

**Annex 5:** Gene-based comparison of horizontal gene transfers detected by Garcia-Vallve *et al.* [16], Nakamura et al [14] and this work (TW, threshold 99 %) for *H influenzae*. Columns are self-explanatory. A star indicates a detected gene. Yellow indicates genes detected by both methods, green indicates gene detected only by our approach, NF = no feature found in GIB database.

<i>H influenzae</i>			Ref	Ref	TW
begin	end	gene	16	14	
11857	12261	HI0011	*		
42335	42823	HI0039		*	
48991	49848	HI0048	*		
49848	50792	HI0049	*		
50812	52068	-	*		*
52092	52589	HI0051	*	*	*
52628	53614	HI0052	*		*
53641	54669	HI0053	*		
54779	55579	HI0054	*		
63196	65562	HI0061		*	
79805	80245	HI0074	*		
86575	87006	HI0080	*	*	
108243	108683	HI0101		*	
117319	117660	HI0109	*		
119451	120080	HI0111			*
120092	120388	HI0112		*	*
120441	122675	HI0113		*	*
122901	123017	HI0114		*	
134970	135476	HI0120		*	
147842	149017	HI0134		*	
152492	153262	HI0137		*	
165924	166130	HI0148.1		*	
168629	169336	HI0152		*	
175056	175580	HI0159	*		
190826	191308	HI0178		*	
219308	220081	HI0205		*	
223852	224712	HI0209		*	
225688	225795	HI0210		*	
229286	229477	HI0213.1		*	
241428	242072	HI0220.2		*	
252758	253660	HI0223		*	
257623	257997	HI0228	*	*	
265270	265416	HI0234		*	
270799	271020	HI0242		*	
284998	285465	HI0254			*
285566	286462	HI0255			*
286573	287220	HI0256			*
287390	287713	HI0257			*
288442	289434	HI0258	*	*	

<i>H influenzae</i>			Ref	Ref	TW
debut	fin	gene	16	14	
312108	312593	HI0277	*		
315850	316593	HI0282	*		
330350	331042	HI0296	*		
343715	344002	HI0310	*		
347265	347741	HI0316	*		
354711	354974	HI0326	*		
363479	363835	HI0335	*		
363918	364511	HI0336	*		
369588	369929	HI0342	*		
379232	379927	HI0352	*		
381362	382099	HI0355	*		
406265	406675	HI0386	*		
414231	414968	HI0392	*		
443510	443674	HI0421	*		
453698	454108	HI0430	*	*	
456269	456958	HI0434	*		
498245	498397	HI0476	*		
506303	506677	HI0485.1	*		
508649	509122	HI0489	*		
510454	510810	HI0493	*		
528159	528935	HI0512	*		
528932	530488	HI0513	*		
530561	534808	HI0514		*	
535050	539081	HI0515		*	
542912	543700	HI0520	*		
545466	546122	HI0522	*		
549638	550456	HI0526	*		
560041	560826	HI0535	*		
560901	561578	HI0536	*		
561681	562265	HI0537	*		
562373	562930	HI0538	*		
563058	564776	HI0539	*		
564788	565093	HI0540	*		
565169	565471	HI0541	*		
565634	565924	HI0542	*		
570690	571598	HI0550	*		
575203	575745	HI0554	*		
575870	576109	HI0555	*		
579332	579679	HI0559.1	*		
581951	582346	HI0562	*		
596079	596366	HI0577	*		
596497	597681	HI0578		*	
597746	599848	HI0579		*	
599932	600402	HI0580		*	
615037	615231	HI0592	*		
620572	621054	HI0597.1	*		

