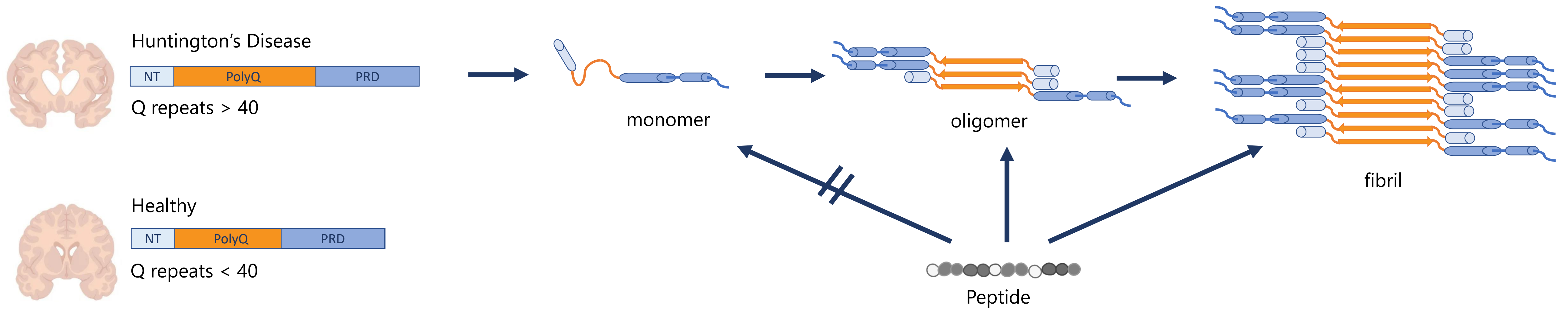


Peptide-based strategy to target Huntingtin fibrils

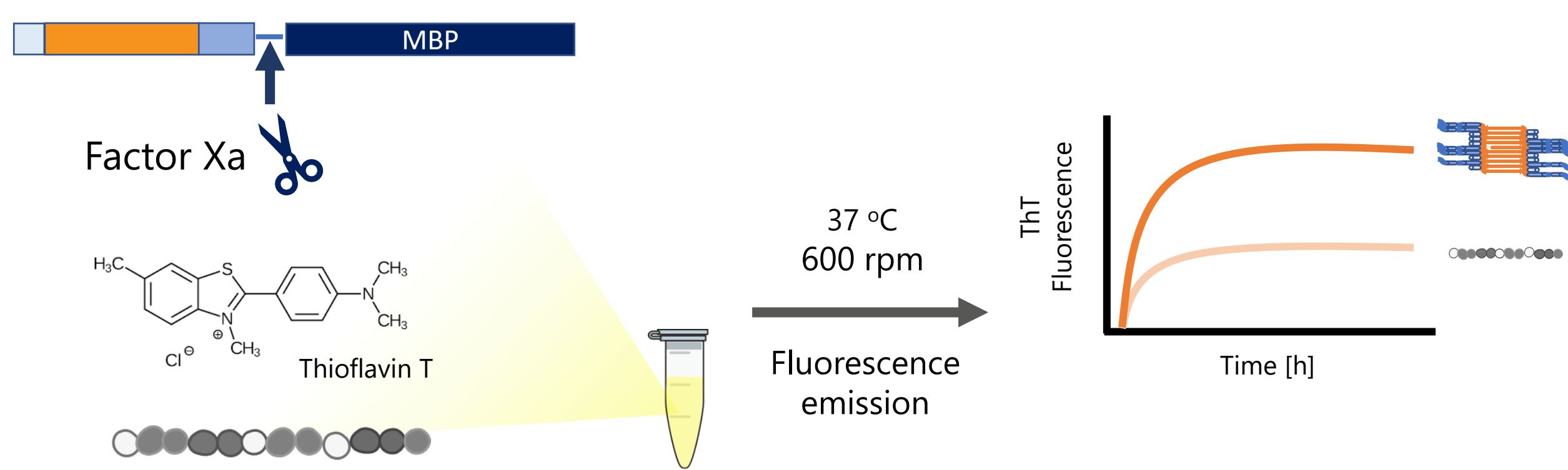
Françoise A. Dekker^{1,2}, Guy Mayer³, Júlia Aragonès Pedrola^{1,2}, Tommaso Garfagnini^{3,4}, Assaf Friedler³, Stefan G. D. Rüdiger^{1,2} f.a.dekker@uu.nl

HOW CAN WE TARGET HUNTINGTIN FIBRILS?

