Plants have provided humankind with large variety crude drugs for the treatment of various diseases and ailments. Ethnobotany as a discipline of Botany has provided us with cures for various ailments. The importance of plants based medicine, which indeed waxed and waned earlier, has now found its insurgence by the end of the last century. "Diabetes" is a chronic disorder of carbohydrate, fat and protein metabolism. It is characterized by dangerously high level of blood serum glucose known as hyperglycemia or elevated blood glucose. There are two major types of diabetic disease, designated as Type-I and Type-II. Diabetes is the second commonest chronic disease in childhood occurring in 1 in 350 children by age 8. It is crucial to recognize that not all children with diabetes have juvenile or Type I diabetes. Adequate management of type-I diabetes in children has always been a great challenge, in view of the co-existence of severe in sulinopenia and extreme glycemia instabilities on the one hand and the physical, emotional and psychological demand of growing up on the other. Proper diabetes education for a child with type-I diabetes and his/her family is a specialized task, incorporating a set of skills like good communication.

The growing concern for our country, marching rapidly towards becoming a vibrant developed economy in the near future, is the rapidity increasing prevalence of pediatric type-2 diabetes an entity almost unknown a decade back. This is off course, a global phenomenon. The time has come for the society to awake to the reality of diabetes in childhood and adolescence and do everything possible to reduce its prevalence for the healthcare provided to appreciate its heterogeneity and offer correspondingly different approaches to treatment and for all to ensure that each tender bud blooms to its full potential, without missing out on the joys and excitement of this important phase of life. Plant based products have been popular all over the world for centuries. In diabetics some herbal alternatives have proven to
provide symptomatic relief and assist in the prevention of the secondary complications of the disease. Some herbs have also been proven to help in the regeneration of beta cells and in overcoming insulin resistance. In addition to maintain normal blood sugar level. Some herbs are also reported to possess antioxidant and cholesterol lowering action. Thus, plant based medicine can prove significant role in the treatment and management of diabetes.

This thesis entitled "ANTI-DIABETES PLANTS OF SOUTHERN ASSAM WITH SPECIAL REFERENCE TO BIOLOGICAL SCREENING" is presented for the partial fulfillment of the Degree of Doctor of Philosophy (Ph.D.) in Life Science, under the School of Life Sciences, Assam University, Silchar. The work is presented in eight chapters and each deals with different aspects of the topic of investigation. The work is done with great care during my four years of study period.

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