

A method of preventing, reducing or reversing nephrotoxicity or renal dysfunction induced by administration of a cyclosporin or tacrolimus to a mammalian patient. The method comprises the co-administration to the patient, either before, together with or after cyclosporin or tacrolimus administration, of a pharmaceutical composition containing an effective amount of pentosan polysulfate (PPS) or a pharmaceutically acceptable salt thereof. The oral route of administration is preferred. The total daily dosage of PPS or PPS salt ranges from about 2 to about 50 mg/kg of patient body weight, or about 140 to about 3,500 mg per day in adult human patients. Also disclosed are a method of providing immunosuppressive therapy to a patient while avoiding cyclosporin or tacrolimus-induced nephrotoxicity, and combination pharmaceutical compositions to be used in such therapy.