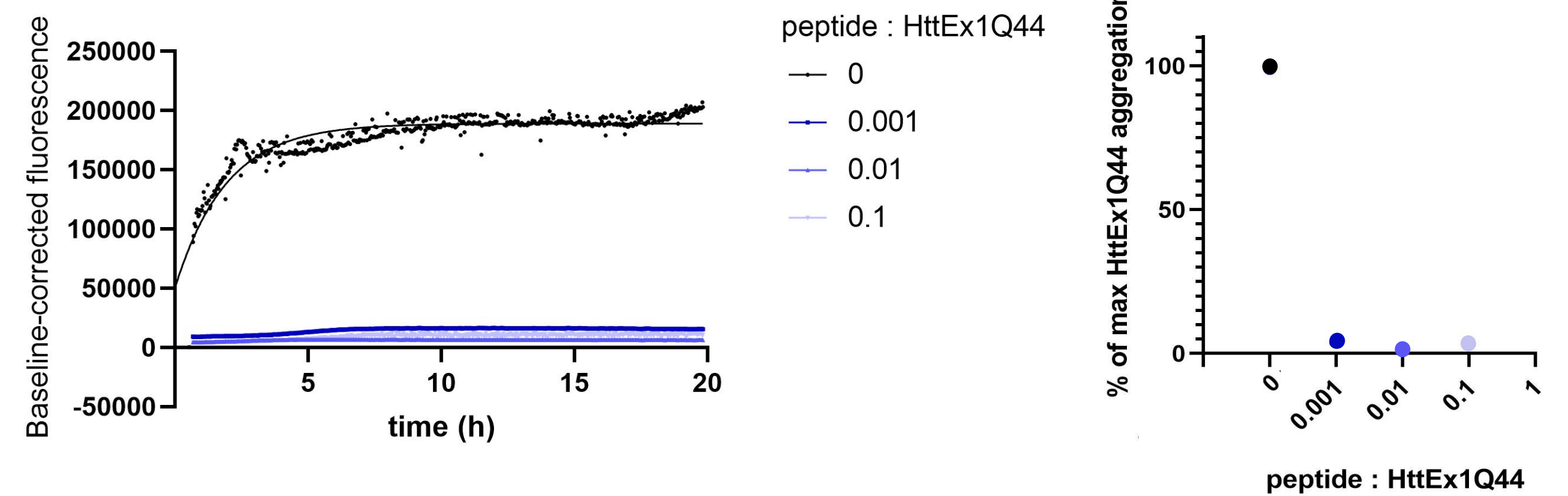


CAN WE INHIBIT HUNTINGTIN AGGREGATION?

