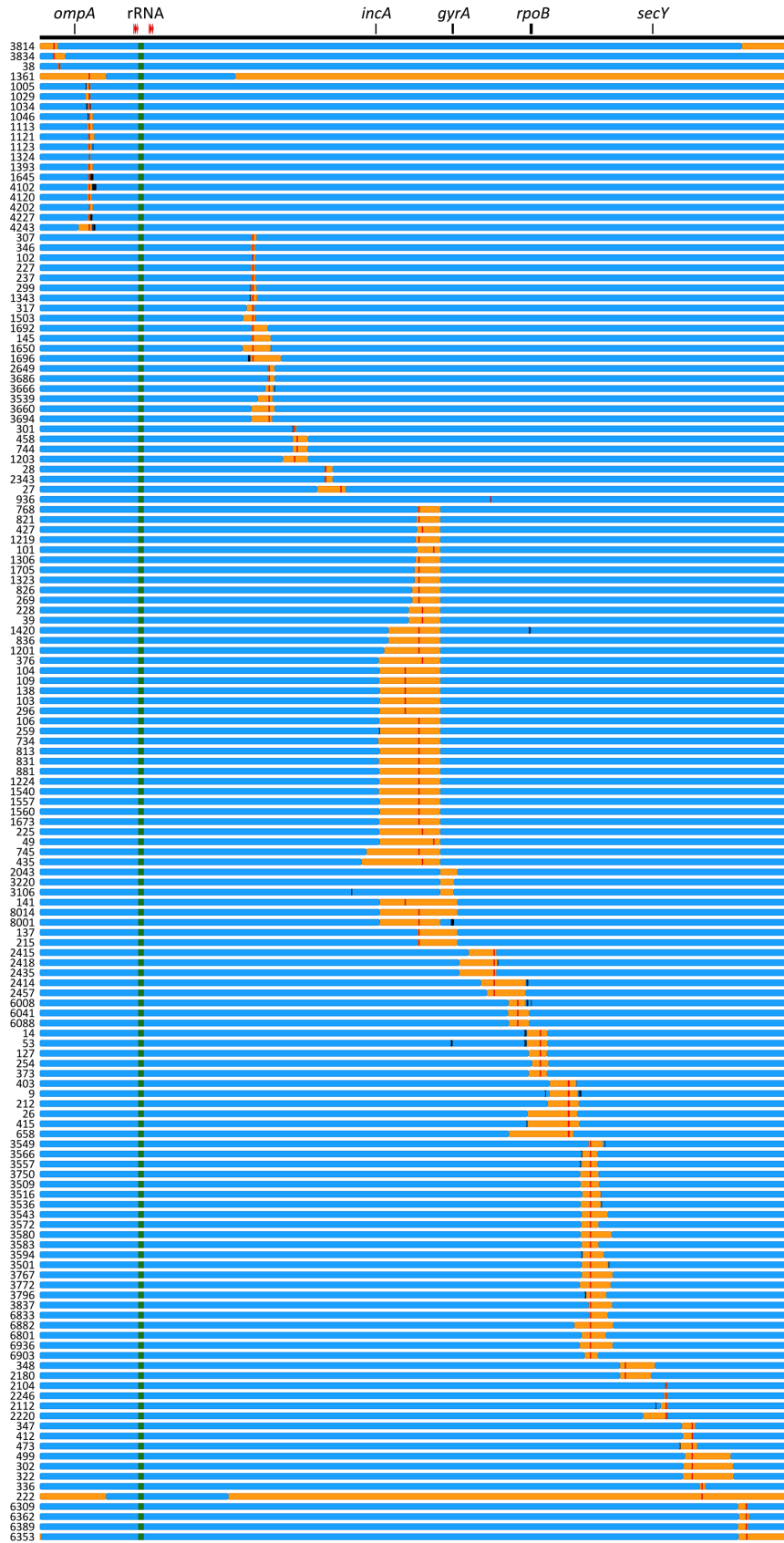


Supplemental Figures and Tables

Chromosomal recombination targets in *Chlamydia* interspecies lateral gene transfer

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Figure S1. Graphic representation of the independent recombinant strains generated in this work. Individual recombinants are identified by number at the left of each line. The specific recombination endpoints, transposon parents, and genome accession numbers for each recombinant in this figure can be examined in Table S1. *C. trachomatis* sequence is indicated in blue, while *C. muridarum* sequence is indicated in tan. The vertical red bars indicate the location of the transposon in each strain, black bars indicate regions of secondary recombination in individual progeny strains, and the location of *tet(C)* is shown in green for each recombinant. The location of selected chromosomal genes are indicated at the top of the figure.