<i>H influenzae</i>			Ref	Ref	TW
debut	fin	gene	16	14	
622876	623529	HI0601	*	*	
643446	643880	HI0612		*	
673197	673493	HI0633		*	
700107	700643	HI0656.1		*	
703648	706680	HI0661		*	
711673	711993	HI0666		*	
721436	722332	HI0680		*	
731614	732528	HI0687		*	
732623	732934	HI0688		*	
811891	812388	HI0751		*	
837567	838514	HI0775		*	
838705	839061	HI0776			*
839078	839704	HI0777			*
839720	840322	HI0778			*
840319	840618	HI0779			*
840636	841457	HI0780			*
841483	841758	HI0781	*	*	
841770	842102	HI0782			*
844090	844695	HI0787		*	
853827	854216	HI0804	*		
892798	893376	HI0844		*	
896738	897172	HI0850		*	
902362	902709	HI0855		*	
918515	919138	HI0866	*	*	*
919376	920590	HI0867	*	*	*
920571	921323	HI0868	*	*	*
921289	921846	HI0869	*		*
922991	923281	HI0870.1	*	*	*
923293	924213	HI0871	*	*	*
924206	925621	HI0872	*	*	*
926749	927948	HI0874		*	
932383	932694	HI0880		*	
997258	997770	HI0938		*	
998486	999169	HI0940		*	
999144	999449	HI0941		*	
1018029	1018379	HI0960		*	
1025442	1025546	HI0967		*	
1030275	1031144	HI0973		*	
1060231	1062108	HI0995		*	
1062206	1062646	HI0996		*	
1069855	1071414	HI1005		*	
1073118	1073456	HI1008		*	
1083776	1085392	HI1020		*	
1095485	1095970	HI1030		*	
1102513	1102785	HI1037.1		*	
1104411	1105415	HI1040		*	

<i>H influenzae</i>			Ref	Ref	TW
debut	fin	gene	16	14	
1105412	1106326	HI1041	*		
1108431	1108931	HI1043	*		
1109654	1110493	HI1045	*		
1114948	1115241	HI1049	*		
1121801	1123690	HI1056	*		
1123464	1124048	HI1058	*		
1127596	1129053	HI1064	*		
1161103	1161237	HI1098	*		
1161239	1161547	HI1099	*	*	
1193834	1194064	HI1126	*		
1218171	1218800	HI1150	*		
1231372	1231845	HI1162	*		
1239765	1240331	HI1169	*		
1243518	1243988	HI1173	*		
1244741	1244962	HI1176	*		
1249536	1249712	HI1183	*		
1274958	1275848	HI1208	*		
1300547	1301983	HI1231			*
1302097	1303800	HI1232			*
1303863	1306523	HI1233			*
1306823	1307281	HI1234	*		
1317218	1317838	HI1244	*		
1325143	1326111	HI1248	*		
1327059	1327364	HI1250	*		
1327375	1327698	HI1251	*	*	
1329939	1331000	HI1254	*		
1331444	1331908	HI1256	*		
1339751	1340485	HI1262	*		
1346844	1347230	HI1266	*		
1356988	1357263	HI1280	*		
1366454	1367833	HI1286	*		
1367826	1369157	HI1287	*		
1387117	1387365	HI1309	*		
1394078	1394893	HI1317	*		
1395026	1395568	infC	*		
1406758	1407129	HI1328.1	*		
1407095	1407406	HI1329	*		
1474351	1475628	HI1378	*		
1475625	1476320	HI1379	*		
1476415	1477183	pstB	*		
1477193	1478041	HI1381	*	*	
1478043	1478990	HI1382	*		
1479081	1480084	pstS	*		
1480541	1481089	HI1384	*		
1481105	1481602	HI1385	*		
1481976	1482422	HI1386	*	*	

