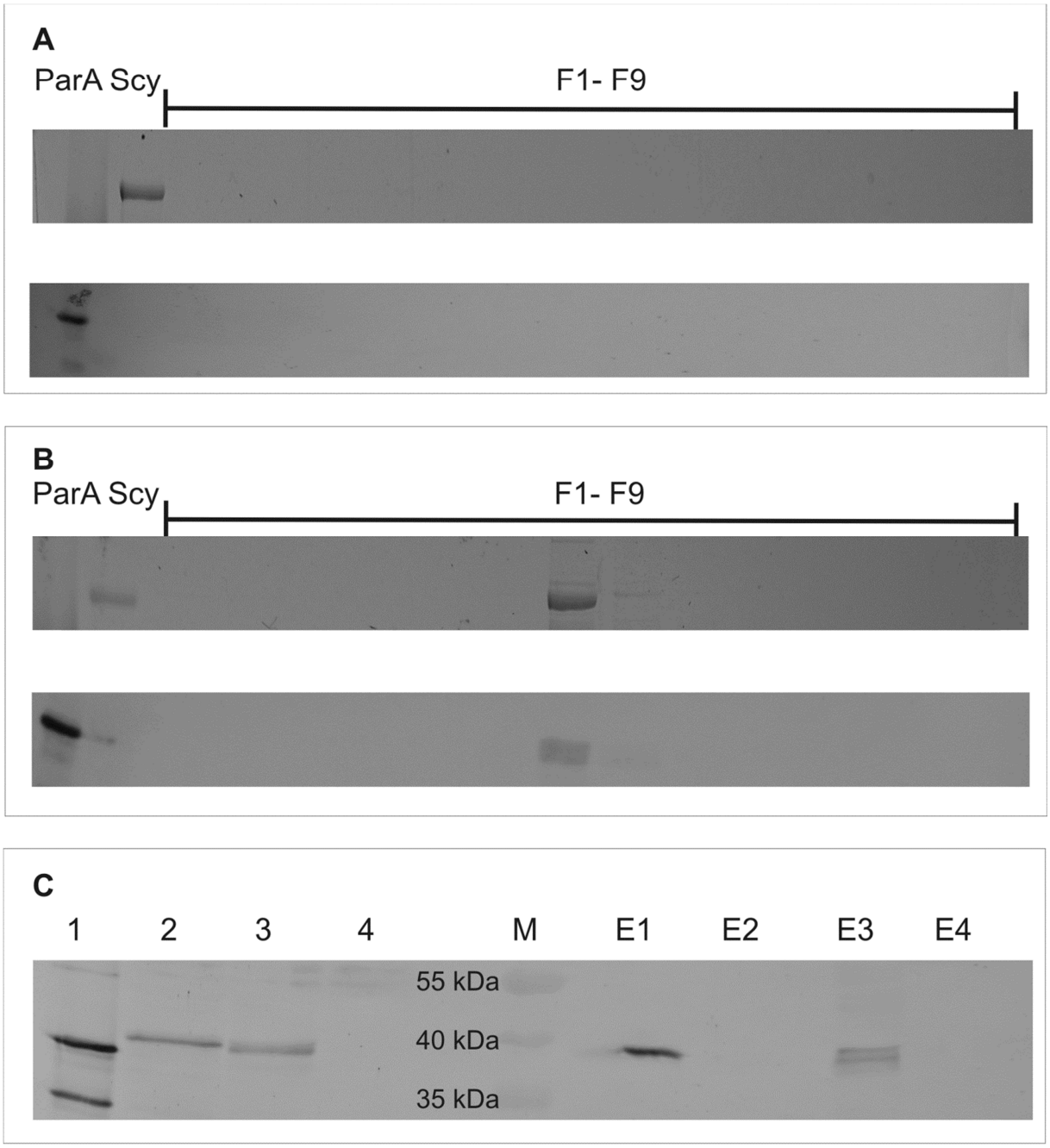

Fig. S1

Fig. S1. Co-purification of 6His-Scy with ParA and ParA$_{Scy-}$ from *S. coelicolor* and the control experiments.

A. The control negative experiment for ParA-Scy co-purification using metal-ion affinity chromatography performed with the extract of thiostrepton-induced strain BD11 (M145pCJW93) strain showing no unspecific interaction of ParA and Scy with the Ni-NA resin. Top panel SDS-PAGE, bottom panel Western-blotting with anti-ParA antibody.

