Epidemiological Study of Childhood and Youth Diabetes in Developing Countries (Aim 3)

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Children and youth in the developing world who develop diabetes frequently die quickly or develop early and devastating complications. This is due to lack of access or affordability of insulin, other diabetes supplies, medical care, and diabetes education. The International Diabetes Federation Life for a Child Program was established in 2001 to help meet this need. Currently 10,000 children and youth in 39 countries are being assisted. The program works by supporting and building the capacity of established diabetes centers in each country. The patterns of the disease in individual countries, and the reasons for these different patterns are incompletely understood particularly in the developing world.

This study will add to the understanding of childhood diabetes in Azerbaijan, Mali, Bangladesh, Sudan and Pakistan. The study will be done in partnership with the International Diabetes Federation Life for a Child program (based in Sydney, Australia), the Children’s Hospital Oakland Research Institute (Oakland, USA), and College of Medicine, University of Florida (Gainesville, USA). Auto-antibody and C-peptide levels will be measured. The genetic studies will be done at the Children’s Hospital Oakland Research Institute (Oakland USA). The CHORI work will describe the immune system-genetics basis of type 1 diabetes by determining the distributions of Human Leukocyte Antigen (HLA) alleles and Killer cell Immunoglobulin-like Receptor (KIR) genes in both type 1 diabetes patients and in unaffected individuals from each country.