Molecular Characterization of Ferredoxin–NADP$^+$ Oxidoreductase in Cyanobacteria: Cloning and Sequence of the *petH* Gene of *Synechococcus* sp. PCC 7002 and Studies on the Gene Product, by Wendy M. Schluchter and Donald A. Bryant*, Volume 31, Number 12, March 31, 1992, pages 3092–3102.

Pages 3098 and 3099. Due to a printing error, pertinent information is missing in Figures 7 and 8. The figures should appear as follows:

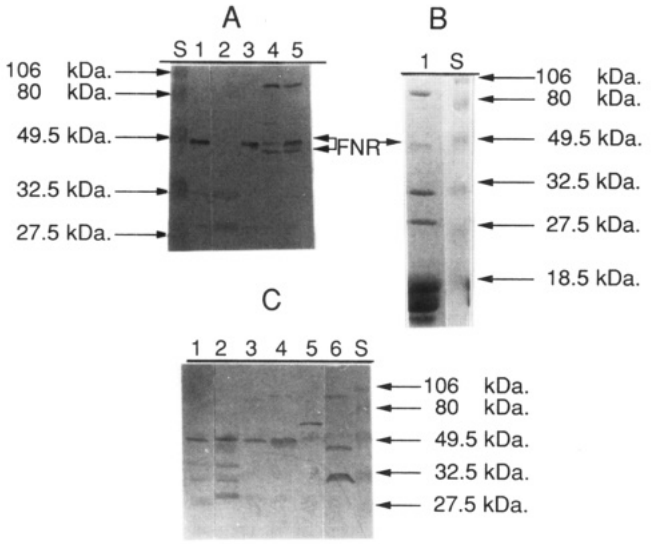

FIGURE 7: SDS–PAGE and immunoblot analysis of FNR from *Synechococcus* sp. PCC 7002 and other species of cyanobacteria. Proteins in cell extracts were separated by SDS–PAGE, electroblotted onto nitrocellulose filters, and probed with a spinach FNR antibody. Panel A represents an immunoblot of various preparations and extracts from *Synechococcus* sp. PCC 7002 strains. Lane 1 contains phycobilisomes from wild-type *Synechococcus* sp. PCC 7002; lane 2 contains peripheral rods isolated from phycobilisomes as described by Bryant et al. (1990); lane 3 contains phycobilisomes isolated from mutant strain PR6012 (de Lorimier et al., 1990b) which cannot produce the 33-kDa phycocyanin-associated rod-linker polypeptide CpcC; lane 4 contains a whole-cell extract from a mutant which does not accumulate any detectable phycobiliproteins or linker polypeptides (Bruce et al., 1989); and lane 5 contains a whole-cell extract from wild-type cells. The position of FNR is indicated by the arrows. The "S" lane shows prestained molecular mass markers whose sizes are indicated. Panel B shows Coomassie blue-stained polypeptides of *Synechococcus* sp. PCC 7002 phycobilisomes (lane 1) separated by SDS–PAGE; this sample is identical to that shown in the immunoblot in lane 1 of panel A. The "S" lane shows prestained molecular mass markers whose sizes are indicated. Panel C shows an immunoblot of proteins in whole-cell extracts from various cyanobacterial species: *Nostoc* sp. PCC 8009 (lane 1); *Anabaena* sp. PCC 7120 (lane 2); *Synechocystis* sp. PCC 6714 (lane 3); *Synechococcus* sp. PCC 7002 (lane 4); *Synechocystis* sp. PCC 6803 (lane 5); and *Pseudanabaena* sp. PCC 7409 (lane 6). Immunoreactive proteins at 43–55 kDa can be observed in all extracts; additional immunoreactive species with masses between 27 and 35 kDa are probably proteolytic degradation products (see text).

