lep9h1	1854649	1856800	lep53b1	2966106	2968007
lep167d5	757096	760602	lep369a12	1856746	1858329	lep19d6	2967583	2969885
lep143g1	760003	762122	lep60e2	1858235	1859772	lep102h4	2968470	2971257
lep327e10	762091	764149	lep128d9	1859421	1862464	lep34d11	2971072	2973282
lep250d04	763685	766115	lep262g4	1861382	1865003	lep137b1	2972904	2975550
lep160b12	764738	767422	lep208g2	1864280	1866929	lep127f3	2974630	2978521
lep148b4	767115	770882	lep44d6	1865832	1868037	lep223f6	2977816	2980164
lep149h12	770307	772793	lep116c1	1867984	1871719	lep32e9	2980135	2982224
lep369c09	772356	773898	lep257b04	1871205	1874151	lep334d12	2981093	2983810
lep19b8	772972	775063	lep87h5	1873521	1876578	lep98e12	2983226	2986803
lep211c9	774674	777393	lep105c1	1876312	1878494	lep160c10	2985549	2988527
lep30e4	776941	780930	lep12h2	1878914	1881582	lep364d10	2988428	2989987
lep228c06	780377	782441	lep52h12	1881053	1882661	lep145d4	2989529	2992653
lep108g5	782164	785278	lep114d10	1882642	1885013	lep23h1	2991851	2994472
lep191a7	785150	787004	lep95e1	1884302	1887112	lep107e4	2994459	2996494
lep9d12	786849	789175	lep71c2	1886384	1888332	lep326f11	2996310	2998687
lep92c12	788184	790591	lep363f11	1888139	1889670	lep223c6	2998015	3000210
lep102a2	790368	792677	lep85e11	1889584	1892407	lep116f8	2999426	3001611
lep43c2	791648	794515	lep1b11	1891697	1894646	lep85e5	3001168	3003212
lep321g4	793937	796663	lep44a1	1893993	1896945	lep213a11	3002691	3004788
lep20a7	796491	798586	lep148g11	1896775	1898924	lep18c7	3004550	3006994
lep218g11	797847	800399	lep125c6	1898794	1901512	lep91e4	3006674	3008721
lep104c6	800306	802314	lep68h12	1901125	1902724	lep68c12	3008436	3009936
lep219a4	802018	804400	lep337f10	1902546	1905399	lep195e11	3009425	3011196
lep85a8	804042	806077	lep137d1	1905226	1908346	lep50g6	3010839	3012584
lep24e5	805348	807723	lep154a11	1907791	1910018	lep215c04	3011590	3013702
lep102g8	807492	810112	lep34f7	1909816	1912206	lep265c2	3013200	3015255
lep262b6	809765	811999	lep123f5	1910393	1914010	lep143g9	3014572	3017562
lep222f12	811371	813995	lep327e3	1913647	1915934	lep285e4	3016793	3018572
lep30c11	813659	817638	lep230g11	1915739	1919162	lep149g6	3018224	3020685
lep123c10	817398	820066	lep201c1	1918789	1921009	lep364g10	3020515	3022114
lep9b3	819588	822123	lep87a1	1920994	1923405	lep149a4	3021787	3023819
lep88d8	822023	824251	lep113g11	1922407	1926149	lep288c12	3023639	3025150
lep373b6	824102	825511	lep228b07	1926046	1928158	lep328g3	3024806	3027546
lep125h5	824455	826837	lep117c2	1927452	1929616	lep122e11	3025576	3028856
lep91f4	826318	830101	lep276c5	1928797	1930241	lep329e5	3028829	3031096
lep104d3	828857	832795	lep293c7	1929863	1931350	lep220a11	3030174	3033638
PCR06	832709	834729	lep11f9	1931198	1933266	lep139d4	3032929	3035245
lep360f8	834645	836604	lep46a3	1933056	1934855	lep326e11	3034853	3036855
lep43f4	835607	838332	lep18d3	1934655	1936753	lep211d9	3036497	3038785
lep360c1	838016	839903	lep95b6	1936699	1939590	lep145e6	3038754	3041133
lep65h8	838602	840488	lep297f5	1939197	1940969	lep328g5	3040993	3043912
lep330a6	840282	842702	lep309b2	1940785	1942407	lep209d11	3043755	3046177
lep87d6	840712	844346	lep121g11	1942404	1945224	lep257c06	3046135	3048698
lep18h2	843717	846271	lep167e11	1944653	1947534	lep265d6	3048827	3050894
lep121f1	844681	846700	lep119c6	1946766	1950555	lep321e3	3050022	3052624

