

Table 4. Annotated genes identified for various subsystem in metagenome assembled genomes

Subsystem Feature	Number of annotated genes in the microorganisms that are:																			
	<i>Enterobacter bugandensis</i>	<i>Staphylococcus aureus</i>	<i>Pantoea conspicua</i>	<i>Microbacterium hominis</i>	<i>Acinetobacter pittii</i>	<i>Kocuria palustris</i>	<i>Staphylococcus saprophyticus</i>	<i>Paenibacillus polymyxa</i>	<i>Pantoea conspicua</i>	<i>Methylobacterium ajmalii</i>	<i>Sphingomonas sanguinis</i>	<i>Paenibacillus polymyxa</i>	<i>Staphylococcus aureus</i>	<i>Kalamiella piersonii</i>	<i>Staphylococcus saprophyticus</i>	<i>Klebsiella pneumoniae</i>	<i>Pantoea dispersa</i>	<i>Kalamiella piersonii</i>	<i>Kalamiella piersonii</i>	<i>Kalamiella piersonii</i>
	F1-2P	F1-4P	F1-5P	F1-8P	F2-1P	F2-1P	F2-2P	F2-5P	F2-5P	F2-7P	F2-7P	F2-8P	F2-8P	F3-1P	F3-2P	F3-3P	F3-4P	F3-5P	F3-7P	F3-8P
Carbohydrates	614	177	388		213	224	216	351	365	254	233	351	177	521	221	498	327	352	350	378
Amino Acids and Derivatives	473	286	392	256	350	290	308	296	377	485	247	296	269	557	310	476	398	390	391	421
Cofactors, Vitamins, Prosthetic Groups, Pigments	268	123	178	120	175	167	104	131	172	210	170	129	119	256	98	221	170	175	147	182
Protein Metabolism	263	94	211	134	207	198	167	182	204	217	190	180	143	275	68	196	208	199	217	186
Membrane Transport	238	61	106	73	107	30	36	56	105	160	138	57	44	124	35	115	135	114	96	122
RNA Metabolism	232	34	59	31	56	24	40	58	59	40	38	61	37	88	40	59	61	59	64	66
Cell Wall and Capsule	220	42	42	20	24	10	36	87	42	27	26	87	37	60	31	45	51	50	51	54
Stress Response	167	30	100	19	71	25	33	36	101	75	61	37	32	124	33	104	90	97	98	101
Regulation and Cell signaling	153	34	66	13	46	11	47	27	66	55	26	25	28	97	39	91	73	72	71	76
Respiration	149	20	117	46	86	35	19	35	104	155	116	36	18	141	18	125	101	101	97	110
Fatty Acids, Lipids, and Isoprenoids	133	58	72	42	130	85	62	77	71	115	64	76	57	72	61	65	102	59	59	61
DNA Metabolism	130	64	97	62	72	54	71	84	97	95	77	85	63	114	73	86	87	82	87	84
Nucleosides and Nucleotides	113	78	116	87	76	61	76	112	107	93	51	111	83	134	80	93	89	95	95	113
Virulence, Disease and Defense	101	118	74	39	71	38	46	63	73	99	120	62	63	80	47	66	53	61	73	69
Motility and Chemotaxis	96		100					42	100	93	23	43		62			66	57	56	57
Sulfur Metabolism	65	11	34	4	44	20	7	10	34	39	6	11	10	49	7	44	46	37	39	38
Iron acquisition and metabolism	54	69	28	3	2	4	28	29	28		2	29	50	52	25	52	29	38	37	36
Phosphorus Metabolism	47	23	43	35	36	25	30	49	43	39	50	49	20	74	33	45	41	47	46	60
Nitrogen Metabolism	44	36	31	7	9	26	10	24	31	15	11	24	18	44	10	40	25	28	27	28
Metabolism of Aromatic Compounds	40	3	9	12	76	23	5	4	9	58	26	4	3	18	5	70	13	17	17	17
Cell Division and Cell Cycle	39	4	8		2	6	5	3	8	2		3	5	9	8	8	8	8	8	8
Miscellaneous	35	11	16	25	41	36	12	15	16	17	24	15	11	20	11	32	15	16	16	19
Potassium metabolism	30	5	13	4	11	2	2	5	13	10	10	5	6	17	2	15	15	13	13	13
Dormancy and Sporulation	3	8	4	1	2	2	13	38	4	1	1	38	8	4	8	3	2	4	4	5
Secondary Metabolism		5	5	11	7	4	4	6	5	5	5	6	4	5	4	5	4	4	4	4