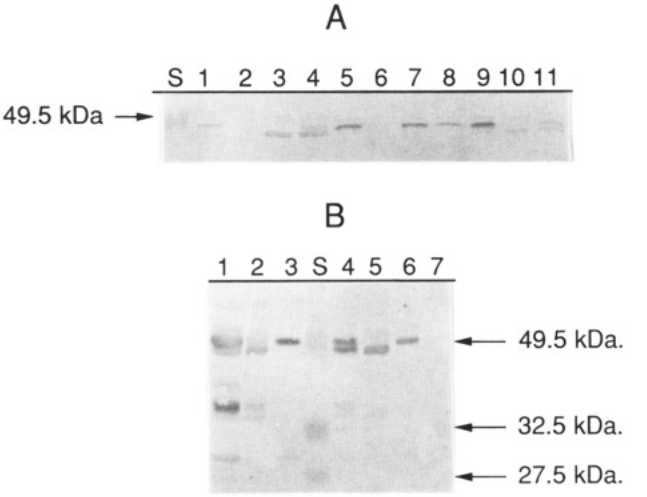

FIGURE 8: Immunoblot analysis of *Synechococcus* sp. PCC 7002 extracts treated with the detergent Triton X-114. Streptomycin sulfate was used to precipitate total cell membranes and thereby produce a membrane fraction and a soluble-protein fraction from a whole-cell extract. To achieve complete separation of hydrophobic proteins from hydrophilic proteins, phase partitioning with the detergent Triton X-114 was performed with whole-cell extract, with the streptomycin–sulfate supernatant fraction (soluble proteins), and with the streptomycin–sulfate pellet fraction (membrane-associated proteins). At 0 °C, Triton X-114 forms a homogeneous solution, but at room temperature this detergent phase-partitions. When centrifuged, the detergent micelles and hydrophobic proteins can be pelleted and the resulting supernatant contains the soluble proteins. Panel A shows FNR proteins from these various experiments. Lane 1, Triton X-114 supernatant after phase-partitioning of a streptomycin–sulfate pellet fraction; lanes 2 and 3, Triton X-114 pellet fractions after the second and first rounds, respectively, of phase-partitioning of a streptomycin–sulfate pellet fraction, respectively; lane 4, streptomycin–sulfate pellet fraction, untreated; lane 5, Triton X-114 supernatant after phase-partitioning of a streptomycin–sulfate supernatant fraction; lane 6, Triton X-114 pellet after phase-partitioning of a streptomycin–sulfate supernatant fraction; lane 7, streptomycin–sulfate supernatant fraction which was loaded directly; lane 8, streptomycin–sulfate supernatant precipitated with acetone and resuspended before loading; lane 9, Triton X-114 supernatant after phase-partitioning of a whole-cell extract; lane 10, Triton X-114 pellet after phase-partitioning of a whole-cell extract; and lane 11, the whole-cell extract with no treatment. Panel B shows results obtained after Triton X-114 phase-partitioning of streptomycin–sulfate fractions after treatment with hydroxylamine under conditions which would cleave ester-linked acyl groups from proteins. Lane 1, untreated whole-cell extract; lane 2, streptomycin–sulfate pellet from whole-cell extract; and lane 3, streptomycin–sulfate supernatant fraction from whole-cell extract. Lanes 4 and 5 represent Triton X-114 phase-partitioning of a streptomycin–sulfate pellet fraction after treatment with hydroxylamine; lane 4 contains proteins from the Triton X-114 supernatant phase (hydrophilic proteins), and lane 5 contains the proteins which continued to associate with the Triton X-114 pellet (hydrophobic proteins). Triton X-114 partitioning of the streptomycin–sulfate supernatant fraction after treatment with hydroxylamine is shown in lanes 6 and 7. Lane 6 contains the Triton X-114 supernatant fraction (hydrophilic proteins), and lane 7 contains the Triton X-114 pellet fraction (hydrophobic proteins) from this partitioning experiment. Lane "S" contains the prestained molecular mass markers, and their masses are indicated in kilodaltons to the right.