## Supplementary Materials: The *Latoia consocia* Caterpillar Induces Pain by Targeting Nociceptive Ion Channel TRPV1

Zhihao Yao, Peter Muiruri Kamau, Yalan Han, Jingmei Hu, Anna Luo, Lei Luo, Jie Zheng, Yuhua Tian and Ren Lai

**Table 1.** Defense mechanism-related genes found in *Latoia consocia* venom transcriptome.

Number	Gene ID	Description
1	TRINITY_DN83048_c1_g4_i3	Defense mechanisms
2	TRINITY_DN74008_c0_g2_i1	Defense mechanisms
3	TRINITY_DN80791_c0_g4_i2	Signal transduction mechanisms; Defense mechanisms
4	TRINITY_DN73676_c0_g1_i1	Extracellular structures; Defense mechanisms
5	TRINITY_DN77222_c0_g1_i1	Lipid transport and metabolism; Defense mechanisms
6	TRINITY_DN83852_c1_g1_i7	Signal transduction mechanisms; Defense mechanisms
7	TRINITY_DN79170_c2_g5_i1	Signal transduction mechanisms; Defense mechanisms
8	TRINITY_DN53275_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
9	TRINITY_DN80054_c2_g3_i1	Defense mechanisms
10	TRINITY_DN76642_c2_g2_i2	Signal transduction mechanisms; Defense mechanisms
11	TRINITY_DN75255_c0_g3_i1	Defense mechanisms
12	TRINITY_DN72565_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
13	TRINITY_DN82244_c0_g1_i1	Defense mechanisms
14	TRINITY_DN80536_c0_g1_i1	Defense mechanisms
15	TRINITY_DN66984_c0_g1_i1	Defense mechanisms
16	TRINITY_DN81172_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
17	TRINITY_DN79838_c3_g5_i1	Defense mechanisms
18	TRINITY_DN84195_c3_g1_i1	Defense mechanisms
19	TRINITY_DN78131_c0_g2_i4	Defense mechanisms

20	TRINITY_DN83853_c3_g2_i7	Defense mechanisms
21	TRINITY_DN83643_c1_g3_i1	Defense mechanisms
22	TRINITY_DN83475_c0_g2_i2	Signal transduction mechanisms; Defense mechanisms
23	TRINITY_DN83048_c1_g1_i6	Defense mechanisms
24	TRINITY_DN84195_c3_g4_i3	Defense mechanisms
25	TRINITY_DN84767_c1_g1_i3	Defense mechanisms
26	TRINITY_DN80385_c0_g1_i2	Defense mechanisms
27	TRINITY_DN80524_c0_g3_i1	Signal transduction mechanisms; Defense mechanisms
28	TRINITY_DN83475_c0_g1_i4	Signal transduction mechanisms; Defense mechanisms
29	TRINITY_DN81998_c0_g3_i1	Extracellular structures; Defense mechanisms
30	TRINITY_DN75666_c3_g1_i5	Defense mechanisms
31	TRINITY_DN82110_c0_g1_i6	Signal transduction mechanisms; Posttranslational modification,
		protein turnover, chaperones; Defense mechanisms
		Signal transduction mechanisms; Defense mechanisms
32	TRINITY_DN81269_c5_g2_i1	Defense mechanisms
33	TRINITY_DN77014_c1_g1_i2	Extracellular structures; Defense mechanisms
34	TRINITY_DN77967_c3_g1_i1	Defense mechanisms
35	TRINITY_DN34547_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
36	TRINITY_DN80253_c0_g2_i3	Defense mechanisms
37	TRINITY_DN67500_c0_g2_i2	Signal transduction mechanisms; Defense mechanisms
38	TRINITY_DN72730_c0_g1_i2	Defense mechanisms
39	TRINITY_DN78572_c1_g3_i8	Defense mechanisms
40	TRINITY_DN79935_c1_g1_i2	Signal transduction mechanisms; Defense mechanisms
41	TRINITY_DN76265_c1_g1_i1	Signal transduction mechanisms; Defense mechanisms
42	TRINITY_DN82697_c3_g6_i2	Signal transduction mechanisms; Defense mechanisms
43	TRINITY_DN79170_c2_g3_i1	Extracellular structures; Defense mechanisms

