

Supplementary Materials

A Plant Model of α -Synucleinopathy: Expression of α -Synuclein A53T Variant in Hairy Root Cultures Leads to Proteostatic Stress and Dysregulation of Iron Metabolism

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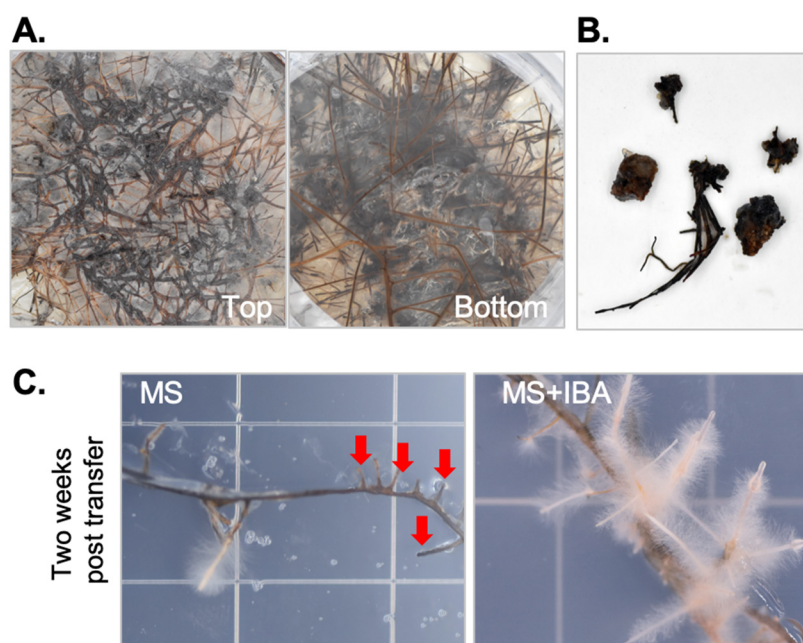


Figure S1. Growth characteristic of the *P. multiflorum* HR cultures. (A). The images illustrate a representative petri plate containing two-month-old cultures grown on MS media. Both top and bottom views are provided to highlight the HRs' limited ability to penetrate the media and their increased tendency to adhere to the air. (B). Calli formation observed in older *P. multiflorum* HR cultures. (C). The impact of auxin IBA (10 μ M) on the growth of *P. multiflorum* HR cultures is demonstrated. As expected, IBA heightened the density and robustness of newly formed roots. However, the addition of IBA did not influence other growth characteristics (e.g., those illustrated on panels (A) and (B) of the *P. multiflorum* HR cultures. Arrows indicate arrested (quiescent) lateral roots. It is important to note that plant hormones play a significant role in shaping the profile of secondary metabolites [28]. For example, auxins are known to be involved in the synthesis of various alkaloids, flavonoids, and phenolics. Thus, whereas cultivating *P. multifloru* HR on media without auxin limits the amount of analyzable tissue, it is still a preferred method of cultivation as it ensures that effects of the expression of α Syn remain the sole factor influencing the biosynthesis of secondary metabolites.