

**S1 Table. List of *C. elegans* strains used in this study**

| Strain Name | Genotype  | Description   |
|-------------|---|---|
| VC2010      | Wild type   | Wild type   |
| UDN100185   | <i>unc-116(udn42)/qC1 [dpy-19(e1259) glp-1(q339)] nls189 III</i>  | Control-edited allele T90T #1.<br><i>nls189 [myo-2p::GFP]</i><br>integrated in or near <i>qC1</i> . |
| UDN100082   | <i>unc-116(udn44)/qC1 [dpy-19(e1259) glp-1(q339)] nls189 III</i>  | Variant-edited allele T90I #1.  |
| UDN100083   | <i>unc-116(udn45)/qC1 [dpy-19(e1259) glp-1(q339)] nls189 III</i>  | Variant-edited allele T90I #2.  |
| UDN100169   | <i>unc-116(gk5722udn86)/qC1 [dpy-19(e1259) glp-1(q339)] nls189 III</i>  | Null deletion.  |
| NM5340      | <i>jsSi1579 [loxP rpl-28p FRT GFP::his-58 FRT3] II; unc-119(ed3) III;</i><br><i>bqSi711 [mex-5pFLP sl2 mNeon Green] IV</i>    | RMCE landing site [1]   |
| UDN100201   | <i>jsSi1579 jsSi1606 [unc-116(+)] II</i>  | <i>unc-116(+)</i> single copy insertion.  |
| UDN100221   | <i>jsSi1579 jsSi1606 [unc-116(+)] II; unc-116(udn42) III</i>  | T90T with extra copy <i>unc-116</i>   |
| UDN100222   | <i>jsSi1579 jsSi1606 [unc-116(+)] II; unc-116(udn45) III</i>  | T90I with extra copy <i>unc-116</i>   |
| UDN100242   | <i>jsSi1579 jsSi1606 [unc-116(+)] II; unc-116(gk5722udn86) III</i>  | Null with extra copy <i>unc-116</i>   |
| NM2271      | <i>jsls609 [mec7p::mtGFP + lin-15(+)] lin-15(n765) X</i>  | GFP-tagged mitochondria expressed in TRNs [2]   |
| UDN100238   | <i>unc-116(udn42)/qC1 [dpy-19(e1259) glp-1(q339)] nls189 III; jsls609</i><br><i>[mec7p::mtGFP + lin-15(+)] lin-15(n765) X</i> | T90T with GFP-tagged mitochondria.  |
| UDN100239   | <i>unc-116(udn45)/qC1 [dpy-19(e1259) glp-1(q339)] nls189 III; jsls609</i><br><i>[mec7p::mtGFP + lin-15(+)] lin-15(n765) X</i> | T90I with GFP-tagged mitochondria.  |

## References:

1. Nonet M. Additional Landing Sites for Recombination-Mediated Cassette Exchange in *C. elegans*. *MicroPubl Biol.* 2021;2021. Epub 2021/12/23. doi: 10.17912/micropub.biology.000503. PubMed PMID: 34934910; PubMed Central PMCID: PMCPMC8678631.
2. Mondal S, Ahlawat S, Koushika SP. Simple microfluidic devices for in vivo imaging of *C. elegans*, *Drosophila* and zebrafish. *J Vis Exp.* 2012;(67). Epub 2012/10/12. doi: 10.3791/3780. PubMed PMID: 23051668; PubMed Central PMCID: PMCPMC3490237.