

Supporting information for

Label-free methods for probing the interaction of Clioquinol with Amyloid- β

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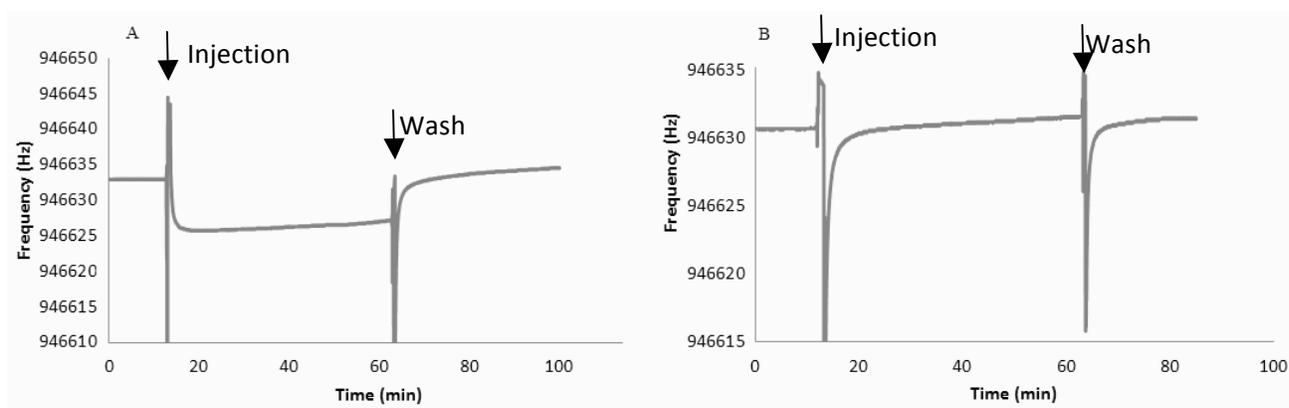


Figure S1. Typical frequency against time graphs of PBS incubated quartz crystal being perturbed by A) 2 μM A β 1-42 monomers and B) 10 μM CQ only, showing negligible net frequency changes after PBS wash. The two vertical lines indicate the injection of the samples onto the quartz crystal surface and subsequent PBS wash after 50 min.

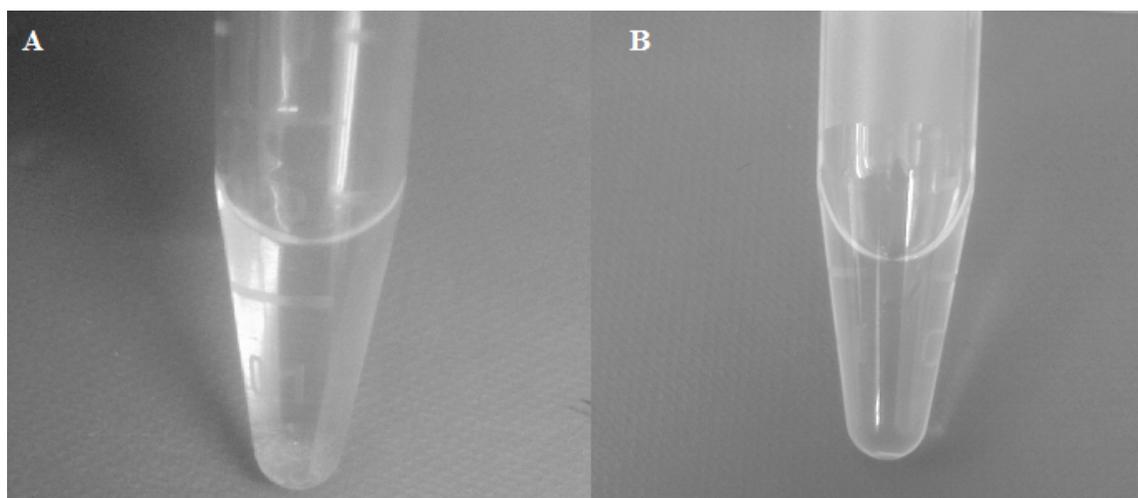


Figure S2. A) Fibril aggregates formed at the bottom of micro-centrifuge tube. B) Solution turned clear after sonication, indicating the breaking up of fibrils into soluble seeds.