B. Co-purification of $ParA_{Scy-}$ with 6His-Scy from the extract of thiostrepton-induced strain BD10 ($ParA_{Scy-}$, pCJW93p_{tipA}*his-scy*) using metal-ion affinity chromatography. Top panel SDS-PAGE, bottom panel Western-blotting with anti-ParA antibody.

C. Comparison of the efficiency of co-purification of ParA and $ParA_{Scy-}$ with 6His-Scy. Western-blotting with anti-ParA antibody of the selected elution fractions. The same amount of the protein was loaded from elution fraction of M145pK48 and from BD10. 1, purified ParA protein; 2, cell extract of M145pK48 (M145pCJW93p_{tipA}*his-scy*) strain; 3, cell extract of BD10 ($ParA_{Scy-}$, pCJW93p_{tipA}*his-scy*) strain 4, cell extract of J3306 (*ΔparA* strain); M, marker; E1, imidazole elution fraction of M145pK48 (M145pCJW93p_{tipA}*his-scy*) – positive result; E2, imidazole elution fractions of BD11 (M145pCJW93) – negative control; E3, imidazole elution fractions of BD10 ($ParA_{Scy-}$, pCJW93p_{tipA}*his-scy*) – weakened interaction; E4 imidazole elution fractions of BD12 ($ParA_{Scy-}$, pCJW93) – negative control.

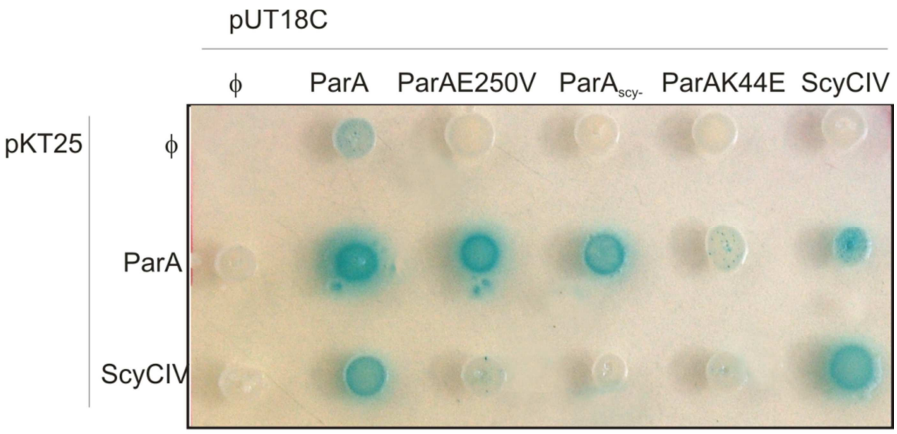

Fig. S2

Fig. S2. Interaction of ParA mutants with Scy in the bacterial two hybrid system.

Interaction of T18 fused to wild type ParA and mutant: ParAE250V (library), ParA$_{Scy-}$ (S249Y, E250V), ParAK44E with wild type ParA and ScyCIV fused with T25. Blue colony color indicates interaction of the proteins analyzed.