***Hole11	846700	846720	lep211e4	1948997	1951690	lep201c11	3051317	3053724
lep158b7	846720	848736	lep129g10	1951049	1953695	lep228b03	3053391	3055623
lep262a4	848552	850645	lep42e8	1953485	1955851	lep19c1	3055635	3058082
lep105c2	850096	852425	lep85c5	1955451	1958925	lep212h1	3057425	3061156
lep286f11	852281	854079	lep35f2	1958092	1960131	lep217h5	3060319	3063651
lep117d12	853955	856341	lep254h01	1959307	1961964	lep107a12	3063088	3066080
lep363f06	856157	857772	lep127a2	1961776	1963916	lep103h1	3064237	3067648
lep131f10	857427	860029	PCR26	1963884	1965014	lep245b4	3066360	3068667
lep104b5	859990	862299	lep110g4	1964948	1968035	lep114f12	3068438	3071013
lep213e02	861693	863904	lep105b8	1966815	1969500	lep10b5	3070185	3073378
lep29b7	863730	866130	lep30g2	1968173	1970590	lep212h12	3073144	3075518
lep108g8	865894	868657	lep204a1	1969605	1972137	lep77a1	3075649	3077101
lep20c4	868147	870644	lep11a8	1971652	1974529	lep10g6	3076407	3079066
lep252b08	870577	872792	lep252d09	1973844	1976005	lep16c5	3078161	3080711
lep257a11	872446	875005	lep90a10	1975529	1977628	lep110b7	3079493	3083089
lep297h6	874915	876468	lep110b11	1977303	1980445	lep213c04	3082820	3084965
lep223a1	876450	879423	lep336e07	1978168	1981922	lep220h02	3084083	3087688
lep155h7	878523	880711	lep245f4	1981009	1983103	lep5d9	3087466	3089508
lep118c11	879448	882210	lep86d9	1983034	1985729	lep116h2	3088320	3091567
lep182d5	881730	883325	lep336e08	1985324	1988968	lep234b9	3091060	3093663
lep87d8	882940	885900	lep211g5	1988766	1990934	lep115d1	3092945	3095462
lep113f9	885174	888802	lep395e8	1990162	1991577	lep68c9	3095247	3097088
lep265b6	886586	890120	lep155f11	1991458	1993460	lep128g10	3097026	3099340
lep389d2	889949	891446	lep19c10	1993428	1995703	lep148g7	3098673	3102091
PCR07	891362	893498	lep337b10	1994865	1997082	lep90b3	3101767	3104545
lep44b3	893499	895923	***Hole28	1997082	1997101	lep161g10	3104051	3106761
lep225g09	895510	898741	lep12h5	1997101	1999445	lep236g11	3106578	3109156
lep219g11	898592	901030	lep119b6	1998939	2000997	lep322a7	3108343	3111152
lep167f2	900667	902681	lep11d8	2000642	2003363	lep282e2	3109561	3110997
lep148f11	901360	903431	lep76d7	2003009	2004719	***Hole44	3110997	3111363
lep153a9	903050	905660	***Hole29	2004719	2004732	lep369a07	3111363	3112946
lep329c3	905651	907995	lep73f5	2004732	2006501	lep11f7	3112348	3115681
lep213c05	907600	910182	lep254e08	2006414	2008977	lep157b8	3115587	3118106
lep323d3	909276	911360	lep27e7	2007811	2011581	lep220f12	3116625	3119394
lep161f6	910778	912954	lep95e10	2011222	2014629	lep225h03	3118623	3120637
lep311c7	912404	914159	lep250a04	2013561	2015604	lep344b10	3120205	3122151
lep109h3	913317	916390	lep167a11	2015177	2017284	lep168h11	3121569	3123689
lep167a4	915832	917933	lep27f10	2016627	2019497	lep205c9	3122936	3125370
lep82c6	917626	919129	lep131f9	2018743	2021033	lep20h8	3125295	3128414
lep167b5	918515	920693	lep311b5	2020837	2022241	lep119e2	3127950	3130438
lep95a7	920396	922966	lep7e3	2021811	2024096	lep29c7	3129629	3131891
lep77c4	922796	924363	lep377f08	2022638	2024165	lep167b9	3131790	3134348
lep46d1	924193	925818	lep398e10	2024111	2025673	lep22e6	3134215	3137175
lep250c05	925269	927633	lep229g12	2025347	2027364	lep87c4	3137143	3139217
lep160c12	927279	929406	lep257f04	2026985	2030921	lep34e6	3138848	3142135
lep28h7	929089	931514	lep92b11	2030362	2033070	lep16h2	3141741	3143903
lep44c1	931362	933388	lep125e12	2032628	2035113	lep1a8	3143315	3146663
lep18g6	933109	935496	lep346f3	2033287	2035078	lep24h10	3147640	3150598
lep96c7	935318	937471	***Hole30	2035078	2035250	lep92b9	3149652	3152049

