

The Embryonic Development of the Cricket (*Gryllus Bimaculatus*) Nervous System

Sara Morcos, Class of 2024

Vj g'J qtej 'rxd'ku'lpvgtgungf 'lp'vj g'etkengv'o qf gnlu{ ugo . f wg'vq'vj g'lpvgtgukpi 'dgj cxkqt'etkengw r tqf weg'y kj 'c'tgrvkggn{ 'uko r ng'pgrxqwu'u{ ugo 0Cf f kxkqpcmf . uelgpvkuu'j cxg'i ckgpf 'cp'lpvgtguklp etkengw'dgecwug'r'j { rqi gpgvkecm{ . 'vj g' 'ctg'o qtg'emugnf tgrvxf 'vq'vj g'cpegutcnlkpugev'cu'qr r qugf 'vq'vj g gzvpuksgn{ 'uwf lgf 'f tqur j kr'cpf 'i tcuuj qr r gtu0D{ r gctpkpi 'o qtg'cdqw'vj g'r qqtntf 'lpxguki cvgf f gxgnr o gpv'qh'vj g'etkengv'egpvtcn'pgrxqwu'u{ ugo *EP U+'f gxgnr o gpv.'y g'ecp'eqpf we'vego r ctcvkg uwf lgu'hqgnkpi 'cv'vj g'f gxgnr o gpv'qh'j qmgo gvcdrmw kugevu'vq'w'pf gtucpf 'vj g'f hgtgpv'f gxgnr o gpv'cn r tqegu'vj g' 'w'pf gti q0

Vj g'i qcn'qh'o { 'r tq'gevy cu'vq'lpvgtgukpi cv'vj g'go dt { qple f gxgnr o gpv'qh'vj g'etkengv. *Gryllus Bimaculatus*0Ur gehkcmf . 'Khewugf 'qp'vj g'f gxgnr o gpv'qh'go dt { qple'ucni gu'80/; 0'F qpqw j g'gv'cn 4238+0'kp'qtf gt'vq'f'q'vj ku.'Khtuv'eqmgev'f 'gi i u rck' 'lp'etkengv'dkpu'cpf 'ugv'w' 'y q'v'gu'eqpf kxkpu'r qngf *gzr g'klo gpv'cn'cpf 'wpr qngf '*eqpvtqn'go dt { qu0'kp'qtf gt'vq'ecre'w'v'w'xk'cn'c'v'g. 'vj g'g'p'x'k'q'p'o gpv'cn eqpf kxkpu'hq'r' r qngf 'cpf 'wpr qngf 'go dt { qu'tgo ckgpf vj g'uco g0Vj cv'ku.'dq'vj 'y g'tg'r w'lp'y gnr' r'v'gu'y kj J GRGU'Dw'htgf 'U'cn'pg'*J DU+'U'q'nw'k'p'y kj '3' 'R'g'p'k'k'p/U't'gr'v'qo { ekp *RIU+'y kj 'vj g'gzr g'klo gpv'cn r v'g'd'g'kpi 'vj g'go dt { qu'r qngf 'y kj 'cp'lp'g'ev'k'p'p'ggf r'g'0Q'p'eg'gp'q'w' j 'eqpvtqn'y g'tg'eqmgev'f .''ucpf r'v'gu'qh'w'pr qngf 'go dt { qu'y g'tg'ugv'w' 'r w'gn' 'hqt'x'k'w'cr'k' c'v'q'p vj tq'w' j 'cp'k'o o w'p'q' k'v'q'ej go knt { *K E+ r tqegf wtg0

Cv'htuv'cej l'g'x'kpi 'c'w'x'k'cn'c'v'g.'r'ct'v'w'cr'ntf hqt'vj g'r qngf 'go dt { qu.'y cv'y cu'qp'r'ct'y kj r t'g'x'k'w'u'w'f l'gu'y cu't'len'f 0R'w'd'ec'v'k'p'u'w'ej 'cu Dctt { 'g'v'cn'lp'f'k'ec'v'g' ' 'gf'gg' f`c`k`b'q'ng'f'q'f'ev' k'f'd'ew'cf'y'c'j'c`k`b'w'k'k'q'p'

o qtg'htgs wgpv'f . 'x'ki k'cp'v'f 't'go q'x'kpi 'f'g'cf 'gi i u.'c'p'f' c'ng'tkpi 'vj g'r qn'kpi 'gti q'p'qo leu.'c'm'y g'f 'c'w'x'k'cn'c'v'g'qh'34: B84*9; 023" +hqt'vj g'r qngf 'go dt { qu0