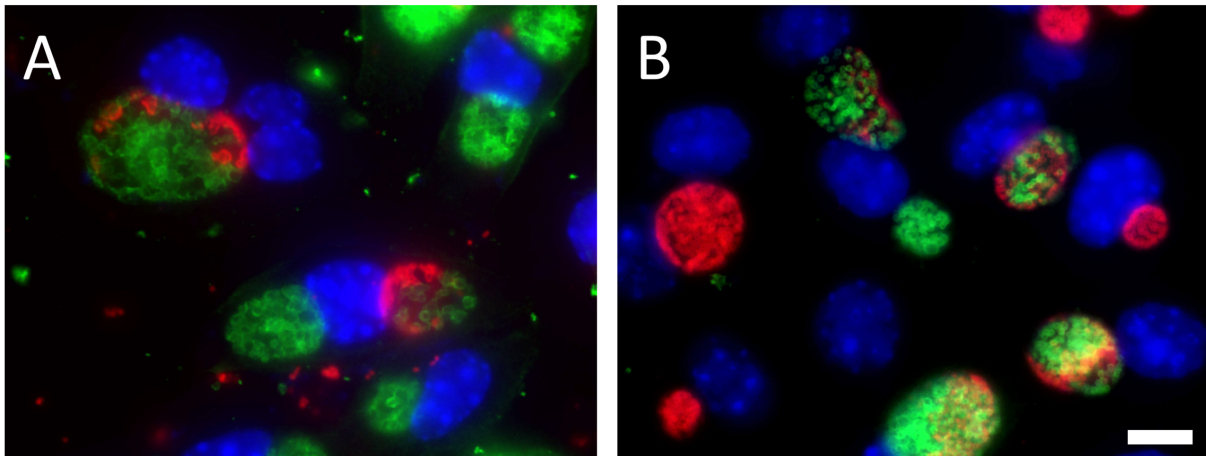


Figure S2. Fusion of inclusions by different recombinant strains. Panel A: Coinfection of McCoy cells with *C. trachomatis* strain DUW/3 and recombinant strain RC435, which encodes *C. muridarum* IncA. Panel B: Coinfection of McCoy cells with *C. trachomatis* strain DUW/3 and merodiploid recombinant strain RC1201, which encodes IncA from both *C. trachomatis* and *C. muridarum*. Monolayers of cells were infected for 20h (panel A) or 24h (panel B) followed by methanol-fixation and labeling with serovar-specific anti-MOMP monoclonal antibodies. In both images, wild-type parental strain DUW/3 is labeled green and recombinants expressing serovar L2 MOMP are labeled red. Each host cell nuclei is labeled blue with DAPI. The scale bar in panel A indicates 10 microns for both panels.

Table S1. Chromosomal recombination targets in Chlamydia interspecies lateral gene transfer.

Strain names, as used in the manuscript, are listed in column A.

Clone number	MUTANT ID	Accession	Date of record	CT Parent	CM Parent	Antibiotics	Left margin	Locus tag of Tn	Right margin	Insertion length	2° recomb?	2° Left Margin	2° Right Margin	2° Length
RC3106	KU3106	CP042702		L2/tet9		Tet/Ofi	494372		521141	26769	Yes	437244	437958	714
RC38	TC0031::TnxL2/rifR-38	CP042736	10/14/16	L2/74	UWCM004	Cam/Rif	34027	TC0031		37662	Yes	37859	38615	757
RC1005	TC0080-IGR-TC0081::TnL2/tetR-1005	CP042735	2/5/18	L2/tet9	UWCM020	Cam/Tet	89559	TC0080-IGR-TC0081	96574	7015	Yes	88427	89555	1129
RC1034	TC0080-IGR-TC0081::TnL2/tetR-1034	CP042732	2/5/18	L2/tet9	UWCM020	Cam/Tet	92728	TC0080-IGR-TC0081	96830	4102	Yes	97285	98489	1205
RC1123	TC0080-IGR-TC0081::TnL2/tetR-1123	CP042728	2/5/18	L2/tet9	UWCM020	Cam/Tet	92124	TC0080-IGR-TC0081	99879	7755	Yes	102641	102816	176
RC1645	TC0080-IGR-TC0081::TnL2/tetR-1645	CP042720	6/13/18	L2/tet9	UWCM020	Cam/Tet	93120	TC0080-IGR-TC0081	96582	3462	Yes	96620	103694	7075
RC4102	TC0080-IGR-TC0081::TnL2/tetR-4102	CP042675	6/13/18	L2/tet9	UWCM020	Cam/Tet	91247	TC0080-IGR-TC0081	100238	8991	Yes	101655	109659	8005
RC4227	TC0080-IGR-TC0081::TnL2/tetR-4227	CP042671	6/13/18	L2/tet9	UWCM020	Cam/Tet	92729	TC0080-IGR-TC0081	96724	3995	Yes	97233	101875	4643
RC4243	TC0080-IGR-TC0081::TnL2/tetR-4243	CP042670	6/13/18	L2/tet9	UWCM020	Cam/Tet	73182	TC0080-IGR-TC0081	100694	27512	Yes	100702	102686	1985
RC1343	TC0189::TnL2/tetR-1343	CP042725	6/13/18	L2/tet9	UWCM009	Cam/Tet	233414	TC0189	246030	12616	Yes	232533	233343	811
RC1503	TC0189::TnL2/tetR-1503	CP042721	6/13/18	L2/tet9	UWCM009	Cam/Tet	218150	TC0189	242639	24489	Yes	242938	243656	719
RC1650	TC0189::TnL2/tetR-1650	CP042719	6/13/18	L2/tet9	UWCM009	Cam/Tet	217573	TC0189	241532	53959	Yes	217837	217890	54