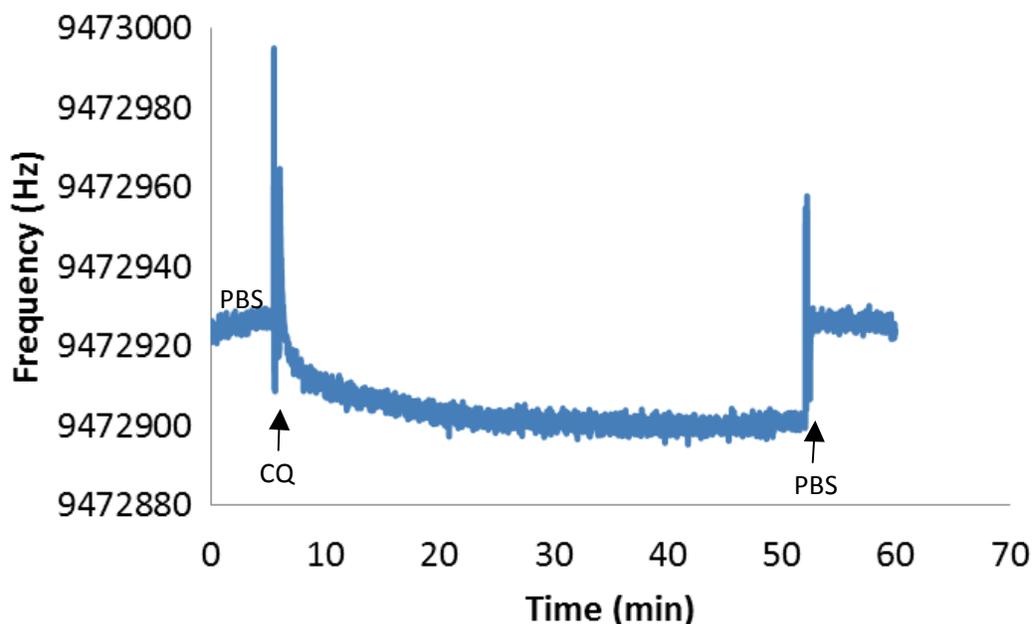


Figure S3. 10 μ M CQ introduced across the immobilized seed surface to show no changes in frequency values.

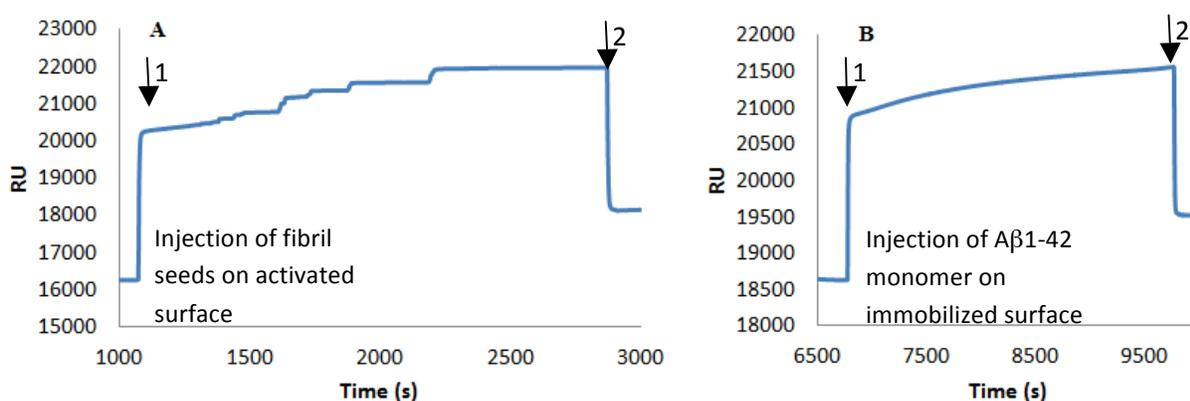


Figure S4. SPR sensorgram of resonance units (RU) against time showing a (1) sudden increase in RU due to the switch of buffer due to the injection of samples and subsequent (A) stepwise increase in RU during fibril fragment immobilization and (B) constant increase in RU for A β 1-42 monomer injection. The (2) drop in RU was due to the injection of running buffer.

