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Impact of the acidic C-terminal region comprising amino acids 109-140 on α-synuclein aggregation *in vitro*

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FIGURE S1 (next 2 pages): Original data and fits of the aggregation kinetics for all constructs/conditions. The measured ThioT emission at 480 nm, normalized with the same factor as the derived fit to yield $\alpha[\infty]=1$, is given in filled circles with one color for each of the triplicate repeats. The corresponding fit is given as a solid line in the identical color. Averaged fits are given in black and represent averages of the three individual fits averaged in the form $t[\alpha]$. Static light scattering data is given for all experiments in 25 mM Tris-HCl, pH 7.5, 150 mM NaCl (empty squares) (fits are derived from ThioT data under this condition), and for the full-length proteins in 25 mM Tris-HCl, pH 7.5, 10 mM $MgCl_2$ (filled circles) (see text for details).

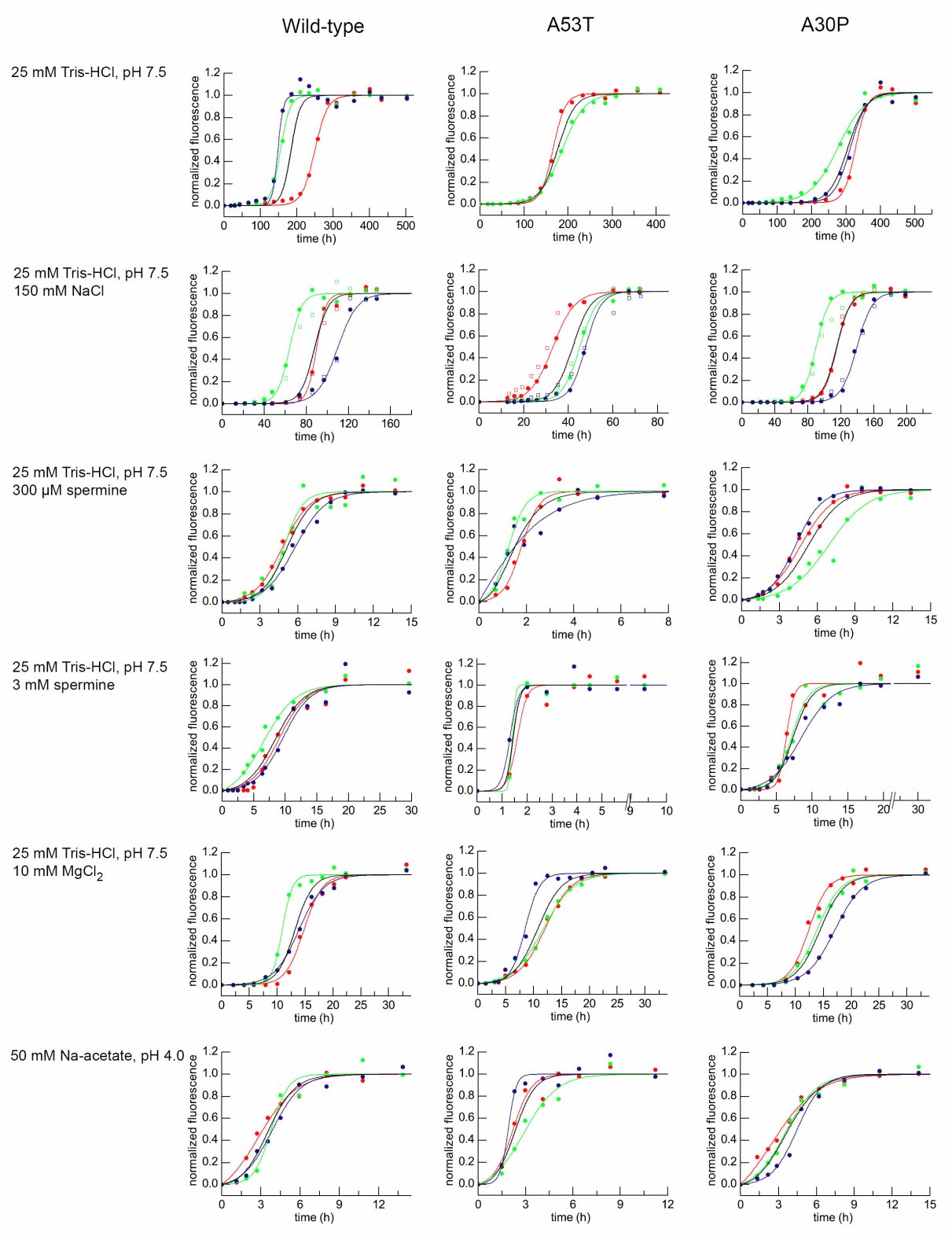
Wild-type
A53T
A30P
25 mM Tris-HCl, pH 7.5
25 mM Tris-HCl, pH 7.5
150 mM NaCl
25 mM Tris-HCl, pH 7.5
300 µM spermine
25 mM Tris-HCl, pH 7.5
3 mM spermine
25 mM Tris-HCl, pH 7.5
10 mM MgCl2
50 mM Na-acetate, pH 4.0
normalized fluorescence
time (h)

