

Table 1: Annotation performance using GO verification. Number of TP that have term assignments which are Confirmed, Compatible, and Incompatible.

<b>E. coli</b>					
<b>ID</b>	<b>TP</b>	<b>TP-Verifiable</b>	<b>TP Confirmed</b>	<b>TP Compatible</b>	<b>TP Incompatible</b>
APEC01	4144	2806	2806	472	283
CFT073	4222	2915	2913	97	130
H7EDL933	4524	3037	3036	39	47
H7Sakai	4516	3018	3017	58	62
UTI89Min	4113	2845	2845	89	94
W3110Min	3753	2804	2799	39	52
<b>Pseudo.</b>					
<b>ID</b>	<b>TP</b>	<b>TP-Verifiable</b>	<b>TP Confirmed</b>	<b>TP Compatible</b>	<b>TP Incompatible</b>
aerPAO1	5035	3031	3011	236	307
entL48	4597	2746	2721	359	707
fluPf5	5583	3376	3354	169	289
fluPfO1	5226	3132	3109	218	338
pha1448A	4502	2758	2738	125	212
puKT2440	4742	2852	2828	284	256
syrB728a	4682	2839	2818	194	195
syrDC3000	4857	2791	2776	206	189
<b>Gamma.</b>					
<b>ID</b>	<b>TP</b>	<b>TP-Verifiable</b>	<b>TP Confirmed</b>	<b>TP Compatible</b>	<b>TP Incompatible</b>
aerPAO1	4797	2819	2771	873	993
CO92	3378	2312	2308	511	742
KW20	1459	1155	1152	88	220
N16961	2251	1542	1533	269	372
RSA493	1418	830	804	182	188
W3110	3698	2620	2603	186	187

Table 2: Annotation performance using GO verification. Number of term assignments classified as Confirmed, Compatible, and Incompatible. Also the average depth of each class of term and the distance to the deepest, most specific, reference GO term.

E. coli							
ID	Term Confirm	Term Compat	Term Incompat	Avg. Con. Dist.	Avg. Con. Depth	Avg. Com. Dist	Avg. Com. Depth
APEC01	13278	660	485	0.09	3.77	2.49	4.9
CFT073	13580	145	208	0.02	3.8	2.32	4.53
H7EDL933	14731	52	66	0.01	3.83	2.29	4.65
H7Sakai	14694	80	84	0.01	3.83	2.09	4.61
UTI89Min	13158	118	146	0.02	3.8	2.31	4.74
W3110Min	13855	60	67	0.01	3.84	2.6	4.58
Pseudo.							
ID	Term Confirm	Term Compat	Term Incompat	Avg. Con. Dist.	Avg. Con. Depth	Avg. Com. Dist	Avg. Com. Depth
aerPAO1	12704	303	420	0.06	3.8	2.21	4.15
entL48	10616	482	1092	0.16	3.77	2.39	4.78
fluPf5	14101	201	371	0.02	3.8	2.03	4.02
fluPfO1	13210	275	441	0.05	3.78	2.34	4.44
pha1448A	11714	167	312	0.02	3.83	2.41	4.65
puKT2440	10838	341	330	0.08	3.81	2.37	4.65
syrB728a	12167	259	254	0.04	3.79	2.46	4.51
syrDC3000	12002	254	253	0.05	3.8	2.43	4.59
Gamma.							
ID	Term Confirm	Term Compat	Term Incompat	Avg. Con. Dist.	Avg. Con. Depth	Avg. Com. Dist	Avg. Com. Depth
aerPAO1	12631	1344	1913	0.22	3.75	2.26	4.52
CO92	11742	770	1185	0.09	3.85	2.25	4.66
KW20	6732	132	321	0.03	3.95	2.47	4.66
N16961	8165	374	616	0.08	3.9	2.4	4.82
RSA493	4036	282	335	0.1	3.9	2.58	4.77
W3110	12913	271	302	0.03	3.84	2.54	4.81

Table 3: Performance in gene finding for GRC for the Gamma. group across all minimum lengths. Here DE, another type of False Negative, stands for “does not exist” and means that the corresponding ORF for a reference gene was not created in the initial scan of the genome. “Start Fraction” refers to the fraction of True positives which have start sites correctly predicted.

