

# lc\_broader\_go\_categories

	GO.ID	Ancestor	Description
1	GO:0050911	GO:0003008	system process
2	GO:0050911	GO:0007600	sensory perception
3	GO:0050911	GO:0007606	sensory perception of chemical stimulus
4	GO:0050911	GO:0007608	sensory perception of smell
5	GO:0050911	GO:0008150	biological_process
6	GO:0050911	GO:0009593	detection of chemical stimulus
7	GO:0050911	GO:0032501	multicellular organismal process
8	GO:0050911	GO:0042221	response to chemical
9	GO:0050911	GO:0050877	nervous system process
10	GO:0050911	GO:0050896	response to stimulus
11	GO:0050911	GO:0050906	detection of stimulus involved in sensory perception
12	GO:0050911	GO:0050907	detection of chemical stimulus involved in sensory perception
13	GO:0050911	GO:0051606	detection of stimulus
14	GO:0050911	all	all
15	GO:0042415	GO:0006576	biogenic amine metabolic process
16	GO:0042415	GO:0006584	catecholamine metabolic process
17	GO:0042415	GO:0006725	cellular aromatic compound metabolic process
18	GO:0042415	GO:0006807	nitrogen compound metabolic process
19	GO:0042415	GO:0008150	biological_process
20	GO:0042415	GO:0008152	metabolic process
21	GO:0042415	GO:0009308	amine metabolic process
22	GO:0042415	GO:0009712	catechol-containing compound metabolic process
23	GO:0042415	GO:0009987	cellular process
24	GO:0042415	GO:0018958	phenol-containing compound metabolic process
25	GO:0042415	GO:0044237	cellular metabolic process
26	GO:0042415	GO:0071704	organic substance metabolic process
27	GO:0042415	GO:1901360	organic cyclic compound metabolic process
28	GO:0042415	GO:1901564	organonitrogen compound metabolic process
29	GO:0042415	GO:1901615	organic hydroxy compound metabolic process
30	GO:0042415	all	all
31	GO:0048015	GO:0007154	cell communication
32	GO:0048015	GO:0007165	signal transduction
33	GO:0048015	GO:0008150	biological_process
34	GO:0048015	GO:0009987	cellular process
35	GO:0048015	GO:0023052	signaling

36	GO:0048015	GO:0035556	intracellular signal transduction
37	GO:0048015	GO:0050789	regulation of biological process
38	GO:0048015	GO:0050794	regulation of cellular process
39	GO:0048015	GO:0050896	response to stimulus
40	GO:0048015	GO:0051716	cellular response to stimulus
41	GO:0048015	GO:0065007	biological regulation
42	GO:0048015	all	all
43	GO:0044788	GO:0008150	biological_process
44	GO:0044788	GO:0044403	biological process involved in symbiotic interaction
45	GO:0044788	GO:0044419	biological process involved in interspecies interaction between organisms
46	GO:0044788	GO:0051702	biological process involved in interaction with symbiont
47	GO:0044788	GO:0051851	modulation by host of symbiont process
48	GO:0044788	all	all
49	GO:0022038	GO:0007275	multicellular organism development
50	GO:0022038	GO:0007399	nervous system development
51	GO:0022038	GO:0007417	central nervous system development
52	GO:0022038	GO:0007420	brain development
53	GO:0022038	GO:0008150	biological_process
54	GO:0022038	GO:0021537	telencephalon development
55	GO:0022038	GO:0030900	forebrain development
56	GO:0022038	GO:0032501	multicellular organismal process
57	GO:0022038	GO:0032502	developmental process
58	GO:0022038	GO:0048513	animal organ development
59	GO:0022038	GO:0048731	system development
60	GO:0022038	GO:0048856	anatomical structure development
61	GO:0022038	GO:0060322	head development
62	GO:0022038	all	all
63	GO:0032259	GO:0008150	biological_process
64	GO:0032259	GO:0008152	metabolic process
65	GO:0032259	all	all
66	GO:0046326	GO:0006810	transport
67	GO:0046326	GO:0008150	biological_process
68	GO:0046326	GO:0008643	carbohydrate transport
69	GO:0046326	GO:0008645	hexose transmembrane transport
70	GO:0046326	GO:0009987	cellular process
71	GO:0046326	GO:0010827	regulation of glucose transmembrane transport
72	GO:0046326	GO:0010828	positive regulation of glucose transmembrane transport
73	GO:0046326	GO:0015749	monosaccharide transmembrane transport