RC1696	TC0189::TnL2/tetR-1696	CP042781	6/13/18	L2/tet9	UWCM009	Cam/Tet	233367	TC0189	292867	59500	Yes	228391	231892	3502
RC299	TC0189::TnL2/tetR-299	CP042706	6/13/18	L2/tet9	UWCM009	Cam/Tet	233764	TC0189	245180	11416	Yes	232854	233477	624
RC3666	TC0212::TnL2/tetR-3666	CP042682	6/13/18	L2/tet9	UWCM026	Cam/Tet	261160	TC0212	277021	15861	Yes	279944	280024	81
RC301	TC0257::TnxL2/tetR-301	CP042705	2/14/17	L2/tet9	UWCM027	Cam/Tet	316052	TC0257	321325	5273	Yes	315152	315258	107
RC1420	TC0431::TnxL2/tetR-1420	CP042786	8/3/17	L2/tet9	UWCM007	Cam/Tet	483049	TC0431	555903	72854	Yes	722759	723135	377
RC259	TC0431::TnxL2/tetR-259	CP042768	2/14/17	L2/tet9	UWCM007	Cam/Tet	480512	TC0431	555904	75392	Yes	479828	479834	7
RC2414	TC0530::TnL2/tetR-2414	CP042773	9/25/18	L2/tet9	UWCM030	Cam/Tet	529539	TC0530	615682	86143	Yes	618318	621259	2942
RC2418	TC0530::TnL2/tetR-2418	CP042771	9/25/18	L2/tet9	UWCM030	Cam/Tet	525682	TC0530	599059	73377	Yes	599064	600589	1526
RC6008	TC0575::TnL2/tetR-6008	CP042665	6/13/18	L2/tet9	UWCM011	Cam/Tet	653181	TC0575	687727	34546	Yes	701618	701714	97
RC403	TC0657::TnxL2/tetR-403	CP042757	12/8/16	L2/tet9	UWCM002	Cam/Tet	629290	TC0657	746075	53145	Yes	746133	746154	22
RC415	TC0657::TnxL2/tetR-415	CP042756	12/8/16	L2/tet9	UWCM002	Cam/Tet	653147	TC0657	755953	102806	Yes	652859	653025	167
RC9	TC0657::TnxL2/tetR-9	CP042746	12/8/16	L2/tet9	UWCM002	Cam/Tet	691931	TC0657	749858	57927	Yes	753801	756137	2337
RC3501	TC0693::TnL2/tetR-3501	CP042694	6/13/18	L2/tet9	UWCM012	Cam/Tet	755693	TC0693	806225	50532	Yes	806763	807095	333
RC3516	TC0693::TnL2/tetR-3516	CP042692	6/13/18	L2/tet9	UWCM012	Cam/Tet	758170	TC0693	793005	34835	Yes	793174	793259	76
RC3536	TC0693::TnL2/tetR-3536	CP042691	6/13/18	L2/tet9	UWCM012	Cam/Tet	753916	TC0693	792064	38148	Yes	792521	792533	13
RC3549	TC0693::TnL2/tetR-3549	CP042689	6/13/18	L2/tet9	UWCM012	Cam/Tet	771153	TC0693	797150	25997	Yes	800286	800312	27
RC3557	TC0693::TnL2/tetR-3557	CP042688	6/13/18	L2/tet9	UWCM012	Cam/Tet	756123	TC0693	785782	29659	Yes	753017	753146	130
RC3566	TC0693::TnL2/tetR-3566	CP042687	6/13/18	L2/tet9	UWCM012	Cam/Tet	755833	TC0693	785783	29950	Yes	750755	755797	43
RC3594	TC0693::TnL2/tetR-3594	CP042684	6/13/18	L2/tet9	UWCM012	Cam/Tet	756718	TC0693	797246	40528	Yes	755693	756709	1017
RC3796	TC0693::TnL2/tetR-3796	CP042760	6/13/18	L2/tet9	UWCM012	Cam/Tet	763928	TC0693	801689	37761	Yes	762851	762683	103
RC2112	TC0828::TnL2/tetR-2112	CP042715	9/25/18	L2/tet9	UWCM032	Cam/Tet	893768	TC0828	906344	12576	Yes	885201	885505	305
RC2220	TC0828::TnL2/tetR-2220	CP042776	9/25/18	L2/tet9	UWCM032	Cam/Tet	863118	TC0828	904899	41781	Yes	905032	905316	285