Gamma GRC											
Name	Min. Length	TP	FP	NRP	TN	FN	DE	Precision	Sensitivity	Start Correct	Start Fraction
aerPAO1	100	4986	155	221	40677	579	0	0.93	0.90	3507	0.70
aerPAO1	150	4982	133	156	30090	572	0	0.95	0.90	3503	0.70
aerPAO1	200	4954	105	110	22914	544	11	0.96	0.90	3484	0.70
aerPAO1	250	4889	99	71	17972	496	16	0.97	0.91	3433	0.70
aerPAO1	300	4776	99	44	14683	451	32	0.97	0.91	3362	0.70
CO92	100	3558	66	258	32917	321	2	0.92	0.92	2781	0.78
CO92	150	3552	44	194	15622	300	2	0.94	0.92	2777	0.78
CO92	200	3514	34	157	7458	243	19	0.95	0.93	2747	0.78
CO92	250	3455	28	148	3639	177	20	0.95	0.95	2692	0.78
CO92	300	3369	26	141	1907	118	28	0.95	0.96	2623	0.78
KW20	100	1517	13	79	9551	140	0	0.94	0.92	1261	0.83
KW20	150	1513	7	68	3782	128	1	0.95	0.92	1260	0.83
KW20	200	1501	6	65	1455	122	0	0.95	0.92	1250	0.83
KW20	250	1481	5	57	622	107	1	0.96	0.93	1233	0.83
KW20	300	1439	5	51	265	82	8	0.96	0.94	1192	0.83
N16961	100	2369	22	48	21855	313	18	0.97	0.88	1567	0.66
N16961	150	2361	17	36	10514	203	4	0.98	0.92	1559	0.66
N16961	200	2345	13	34	5130	150	14	0.98	0.93	1546	0.66
N16961	250	2311	10	33	2514	112	16	0.98	0.95	1522	0.66
N16961	300	2258	10	30	1335	89	23	0.98	0.95	1479	0.66
RSA493	100	1536	76	122	11076	436	12	0.89	0.77	1185	0.77
RSA493	150	1516	43	88	4657	332	3	0.92	0.82	1166	0.77
RSA493	200	1498	33	75	1934	269	6	0.93	0.84	1151	0.77
RSA493	250	1469	31	68	872	229	10	0.94	0.86	1124	0.76
RSA493	300	1414	25	62	436	205	22	0.94	0.86	1086	0.77
W3110	100	3911	48	123	35568	303	2	0.96	0.93	3113	0.80
W3110	150	3905	35	77	19081	276	6	0.97	0.93	3111	0.80
W3110	200	3872	27	62	10285	231	18	0.98	0.94	3088	0.80
W3110	250	3790	26	54	5964	179	17	0.98	0.95	3024	0.80
W3110	300	3687	25	49	3719	120	21	0.98	0.96	2939	0.80

Table 4: Performance in gene finding for GRC for the Pseudo. group across all minimum lengths.

