

**S2 Table. Transcripts of *Pratylenchus penetrans* encoding predicted neuropeptides.** Blastx searches (E-value < 1e<sup>-5</sup>) were performed against the different neuropeptide homologues described for *Caenorhabditis elegans*.

**Predicted transcripts encoding FMRFamide-like peptides\***

FLPs	<i>C. elegans</i>	<i>Pratylenchus penetrans</i>		
		# of transcripts	E-value	High bitscore
<i>flp-1</i>	F23B2.5	1	6.47776E-11	60.08
<i>flp-3</i>	W07E11.2	1	4.55678E-13	65.08
<i>flp-5</i>	C03G5.7	1	3.03286E-08	50.83
<i>flp-6</i>	F07D3.2	1	1.82175E-14	70.86
<i>flp-7</i>	F49E10.3	1	1.98305E-21	90.12
<i>flp-11</i>	K02G10.4	6	5.71409E-13	63.93
<i>flp-13</i>	F33D4.3	2	0.00000345	43.90
<i>flp-14</i>	Y37D8A.15	1	1.86259E-22	91.28
<i>flp-16</i>	F15D4.8	1	2.37294E-13	65.86
<i>flp-18</i>	Y48D7A.2	1	3.86438E-14	70.09
<i>flp-22</i>	F39H2.1	1	2.59659E-14	67.01
<i>flp-34</i>	R09A1.5	1	1.14472E-10	58.54

\*Search for homologues of *flp-30* and *flp-31*, which are considered specific to plant-parasitic nematodes (sedentary species) was also performed, however, no matches were found.

**Predicted transcripts encoding non-Insulin, non-FLP like peptides**

FLPs	<i>C. elegans</i>	<i>Pratylenchus penetrans</i>		
		# of transcripts	E-value	High bitscore
<i>nlp-1</i>	C01C4.1	2	6.42728E-06	45.82
<i>nlp-2</i>	T24D8.5	1	7.29035E-16	74.71
<i>nlp-10</i>	F37A8.4	1	1.57597E-10	56.23
<i>nlp-12</i>	M01D7.5	1	1.06162E-14	68.55
<i>nlp-13</i>	E03D2.1	2	5.90155E-21	87.81
<i>nlp-15</i>	CC4.2	5	4.24961E-25	99.75
<i>nlp-37</i>	F48B9.4	1	1.36237E-07	48.52
<i>nlp-38</i>	C01A2.7	1	1.99889E-06	45.82
<i>nlp-40</i>	Y74C9A.2	1	1.38484E-09	57.38

**Predicted transcript encoding insulin-like peptides**

FLPs	<i>C. elegans</i>	<i>Pratylenchus penetrans</i>		
		# of transcripts	E-value	High bitscore
<i>ins-1</i>	F13B12.5	2	3.08858E-11	59.3066
<i>ins-17</i>	F56F3.6	1	1.13334E-07	49.2914
<i>ins-18</i>	T28B8.2	1	1.23396E-11	58.9214