RC473	TC0865-IGR-TC0866::TnL2/tetR-473	CP042668	11/14/17	L2/tet9	UWCM023	Cam/Tet	924275	TC0865-IGR-TC0866	953505	29230	Yes	923514	923523	10
RC2043	KU2043	CP042717		L2/tet9		Tet/Ofi	494372			529022	34650	No		
RC141	KU2043c104-141	CP042787	6/13/18	RC104	KU2043	Cam/Tet/Ofi	480472	TC0411		590523	110051	No		
RC8001	KU2043c259-8001	CP042743	6/13/18	RC259	KU2043	Cam/Tet/Ofi	480472	TC0431		555904	75432	No		
RC8014	KU2043c259-8014	CP042742	6/13/18	RC259	KU2043	Cam/Tet/Ofi	480472	TC0431		590523	110051	No		
RC137	KU2043c768-137	CP042789	10/16/18	RC768	KU2043	Cam/Tet/Ofi	478310	TC0431		555298	76988	No		
RC215	KU2043c768-215	CP042778	10/16/18	RC768	KU2043	Cam/Tet/Ofi	478338	TC0431		555326	76988	No		
RC3220	KU3220	CP042699		L2/tet9		Tet/Ofi	494372			522242	27870	No		
RC3814	TC0019-IGR-TC0020::TnL2/tetR-3814	CP042677	6/13/18	L2/tet9	UWCM021	Cam/Tet	1010324	TC0019-IGR-TC0020	1026515	35595	No			
RC3834	TC0019-IGR-TC0020::TnL2/tetR-3834	CP042676	6/13/18	L2/tet9	UWCM021	Cam/Tet	25878	TC0019-IGR-TC0020	48478	22600	No			
RC1029	TC0080-IGR-TC0081::TnL2/tetR-1029	CP042733	2/5/18	L2/tet9	UWCM020	Cam/Tet	87906	TC0080-IGR-TC0081	97571	9665	No			
RC1046	TC0080-IGR-TC0081::TnL2/tetR-1046	CP042731	2/5/18	L2/tet9	UWCM020	Cam/Tet	93069	TC0080-IGR-TC0081	102797	9728	No			
RC1113	TC0080-IGR-TC0081::TnL2/tetR-1113	CP042730	2/5/18	L2/tet9	UWCM020	Cam/Tet	91646	TC0080-IGR-TC0081	102060	10414	No			
RC1121	TC0080-IGR-TC0081::TnL2/tetR-1121	CP042729	2/5/18	L2/tet9	UWCM020	Cam/Tet	93672	TC0080-IGR-TC0081	105062	11390	No			
RC1324	TC0080-IGR-TC0081::TnL2/tetR-1324	CP042726	6/13/18	L2/tet9	UWCM020	Cam/Tet	94393	TC0080-IGR-TC0081	96951	2558	No			
RC1361	TC0080-IGR-TC0081::TnL2/tetR-1361	CP042790	6/13/18	L2/tet9	UWCM020	Cam/Tet	203792	TC0080-IGR-TC0081	1026361	75054	No			
RC1393	TC0080-IGR-TC0081::TnL2/tetR-1393	CP042724	6/13/18	L2/tet9	UWCM020	Cam/Tet	92269	TC0080-IGR-TC0081	102316	10047	No			
RC4120	TC0080-IGR-TC0081::TnL2/tetR-4120	CP042673	6/13/18	L2/tet9	UWCM020	Cam/Tet	91022	TC0080-IGR-TC0081	100028	9006	No			
RC4202	TC0080-IGR-TC0081::TnL2/tetR-4202	CP042672	6/13/18	L2/tet9	UWCM020	Cam/Tet	94303	TC0080-IGR-TC0081	102121	7818	No			
RC102	TC0189::TnL2/tetR-102	CP042734	2/5/18	L2/tet9	UWCM009	Cam/Tet	238873	TC0189	243173	4300	No			
RC145	TC0189::TnL2/tetR-145	CP042722	2/5/18	L2/tet9	UWCM009	Cam/Tet	234602	TC0189	271508	36906	No			
RC1692	TC0189::TnL2/tetR-1692	CP042718	6/13/18	L2/tet9	UWCM009	Cam/Tet	235105	TC0189	267429	32324	No			
RC227	TC0189::TnL2/tetR-227	CP042712	6/13/18	L2/tet9	UWCM009	Cam/Tet	234463	TC0189	242035	7572	No			
RC237	TC0189::TnL2/tetR-237	CP042710	6/13/18	L2/tet9	UWCM009	Cam/Tet	234773	TC0189	242728	7955	No			