Pseudo GRC											
Name	Min. Length	TP	FP	NRP	TN	FN	DE	Precision	Sensitivity	Start Correct	Start Fraction
aerPAO1	100	5215	114	149	40790	349	1	0.95	0.94	4205	0.81
aerPAO1	150	5210	106	106	30164	341	3	0.96	0.94	4200	0.81
aerPAO1	200	5183	94	86	22943	313	13	0.97	0.94	4178	0.81
aerPAO1	250	5112	92	62	17976	266	23	0.97	0.95	4121	0.81
aerPAO1	300	5017	101	44	14666	211	31	0.97	0.95	4047	0.80
entL48	100	4825	44	103	47099	300	0	0.97	0.94	4060	0.84
entL48	150	4815	36	73	33030	279	9	0.98	0.94	4054	0.84
entL48	200	4763	30	56	23564	228	18	0.98	0.95	4015	0.84
entL48	250	4682	28	52	17396	145	24	0.98	0.97	3944	0.84
entL48	300	4558	38	43	13469	91	27	0.98	0.97	3848	0.84
fluPf5	100	5821	115	283	54564	312	1	0.94	0.95	4540	0.78
fluPf5	150	5816	103	215	37444	285	3	0.95	0.95	4536	0.78
fluPf5	200	5770	89	176	26244	232	21	0.96	0.96	4503	0.78
fluPf5	250	5684	93	146	19227	184	38	0.96	0.96	4442	0.78
fluPf5	300	5567	100	119	14814	138	47	0.96	0.97	4349	0.78
fluPfO1	100	5472	46	87	51537	261	0	0.98	0.95	4578	0.84
fluPfO1	150	5467	40	57	33715	256	2	0.98	0.95	4575	0.84
fluPfO1	200	5420	29	38	22526	213	23	0.99	0.96	4539	0.84
fluPfO1	250	5334	30	25	15843	156	35	0.99	0.97	4472	0.84
fluPfO1	300	5205	36	25	11893	98	43	0.99	0.97	4369	0.84
pha1448A	100	4790	122	411	51473	169	3	0.90	0.97	3901	0.81
pha1448A	150	4777	103	346	31724	125	3	0.91	0.97	3891	0.81
pha1448A	200	4729	92	305	19892	103	15	0.92	0.98	3853	0.81
pha1448A	250	4637	86	278	13230	79	33	0.93	0.98	3784	0.82
pha1448A	300	4515	88	246	9357	60	40	0.93	0.98	3684	0.82
puKT2440	100	4989	135	328	53125	348	2	0.92	0.93	3824	0.77
puKT2440	150	4975	124	296	35497	299	6	0.92	0.94	3814	0.77
puKT2440	200	4939	117	259	24027	226	21	0.93	0.95	3787	0.77
puKT2440	250	4856	107	234	16931	171	33	0.93	0.96	3723	0.77
puKT2440	300	4734	101	199	12580	126	53	0.94	0.96	3633	0.77
syrB728a	100	4950	84	207	51827	138	0	0.94	0.97	4218	0.85
syrB728a	150	4947	69	153	32591	130	6	0.96	0.97	4216	0.85
syrB728a	200	4906	61	112	20816	109	13	0.97	0.98	4181	0.85
syrB728a	250	4805	51	84	14100	78	23	0.97	0.98	4100	0.85
syrB728a	300	4667	53	71	10340	50	47	0.97	0.98	3982	0.85
syrDC3000	100	5145	126	432	54620	311	5	0.90	0.94	4091	0.80
syrDC3000	150	5125	104	345	33846	231	10	0.92	0.96	4075	0.79
syrDC3000	200	5077	91	290	21556	165	17	0.93	0.97	4038	0.79
syrDC3000	250	4975	85	252	14486	105	39	0.94	0.97	3962	0.79
syrDC3000	300	4848	87	228	10312	73	36	0.94	0.98	3865	0.79

Table 5: Performance in gene finding for GRC for the E.coli group across all minimum lengths.

