

Supplemental Table 5. Biological functions of mammary tumor transcripts of significant differential expression by metastasis (MET66 and AMD66, $Q < 0.05$, $n = 66$ microarrays). The gene expression data from individual mammary tumor samples were ordered such that 25% (33 samples) of the total samples came from mice with no surface- or section- metastatic lesions and the longest tumor onset. Gene expression data from these 33 samples served as the reference group when paired with the gene expression data of 33 mammary tumor samples from mice that had the most sectional metastatic lesions detected (AMD66), and when paired with the gene expression data of 33 mammary tumor samples from mice that had the most superficial metastatic lesions detected (MET66). Annotation was performed with Ingenuity Pathway Analysis Knowledge Base.

*categories of biological functions as defined by Ingenuity Pathway Analysis Knowledge Base

†P-value describing the probability that the molecules of Supplemental Tables 3 and 4 associate with a biological function category due to chance

‡Number of molecules associated with function

	A	B	C
1	Function Annotation*	P-value†	# Molecules‡
2	experimentally-induced diabetes	1.58E-06	12
3	neoplasia	2.34E-06	98
4	cancer	5.68E-06	93
5	developmental process of bone	6.31E-06	18
6	acinar-cell carcinoma	9.76E-06	6
7	migration of endothelial cells	1.06E-05	16
8	neovascularization of organ	1.09E-05	5
9	neovascularization	1.42E-05	11
10	tumorigenesis	1.62E-05	101
11	proliferation of connective tissue cells	1.82E-05	20
12	acute allergic pulmonary eosinophilia	2.27E-05	6
13	connective tissue disorder	2.75E-05	39
14	skeletal and muscular disorder	2.93E-05	46
15	primary tumor	3.05E-05	71
16	growth of cells	3.51E-05	72
17	tumor	3.69E-05	76
18	atherosclerosis	4.09E-05	14
19	neovascularization of eye	4.55E-05	4
20	developmental process of connective tissue	5.94E-05	18
21	diabetes	6.31E-05	22
22	proliferation of cells	6.40E-05	87
23	migration of microvascular endothelial cells	6.51E-05	5
24	vascularization of eye	7.44E-05	4
25	carcinoma	7.84E-05	54
26	malignant tumor	8.92E-05	67
27	angiogenesis	1.01E-04	20
28	choroidal neovascularization	1.13E-04	5
29	degradation of protein	1.18E-04	21
30	development of bone	1.22E-04	11
31	systemic sclerosis	1.29E-04	6
32	infiltration of eukaryotic cells	1.39E-04	18
33	quantity of essential amino acids	1.68E-04	4
34	inflammatory disorder	1.87E-04	54
35	death of mice	2.08E-04	43
36	cell death	2.18E-04	94
37	rheumatic disease	2.24E-04	33
38	vascularization	2.38E-04	12
39	metabolic disorder	2.39E-04	42
40	infiltration of cells	2.40E-04	18
41	developmental process of tissue	2.42E-04	39
42	pancreatic tumor	2.54E-04	12
43	cell death of epithelial cells	2.84E-04	14
44	heart failure of mice	2.98E-04	6
45	death of animal	3.10E-04	44
46	death of rodents	3.15E-04	43
47	development of blood vessel	3.52E-04	22
48	cardiovascular disorder	3.77E-04	37
49	development of vessel	3.78E-04	22
50	arthritis	3.86E-04	30
51	inflammatory arthropathy	3.86E-04	30
52	immunological disorder	3.96E-04	42
53	death of mammalia	4.06E-04	43
54	hematological disorder	4.20E-04	39
55	healing	4.39E-04	9
56	cell movement of cells	4.78E-04	41
57	dermatological disorder	4.87E-04	29