Fig. S1 (part 1)

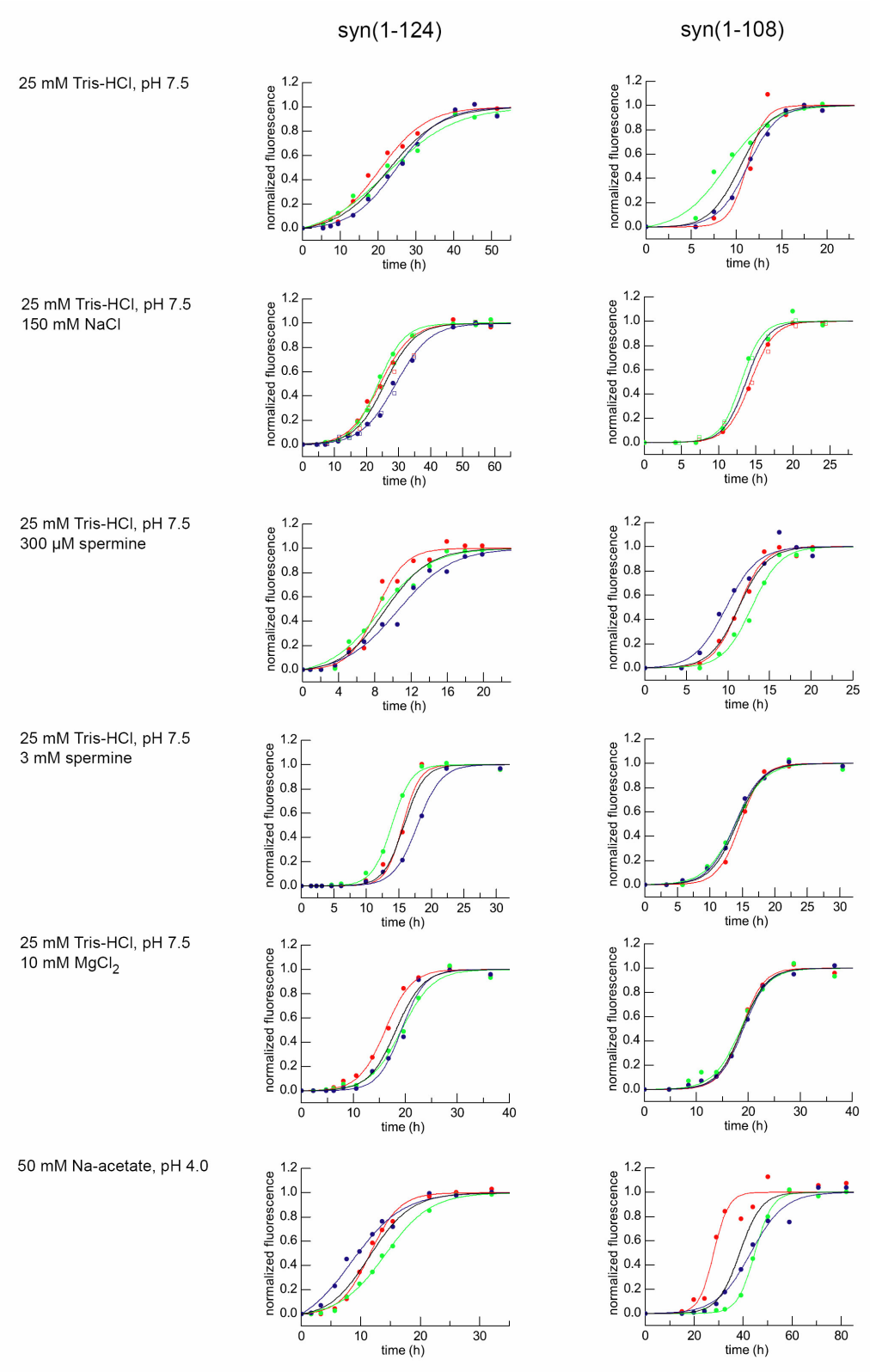
syn(1-124)
syn(1-108)
25 mM Tris-HCl, pH 7.5
25 mM Tris-HCl, pH 7.5
150 mM NaCl
25 mM Tris-HCl, pH 7.5
300 µM spermine
25 mM Tris-HCl, pH 7.5
3 mM spermine
25 mM Tris-HCl, pH 7.5
10 mM MgCl2
50 mM Na-acetate, pH 4.0
normalized fluorescence
time (h)