E. coli GRC											
Name	Min. Length	TP	FP	NRP	TN	FN	DE	Precision	Sensitivity	Start Correct	Start Fraction
APEC01	100	4309	273	429	38539	148	0	0.86	0.97	3524	0.82
APEC01	150	4308	206	285	20548	148	1	0.90	0.97	3524	0.82
APEC01	200	4308	153	179	11043	145	4	0.93	0.97	3525	0.82
APEC01	250	4296	95	72	6249	132	27	0.96	0.96	3526	0.82
APEC01	300	4133	74	46	3848	99	38	0.97	0.97	3400	0.82
CFT073	100	4699	104	215	39308	666	4	0.94	0.88	3676	0.78
CFT073	150	4615	83	150	20829	493	23	0.95	0.90	3602	0.78
CFT073	200	4502	69	121	11241	342	30	0.96	0.92	3504	0.78
CFT073	250	4350	63	96	6275	276	39	0.96	0.93	3385	0.78
CFT073	300	4202	37	73	3827	232	40	0.97	0.94	3271	0.78
H7EDL933	100	4996	254	286	41751	271	10	0.90	0.95	4073	0.81
H7EDL933	150	4957	199	155	22157	209	19	0.93	0.96	4049	0.82
H7EDL933	200	4861	134	83	11908	157	27	0.96	0.96	3975	0.82
H7EDL933	250	4695	101	41	6829	113	42	0.97	0.97	3846	0.82
H7EDL933	300	4485	78	17	4294	88	43	0.98	0.97	3678	0.82
H7Sakai	100	4939	147	360	41561	299	4	0.91	0.94	4159	0.84
H7Sakai	150	4912	94	202	22068	285	11	0.94	0.94	4137	0.84
H7Sakai	200	4818	63	138	11906	208	17	0.96	0.96	4060	0.84
H7Sakai	250	4637	59	111	6829	123	23	0.96	0.97	3912	0.84
H7Sakai	300	4416	50	94	4293	87	28	0.97	0.97	3735	0.84
UTI89	100	4599	92	162	38251	431	7	0.95	0.91	3648	0.79
UTI89	150	4522	45	83	20252	396	16	0.97	0.92	3577	0.79
UTI89	200	4408	33	59	10891	303	29	0.98	0.93	3473	0.79
UTI89	250	4273	28	46	6138	247	36	0.98	0.94	3366	0.79
UTI89	300	4100	28	42	3778	173	41	0.98	0.95	3225	0.79
W3110	100	4073	120	240	35363	141	2	0.92	0.97	3372	0.83
W3110	150	4052	85	140	18928	128	7	0.95	0.97	3359	0.83
W3110	200	4003	63	87	10185	105	13	0.96	0.97	3319	0.83
W3110	250	3887	55	66	5887	88	11	0.97	0.98	3228	0.83
W3110	300	3737	41	51	3667	72	19	0.98	0.98	3116	0.83

Table 6: Performance in gene finding for Glimmer for the Gamma. group across all minimum lengths.

Gamma Glimmer											
Name	MinLength	TP	FP	NRP	TN	FN	DE	Precision	Sensitivity	Start Correct	Start Fraction
aerPAO1	100	5492	237	181	0	0	73	0.93	0.99	4702	0.82
aerPAO1	150	5480	167	117	0	0	74	0.95	0.99	4710	0.83
aerPAO1	200	5431	119	65	0	0	78	0.97	0.99	4681	0.84
aerPAO1	250	5330	86	33	0	0	71	0.98	0.99	4599	0.85
aerPAO1	300	5188	76	21	0	0	71	0.98	0.99	4477	0.85
CO92	100	3728	221	535	0	0	153	0.83	0.96	2870	0.73
CO92	150	3703	84	265	0	0	151	0.91	0.96	2884	0.76
CO92	200	3652	51	187	0	0	124	0.94	0.97	2860	0.77
CO92	250	3566	35	165	0	0	86	0.95	0.98	2800	0.78
CO92	300	3459	26	149	0	0	56	0.95	0.98	2716	0.78
KW20	100	1648	62	147	0	0	9	0.89	0.99	1436	0.84
KW20	150	1635	21	89	0	0	7	0.94	1	1426	0.86
KW20	200	1615	13	73	0	0	8	0.95	1	1415	0.87
KW20	250	1580	9	66	0	0	9	0.95	0.99	1388	0.87
KW20	300	1520	10	60	0	0	9	0.96	0.99	1331	0.87
N16961	100	2572	50	82	0	0	128	0.95	0.95	1763	0.67
N16961	150	2503	18	60	0	0	65	0.97	0.97	1720	0.68
N16961	200	2466	16	49	0	0	43	0.97	0.98	1698	0.68
N16961	250	2409	9	42	0	0	30	0.98	0.99	1660	0.69
N16961	300	2344	7	39	0	0	26	0.98	0.99	1610	0.68
RSA493	100	1880	146	189	0	0	104	0.85	0.95	1463	0.72
RSA493	150	1789	85	142	0	0	62	0.89	0.97	1427	0.76
RSA493	200	1736	68	108	0	0	37	0.91	0.98	1377	0.76
RSA493	250	1684	68	97	0	0	24	0.91	0.99	1350	0.77
RSA493	300	1616	43	89	0	0	25	0.92	0.98	1296	0.78
W3110	100	4104	169	294	0	0	112	0.9	0.97	3560	0.83
W3110	150	4081	74	105	0	0	106	0.96	0.97	3573	0.86
W3110	200	4029	39	62	0	0	92	0.98	0.98	3538	0.87
W3110	250	3909	30	44	0	0	77	0.98	0.98	3435	0.87
W3110	300	3771	22	42	0	0	57	0.98	0.99	3335	0.88