	A	B	C
1	Function Annotation*	P-value†	# Molecules‡
58	apoptosis of epithelial cells	5.01E-04	13
59	dilation of left ventricle	5.09E-04	5
60	Kawasaki's disease	5.18E-04	3
61	development of gastrointestinal tract	5.18E-04	3
62	binding of cells	5.26E-04	27
63	developmental process of endothelial cells	5.33E-04	10
64	formation of vessel	5.50E-04	7
65	apoptosis of bone marrow stromal cells	6.36E-04	2
66	binding of bone marrow stromal cells	6.36E-04	2
67	cell division process of colon carcinoma cells	6.36E-04	2
68	deposition of granulation tissue	6.36E-04	2
69	development of endocardium	6.36E-04	2
70	development of vascular plexus	6.36E-04	2
71	formation of cord blood	6.36E-04	2
72	interphase of colon carcinoma cells	6.36E-04	2
73	morphology of collagen fibrils	6.36E-04	2
74	nonproliferative diabetic retinopathy with macular edema	6.36E-04	2
75	quantity of cobblestone area-forming cells	6.36E-04	2
76	quantity of osteoprogenitor cells	6.36E-04	2
77	regeneration of glomerular capillary	6.36E-04	2
78	proteolysis	6.83E-04	14
79	mucoepidermoid carcinoma	6.87E-04	6
80	angiogenesis of blood vessel	6.90E-04	13
81	apoptosis	7.00E-04	81
82	growth of tumor	7.51E-04	12
83	failure of mice	7.53E-04	7
84	proliferation of muscle cells	7.64E-04	13
85	apoptosis of myoblasts	8.13E-04	3
86	choroidal neovascularization of eye	8.13E-04	3
87	entry into cell division process of sarcoma cells	8.13E-04	3
88	genital tumor	8.15E-04	22
89	infiltration of phagocytes	8.43E-04	11
90	cell movement	8.51E-04	41
91	quantity of connective tissue cells	8.59E-04	10
92	adenocarcinoma	8.73E-04	16
93	parotid gland tumor	8.80E-04	6
94	salivary gland tumor	8.80E-04	6
95	cell-cell adhesion of cell lines	9.24E-04	4
96	binding of eukaryotic cells	9.94E-04	25
97	vascular lesion	1.02E-03	9
98	invasion of eukaryotic cells	1.03E-03	23
99	respiratory disorder	1.10E-03	27
100	migration of tumor cells	1.11E-03	7
101	development of neural tube	1.11E-03	6
102	migration of cancer cells	1.11E-03	6
103	oral cancer	1.11E-03	6
104	cell movement of eukaryotic cells	1.13E-03	36
105	growth of sarcoma cells	1.15E-03	4
106	vascularization of tumor	1.15E-03	4
107	cardiovascular process of blood vessel	1.16E-03	15
108	cell death of eukaryotic cells	1.18E-03	77
109	heart failure	1.18E-03	10
110	damage of cartilage tissue	1.20E-03	3
111	movement of tumor cells	1.22E-03	7
112	release of nitric oxide	1.22E-03	7

