Introduction

When the Haberlandt (1902) tried to grow mesophyll tissue of leaves under culture conditions to know whether it differentiates in to leaf and subsequently his predecessors succeeded in culturing isolated roots in artificial medium, it was only aimed to know the organogenesis. In basic research right from Faradays discovery of electrisity to Newtons gravitation, then have been beyond the comprehension of understanding by contemperory science that one day child is going to evolve in to technology. While tracing the hisotry of science which today has been regarded as the landmarkig discoveries were questioned by the contemperary scientific world for its validity and implication. Possibly it is the only the birth of prophets or God desending from the heaven in mythology they were well predicted and not the great scientific discoveries. Though, ironically neither the prophets nor the so called gods have done so much for the mankind as a human creativity by way of scientific discovery. The tissue culture is one of the two tenets of technology emerging from the naval of Biology and branching out into technolgy. Tissue culture vis-a-vis genetic engineering are the two tenets of technologies in biology. It has blossmed into number of subbranches and raised the great hope of conservation of rare and endengered species which otherwise fast disappearing by the raving

hands of Monster the 'Mankind', the accidential creation of mother nature. On the other hand tissue culture creats the vast opportunity of tapping the potential of natural resource by the non distructive method. In other words each plant has its own importance in medicine and if the medicinal priciple is to be utilized the only nondistructive method is to culture, prapogate in large scale and use it without exploiting them from the nature.

India being the treasure of such plants the entire world is concentrating its eye on the Indian natural resources. Amongst the several plants belonging to Liliaceae Gloriosa superba L. is one of them which is known as a substitute to Colchicum autumnale in the tropics. Besides colchicine it yields several medicinal principles. All of them are equally important. Among several species of Gloriosa, Gloriosa superba has got a wide distribution in India and elsewhere. It grows profusely and wildely all along the Western ghats. Sustained work carried out on cytotxonomy, phytochemistry and tissue culture of this plant in this laboratory led to deepen the probing and developing a technology for exploiting the medicinal principle of this plant.Therefore in persuit of this objective the present investigation of developing the microprapogation methods, Callus regeration,single cell isolation, embryogenesis and

so on have been tried on a pedestal. The earlier workers both in this laboratory as well as elsewhere tried to regenerate plant by using the different explants such as shoot tip and eye buds. Even successful regeneration of seedling from shoot meristem and transfer to the soil condition has been accomplished. (Samarajeewa, 1993). However, the approaches in the present investigation are different and diversified. Firstly regeneration from the shoot meristem has been achieved in one step in one accomplished medium in a short span of time. Secondly rapid callus production technology without using complex, costly chemicals has also been developed. Efforts have been made to regenerate the callus and the tubers under culture conditions on one hand and the single cell isolation on the other and the embryoids on the third. All these revolve around the basic MS medium. The work opens a vast opportunity ahead.