RC307	TC0189::TnL2/tetR-307	CP042703	6/13/18	L2/tet9	UWCM009	Cam/Tet	234874	TC0189	244988	10114	No			
RC317	TC0189::TnL2/tetR-317	CP042701	6/13/18	L2/tet9	UWCM009	Cam/Tet	224776	TC0189	240582	15806	No			
RC346	TC0189::TnL2/tetR-346	CP042697	6/13/18	L2/tet9	UWCM009	Cam/Tet	234463	TC0189	242059	7596	No			
RC2649	TC0212::TnL2/tetR-2649	CP042708	6/13/18	L2/tet9	UWCM026	Cam/Tet	266816	TC0212	280319	13503	No			
RC3539	TC0212::TnL2/tetR-3539	CP042690	6/13/18	L2/tet9	UWCM026	Cam/Tet	245712	TC0212	276272	30560	No			
RC3660	TC0212::TnL2/tetR-3660	CP042683	6/13/18	L2/tet9	UWCM026	Cam/Tet	235356	TC0212	279531	44175	No			
RC3686	TC0212::TnL2/tetR-3686	CP042681	6/13/18	L2/tet9	UWCM026	Cam/Tet	266816	TC0212	280319	13503	No			
RC3694	TC0212::TnL2/tetR-3694	CP042680	6/13/18	L2/tet9	UWCM026	Cam/Tet	235288	TC0212	274300	38772	No			
RC1203	TC0257::TnxL2/tetR-1203	CP042795	2/14/17	L2/tet9	UWCM027	Cam/Tet	294581	TC0257	342708	48127	No			
RC458	TC0259::TnxL2/tetR-458	CP042669	12/8/16	L2/tet9	UWCM008	Cam/Tet	314635	TC0259	342877	28242	No			
RC														

Table S1, continued

Clone number	MUTANT ID	Accession	Date of record	CT Parent	CM Parent	Antibiotics	Left margin	Locus tag of Tn	Right margin	Insertion length	2° recomb?	2° Left Margin	2° Right Margin	2° Length
RC296	TC0411::TnxD/tetR-296	CP042800	6/13/18	D/tet3	UWCM003	Cam/Tet	480453	TC0411	555904	75451	No			
RC106	TC0431::TnxD/tetR-106	CP042801	6/13/18	D/tet3	UWCM007	Cam/Tet	480148	TC0431	555905	75757	No			
RC1201	TC0431::TnxL2/tetR-1201	CP042796	2/14/17	L2/tet9	UWCM007	Cam/Tet	489804	TC0431	571668	81864	No			
RC1219	TC0431::TnxL2/tetR-1219	CP042794	2/14/17	L2/tet9	UWCM007	Cam/Tet	510371	TC0431	556092	45721	No			
RC1224	TC0431::TnxL2/tetR-1224	CP042793	2/14/17	L2/tet9	UWCM007	Cam/Tet	480069	TC0431	555904	75835	No			
RC1306	TC0431::TnxL2/tetR-1306	CP042792	2/14/17	L2/tet9	UWCM007	Cam/Tet	510371	TC0431	556092	45721	No			
RC1323	TC0431::TnxL2/tetR-1323	CP042791	2/14/17	L2/tet9	UWCM007	Cam/Tet	508546	TC0431	556044	47498	No			
RC1540	TC0431::TnxL2/tetR-1540	CP042785	8/3/17	L2/tet9	UWCM007	Cam/Tet	478266	TC0431	555870	77604	No			
RC1557	TC0431::TnxL2/tetR-1557	CP042784	8/3/17	L2/tet9	UWCM007	Cam/Tet	480343	TC0431	555904	75561	No			
RC1560	TC0431::TnxL2/tetR-1560	CP042783	8/3/17	L2/tet9	UWCM007	Cam/Tet	480472	TC0431	555904	75432	No			
RC1673	TC0431::TnxL2/tetR-1673	CP042782	8/3/17	L2/tet9	UWCM007	Cam/Tet	480037	TC0431	555904	75867	No			
RC1705	TC0431::TnxL2/tetR-1705	CP042780	8/3/17	L2/tet9	UWCM007	Cam/Tet	508112	TC0431	556049	47937	No			
RC269	TC0431::TnxL2/tetR-269	CP042737	6/13/18	L2/tet9	UWCM007	Cam/Tet	503661	TC0431	556008	52347	No			
RC734	TC0431::TnxL2/tetR-734	CP042750	2/14/17	L2/tet9	UWCM007	Cam/Tet	477802	TC0431	555870	78068	No			