	A	B	C
1	Function Annotation*	P-value†	# Molecules‡
113	movement of cancer cells	1.24E-03	6
114	proliferation of fibroblasts	1.28E-03	12
115	differentiation of endothelial cells	1.32E-03	5
116	healing of lesion	1.33E-03	7
117	binding of tumor cell lines	1.37E-03	13
118	developmental process of neural tube	1.39E-03	6
119	development of connective tissue	1.40E-03	11
120	edema of lung	1.41E-03	4
121	arrest in cell cycle progression of eukaryotic cells	1.48E-03	12
122	pancreatic cancer	1.50E-03	13
123	dilation of heart ventricle	1.52E-03	5
124	eosinophilia	1.59E-03	7
125	proliferation of smooth muscle cells	1.65E-03	11
126	aneurysm	1.68E-03	3
127	contraction of fibroblasts	1.68E-03	3
128	deposition of extracellular matrix	1.68E-03	3
129	growth of brain cells	1.68E-03	3
130	morphology of bone	1.70E-03	4
131	vascularization of organ	1.74E-03	5
132	expression of protein	1.79E-03	10
133	invasion of cells	1.82E-03	23
134	Ehlers-Danlos syndrome, type I	1.88E-03	2
135	G2/M phase transition of brain cancer cell lines	1.88E-03	2
136	activation of chondrocytes	1.88E-03	2
137	adhesion of hOB cells	1.88E-03	2
138	arrest in G2/M phase transition of brain cancer cell lines	1.88E-03	2
139	morphology of fibrils	1.88E-03	2
140	neovascularization of skin	1.88E-03	2
141	regeneration of vessel	1.88E-03	2
142	tensile strength of skin	1.88E-03	2
143	vascularization of malignant tumor	1.88E-03	2
144	formation of blood vessel	1.90E-03	6
145	transcription	1.93E-03	65
146	metabolism of protein	1.93E-03	29
147	proliferation of eukaryotic cells	1.95E-03	66
148	attachment of eukaryotic cells	1.95E-03	8
149	neurological disorder	1.99E-03	62
150	Budd-Chiari syndrome	2.04E-03	4
151	decidualization	2.04E-03	4
152	transcription of estrogen response element	2.04E-03	4
153	migration of breast cancer cell lines	2.09E-03	8
154	migration of cells	2.17E-03	46
155	dilation of heart chamber	2.24E-03	5
156	movement of breast cancer cell lines	2.25E-03	8
157	entry into cell division process of cancer cells	2.27E-03	3
158	infiltration of blood cells	2.28E-03	15
159	binding of cell lines	2.39E-03	17
160	interphase of cancer cells	2.42E-03	4
161	size of testis	2.42E-03	4
162	invasion of fibroblast cell lines	2.52E-03	5
163	cell movement of phagocytes	2.71E-03	16
164	movement of cells	2.77E-03	46
165	healing of wound	2.78E-03	6
166	cell movement of blood cells	2.78E-03	23
167	age-related macular degeneration	2.85E-03	4
168	cleavage of protein fragment	2.85E-03	4

	A	B	C
1	Function Annotation*	P-value†	# Molecules‡
169	formation of vascular lesion	2.85E-03	4
170	regeneration of cells	2.85E-03	4
171	infiltration of neutrophils	2.93E-03	8
172	cardiovascular disorder of mice	2.94E-03	14
173	Ehlers-Danlos syndrome	2.96E-03	3
174	attachment of fibroblasts	2.96E-03	3
175	cell division process of sarcoma cells	2.96E-03	3
176	degradation of extracellular matrix	2.96E-03	3
177	entry into cell division process of tumor cells	2.96E-03	3
178	growth of fibrosarcoma cell lines	2.96E-03	3
179	cell division process of cancer cells	3.17E-03	5
180	pancreatic adenocarcinoma	3.17E-03	5
181	serous ovarian carcinoma	3.18E-03	9
182	cell stage of cancer cells	3.32E-03	4
183	pancreatic carcinoma	3.50E-03	7
184	quantity of osteocytes	3.62E-03	6
185	invasion of cell lines	3.68E-03	19
186	G2 phase of brain cancer cell lines	3.69E-03	2
187	apoptosis of stromal cells	3.69E-03	2
188	arrest in G2 phase of brain cancer cell lines	3.69E-03	2
189	arrest in growth of fibrosarcoma cell lines	3.69E-03	2
190	atrophy of kidney	3.69E-03	2
191	binding of stromal cells	3.69E-03	2
192	cell death of bone marrow stromal cells	3.69E-03	2
193	cell-cell adhesion of epithelial cell lines	3.69E-03	2
194	developmental process of skull	3.69E-03	2
195	disease process of hepatocytes	3.69E-03	2
196	disruption of focal adhesions	3.69E-03	2
197	fusion of secretory granules	3.69E-03	2
198	growth of adenoma	3.69E-03	2
199	interphase of carcinoma cells	3.69E-03	2
200	migration of leukemia cells	3.69E-03	2
201	migration of sarcoma cells	3.69E-03	2
202	morphology of tight junctions	3.69E-03	2
203	permeability of colon	3.69E-03	2
204	polycystic liver disease	3.69E-03	2
205	release of polysaccharide	3.69E-03	2
206	replication of human herpesvirus 5	3.69E-03	2
207	sensitization of macrophages	3.69E-03	2
208	transport of UDP-sugar	3.69E-03	2
209	vascularization of lesion	3.69E-03	2
210	vascularization of skin	3.69E-03	2
211	organization of cytoskeleton	3.76E-03	9
212	attachment of connective tissue cells	3.78E-03	3
213	clearance of lipid	3.78E-03	3
214	contraction of connective tissue cells	3.78E-03	3
215	development of rib	3.78E-03	3
216	ophthalmic disorder of eye	3.78E-03	3
217	shape change of smooth muscle cells	3.78E-03	3
218	skeletal and muscular disorder of rats	3.78E-03	3
219	binding of colorectal cancer cell lines	3.85E-03	4
220	cell-cell adhesion of eukaryotic cells	3.85E-03	4
221	interphase of tumor cells	3.85E-03	4
222	cardiovascular disorder of rodents	3.89E-03	15
223	cardiovascular process of organ	3.94E-03	6
224	disease process of liver	4.03E-03	7