<i>H influenzae</i>			Ref	Ref	TW
debut	fin	gene	16	14	
1484727	1485113	HI1388.1	*		
1490870	1491799	HI1392		*	
1491780	1492682	HI1393		*	
1493223	1493645	HI1395	*		
1506035	1506550	HI1411		*	
1507209	1507490	HI1413		*	
1508241	1508597	HI1416	*		
1510582	1510860	HI1421		*	
1511013	1511588	HI1422	*		
1512159	1513073	HI1424		*	
1523361	1523531	HI1434.2		*	
1523684	1524232	HI1435		*	
1524226	1524546	HI1436		*	
1526016	1526180	HI1436.2		*	
1530546	1530938	HI1442		*	
1533645	1533968	HI1446	*	*	
1540419	1540925	HI1456		*	
1541711	1541953	HI1458		*	
1555042	1555803	HI1470		*	
1555796	1556809	HI1471		*	
1559375	1559734	HI1475		*	
1559962	1560681	HI1476	*		
1560909	1561178	HI1477			*
1561212	1563275	HI1478			*
1563332	1563604	HI1479			*
1563537	1564007	HI1480			*
1564041	1564904	HI1481			*
1564965	1565282	HI1482			*
1566833	1567393	HI1487		*	
1567567	1568124	HI1488		*	
1568121	1568675	HI1489		*	
1568867	1569082	HI1490		*	
1569082	1569300	HI1491		*	
1569309	1569815	HI1492		*	
1569897	1570181	HI1493		*	
1570091	1570441	HI1494	*		*
1570448	1570708	HI1495	*		*
1570705	1570959	HI1496	*		*
1571077	1571304	HI1497	*		*
1571211	1571630	HI1498	*	*	*
1571635	1571943	HI1498.1	*		*
1571955	1572524	HI1499	*		*
1572524	1574050	HI1500	*		*
1574062	1575624	HI1501	*		*
1575715	1576959	HI1502	*		*
1577097	1577537	HI1503	*		*

<i>H influenzae</i>			Ref	Ref	TW
debut	fin	gene	16	14	
1577768	1578835	HI1504	*		*
1578835	1579761	HI1505	*		*
1579844	1580101	HI1506	*		*
1580113	1580229	HI1507	*		*
1580232	1580657	HI1508	*		*
1580624	1581208	HI1509	*		*
1581412	1582875	HI1511	*		*
1582885	1583241	HI1512	*		*
1583254	1583637	HI1513	*		*
1583718	1585613	HI1514	*		*
1585613	1586980	HI1515	*		*
1586980	1588240	-	*		*
1588277	1588825	HI1518	*		*
1588834	1589241	HI1519	*		*
1589241	1590308	HI1520	*		*
1590394	1590900	HI1521	*	*	*
1593255	1593374	HI1522.1		*	
1593385	1594275	HI1523		*	
1594439	1594591	HI1524		*	
1609583	1610461	HI1538		*	
1610458	1611159	HI1539		*	
1611159	1611956	HI1540		*	
1617353	1617775	HI1546		*	
1621835	1622617	HI1551		*	
1633312	1633491	HI1564.1		*	
1634710	1636722	HI1567		*	
1636791	1637207	HI1568	*		
1637331	1637483	HI1569		*	
1637480	1637989	HI1570	*		
1646128	1646346	HI1577		*	
1646702	1647673	HI1578	*	*	
1648637	1648810	HI1581		*	
1648798	1649217	HI1582	*	*	
1662062	1662217	HI1593		*	
1662937	1663260	HI1595		*	
1686922	1687425	HI1620		*	
1693148	1693720	HI1631		*	
1713517	1714044	HI1648		*	
1716772	1717050	HI1651		*	
1723036	1723620	HI1657		*	
1734144	1734527	HI1666	*		
1739016	1740266	HI1671		*	
1765866	1766750	HI1696	*		*
1766762	1767535	HI1697	*		*
1767547	1768608	HI1698	*		*
1768610	1769524	HI1699	*	*	*

<i>H influenzae</i>			Ref	Ref	TW
debut	fin	gene	16	14	
1769521	1770735	HI1700	*	*	*
1770861	1771604	HI1701	*		
1793079	1793645	HI1720		*	
1793813	1794463	HI1721		*	
1805501	1808000				