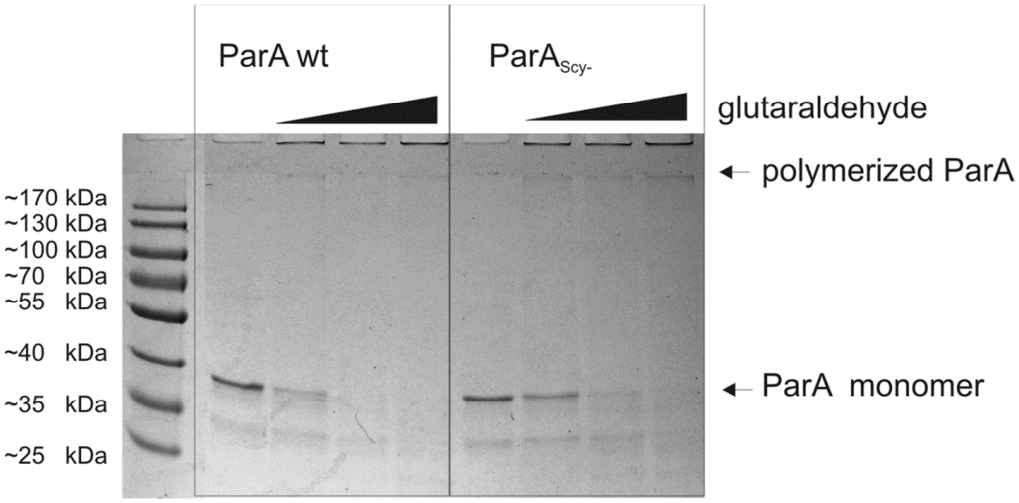

Fig. S3

Fig. S3. Polymerization of the wild type ParA and ParA $_{scy-}$ assayed by glutaraldehyde crosslinking. SDS-PAGE analysis of 5 μM ParA crosslinked with the increasing concentration of glutaraldehyde (2.5, 5 and 10 mM) in presence of 2 mM ATP

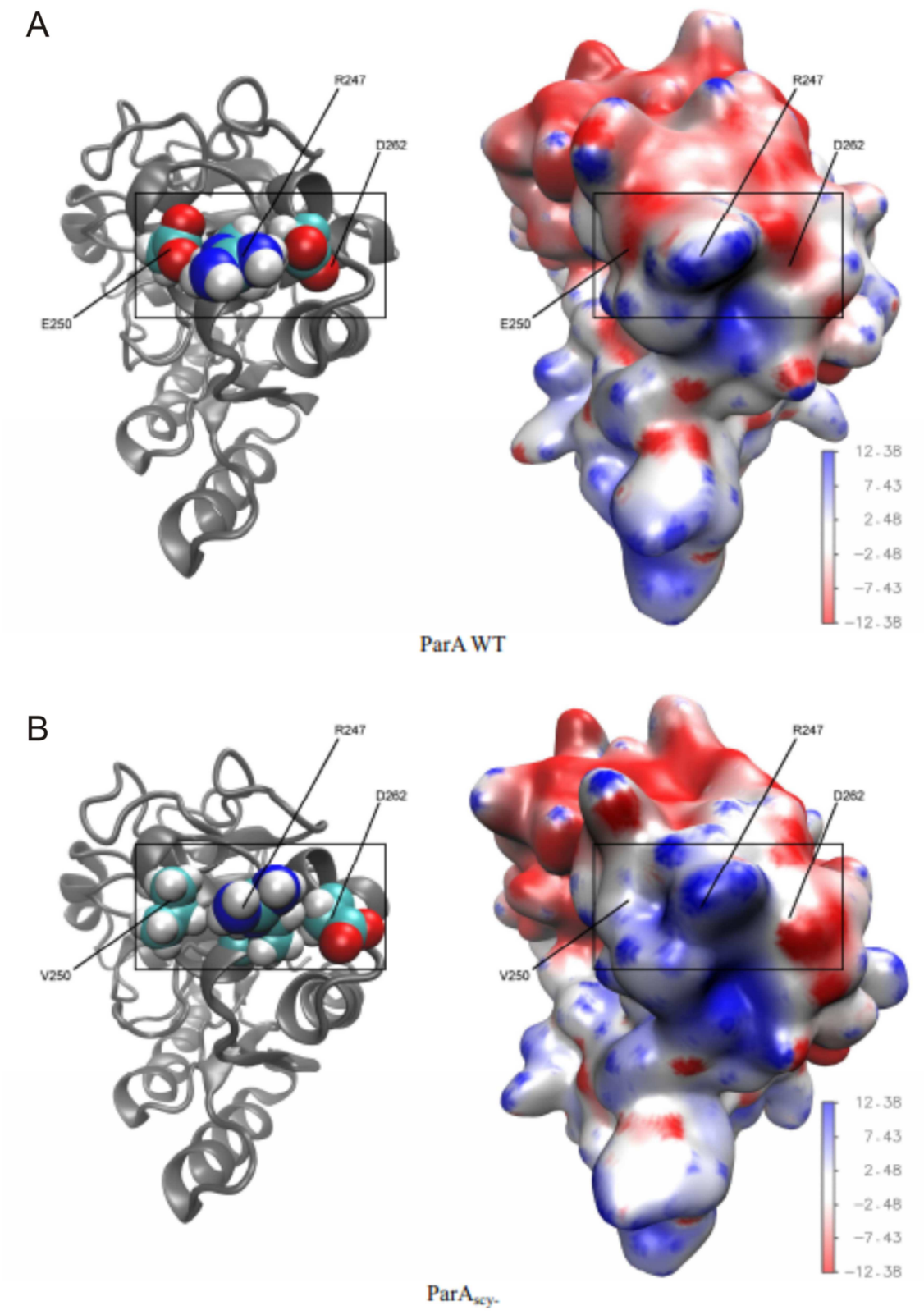

Fig. S4

Fig. S4. The electrostatic potential on the surface of ParA (A) and ParA$_{scy-}$ (B) mapped using VMD. Potential values in kJ/mol.