THIOFLAVIN T (ThT) ASSAY

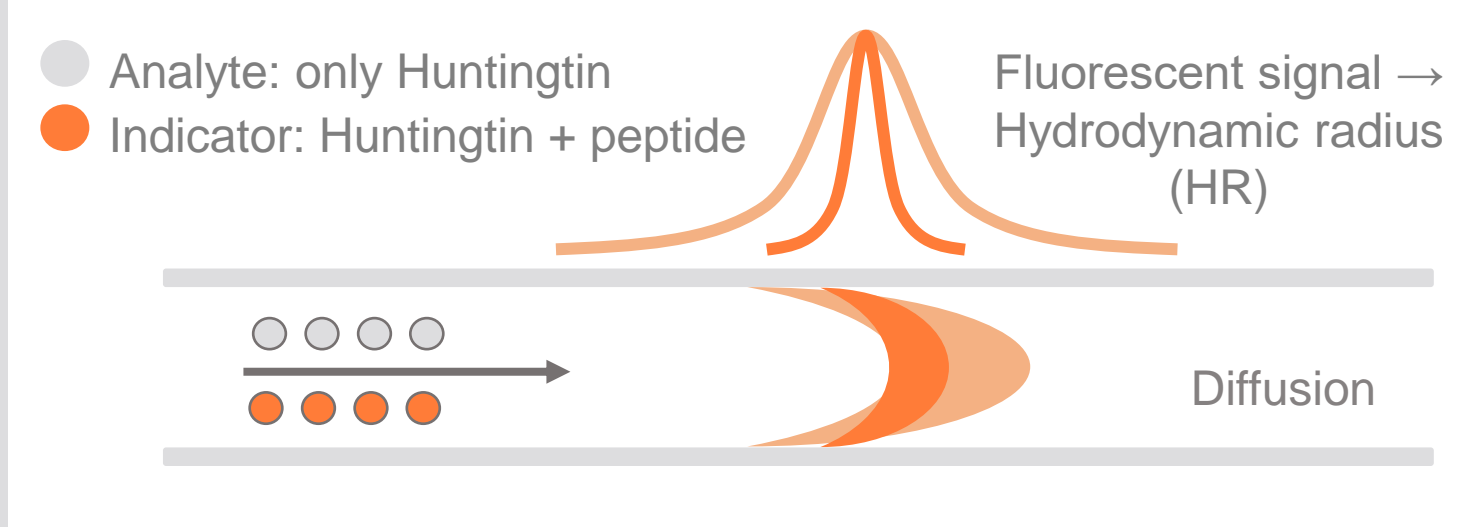


PEPTIDE INHIBITS HttEX1Q44 AGGREGATION

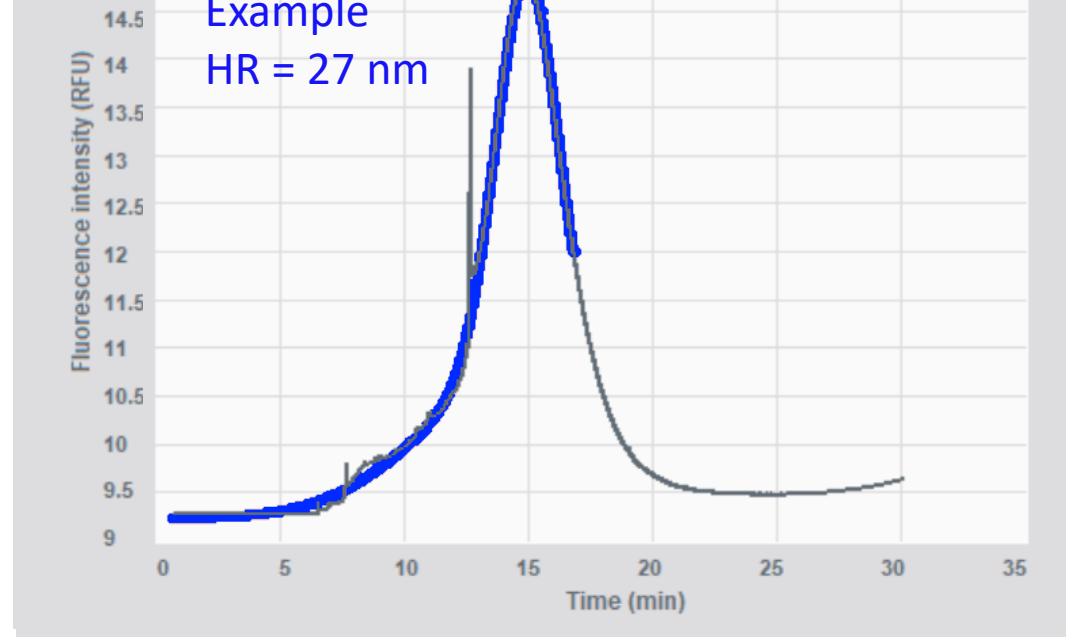


CAN WE DETERMINE THE INHIBITION EFFECT ON HUNTINGTIN FIBRIL SIZE?

