

## **Search for Genetic Determinants of Diabetes Through Family Studies**

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### **Why are we doing this study?**

One of the primary goals of the Joslin Diabetes Center is to identify the genes that cause diabetes. By locating these genes, we will hopefully be able to find out who is more likely to develop diabetes. People at risk could be identified so that programs that may prevent the development of diabetes can be started early in life. Furthermore, finding these genes may lead to the development of new drugs that prevent or better treat diabetes.

Our hope is that by studying families who have several members with diabetes, locating the important gene(s) will be easier to do. It is likely that, within a single family, most or all of the members that have diabetes are carrying the same disease-causing gene(s). By having a whole family participate together, we can look at all of the members' genes and see what the differences are between the members who do have diabetes and those that do not.

We have been concentrating on certain types of diabetes, like MODY (Maturity-Onset Diabetes of the Young), which seem to be especially related to a person's genes. We are doing this because it can be a simpler model of more complicated types of diabetes. For example, the MODY type of diabetes is caused by a single gene – having the one disease-causing gene usually means that a person will develop diabetes. On the other hand, most forms of Type 2 diabetes are caused by many genes acting together. By understanding how the action of a single gene can cause diabetes, we can begin to understand how many genes together can cause the disease.

**If you have any questions about the study, please do not hesitate to contact either Dr. Doria or Tisha.**