	A	B	C
1	Function Annotation*	P-value†	# Molecules‡
225	genetic disorder	4.15E-03	68
226	attachment of cells	4.26E-03	8
227	migration of fibroblasts	4.32E-03	7
228	proliferation of endothelial cells	4.34E-03	10
229	benign tumor	4.36E-03	19
230	assembly of extracellular matrix	4.37E-03	5
231	digestive organ tumor	4.39E-03	24
232	arthritis of rodents	4.41E-03	9
233	inflammatory arthropathy of rodents	4.41E-03	9
234	morphology of connective tissue	4.43E-03	4
235	differentiation of connective tissue cells	4.45E-03	15
236	ovarian cancer	4.64E-03	17
237	arrest in cell stage of brain cancer cell lines	4.72E-03	3
238	arrest in interphase of brain cancer cell lines	4.72E-03	3
239	arrest in interphase of cancer cells	4.72E-03	3
240	disease process of eye	4.72E-03	3
241	proliferation of myoblasts	4.72E-03	3
242	thrombocytosis	4.72E-03	3
243	cell division process of tumor cells	4.83E-03	5
244	proliferation of chondrocytes	4.83E-03	5
245	movement of fibroblasts	4.95E-03	7
246	colony formation	5.03E-03	20
247	colony formation of cells	5.03E-03	20
248	developmental process of tumor	5.05E-03	14
249	branching morphogenesis of tubules	5.07E-03	4
250	cell-cell adhesion of cells	5.07E-03	4
251	expression of estrogen response element	5.07E-03	4
252	survival of epithelial cells	5.07E-03	4
253	tubulation of endothelial cells	5.07E-03	4
254	cell death of muscle cells	5.12E-03	11
255	transformation of fibroblast cell lines	5.23E-03	14
256	arrest in cell cycle progression	5.25E-03	15
257	apoptosis of eukaryotic cells	5.32E-03	64
258	formation of extracellular matrix	5.32E-03	5
259	developmental disorder of animal	5.33E-03	11
260	arthritis of mammalia	5.42E-03	9
261	thrombosis	5.43E-03	6
262	cardiovascular disorder of mammalia	5.59E-03	15
263	atherosclerotic lesion	5.63E-03	7
264	cell cycle progression of eukaryotic cells	5.66E-03	18
265	cleft palate syndrome	5.76E-03	4
266	mean arterial pressure of mice	5.76E-03	4
267	morphogenesis of tubules	5.76E-03	4
268	senescence of fibroblasts	5.76E-03	4
269	size of gonad	5.76E-03	4
270	arrest in cell stage of cancer cells	5.80E-03	3
271	cleavage of Gelatin	5.80E-03	3
272	developmental process of fibrosarcoma cell lines	5.80E-03	3
273	branching morphogenesis	5.86E-03	6
274	autoimmune disease	5.94E-03	28
275	production of nitric oxide	5.99E-03	10
276	accumulation of extracellular matrix	6.05E-03	2
277	arrest in growth of brain cancer cell lines	6.05E-03	2
278	assembly of gap junctions	6.05E-03	2
279	cell division process of melanoma cells	6.05E-03	2
280	cleavage of RNA fragment	6.05E-03	2