74	GO:0046326	GO:0032879	regulation of localization
75	GO:0046326	GO:0034219	carbohydrate transmembrane transport
76	GO:0046326	GO:0034762	regulation of transmembrane transport
77	GO:0046326	GO:0034764	positive regulation of transmembrane transport
78	GO:0046326	GO:0046323	glucose import
79	GO:0046326	GO:0046324	regulation of glucose import
80	GO:0046326	GO:0048518	positive regulation of biological process
81	GO:0046326	GO:0048522	positive regulation of cellular process
82	GO:0046326	GO:0050789	regulation of biological process
83	GO:0046326	GO:0050794	regulation of cellular process
84	GO:0046326	GO:0051049	regulation of transport
85	GO:0046326	GO:0051050	positive regulation of transport
86	GO:0046326	GO:0051179	localization
87	GO:0046326	GO:0051234	establishment of localization
88	GO:0046326	GO:0055085	transmembrane transport
89	GO:0046326	GO:0065007	biological regulation
90	GO:0046326	GO:0071702	organic substance transport
91	GO:0046326	GO:1904659	glucose transmembrane transport
92	GO:0046326	all	all
93	GO:0032689	GO:0001816	cytokine production
94	GO:0032689	GO:0001817	regulation of cytokine production
95	GO:0032689	GO:0001818	negative regulation of cytokine production
96	GO:0032689	GO:0008150	biological_process
97	GO:0032689	GO:0008152	metabolic process
98	GO:0032689	GO:0009058	biosynthetic process
99	GO:0032689	GO:0009059	macromolecule biosynthetic process
100	GO:0032689	GO:0009889	regulation of biosynthetic process
101	GO:0032689	GO:0009890	negative regulation of biosynthetic process
102	GO:0032689	GO:0009892	negative regulation of metabolic process
103	GO:0032689	GO:0009987	cellular process
104	GO:0032689	GO:0010467	gene expression
105	GO:0032689	GO:0010468	regulation of gene expression
106	GO:0032689	GO:0010556	regulation of macromolecule biosynthetic process
107	GO:0032689	GO:0010558	negative regulation of macromolecule biosynthetic process
108	GO:0032689	GO:0010605	negative regulation of macromolecule metabolic process
109	GO:0032689	GO:0010629	negative regulation of gene expression
110	GO:0032689	GO:0019222	regulation of metabolic process
111	GO:0032689	GO:0031323	regulation of cellular metabolic process

112	GO:0032689	GO:0031324	negative regulation of cellular metabolic process
113	GO:0032689	GO:0031326	regulation of cellular biosynthetic process
114	GO:0032689	GO:0031327	negative regulation of cellular biosynthetic process
115	GO:0032689	GO:0032501	multicellular organismal process
116	GO:0032689	GO:0032609	type II interferon production
117	GO:0032689	GO:0032649	regulation of type II interferon production
118	GO:0032689	GO:0043170	macromolecule metabolic process
119	GO:0032689	GO:0044237	cellular metabolic process
120	GO:0032689	GO:0044249	cellular biosynthetic process
121	GO:0032689	GO:0048519	negative regulation of biological process
122	GO:0032689	GO:0048523	negative regulation of cellular process
123	GO:0032689	GO:0050789	regulation of biological process
124	GO:0032689	GO:0050794	regulation of cellular process
125	GO:0032689	GO:0051239	regulation of multicellular organismal process
126	GO:0032689	GO:0051241	negative regulation of multicellular organismal process
127	GO:0032689	GO:0060255	regulation of macromolecule metabolic process
128	GO:0032689	GO:0065007	biological regulation
129	GO:0032689	GO:0071704	organic substance metabolic process
130	GO:0032689	GO:1901576	organic substance biosynthetic process
131	GO:0032689	all	all
132	GO:0150052	GO:0007275	multicellular organism development
133	GO:0150052	GO:0007399	nervous system development
134	GO:0150052	GO:0007416	synapse assembly
135	GO:0150052	GO:0008150	biological_process
136	GO:0150052	GO:0009987	cellular process
137	GO:0150052	GO:0016043	cellular component organization
138	GO:0150052	GO:0022607	cellular component assembly
139	GO:0150052	GO:0032501	multicellular organismal process
140	GO:0150052	GO:0032502	developmental process
141	GO:0150052	GO:0034329	cell junction assembly
142	GO:0150052	GO:0034330	cell junction organization
143	GO:0150052	GO:0044085	cellular component biogenesis
144	GO:0150052	GO:0044087	regulation of cellular component biogenesis
145	GO:0150052	GO:0048731	system development
146	GO:0150052	GO:0048856	anatomical structure development
147	GO:0150052	GO:0050789	regulation of biological process
148	GO:0150052	GO:0050794	regulation of cellular process
149	GO:0150052	GO:0050803	regulation of synapse structure or activity