lep27e5	936710	939078	lep99c1	2035250	2037393	lep215a09	3151352	3154097
lep11c12	938822	941055	lep203d12	2036847	2040533	lep130f7	3153665	3156198
lep364b02	940678	942079	lep152b5	2040403	2043075	lep117g4	3155230	3157748
lep89c7	941685	944090	lep131c8	2042667	2045818	lep377d07	3157625	3159194
lep56h9	943596	945067	lep251d03	2044590	2046776	lep371f01	3158331	3160203
lep90d12	944875	946883	lep154b6	2046644	2049099	lep94f9	3159465	3161787
lep167g4	946761	948885	lep329f9	2048469	2050583	lep109g6	3161760	3163877
lep212a1	948025	950148	lep18h9	2050129	2053123	lep144h4	3162526	3164816
lep292c4	949877	951330	lep167h8	2052556	2055104	lep369a02	3164572	3166365
PCR08	951253	951962	lep21f11	2054252	2057230	lep25g3	3166298	3168430
lep101h10	951878	953961	lep114h4	2056580	2058999	lep34e7	3167700	3170036
lep371a12	952137	953662	lep119f8	2058719	2061152	lep237c11	3169059	3171086
PCR09	953600	954050	lep34c5	2060505	2063570	lep214h12	3170740	3173790
lep46c2	953966	955836	lep196b4	2063065	2064614	lep204b3	3173544	3176237
lep137g6	954703	956950	lep32f12	2064595	2066944	lep53a6	3176053	3177838
lep161e7	956689	959035	lep102d8	2066913	2069526	lep208f2	3177780	3180588
lep215f05	958680	960769	lep206a3	2069368	2071794	lep140a9	3179694	3182478
lep108c8	959669	961803	lep365e8	2071314	2073189	lep208c7	3181875	3184641
lep68h4	961706	963426	lep322a5	2072715	2074788	lep88f5	3184354	3186652
lep9c12	963043	965756	lep345h3	2074749	2076394	lep149d1	3184949	3188739
lep260a06	964651	967793	lep365f4	2076211	2078061	lep213h01	3187578	3190845
lep18f11	967122	969183	***Hole31	2078061	2078151	lep124e11	3190332	3193504
lep250f08	968814	972418	lep274g2	2078151	2079963	lep182d6	3193106	3194848
lep118d10	971927	973963	lep108c6	2079783	2082046	lep328g1	3194539	3197376
lep215e04	973702	976199	lep351d3	2081944	2083666	lep325b3	3196830	3199515
lep99b5	976181	978189	lep109e7	2083636	2086459	lep94e7	3199303	3201732
lep52f4	978051	979661	lep43d11	2085481	2089013	lep89f2	3201508	3204485
lep50g7	979503	981025	lep205g5	2088388	2091777	lep167c2	3202674	3206008
lep136c3	980568	982800	lep228b05	2091613	2093778	lep91d11	3205262	3207710
lep399f2	981379	982845	lep116c10	2092424	2096126	lep204c10	3206419	3208963
***Hole14	982845	983268	lep234f12	2095669	2098359	lep118e1	3208491	3211217
PCR10	983380	985672	lep149a5	2098076	2100630	lep205c10	3210955	3214007
lep87c3	984447	987368	lep204f8	2100140	2102283	lep319a10	3213254	3215211
lep102h2	986733	989753	lep327f6	2102095	2105573	lep206e5	3215649	3217823
lep56f5	989599	991534	lep90c9	2104943	2107694	lep276d1	3217485	3219036
lep126c4	990767	994014	lep219b6	2106832	2108863	lep119h4	3218725	3221459
lep70h2	993462	995150	lep201d4	2108749	2110868	lep42c1	3221101	3223299
lep23g11	995102	997361	lep102g12	2109981	2113658	lep126h5	3223072	3225870
lep20c1	996420	998975	lep153c5	2112705	2114951	lep235b11	3225682	3228533
lep158b8	998601	1000998	lep140d11	2114732	2117232	lep148f6	3228209	3230525
lep22g8	1000838	1003149	lep16d2	2116657	2118986	lep236h11	3230248	3232351
lep209a10	1002130	1004802	lep109e11	2118688	2120965	PCR22	3232262	3234967
lep117b8	1004545	1006629	lep97g6	2120436	2122918	lep143g12	3234950	3237352
lep42f12	1006349	1008712	lep85a9	2122528	2124666	lep216b10	3236197	3238226
lep87h6	1007130	1009304	lep59b8	2124244	2126146	lep208b1	3237894	3240106
lep140d8	1008990	1011532	lep114d8	2125768	2128190	lep80f7	3239871	3241479
lep195f8	1011080	1012494	lep365a1	2127772	2129261	lep375f2	3241266	3242893
lep131g10	1012922	1014954	lep43d5	2128205	2130430	lep44e9	3242686	3245306
lep212d5	1015003	1017750	lep139f3	2129455	2132189	lep121h7	3245035	3247519