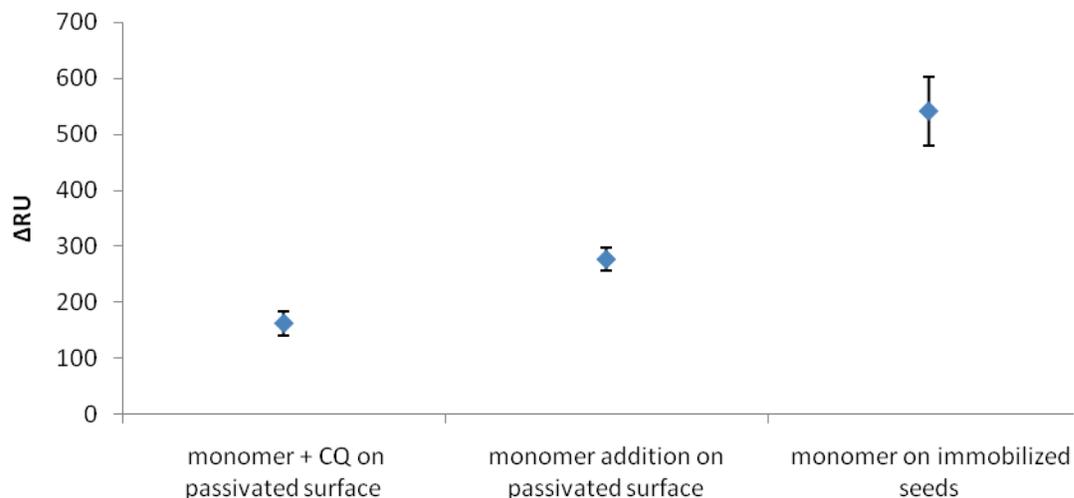


Figure S5. RU dependence on the modifications of the seed-immobilized biochip surface.

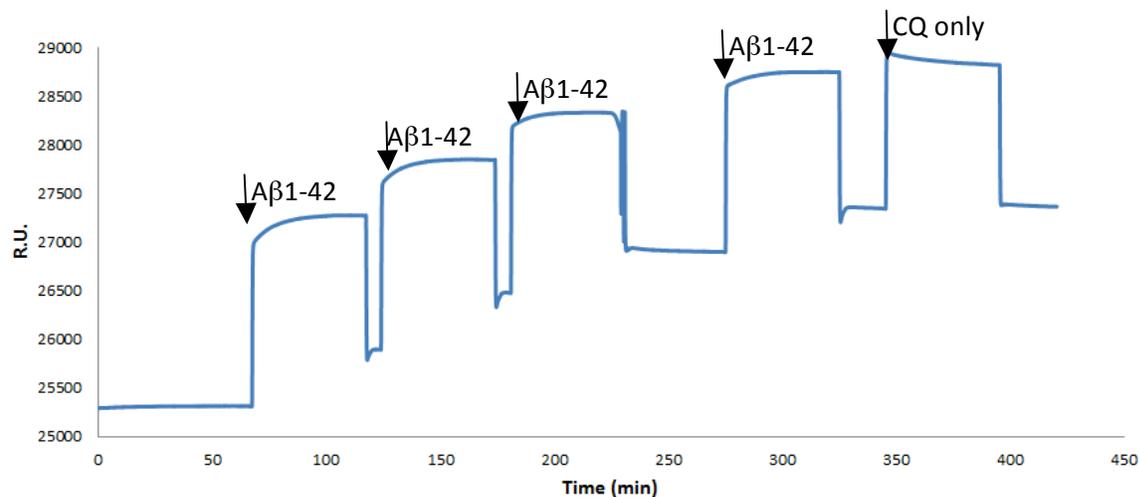


Figure S6. SPR sensorgram of RU against time showing serial injections of 2 μM $\text{A}\beta\text{1-42}$ monomer causing a consistent increase in RU and 10 μM CQ injection resulting in a negligible increase of RU on a 15 μM fibril-seed immobilized surface.

Table S1. Frequency dependence of control measurements on TSM-AWS.

Sample	Surface modification	Net Δ Frequency (Hz)
10 μM CQ	EDAC / NHS activated – EA passivated	-1 ± 5
2 μM $\text{A}\beta\text{1-42}$ + 10 μM CQ	EDAC / NHS activated – EA passivated	-3 ± 7
10 μM CQ	Seed immobilized – EA passivated	-3 ± 10
2 μM $\text{A}\beta\text{1-42}$	Seed immobilized – EA passivated	-46 ± 7
2 μM $\text{A}\beta\text{1-42}$ + 10 μM CQ	Seed immobilized – EA passivated	-6 ± 9