	A	B	C
1	Function Annotation*	P-value†	# Molecules‡
281	degeneration of cerebellum	6.05E-03	2
282	developmental process of neuroepithelium	6.05E-03	2
283	entry into G1 phase of eukaryotic cells	6.05E-03	2
284	formation of burst-forming erythroid cells	6.05E-03	2
285	formation of epoprostenol	6.05E-03	2
286	induction of nitric oxide	6.05E-03	2
287	joining of protein	6.05E-03	2
288	migration of mesenchymal stem cells	6.05E-03	2
289	migration of skin cell lines	6.05E-03	2
290	mobilization of intracellular stores	6.05E-03	2
291	pigmentation of mice	6.05E-03	2
292	quantity of L-arginine	6.05E-03	2
293	quantity of lymphoma cell lines	6.05E-03	2
294	quantity of mesenchymal cells	6.05E-03	2
295	sensitization of blood cells	6.05E-03	2
296	sensitization of lymphatic system cells	6.05E-03	2
297	skeletal and muscular process of limb	6.05E-03	2
298	synovial sarcoma	6.05E-03	2
299	transformation of endocardial cells	6.05E-03	2
300	vascularization of primary tumor	6.05E-03	2
301	arthritis of animal	6.28E-03	9
302	arthritis of organism	6.28E-03	9
303	neuropathy	6.39E-03	17
304	development of lung	6.39E-03	7
305	cell stage of tumor cells	6.52E-03	4
306	senescence of connective tissue cells	6.52E-03	4
307	developmental disorder	6.66E-03	34
308	growth of eukaryotic cells	6.75E-03	46
309	senescence of eukaryotic cells	6.80E-03	7
310	rheumatic disease of rodents	6.92E-03	9
311	apoptosis of splenocytes	7.00E-03	3
312	arrest in interphase of tumor cells	7.00E-03	3
313	removal of lipid	7.00E-03	3
314	proliferation of epithelial cells	7.28E-03	13
315	quantity of glycosphingolipid	7.29E-03	6
316	Dupuytren contracture	7.34E-03	4
317	adhesion of epithelial cell lines	7.34E-03	4
318	migration of eukaryotic cells	7.36E-03	41
319	growth of tumor cells	7.76E-03	10
320	quantity of glycolipid	7.82E-03	6
321	cell death of cardiomyocytes	7.84E-03	8
322	ossification	7.96E-03	9
323	migration of connective tissue cells	8.13E-03	7
324	moiety attachment of essential amino acids	8.22E-03	4
325	cell death of heart cells	8.26E-03	8
326	cell death of breast cell lines	8.33E-03	5
327	connective tissue disorder of rodents	8.33E-03	9
328	damage of connective tissue	8.35E-03	3
329	growth of blood vessel	8.35E-03	3
330	interphase of brain cancer cell lines	8.35E-03	3
331	mucinous ovarian carcinoma	8.35E-03	3
332	rheumatoid arthritis	8.58E-03	19
333	movement of connective tissue cells	8.62E-03	7
334	inflammatory disorder of rodents	8.64E-03	18
335	infiltration of granulocytes	8.72E-03	9
336	rheumatic disease of mammalia	8.72E-03	9