RC745	TC0431::TnxL2/tetR-745	CP042749	2/14/17	L2/tet9	UWCM007	Cam/Tet	453653	TC0431	555441	101788	No			
RC768	TC0431::TnxL2/tetR-768	CP042748	2/14/17	L2/tet9	UWCM007	Cam/Tet	513736	TC0431	556114	42378	No			
RC813	TC0431::TnxL2/tetR-813	CP042741	2/14/17	L2/tet9	UWCM007	Cam/Tet	480460	TC0431	555904	75444	No			
RC821	TC0431::TnxL2/tetR-821	CP042655	6/1/17	L2/tet9	UWCM007	Cam/Tet	512348	TC0431	556102	43754	No			
RC826	TC0431::TnxL2/tetR-826	CP042747	6/1/17	L2/tet9	UWCM007	Cam/Tet	503661	TC0431	556008	52347	No			
RC831	TC0431::TnxL2/tetR-831	CP042740	6/1/17	L2/tet9	UWCM007	Cam/Tet	479046	TC0431	555870	76824	No			
RC836	TC0431::TnxL2/tetR-836	CP042739	6/1/17	L2/tet9	UWCM007	Cam/Tet	482983	TC0431	555903	72920	No			
RC881	TC0431::TnxL2/tetR-881	CP042738	6/1/17	L2/tet9	UWCM007	Cam/Tet	480000	TC0431	555904	75904	No			
RC225	TC0435::Tncl2/tetR-225	CP042775	2/5/18	L2/tet9	UWCM015	Cam/Tet	480181	TC0435	555904	75723	No			
RC228	TC0435::Tncl2/tetR-228	CP042774	2/5/18	L2/tet9	UWCM015	Cam/Tet	495831	TC0435	555976	60145	No			
RC376	TC0435::Tncl2/tetR-376	CP042763	2/5/18	L2/tet9	UWCM015	Cam/Tet	478851	TC0435	555870	77019	No			
RC39	TC0435::Tncl2/tetR-39	CP042758	2/5/18	L2/tet9	UWCM015	Cam/Tet	495831	TC0435	555976	60145	No			
RC427	TC0435::Tncl2/tetR-427	CP042755	6/13/18	L2/tet9	UWCM015	Cam/Tet	513519	TC0435	556102	42583	No			
RC435	TC0435::Tncl2/tetR-435	CP042745	6/13/18	L2/tet9	UWCM015	Cam/Tet	444250	TC0435	555452	111202	No			
RC101	TC0438::Tncl2/tetR-101	CP042799	11/14/17	L2/tet9	UWCM023	Cam/Tet	513672	TC0438	556102	42430	No			
RC49	TC0438::Tncl2/tetR-49	CP042744	6/1/17	L2/tet9	UWCM023	Cam/Tet	480472	TC0438	555904	75432	No			
RC2415	TC0530::Tncl2/tetR-2415	CP042772	9/25/18	L2/tet9	UWCM030	Cam/Tet	544186	TC0530	597164	52978	No			
RC2435	TC0530::Tncl2/tetR-2435	CP042770	9/25/18	L2/tet9	UWCM030	Cam/Tet	525682	TC0530	596997	71315	No			
RC2457	TC0530::Tncl2/tetR-2457	CP042769	9/25/18	L2/tet9	UWCM030	Cam/Tet	540935	TC0530	616128	75193	No			
RC6041	TC0575::Tncl2/tetR-6041	CP042664	6/13/18	L2/tet9	UWCM011	Cam/Tet	580584	TC0575	622581	41997	No			
RC6088	TC0575::Tncl2/tetR-6088	CP042663	6/13/18	L2/tet9	UWCM011	Cam/Tet	582220	TC0575	622612	40392	No			
RC127	TC0610::TnxL2/tetR-127	CP042727	10/14/16	L2/tet9	UWCM004	Cam/Tet	656663	TC0610	692217	35554	No			
RC14	TC0610::TnxL2/tetR-14	CP042723	10/14/16	L2/tet9	UWCM004	Cam/Tet	652079	TC0610	693584	41505	No			
RC53	TC0610::TnxL2/tetR-14xCM - 53	CP042666	10/14/16	L2/tet9	UWCM004	Cam/Tet	652071	TC0610	693576	41505	No			
RC254	TC0610::TnxL2/tetR-254	CP042709	10/14/16	L2/tet9	UWCM004	Cam/Tet	663738	TC0610	695750	32012	No			
RC373	TC0610::TnxL2/tetR-373	CP042679	10/14/16	L2/tet9	UWCM004	Cam/Tet	656663	TC0610	692216	35553	No			