Table 7: Performance in gene finding for Glimmer for the Pseudo. group across all minimum lengths.

Pseudo Glimmer											
Name	MinLength	TP	FP	NRP	TN	FN	DE	Precision	Sensitivity	Start Correct	Start Fraction
aerPAO1	100	5492	237	181	0	0	73	0.93	0.99	4702	0.82
aerPAO1	150	5480	167	117	0	0	74	0.95	0.99	4710	0.83
aerPAO1	200	5431	119	65	0	0	78	0.97	0.99	4681	0.84
aerPAO1	250	5330	86	33	0	0	71	0.98	0.99	4599	0.85
aerPAO1	300	5188	76	21	0	0	71	0.98	0.99	4477	0.85
entL48	100	4967	202	174	0	0	160	0.93	0.97	4187	0.81
entL48	150	4943	90	70	0	0	160	0.97	0.97	4188	0.83
entL48	200	4857	51	38	0	0	152	0.98	0.97	4138	0.84
entL48	250	4727	29	22	0	0	124	0.99	0.97	4015	0.84
entL48	300	4573	25	13	0	0	103	0.99	0.98	3887	0.85
fluPf5	100	6045	264	198	0	0	89	0.93	0.99	4568	0.72
fluPf5	150	6020	154	95	0	0	84	0.96	0.99	4572	0.74
fluPf5	200	5945	100	72	0	0	78	0.97	0.99	4534	0.75
fluPf5	250	5832	81	52	0	0	74	0.98	0.99	4447	0.75
fluPf5	300	5676	69	39	0	0	76	0.98	0.99	4340	0.76
fluPfO1	100	5552	179	132	0	0	182	0.95	0.97	4670	0.81
fluPfO1	150	5532	101	57	0	0	193	0.97	0.97	4674	0.83
fluPfO1	200	5457	60	20	0	0	199	0.99	0.96	4631	0.84
fluPfO1	250	5331	46	5	0	0	194	0.99	0.96	4534	0.84
fluPfO1	300	5188	41	4	0	0	158	0.99	0.97	4420	0.85
pha1448A	100	4864	224	490	0	0	104	0.87	0.98	3797	0.75
pha1448A	150	4817	117	323	0	0	88	0.92	0.98	3785	0.77
pha1448A	200	4756	83	264	0	0	91	0.93	0.98	3762	0.78
pha1448A	250	4654	67	226	0	0	95	0.94	0.98	3699	0.78
pha1448A	300	4523	69	208	0	0	92	0.94	0.98	3608	0.79
puKT2440	100	5179	227	310	0	0	165	0.91	0.97	3856	0.71
puKT2440	150	5135	150	191	0	0	145	0.94	0.97	3834	0.73
puKT2440	200	5053	113	155	0	0	133	0.95	0.97	3793	0.73
puKT2440	250	4945	94	135	0	0	115	0.96	0.98	3717	0.74
puKT2440	300	4812	83	112	0	0	101	0.96	0.98	3622	0.74
syrB728a	100	4944	226	285	0	0	144	0.91	0.97	4075	0.79
syrB728a	150	4933	98	108	0	0	150	0.96	0.97	4113	0.82
syrB728a	200	4871	59	66	0	0	157	0.97	0.97	4073	0.83
syrB728a	250	4760	37	40	0	0	146	0.98	0.97	3994	0.83
syrB728a	300	4627	34	32	0	0	137	0.99	0.97	3902	0.84
syrDC3000	100	5269	281	428	0	0	200	0.88	0.96	4049	0.73
syrDC3000	150	5202	129	240	0	0	164	0.93	0.97	4031	0.76
syrDC3000	200	5113	85	170	0	0	146	0.95	0.97	3973	0.76
syrDC3000	250	4993	66	143	0	0	126	0.96	0.98	3905	0.77
syrDC3000	300	4839	65	122	0	0	118	0.96	0.98	3803	0.78