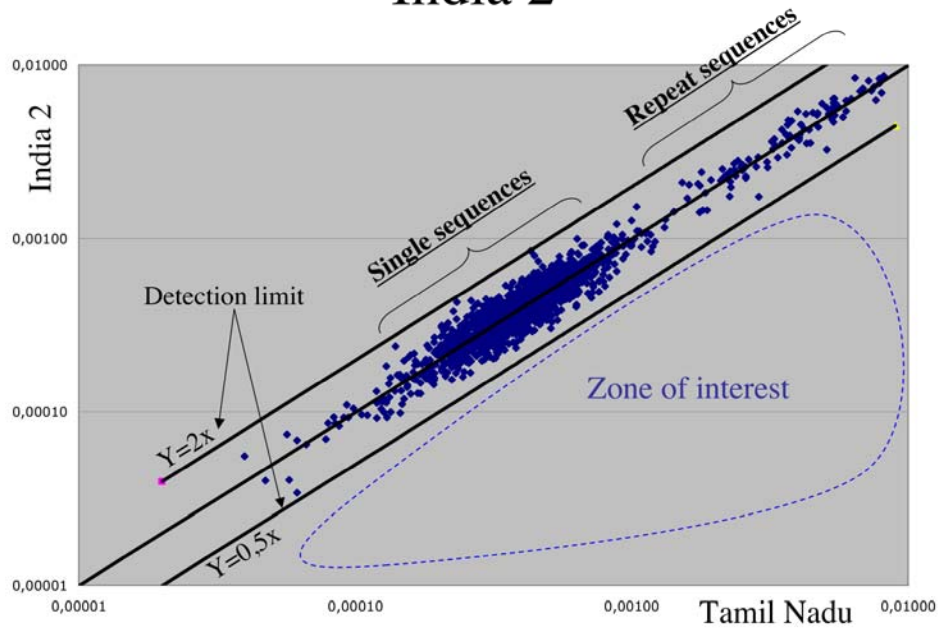
lep213h10	1017681	1020590	lep23c2	2130968	2133021	lep124c11	3246924	3249128
lep42b4	1020379	1022614	lep225g06	2133008	2135381	lep202c6	3248768	3251032
lep117f1	1020455	1022479	lep330b4	2134820	2137976	lep201e7	3250480	3252945
PCR11	1022454	1022940	lep213g03	2137595	2140152	lep215c08	3252516	3254565
lep329c5	1022891	1025590	lep376f4	2140145	2141748	lep123c12	3254453	3257095
lep42g11	1024428	1026909	lep76g1	2141548	2143011	lep360h3	3256848	3258492
lep83f9	1025393	1026880	lep139c2	2142860	2145515	lep201f5	3258070	3260808
***Hole16	1026880	1026947	lep329e8	2145175	2147809	lep149f10	3260286	3262846
lep260c12	1026947	1029384	lep18h6	2147718	2150807	lep228e04	3262414	3265922
lep101f11	1029215	1031588	lep221f12	2149701	2152668	lep30d3	3265577	3267891
lep202h1	1030558	1033362	lep51f4	2152430	2154132			
lep22f1	1033355	1036514	lep346e3	2153100	2154819			
lep206c7	1036094	1038096	lep95a3	2154242	2156590			
lep34d7	1037488	1039596	lep117d10	2155260	2158143			
lep209h12	1038687	1041001	lep102g11	2157609	2159785			
lep107f11	1040060	1042542	lep114b2	2159674	2162183			
lep148g8	1042448	1044510	lep201a5	2161145	2163481			
lep86e10	1043459	1046933	lep213h08	2162537	2165266			
lep177e11	1045681	1047109	lep265d1	2164848	2167096			
***Hole17	1047109	1047158	lep125d8	2165690	2167724			
lep352g4	1047158	1048618	lep91h2	2167606	2170366			
lep205f8	1048500	1051073	lep102a4	2170360	2172443			
lep30d6	1050058	1053421	lep21f7	2172085	2174606			
lep107h10	1053245	1056101	lep370g09	2173585	2174997			
lep59f1	1055637	1057414	lep276h8	2174736	2176251			
lep254e09	1057334	1059435	lep78h11	2175697	2177131			
lep182f5	1058719	1060587	lep109b10	2176805	2178949			
lep208f7	1059947	1063305	lep103a11	2178786	2181428			
lep223b5	1062530	1065191	lep321f10	2180988	2183608			
lep125a4	1064477	1066680	lep120c4	2182570	2185344			
lep140c10	1065705	1068613	lep110c8	2184886	2188327			
lep254f11	1068089	1071074	lep329g10	2187911	2190316			
lep22e9	1070838	1074646	lep351b6	2190168	2191765			
lep233f12	1074195	1076980	lep387h01	2190927	2192712			
lep18g10	1076423	1079170	lep325h7	2192563	2195184			
lep128g8	1078109	1080849	lep217a9	2194542	2198117			
lep128f7	1080013	1082250	lep136g6	2197845	2200243			
lep18d8	1081539	1084750	lep120h10	2198458	2201129			
lep292e12	1084426	1086279	lep104h4	2200638	2202873			
lep201e3	1085141	1087312	lep43c6	2202462	2204488			
lep5c7	1087146	1089793	lep254a02	2203480	2206242			
lep167g10	1087334	1089760	lep109c1	2205568	2207666			
lep22d11	1087687	1089698	lep87h2	2206759	2209246			
PCR12	1089643	1090141	lep83b9	2208384	2209896			
lep334b12	1090148	1092766	lep7e2	2209810	2213425			
lep365d9	1092224	1093776	lep203g4	2213206	2215333			
lep22d7	1093279	1095283	lep323h7	2214331	2217082			
lep167c11	1094424	1097634	lep95g1	2216728	2219131			
PCR20	1097776	1099227	lep259c10	2218708	2220897			