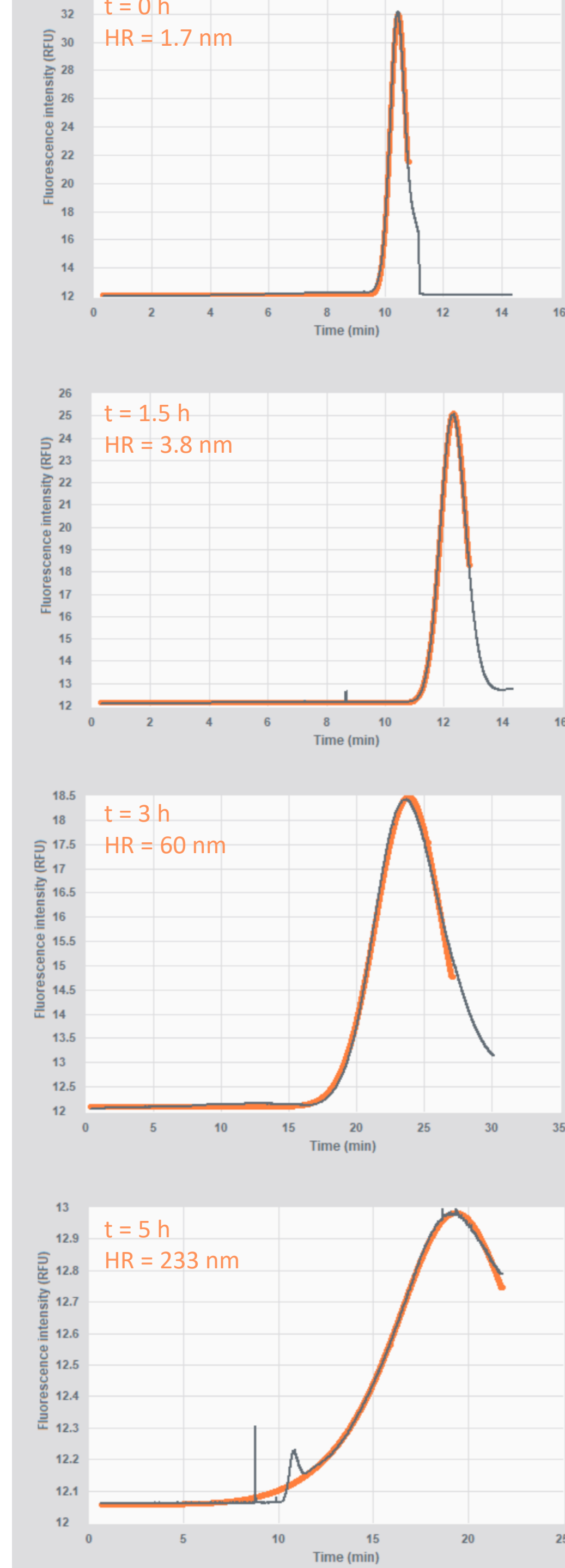
FLOW INDUCED DISPERSION ANALYSIS (FIDA) PRINCIPLE



INHIBITING AGGREGATION



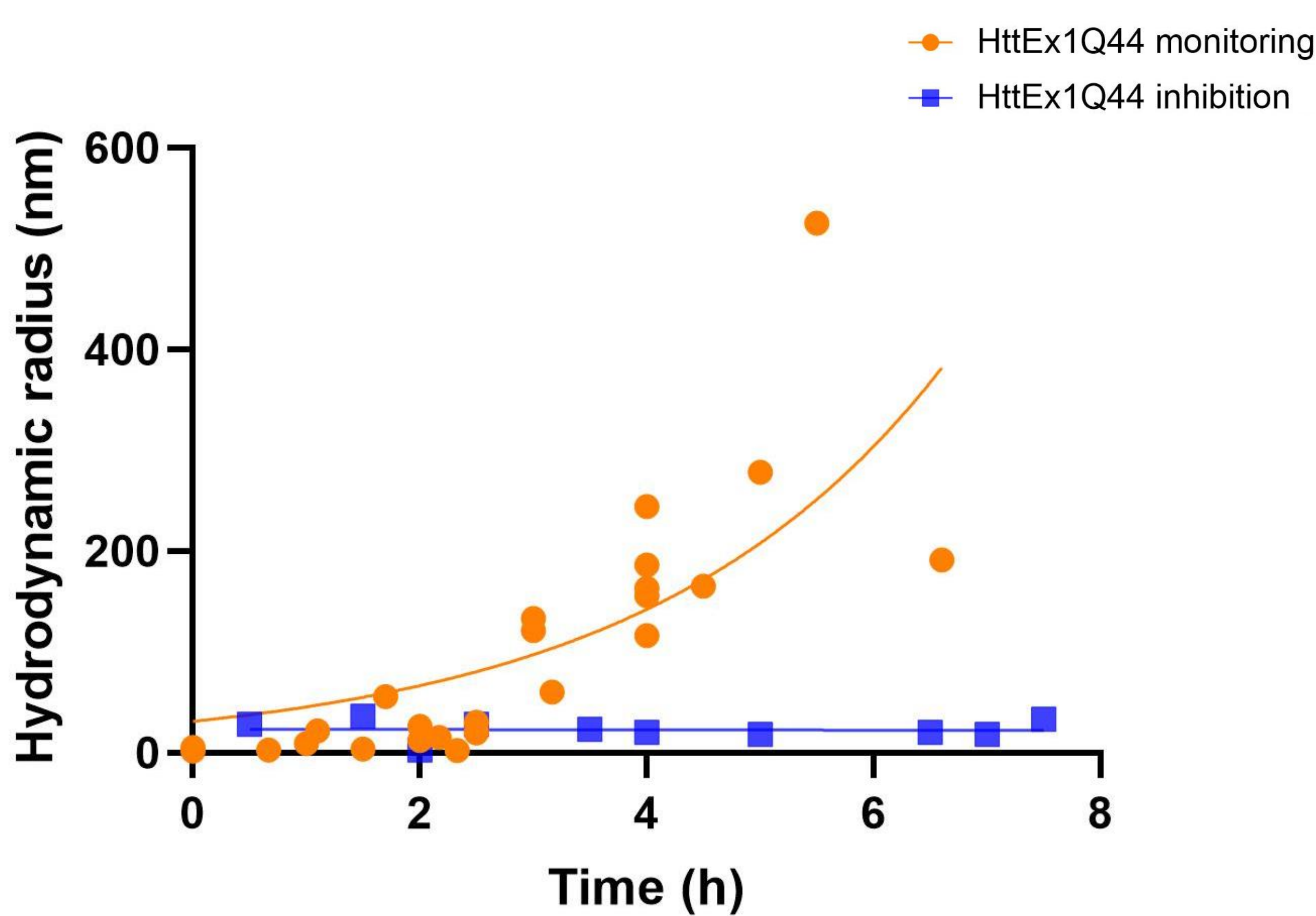
MONITORING AGGREGATION



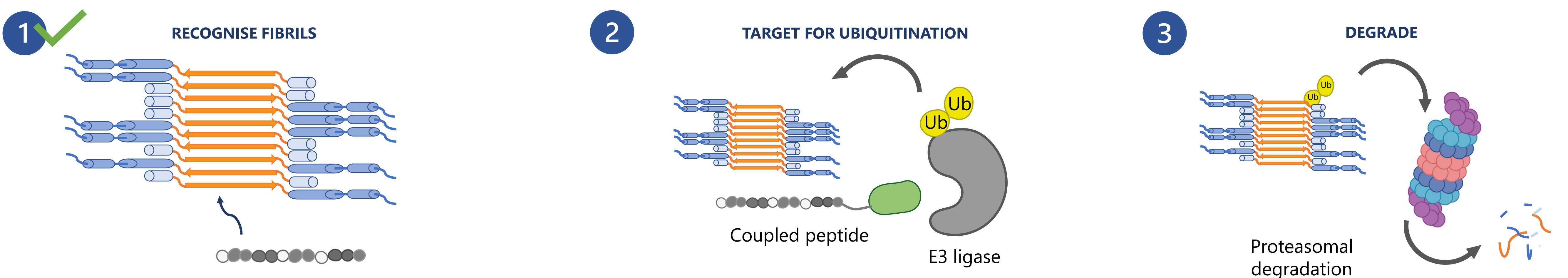
CONCLUSIONS

- ✓ **STAINING FIBRILS**
- Visible for FIDA measurement
- ✓ **MEASURING FIBRIL SIZE**
- HR max measured: 500 nm
 Fibrils grow exponentially
- ✓ **DESIGNER PEPTIDE INHIBITS AGGREGATION**
- HR = 2 nm folded
 3 nm unfolded
- HR = +/- 27 nm
 9-15 monomers

PEPTIDES TO MONITOR AND INHIBIT AGGREGATION



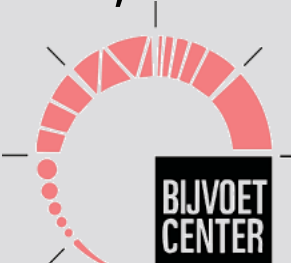
HOW DO WE ENVISION OUR NEXT STEPS?



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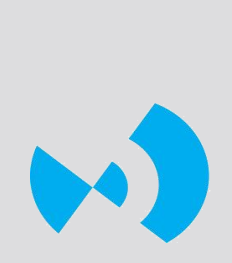
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