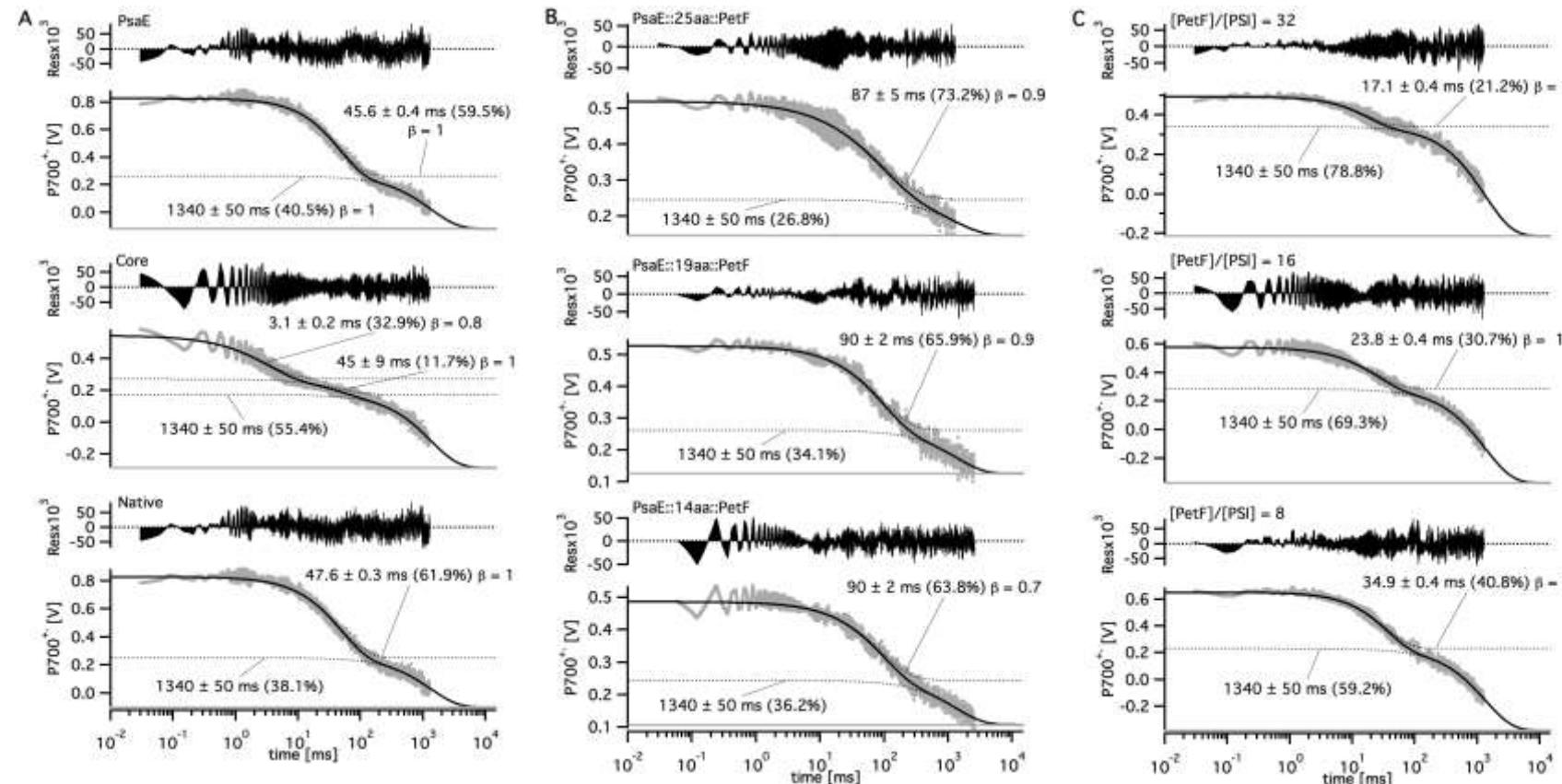


## Accelerated electron transport from photosystem I to redox partners by covalently linked ferredoxin

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### Supplementary Information



**Fig. S1: P700<sup>+</sup> charge recombination of stripped and reconstituted photosystem I complexes.** P700<sup>+</sup> decay profile following a saturating pulse of white light (grey) were globally fitted to two or three stretched exponential decay curves sharing the long decay lifetime among all decay curves. Each graph represents the average of four measurements. Solid and dotted black lines represent the fitted curve and its individual decay components. Labels mark the lifetime, relative amplitude and stretch factor ( $\beta$ ) for each component. (A) Native and stripped core PSI, and core reconstituted with native PsaE. (B) Core reconstituted with PsaE::14:aa:PetF, PsaE::19:aa:PetF, and PsaE::25:aa:PetF. (C) Core reconstituted with PsaE in the presence of 8, 16, and 32 fold molar excess of soluble PetF.