	A	B	C
1	Function Annotation*	P-value†	# Molecules‡
337	cell movement of leukocytes	8.87E-03	20
338	absorption of lipid	8.92E-03	2
339	accumulation of hyaluronic acid	8.92E-03	2
340	arrest in cell division process of endothelial cells	8.92E-03	2
341	attachment of neuroglia	8.92E-03	2
342	bronchiolo-alveolar adenocarcinoma	8.92E-03	2
343	cancer of mammary gland	8.92E-03	2
344	catabolism of L-arginine	8.92E-03	2
345	cell death of stromal cells	8.92E-03	2
346	cell division process of carcinoma cells	8.92E-03	2
347	cell spreading of brain cancer cell lines	8.92E-03	2
348	cell spreading of leukemia cell lines	8.92E-03	2
349	dermatological disorder of epidermis	8.92E-03	2
350	formation of artery	8.92E-03	2
351	formation of bodily fluid	8.92E-03	2
352	formation of collagen fibrils	8.92E-03	2
353	healing of organ	8.92E-03	2
354	lysis of endothelial cell lines	8.92E-03	2
355	metabolism of D-galactose	8.92E-03	2
356	papillary renal cell carcinoma	8.92E-03	2
357	quantity of glucocorticoid	8.92E-03	2
358	quantity of lamellipodia	8.92E-03	2
359	release of prostaglandin F2alpha	8.92E-03	2
360	retraction of cellular protrusions	8.92E-03	2
361	synthesis of glutamine family amino acid	8.92E-03	2
362	transition of mesenchymal cells	8.92E-03	2
363	transport of cystine	8.92E-03	2
364	quantity of amino acids	8.96E-03	6
365	quantity of sphingolipid	8.96E-03	6
366	endocrine system disorder	9.03E-03	24
367	movement of eukaryotic cells	9.04E-03	41
368	reorganization of cytoskeleton	9.12E-03	7
369	developmental disorder of mice	9.15E-03	10
370	cell death of embryonic stem cells	9.17E-03	4
371	incorporation of lipid	9.17E-03	4
372	organismal abnormalities of liver	9.17E-03	4
373	quantity of muscle cells	9.58E-03	6
374	growth of cancer cells	9.59E-03	8
375	organismal abnormalities of lung	9.81E-03	5
376	cell stage of brain cancer cell lines	9.83E-03	3
377	development of pulmonary alveolus	9.83E-03	3
378	development of retinal cells	9.83E-03	3
379	development of vertebrae	9.83E-03	3
380	import of carbohydrate	9.83E-03	3
381	proliferation of cell lines	9.84E-03	38
382	progressive motor neuropathy	9.93E-03	14
383	developmental process of cancer cells	9.96E-03	9
384	conditioning of mice	1.02E-02	4
385	developmental process of retinal cells	1.02E-02	4
386	cell viability of tumor cell lines	1.04E-02	9
387	connective tissue disorder of mammalia	1.04E-02	9
388	arrest in cell division process of breast cancer cell lines	1.06E-02	5
389	synthesis of prostaglandin	1.06E-02	5
390	migration of muscle cells	1.08E-02	7
391	inflammatory disorder of mammalia	1.08E-02	18
392	infiltration of leukocytes	1.08E-02	12

	A	B	C
1	Function Annotation*	P-value†	# Molecules‡
393	motor neuron disease	1.09E-02	14
394	edema	1.09E-02	9
395	infiltration of myeloid cells	1.09E-02	9
396	arrest in cell cycle progression of cell lines	1.11E-02	8
397	moiety attachment of L-amino acid	1.11E-02	8
398	developmental disorder of rodents	1.12E-02	10
399	accumulation of macrophages	1.13E-02	4
400	ossification of bone	1.13E-02	4
401	angiogenesis of endothelial cells	1.15E-02	3
402	arrest in cell division process of brain cancer cell lines	1.15E-02	3
403	arrest in cell stage of tumor cells	1.15E-02	3
404	cell death of splenocytes	1.15E-02	3
405	growth of vessel	1.15E-02	3
406	incorporation of fatty acid	1.15E-02	3
407	internalization of carbohydrate	1.15E-02	3
408	migration of stem cells	1.15E-02	3
409	neovascularization of retina	1.15E-02	3
410	tumorigenesis of melanoma cell lines	1.15E-02	3
411	ovarian tumor	1.16E-02	12
412	chemotaxis of cells	1.20E-02	19
413	senescence of cells	1.20E-02	7
414	apoptosis of hepatic stellate cells	1.23E-02	2
415	arrest in G0/G1 phase transition of breast cancer cell lines	1.23E-02	2
416	arrest in G1 phase of cancer cells	1.23E-02	2
417	binding of interferon-stimulated response element	1.23E-02	2
418	bronchopulmonary carcinoma	1.23E-02	2
419	cardiovascular process of skin	1.23E-02	2
420	cell viability of embryonic cells	1.23E-02	2
421	chemotaxis of fibroblast cell lines	1.23E-02	2
422	development of enteric nervous system	1.23E-02	2
423	development of myocardium	1.23E-02	2
424	disruption of tight junctions	1.23E-02	2
425	edema of brain	1.23E-02	2
426	entry into S phase of Kaposi's sarcoma cells	1.23E-02	2
427	growth of Kaposi's sarcoma cells	1.23E-02	2
428	growth of pituitary cells	1.23E-02	2
429	hydrolysis of Gelatin	1.23E-02	2
430	proliferation of microvascular endothelial cells	1.23E-02	2
431	quantity of capillary vessel	1.23E-02	2
432	repair of wound	1.23E-02	2
433	sprouting of endothelial cell lines	1.23E-02	2
434	thrombocytosis of mammalia	1.23E-02	2
435	thrombocytosis of mice	1.23E-02	2
436	skeletal and muscular disorder of rodents	1.23E-02	11
437	development of tubules	1.25E-02	4
438	glycolysis	1.25E-02	4
439	skeletal and muscular process of bone	1.25E-02	4
440	neuroendocrine carcinoma	1.26E-02	7
441	infiltration of lymphatic system cells	1.28E-02	12
442	migration of fibroblast cell lines	1.31E-02	6
443	activation of tumor cells	1.32E-02	3
444	cell division process of endothelial cells	1.32E-02	3
445	cleft palate syndrome of mice	1.32E-02	3
446	disease process of melanoma cell lines	1.32E-02	3
447	edema of mice	1.32E-02	3