150	GO:0150052	GO:0050807	regulation of synapse organization
151	GO:0150052	GO:0050808	synapse organization
152	GO:0150052	GO:0051128	regulation of cellular component organization
153	GO:0150052	GO:0051963	regulation of synapse assembly
154	GO:0150052	GO:0065007	biological regulation
155	GO:0150052	GO:0065008	regulation of biological quality
156	GO:0150052	GO:0071840	cellular component organization or biogenesis
157	GO:0150052	GO:0099068	postsynapse assembly
158	GO:0150052	GO:0099173	postsynapse organization
159	GO:0150052	GO:0099175	regulation of postsynapse organization
160	GO:0150052	GO:1901888	regulation of cell junction assembly
161	GO:0150052	all	all
162	GO:0032480	GO:0001816	cytokine production
163	GO:0032480	GO:0001817	regulation of cytokine production
164	GO:0032480	GO:0001818	negative regulation of cytokine production
165	GO:0032480	GO:0008150	biological_process
166	GO:0032480	GO:0008152	metabolic process
167	GO:0032480	GO:0009058	biosynthetic process
168	GO:0032480	GO:0009059	macromolecule biosynthetic process
169	GO:0032480	GO:0009889	regulation of biosynthetic process
170	GO:0032480	GO:0009890	negative regulation of biosynthetic process
171	GO:0032480	GO:0009892	negative regulation of metabolic process
172	GO:0032480	GO:0009987	cellular process
173	GO:0032480	GO:0010467	gene expression
174	GO:0032480	GO:0010468	regulation of gene expression
175	GO:0032480	GO:0010556	regulation of macromolecule biosynthetic process
176	GO:0032480	GO:0010558	negative regulation of macromolecule biosynthetic process
177	GO:0032480	GO:0010605	negative regulation of macromolecule metabolic process
178	GO:0032480	GO:0010629	negative regulation of gene expression
179	GO:0032480	GO:0019222	regulation of metabolic process
180	GO:0032480	GO:0031323	regulation of cellular metabolic process
181	GO:0032480	GO:0031324	negative regulation of cellular metabolic process
182	GO:0032480	GO:0031326	regulation of cellular biosynthetic process
183	GO:0032480	GO:0031327	negative regulation of cellular biosynthetic process
184	GO:0032480	GO:0032479	regulation of type I interferon production
185	GO:0032480	GO:0032501	multicellular organismal process
186	GO:0032480	GO:0032606	type I interferon production
187	GO:0032480	GO:0043170	macromolecule metabolic process