Table 8: Performance in gene finding for Glimmer for the E.coli group across all minimum lengths.

E.coli Glimmer											
Name	MinLength	TP	FP	NRP	TN	FN	DE	Precision	Sensitivity	Start Correct	Start Fraction
APEC01	100	4279	351	513	0	0	178	0.83	0.96	3026	0.65
APEC01	150	4272	231	277	0	0	185	0.89	0.96	3051	0.68
APEC01	200	4271	171	165	0	0	186	0.93	0.96	3068	0.69
APEC01	250	4263	118	57	0	0	192	0.96	0.96	3078	0.7
APEC01	300	4121	89	37	0	0	149	0.97	0.97	2992	0.71
CFT073	100	4853	190	258	0	0	518	0.92	0.9	3357	0.67
CFT073	150	4716	72	100	0	0	415	0.96	0.92	3319	0.69
CFT073	200	4573	49	73	0	0	301	0.97	0.94	3243	0.7
CFT073	250	4401	40	61	0	0	264	0.98	0.94	3125	0.7
CFT073	300	4239	28	55	0	0	235	0.98	0.95	3022	0.71
H7EDL933	100	5079	383	383	0	0	205	0.87	0.96	3869	0.71
H7EDL933	150	5014	196	110	0	0	171	0.94	0.97	3879	0.74
H7EDL933	200	4900	124	45	0	0	145	0.97	0.97	3830	0.76
H7EDL933	250	4721	103	21	0	0	129	0.97	0.97	3706	0.77
H7EDL933	300	4515	81	13	0	0	101	0.98	0.98	3597	0.78
H7Sakai	100	4985	292	472	0	0	259	0.87	0.95	4119	0.78
H7Sakai	150	4958	113	194	0	0	250	0.94	0.95	4166	0.82
H7Sakai	200	4844	58	120	0	0	199	0.96	0.96	4090	0.83
H7Sakai	250	4649	46	98	0	0	134	0.97	0.97	3939	0.84
H7Sakai	300	4440	39	84	0	0	91	0.97	0.98	3796	0.85
UTI89	100	4607	203	237	0	0	432	0.91	0.91	3228	0.67
UTI89	150	4526	65	78	0	0	408	0.97	0.92	3225	0.7
UTI89	200	4413	41	50	0	0	327	0.98	0.93	3164	0.71
UTI89	250	4276	30	41	0	0	280	0.98	0.94	3074	0.71
UTI89	300	4114	28	35	0	0	200	0.98	0.95	2951	0.71
W3110	100	4104	169	294	0	0	112	0.9	0.97	3560	0.83
W3110	150	4081	74	105	0	0	106	0.96	0.97	3573	0.86
W3110	200	4029	39	62	0	0	92	0.98	0.98	3538	0.87
W3110	250	3909	30	44	0	0	77	0.98	0.98	3435	0.87
W3110	300	3771	22	42	0	0	57	0.98	0.99	3335	0.88