

### Summary and Conclusions

*Dunaliella salina*, a unicellular alga, is the most halo tolerant and is capable of growth even in salt crystals. The collected cells were grown in lab conditions using De Walne's medium having salt concentration from 0.5 to 5.5 M. *Dunaliella salina* cells grown in 5.0 M salt concentration were used for isolation of *SOS1* gene. Total RNA was isolated from log phase cells by GITC method. The mRNA was isolated from total RNA by oligo (dT) method. The cDNA was prepared from the isolated mRNA by reverse transcription system. The cDNA was amplified by PCR using *SOS1* degenerate primers. The PCR product was cloned into pGEM-T vector. Competent *E.coli* DH5 $\alpha$  cells were transformed with recombinant pGEM-T vector. Plasmid DNA was isolated from transformed cells (white colonies) and checked further for the presence of the target gene i.e. *SOS1*. The presence of a single band of approximately 850bp confirmed the cloning of the gene.

5. Salka, A., Lers, A., Zhan, A., Avron, M. A protein responsible for the role of an osmolyte protein in the osmotic adaptation of the halophilic alga *Dunaliella*. *J. Biol. Chem.* (1989) 264: 93-98

6. Weiss, M. and Park, H. Primary structure and effect of pH on the expression of the pigment biosynthetic  $5'$ -ATPase from *Dunaliella salina* and *Dunaliella salina*. *Plant Physiol.* (1992) 112: 1097-1098