188	GO:0032480	GO:0044237	cellular metabolic process
189	GO:0032480	GO:0044249	cellular biosynthetic process
190	GO:0032480	GO:0048519	negative regulation of biological process
191	GO:0032480	GO:0048523	negative regulation of cellular process
192	GO:0032480	GO:0050789	regulation of biological process
193	GO:0032480	GO:0050794	regulation of cellular process
194	GO:0032480	GO:0051239	regulation of multicellular organismal process
195	GO:0032480	GO:0051241	negative regulation of multicellular organismal process
196	GO:0032480	GO:0060255	regulation of macromolecule metabolic process
197	GO:0032480	GO:0065007	biological regulation
198	GO:0032480	GO:0071704	organic substance metabolic process
199	GO:0032480	GO:1901576	organic substance biosynthetic process
200	GO:0032480	all	all
201	GO:0030155	GO:0007155	cell adhesion
202	GO:0030155	GO:0008150	biological_process
203	GO:0030155	GO:0009987	cellular process
204	GO:0030155	GO:0050789	regulation of biological process
205	GO:0030155	GO:0050794	regulation of cellular process
206	GO:0030155	GO:0065007	biological regulation
207	GO:0030155	all	all
208	GO:0001558	GO:0008150	biological_process
209	GO:0001558	GO:0009987	cellular process
210	GO:0001558	GO:0016043	cellular component organization
211	GO:0001558	GO:0016049	cell growth
212	GO:0001558	GO:0040007	growth
213	GO:0001558	GO:0040008	regulation of growth
214	GO:0001558	GO:0050789	regulation of biological process
215	GO:0001558	GO:0050794	regulation of cellular process
216	GO:0001558	GO:0051128	regulation of cellular component organization
217	GO:0001558	GO:0065007	biological regulation
218	GO:0001558	GO:0071840	cellular component organization or biogenesis
219	GO:0001558	all	all
220	GO:0036465	GO:0006810	transport
221	GO:0036465	GO:0008150	biological_process
222	GO:0036465	GO:0009987	cellular process
223	GO:0036465	GO:0016192	vesicle-mediated transport
224	GO:0036465	GO:0051179	localization
225	GO:0036465	GO:0051234	establishment of localization

226	GO:0036465	GO:0051641	cellular localization
227	GO:0036465	GO:0051649	establishment of localization in cell
228	GO:0036465	GO:0099003	vesicle-mediated transport in synapse
229	GO:0036465	GO:0099504	synaptic vesicle cycle
230	GO:0036465	all	all
231	GO:0071466	GO:0008150	biological_process
232	GO:0071466	GO:0009410	response to xenobiotic stimulus
233	GO:0071466	GO:0009987	cellular process
234	GO:0071466	GO:0042221	response to chemical
235	GO:0071466	GO:0050896	response to stimulus
236	GO:0071466	GO:0051716	cellular response to stimulus
237	GO:0071466	GO:0070887	cellular response to chemical stimulus
238	GO:0071466	all	all
239	GO:0000278	GO:0007049	cell cycle
240	GO:0000278	GO:0008150	biological_process
241	GO:0000278	GO:0009987	cellular process
242	GO:0000278	all	all
243	GO:0007286	GO:0000003	reproduction
244	GO:0007286	GO:0003006	developmental process involved in reproduction
245	GO:0007286	GO:0007276	gamete generation
246	GO:0007286	GO:0007281	germ cell development
247	GO:0007286	GO:0007283	spermatogenesis
248	GO:0007286	GO:0008150	biological_process
249	GO:0007286	GO:0009987	cellular process
250	GO:0007286	GO:0019953	sexual reproduction
251	GO:0007286	GO:0022412	cellular process involved in reproduction in multicellular organism
252	GO:0007286	GO:0022414	reproductive process
253	GO:0007286	GO:0030154	cell differentiation
254	GO:0007286	GO:0032501	multicellular organismal process
255	GO:0007286	GO:0032502	developmental process
256	GO:0007286	GO:0032504	multicellular organism reproduction
257	GO:0007286	GO:0048232	male gamete generation
258	GO:0007286	GO:0048468	cell development
259	GO:0007286	GO:0048515	spermatid differentiation
260	GO:0007286	GO:0048609	multicellular organismal reproductive process
261	GO:0007286	GO:0048856	anatomical structure development
262	GO:0007286	GO:0048869	cellular developmental process
263	GO:0007286	all	all