44	TRINITY_DN73206_c0_g1_i2	Defense mechanisms
45	TRINITY_DN82297_c5_g2_i1	Defense mechanisms
46	TRINITY_DN79000_c0_g1_i1	Defense mechanisms
47	TRINITY_DN76231_c0_g1_i5	Defense mechanisms
48	TRINITY_DN74127_c0_g1_i2	Defense mechanisms
49	TRINITY_DN82984_c4_g1_i2	Defense mechanisms
50	TRINITY_DN83795_c3_g1_i2	Defense mechanisms
51	TRINITY_DN75743_c0_g5_i1	Signal transduction mechanisms; Defense mechanisms
52	TRINITY_DN83261_c2_g2_i12	Signal transduction mechanisms; Defense mechanisms
53	TRINITY_DN81172_c1_g1_i2	Defense mechanisms
54	TRINITY_DN73759_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
55	TRINITY_DN75176_c8_g3_i1	Extracellular structures; Defense mechanisms
56	TRINITY_DN85012_c3_g3_i1	Signal transduction mechanisms; Defense mechanisms
57	TRINITY_DN77013_c0_g1_i2	Signal transduction mechanisms; Defense mechanisms
58	TRINITY_DN74738_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
59	TRINITY_DN75786_c3_g3_i1	Extracellular structures; Defense mechanisms
60	TRINITY_DN71515_c0_g1_i1	Defense mechanisms
61	TRINITY_DN71223_c0_g1_i1	Defense mechanisms
62	TRINITY_DN75742_c4_g1_i2	Signal transduction mechanisms; Defense mechanisms
63	TRINITY_DN80253_c0_g4_i1	Defense mechanisms
64	TRINITY_DN12228_c0_g1_i1	Defense mechanisms
65	TRINITY_DN67666_c0_g2_i1	Cell wall/membrane biogenesis; Defense mechanisms
66	TRINITY_DN82822_c0_g1_i3	Defense mechanisms
67	TRINITY_DN75759_c5_g1_i4	Signal transduction mechanisms; Defense mechanisms
68	TRINITY_DN82697_c3_g1_i5	Defense mechanisms
69	TRINITY_DN83643_c1_g2_i9	Extracellular structures; Defense mechanisms

70	TRINITY_DN73173_c0_g2_i1	Defense mechanisms
71	TRINITY_DN83643_c1_g1_i1	Extracellular structures; Defense mechanisms
72	TRINITY_DN85012_c5_g2_i2	Defense mechanisms
73	TRINITY_DN82618_c3_g2_i1	Defense mechanisms
74	TRINITY_DN72367_c0_g1_i1	Defense mechanisms
75	TRINITY_DN79060_c1_g1_i2	Signal transduction mechanisms; Defense mechanisms
76	TRINITY_DN80924_c3_g3_i1	Extracellular structures; Defense mechanisms
77	TRINITY_DN85012_c4_g1_i4	Signal transduction mechanisms; Defense mechanisms
78	TRINITY_DN65665_c0_g3_i1	Signal transduction mechanisms; Defense mechanisms
79	TRINITY_DN81608_c4_g1_i3	Defense mechanisms
80	TRINITY_DN80820_c2_g2_i2	Signal transduction mechanisms; Defense mechanisms
81	TRINITY_DN74013_c0_g1_i1	Defense mechanisms
82	TRINITY_DN82118_c3_g1_i2	Defense mechanisms
83	TRINITY_DN72121_c0_g4_i1	Defense mechanisms
84	TRINITY_DN79000_c0_g2_i2	Defense mechanisms
85	TRINITY_DN75743_c0_g2_i4	Extracellular structures; Defense mechanisms
86	TRINITY_DN80854_c2_g1_i4	Defense mechanisms
87	TRINITY_DN16636_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
88	TRINITY_DN83043_c0_g1_i2	Signal transduction mechanisms; Defense mechanisms
89	TRINITY_DN81172_c1_g2_i5	Defense mechanisms
90	TRINITY_DN70059_c0_g1_i1	Defense mechanisms
91	TRINITY_DN75738_c0_g1_i4	Extracellular structures; Defense mechanisms
92	TRINITY_DN85012_c3_g1_i1	Defense mechanisms
93	TRINITY_DN72609_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
94	TRINITY_DN78614_c2_g4_i2	Signal transduction mechanisms; Defense mechanisms
95	TRINITY_DN83852_c1_g3_i1	Defense mechanisms

96	TRINITY_DN73069_c0_g2_i1	Defense mechanisms
97	TRINITY_DN80864_c2_g1_i2	Signal transduction mechanisms; Defense mechanisms
98	TRINITY_DN75623_c3_g3_i1	Signal transduction mechanisms; Defense mechanisms
99	TRINITY_DN83852_c1_g2_i3	Extracellular structures; Defense mechanisms
100	TRINITY_DN73094_c0_g1_i2	Signal transduction mechanisms; Defense mechanisms
101	TRINITY_DN80924_c3_g5_i1	Defense mechanisms
102	TRINITY_DN83048_c1_g5_i1	Defense mechanisms
103	TRINITY_DN65896_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
104	TRINITY_DN73077_c0_g1_i2	Defense mechanisms
105	TRINITY_DN76198_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
106	TRINITY_DN80253_c0_g1_i3	Signal transduction mechanisms; Defense mechanisms
107	TRINITY_DN78366_c0_g1_i5	Signal transduction mechanisms; Defense mechanisms
108	TRINITY_DN83199_c0_g1_i4	Extracellular structures; Defense mechanisms
109	TRINITY_DN73173_c0_g1_i1	Defense mechanisms
110	TRINITY_DN77174_c0_g1_i1	Extracellular structures; Defense mechanisms
111	TRINITY_DN85012_c5_g1_i2	Defense mechanisms
112	TRINITY_DN75255_c0_g1_i1	Extracellular structures; Defense mechanisms
113	TRINITY_DN81998_c0_g2_i2	Defense mechanisms
114	TRINITY_DN82429_c0_g1_i4	Signal transduction mechanisms; Defense mechanisms
115	TRINITY_DN57746_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
116	TRINITY_DN80014_c0_g1_i4	Defense mechanisms
117	TRINITY_DN81258_c2_g1_i2	Defense mechanisms
118	TRINITY_DN72208_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
119	TRINITY_DN75819_c0_g1_i1	Defense mechanisms
120	TRINITY_DN67666_c0_g1_i1	Defense mechanisms
121	TRINITY_DN82590_c1_g2_i1	Defense mechanisms