	A	B	C
1	Function Annotation*	P-value†	# Molecules‡
448	growth of central nervous system cells	1.32E-02	3
449	hydrocephalus of mice	1.32E-02	3
450	pulmonary fibrosis of mice	1.32E-02	3
451	pulmonary fibrosis of rodents	1.32E-02	3
452	experimentally-induced arthritis of mice	1.33E-02	5
453	proliferation of brain cancer cell lines	1.33E-02	5
454	accumulation of antigen presenting cells	1.37E-02	4
455	conditioning of rodents	1.37E-02	4
456	ossification of connective tissue	1.37E-02	4
457	activation of connective tissue cells	1.43E-02	5
458	respiratory disorder of mammalia	1.46E-02	8
459	movement of fibroblast cell lines	1.47E-02	6
460	quantity of tumor	1.47E-02	6
461	outgrowth of neurites	1.48E-02	14
462	neoplasia of organ	1.50E-02	4
463	quantity of stem cells	1.50E-02	4
464	synthesis of acylglycerol	1.50E-02	4
465	activation of endothelial cells	1.52E-02	3
466	arrest in cell division process of cancer cells	1.52E-02	3
467	organization of microtubules	1.52E-02	3
468	pulmonary fibrosis of animal	1.52E-02	3
469	vascularization of retina	1.52E-02	3
470	prostate cancer	1.52E-02	16
471	outgrowth of plasma membrane projections	1.52E-02	14
472	quantity of primary tumor	1.53E-02	5
473	growth of cell lines	1.54E-02	36
474	accumulation of glycosaminoglycan	1.61E-02	2
475	accumulation of vesicles	1.61E-02	2
476	activation of hepatic stellate cells	1.61E-02	2
477	anorexia of rodents	1.61E-02	2
478	binding of Egr-1 binding site	1.61E-02	2
479	breakage of blood vessel	1.61E-02	2
480	cell division process of unspecified cell lines	1.61E-02	2
481	developmental process of trophoblast	1.61E-02	2
482	dysfunction of left ventricle	1.61E-02	2
483	entry into S phase of cancer cells	1.61E-02	2
484	formation of aneurysm	1.61E-02	2
485	formation of erythroid progenitor cells	1.61E-02	2
486	formation of prostaglandin	1.61E-02	2
487	gap junctional intercellular communication of eukaryotic cells	1.61E-02	2
488	glycolysis of cells	1.61E-02	2
489	growth of benign tumor	1.61E-02	2
490	metabolism of L-arginine	1.61E-02	2
491	migration of neuroblasts	1.61E-02	2
492	modification of wound	1.61E-02	2
493	morphology of artery	1.61E-02	2
494	neovascularization of tumor	1.61E-02	2
495	neurological process of hindlimb	1.61E-02	2
496	recruitment of osteoclasts	1.61E-02	2
497	sprouting of cell lines	1.61E-02	2
498	stress response of cells	1.61E-02	2
499	survival of epidermal cells	1.61E-02	2
500	synthesis of monosaccharide	1.61E-02	2
501	thickening of epidermis	1.61E-02	2