Fig. S1 (part 2)

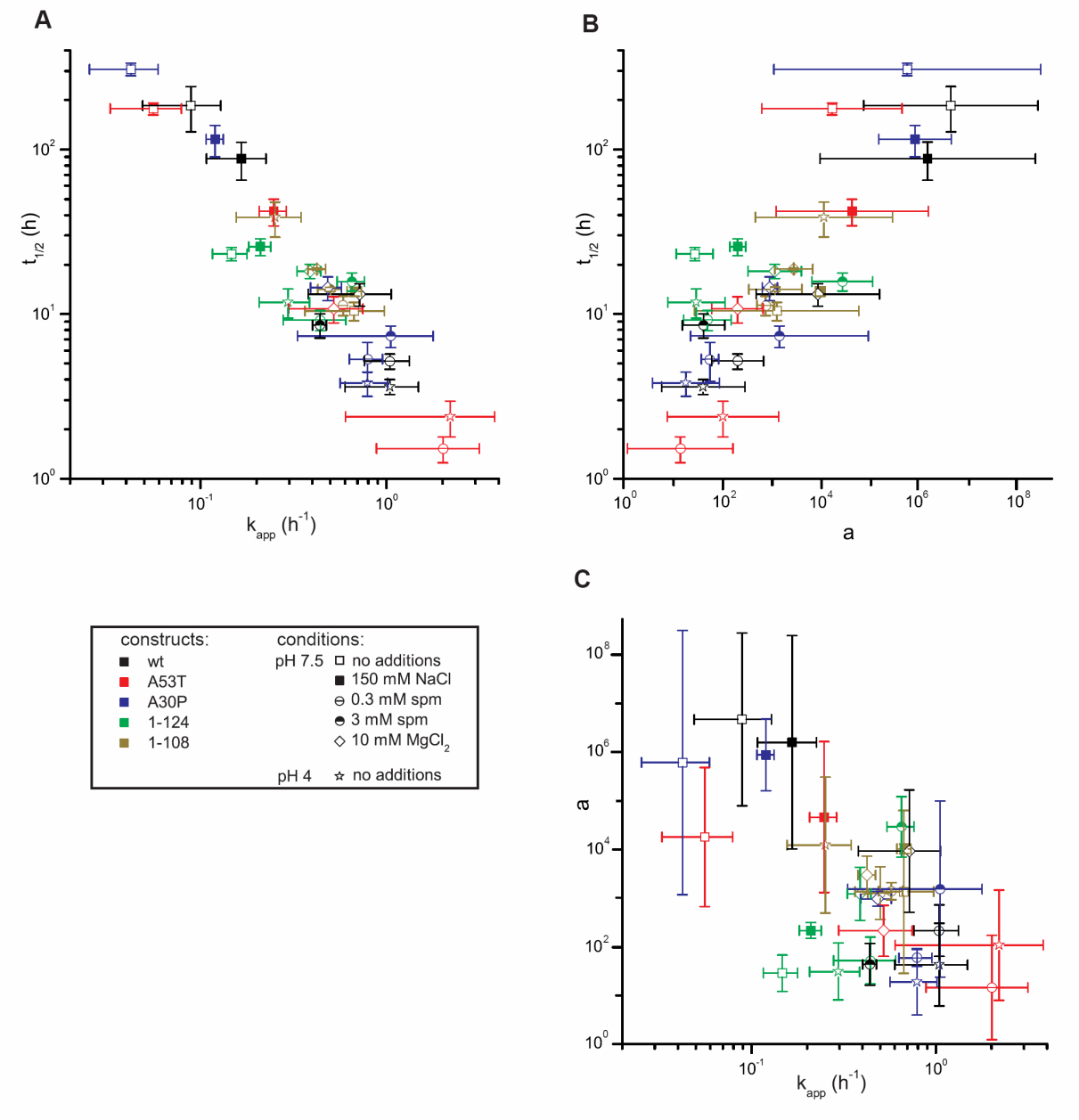

FIGURE S2: Various representations of the correlation between the $t_{1/2}$ values, the aggregation growth rate k_{app} and the constant a reflecting the nucleation propensity. Note that $t_{1/2} \cong \frac{\ln[a]}{k_{app}}$. Averaged values obtained from triplicate measurements. Values for the A53T mutant at 3 mM spermine not shown