RC212	TC0657::TnxL2/tetR-212	CP042779	12/8/16	L2/tet9	UWCM002	Cam/Tet	689434	TC0657	751721	62287	No			
RC26	TC0657::TnxL2/tetR-26	CP042767	12/8/16	L2/tet9	UWCM002	Cam/Tet	654863	TC0657	752526	97663	No			
RC658	TC0657::TnxL2/tetR-658	CP042754	12/8/16	L2/tet9	UWCM002	Cam/Tet	619061	TC0657	744591	125530	No			
RC3509	TC0693::Tncl2/tetR-3509	CP042693	6/13/18	L2/tet9	UWCM012	Cam/Tet	753750	TC0693	788856	35106	No			
RC3543	TC0693::Tncl2/tetR-3543	CP042765	6/13/18	L2/tet9	UWCM012	Cam/Tet	755693	TC0693	804531	48838	No			
RC3572	TC0693::Tncl2/tetR-3572	CP042686	6/13/18	L2/tet9	UWCM012	Cam/Tet	754362	TC0693	788067	33705	No			
RC3580	TC0693::Tncl2/tetR-3580	CP042764	6/13/18	L2/tet9	UWCM012	Cam/Tet	753297	TC0693	812478	59181	No			
RC3583	TC0693::Tncl2/tetR-3583	CP042685	6/13/18	L2/tet9	UWCM012	Cam/Tet	756129	TC0693	787457	31328	No			
RC3750	TC0693::Tncl2/tetR-3750	CP042678	6/13/18	L2/tet9	UWCM012	Cam/Tet	752727	TC0693	787782	35055	No			
RC3767	TC0693::Tncl2/tetR-3767	CP042762	6/13/18	L2/tet9	UWCM012	Cam/Tet	756074	TC0693	814459	58385	No			
RC3772	TC0693::Tncl2/tetR-3772	CP042761	6/13/18	L2/tet9	UWCM012	Cam/Tet	751627	TC0693	810528	58901	No			
RC3837	TC0693::Tncl2/tetR-3837	CP042759	6/13/18	L2/tet9	UWCM012	Cam/Tet	768764	TC0693	813481	44717	No			
RC6801	TC0693::Tncl2/tetR-6801	CP042658	9/25/18	L2/tet9	UWCM012	Cam/Tet	755910	TC0693	800768	44858	No			
RC6833	TC0693::Tncl2/tetR-6833	CP042753	9/25/18	L2/tet9	UWCM012	Cam/Tet	769874	TC0693	803986	34112	No			
RC6882	TC0693::Tncl2/tetR-6882	CP042752	9/25/18	L2/tet9	UWCM012	Cam/Tet	740559	TC0693	815945	75386	No			
RC6903	TC0693::Tncl2/tetR-6903	CP042657	9/25/18	L2/tet9	UWCM012	Cam/Tet	761620	TC0693	786854	25234	No			
RC6936	TC0693::Tncl2/tetR-6936	CP042751	9/25/18	L2/tet9	UWCM012	Cam/Tet	751832	TC0693	814671	62839	No			
RC2180	TC0743::Tncl2/tetR-2180	CP042714	2/5/18	L2/tet9	UWCM017	Cam/Tet	825751	TC0743	879220	53469	No			
RC348	TC0743::Tncl2/tetR-348	CP042695	2/5/18	L2/tet9	UWCM017	Cam/Tet	825982	TC0743	885914	59932	No			
RC2104	TC0828::Tncl2/tetR-2104	CP042716	9/25/18	L2/tet9	UWCM032	Cam/Tet	901847	TC0828	904761	2914	No			
RC2246	TC0828::Tncl2/tetR-2246	CP042713	9/25/18	L2/tet9	UWCM032	Cam/Tet	899710	TC0828	906009	6299	No			
RC302	TC0865-IGR-TC0866::Tncl2/tetR-302	CP042704	11/14/17	L2/tet9	UWCM023	Cam/Tet	929002	TC0865-IGR-TC0866	983413	54411	No			
RC322	TC0865-IGR-TC0866::Tncl2/tetR-322	CP042700	11/14/17	L2/tet9	UWCM023	Cam/Tet	928292	TC0865-IGR-TC0866	983897	55605	No			
RC347	TC0865-IGR-TC0866::Tncl2/tetR-347	CP042696	11/14/17	L2/tet9	UWCM023	Cam/Tet	926777	TC0865-IGR-TC0866	949715	22938	No			