Qpeg'y g'cu'gu'ugf 'w'x'k'cn'c'v'g'u.'y g'd'gi cp'go dt { qple f ku'ge'v'k'p'u'q'p'f'c { u'5/8'ch'gt'vj g'gi i u'y g'tg rck' y j lej 'eqtt'gur q'p'f'g'f 'vq'vj g'gi i 'ucni gu'y g'y g'tg'lpvgtgungf 'lp'0'Vj g'f ku'ge'v'g'f 'go dt { qu'y g'tg'h'z'g'f 'cpf w'pf g'ty gpv'cp'K E'uc'k'p'kpi 'lp'q'f'g't'vq'x'k'w'cr'k' g'vj g'f gxgnr kpi 'p'g'w'q'p'u0

Qw't'gu'w'u'eq'p'ht'o g'f 'c'f'gxgnr kpi 'EP U'y j g'tg'y g'eq'w'f' x'k'w'cr'k' g'vj g'd't'c'k'p.'vj g'vj t'g'g'vj q't'ce'le i cpi r'c.'c'p'f'c'm'ly g'c'd'f'qo k'p'cn'i cpi r'c'00 q'x'kpi 'h'q'ty c'tf . y g'j' q'r g'v'q'eqo r'ng'v'vj g'go dt { qple'k'o g'r'p'g'hqt vj g'w'pr qngf 'cpf 'r'qngf 'eq'p'f'k'k'p'u'q'p'f'c { u'6/8'CO' (RO +0'H'w'v'j g'to qtg.'d' { 'w'pf'g't'uc'p'f'kpi 'vj g'p'q'to c'n f'gxgnr o gpv.'y g'ecp'd'gi k'p'v'q'o c'p'k'w'v'g'r' t'g'x'k'w'cr'k' e'j'c't'c'ev'g't'k'g'f' 'i'w'k'c'p'eg'o q'ng'ew'g'u'np'q'y p'cu u'go c'r j q't'k'p'u0U'go c'r j q't'k'p'u'r'c' { 'c't'q'g'lp'EP U'c'ue'k'w'v'k'p'p'f' 'r' t'g'x'g'p'v'c'd'p'q'to c'n'o k'f' r'p'g'et'q'u'k'p'i 0U'q. d' { 'np'q'cn'kpi 'f'q'y p'vj g'ug'o q'ng'ew'g'u'w'uk'p'i 'f'q'w'd'g'w'c'p'f'g'f' T'P'C.'y g'ecp'c'p'cn' | g'vj g'eq'p'ug's w'g'p'v'k'o r'c'ew'k'v j'cu'q'p'vj g'et'k'eng'w'EP U' ('R'P'U'f'gxgnr o gpv'c'p'f'eq'p'p'g'ev'k'v'q'vj g'q'x'g't'c'm'is w'g'v'k'q'p'vj g'rd'ku'eq'p'eg't'p'g'f y kj . 'u'w't'q'w'p'f'kpi 'vj g'w'p'w'w'c'n'r' r'w'v'ek'v' { 'vj k'u'q'ti c'p'k'u'o j'cu0

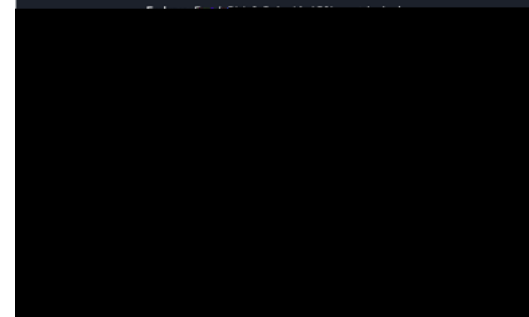


Figure 1. An IHC stain of a day 6 pm embryo, depicts the development of the ventral nerve cord ladder. abdominal

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References:

F qpqwi j g'U.'Gzvcxqwt'EI 042380Go dt { qple'f gxgrq o gpvqh'vj g'etlengv *Gryllus bimaculatus*.
F gxgrq o gpvcn'Dkqri {0633*3+362/3780