as they were poorly defined by the experimental data. Errors in s.d. units.

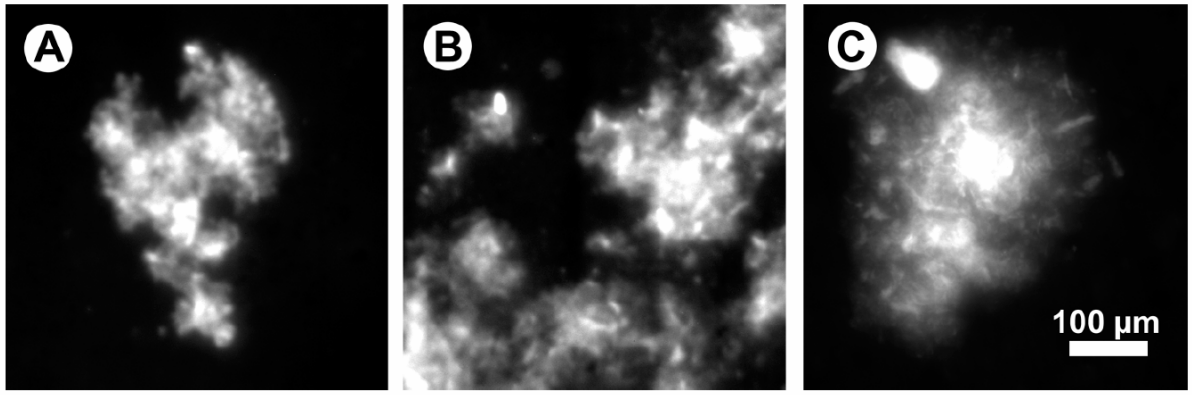

FIGURE S3: Fluorescence microscopy of α-synuclein aggregates formed from (A) syn(1-108) and (B,C) wild-type α-synuclein. Incubation conditions, 100 µM protein in (A) 25 mM Tris-HCl, pH 7.5, (B) 25 mM Tris-HCl, pH 7.5, 150 mM NaCl, (C) 25 mM Tris-HCl, pH 7.5, 0.3 mM spermine.