RC412	TC0865-IGR-TC0866::Tncl2/tetR-412	CP042674	11/14/17	L2/tet9	UWCM023	Cam/Tet	928704	TC0865-IGR-TC0866	945950	17246	No			
RC499	TC0865-IGR-TC0866::Tncl2/tetR-499	CP042667	11/14/17	L2/tet9	UWCM023	Cam/Tet	931201	TC0865-IGR-TC0866	978514	47313	No			
RC222	TC0878::TnxL2/tetR-222	CP042777	10/14/16	L2/tet9	UWCM005	Cam/Tet	187411	TC0878	127224	60188	No			
RC336	TC0878::TnxL2/tetR-336	CP042698	10/14/16	L2/tet9	UWCM005	Cam/Tet	956110	TC0878	1017230	11904	No			
RC6309	TC0913-IGR-TC0914::Tncl2/tetR-6309	CP042662	6/13/18	L2/tet9	UWCM018	Cam/Tet	991508	TC0913-IGR-TC0914	1010193	18685	No			
RC6353	TC0913-IGR-TC0914::Tncl2/tetR-6353	CP042661	6/13/18	L2/tet9	UWCM018	Cam/Tet	992139	TC0913-IGR-TC0914	1017239	25100	No			
RC6362	TC0913-IGR-TC0914::Tncl2/tetR-6362	CP042660	6/13/18	L2/tet9	UWCM018	Cam/Tet	992835	TC0913-IGR-TC0914	1013927	21092	No			
RC6389	TC0913-IGR-TC0914::Tncl2/tetR-6389	CP042659	6/13/18	L2/tet9	UWCM018	Cam/Tet	991008	TC0913-IGR-TC0914	1010846	19838	No			
RC936	TC0350::Tncl2/tetR-936	CP042803	3/15/19	L2/tet9	UWCM013	Cam/Tet	620703	CTL0506-IGR-CTL0507	622705	2002	No			

Table S2. Progeny data for crosses of either single *C. muridarum* and *C. trachomatis* parents, versus crosses with multiple *C. muridarum* parents and a single *C. trachomatis* parent. The total number of each clone in the cross is indicated (#), and the average length of recombined fragments for each clone is determined for each cross.

Multiple Parent Crosses				
L2tet9 x (CM009 + CM017 + CM020)				
	Experiment 1		Experiment 2	
	#	Length	#	Length
L2tet9 x CM009	0		5	34,577 ± 19,786
L2tet9 x CM017	0		0	
L2tet9 x CM020	7	6,614 ± 2,499	3	5,726 ± 4,484
L2tet9 x (CM012 + CM013 + CM026)				
L2tet9 x CM012	12	36,151 ± 9,950	6	49,932 ± 20,230
L2tet9 x CM013	0		0	
L2tet9 x CM026	1	28,560	0	
Single Parent Crosses				
L2tet9 x CM009	8	10,823 ± 10,167		
L2tet9 x CM017	2	54,701 ± 4,570		
L2tet9 x CM020	5	9,464 ± 9,203		
L2tet9 x CM012	4	45,525 ± 12,886		
L2tet9 x CM013	0			
L2tet9 x CM026	5	23,163 ± 15,042		

Table S3. Accession numbers for genomes used in the comparison of different chromosomal replication termination sites in Figure 7.

Strain	Accession Number
<i>C. trachomatis</i> D/UW-3/CX	AE001273.1
<i>C. trachomatis</i> L2-434	CP019386.1
<i>C. muridarum</i> VR-123	AE002160.2
<i>C. suis</i> SWA-2	LT821323.1
<i>C. pneumoniae</i> CWL029	AE001363.1
<i>C. avium</i> 10DC88	CP006571.1
<i>C. caviae</i> GPIC	AE015925.1
<i>C. abortus</i> S26/3	CR848038.1
<i>C. felis</i> Fe/C-56	AP006861.1
<i>C. gallinacea</i> JX-1	CP019792.1
<i>C. psittaci</i> RD1	FQ482149.1
<i>C. pecorum</i> P787	CP004035.1
<i>Waddlia chondrophila</i>	FR872653.1
<i>Parachlamydia acanthamoebae</i> Bn9	NZ_BAWW01000066.1
<i>E. coli</i> O157	BA000007.2