lep324e6	1099205	1101799		lep72a7	2220274	2222236	
lep119h12	1101414	1103625		lep149f11	2221955	2224168	
lep87d4	1103351	1105762		lep102d5	2224059	2226705	
lep52h10	1105086	1106526		lep220d08	2226203	2228263	

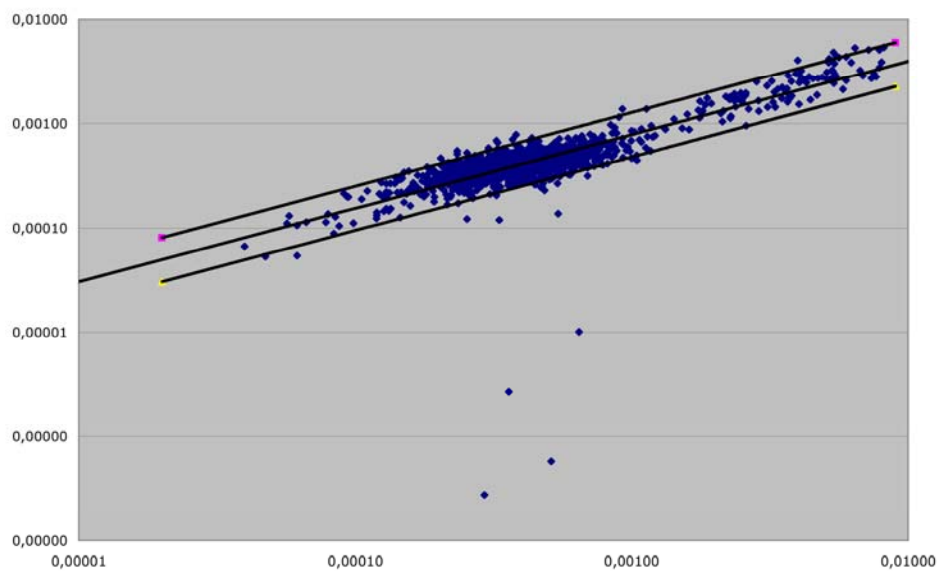
\*\*\* Hole : Gap in genome coverage

**Figure S1.** Microarray analysis and comparison of hybridization signals obtained from different strains of *M. leprae* using Array vision software. Five of the spots that repeatedly fell outside the limits were found in all experiments and probably represent spotting artifacts as the corresponding loci were present in all cases when PCR was performed.