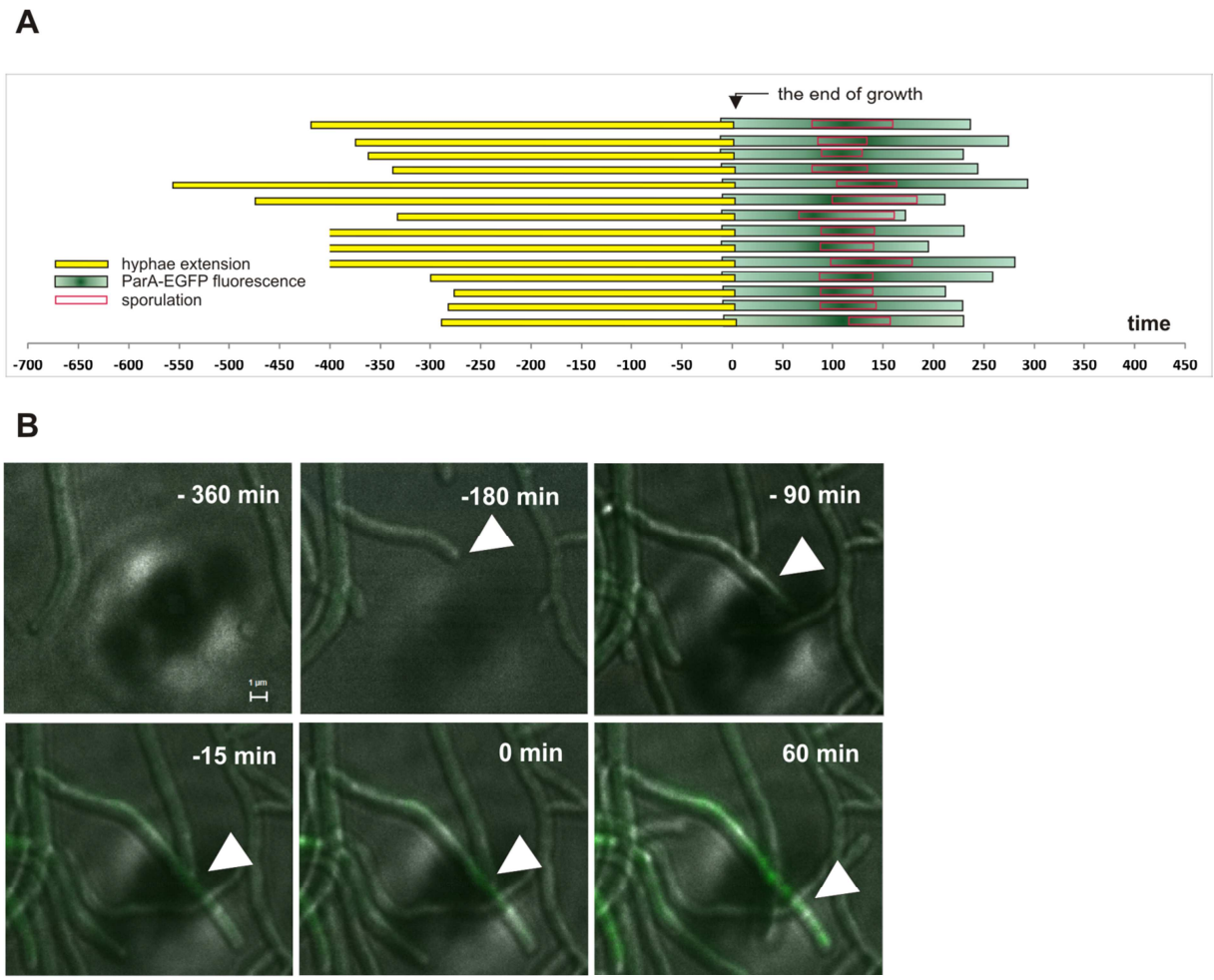

Fig. S5

Fig. S5. Time lapse of *Streptomyces venezuelae* sporulating hyphae development showing close correlation of ParA-EGFP extension and the cessation of the hyphae growth.