122	TRINITY_DN80917_c2_g1_i2	Defense mechanisms
123	TRINITY_DN62754_c0_g1_i1	Defense mechanisms
124	TRINITY_DN81990_c1_g2_i3	Signal transduction mechanisms; Defense mechanisms
125	TRINITY_DN74529_c0_g1_i1	Extracellular structures; Defense mechanisms
126	TRINITY_DN72451_c0_g1_i1	Defense mechanisms
127	TRINITY_DN80758_c0_g1_i4	Signal transduction mechanisms; Defense mechanisms
128	TRINITY_DN68823_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms
129	TRINITY_DN81930_c5_g3_i2	Signal transduction mechanisms; Defense mechanisms
130	TRINITY_DN82504_c0_g1_i3	Defense mechanisms
131	TRINITY_DN83170_c0_g1_i1	Defense mechanisms
132	TRINITY_DN80536_c0_g2_i2	Defense mechanisms
133	TRINITY_DN76908_c1_g1_i1	Defense mechanisms
134	TRINITY_DN82111_c0_g1_i6	Signal transduction mechanisms; Defense mechanisms
135	TRINITY_DN78614_c2_g2_i2	Defense mechanisms
136	TRINITY_DN81990_c1_g4_i1	Defense mechanisms
137	TRINITY_DN76459_c0_g1_i5	Defense mechanisms
138	TRINITY_DN81568_c0_g1_i2	Extracellular structures; Defense mechanisms
139	TRINITY_DN73339_c0_g1_i1	Extracellular structures; Defense mechanisms
140	TRINITY_DN70324_c0_g1_i1	Defense mechanisms
141	TRINITY_DN74744_c3_g1_i1	Signal transduction mechanisms; Defense mechanisms
142	TRINITY_DN76265_c0_g1_i3	Signal transduction mechanisms; Defense mechanisms
143	TRINITY_DN81608_c4_g2_i1	Signal transduction mechanisms; Defense mechanisms
144	TRINITY_DN76344_c3_g1_i1	Defense mechanisms
145	TRINITY_DN71223_c0_g2_i1	Defense mechanisms
146	TRINITY_DN84063_c1_g4_i2	Signal transduction mechanisms; Defense mechanisms
147	TRINITY_DN87531_c0_g1_i1	Signal transduction mechanisms; Defense mechanisms

148	TRINITY_DN82458_c0_g2_i1	Extracellular structures; Defense mechanisms
149	TRINITY_DN81998_c1_g1_i8	Defense mechanisms
150	TRINITY_DN75743_c0_g1_i3	Signal transduction mechanisms; Defense mechanisms
151	TRINITY_DN76809_c0_g3_i1	Extracellular structures; Defense mechanisms
152	TRINITY_DN71026_c0_g1_i2	Signal transduction mechanisms; Defense mechanisms
153	TRINITY_DN79582_c0_g1_i1	Extracellular structures; Defense mechanisms
154	TRINITY_DN85012_c5_g3_i2	General function prediction only; Defense mechanisms
155	TRINITY_DN78363_c0_g1_i5	Defense mechanisms
156	TRINITY_DN72121_c0_g1_i1	Defense mechanisms
157	TRINITY_DN75700_c0_g1_i6	Extracellular structures; Defense mechanisms
158	TRINITY_DN73339_c0_g2_i5	Signal transduction mechanisms; Defense mechanisms
159	TRINITY_DN76492_c1_g2_i1	Extracellular structures; Defense mechanisms
160	TRINITY_DN73738_c1_g1_i1	Signal transduction mechanisms; Defense mechanisms
161	TRINITY_DN76265_c2_g1_i4	Defense mechanisms
162	TRINITY_DN83526_c0_g1_i1	Defense mechanisms

Note: Sequencing data that support the findings of this study have been deposited in the NCBI Sequence Read Archive (SRA) and are accessible under the SRA accession PRJNA588657.