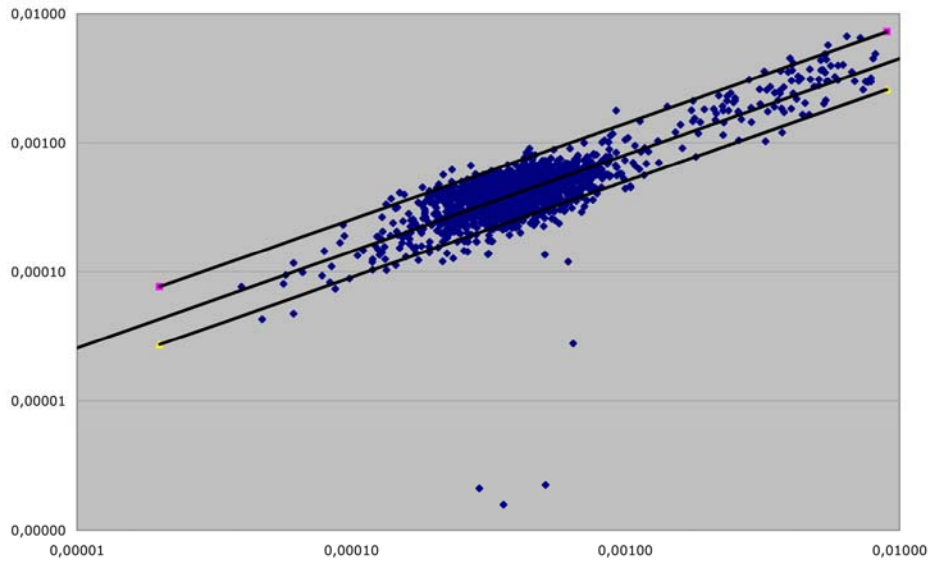
## India 2



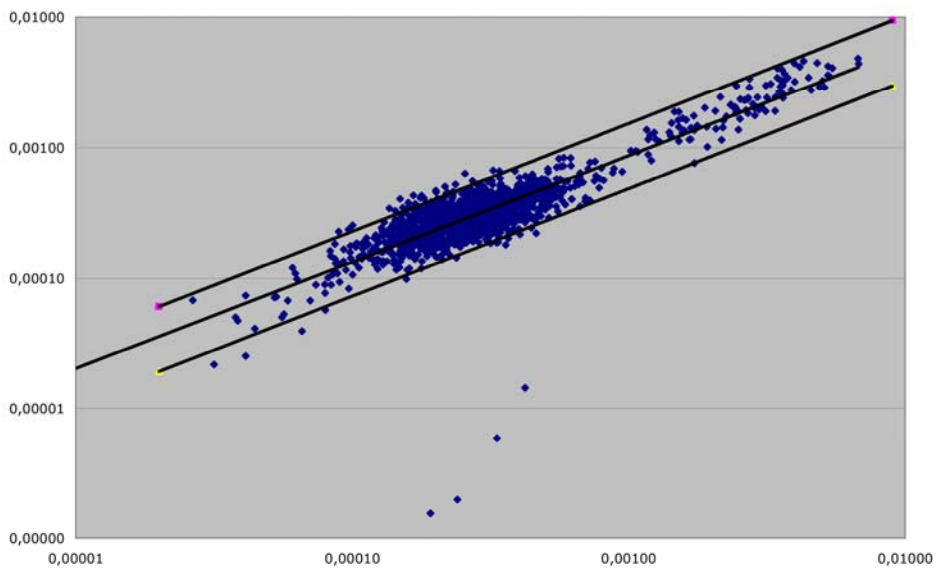
## Thai-53 (Thailand)



## Br4923 (Brazil)



## NHDP98 (Mexico)



**Figure S2.** Q-PCR analysis of repetitive DNA.

	[Tamil Nadu]	[Africa]	[Br4923]	[Mex-NHDP98]	[Thai-53]
Lepprt	5*	6	6	6	6
Leprep	7*	7	8	5**	5**
Relep	15*	14	15	15	11
Rlep	37*	35	29	30	27

\* Repeat Amplified in TN with our probes

\*\* 7 copy found by PCR

