

Novel *SPG11* mutations in Asian kindreds and disruption of spatacsin function in the zebrafish. *Neurogenetics*

Laura Southgate; Dimitra Dafou; Jacqueline Hoyle; Nan Li; Esther Kinning; Peter Critchley; Andrea H. Németh; Kevin Talbot; Parayil S. Bindu; Sanjib Sinha; Arun B. Taly; Seetharam Raghavendra; Ferenc Müller; Eamonn R. Maher; Richard C. Trembath

Corresponding Author:

Prof. Richard C. Trembath

King's College London School of Medicine

Email: richard.trembath@kcl.ac.uk

Supplementary Fig. 1 Anti-acetylated α -tubulin staining of whole embryos at 52 hpf, demonstrating specificity of the observed phenotype.

a, b Ventral view of the brain. **a** spg11E2I2 mismatch (mm) control morpholino injected embryos show a normal staining pattern of the CNS compared to embryos injected with the spg11E2I2 target morpholino (**b**). **c-e** Lateral view of the trunk, showing the spinal motor neuron axons. At the target dose, mismatch control embryos (**d**) are comparable to uninjected controls (**c**), compared to the spg11E2I2 morphants (**e**), which show impaired neuronal orientation and projection. **f-j** Embryos injected with the spg11E4I4 morpholino show a similar staining pattern to the spg11E2I2 injected embryos. With increasing concentrations, a more severe truncation and disorganization of the spinal motor neuron axons was observed.

