UNIVERSITY of MARYLAND
SCHOOL OF MEDICINE

Program for Personalized and Genomic Medicine
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[Date]

Dear [Name],

It was a pleasure talking with you on [date] in follow-up for the Personalized Medicine Diabetes Program (PDMP) at the University of Maryland School of Medicine. This letter includes a detailed summary of our discussion and some other information that I hope will be helpful for future reference. Also enclosed are a copy of Dr. [Name] consult note and the lab report itself. We will also send copies to Dr. [Name]. Please feel free to share this information with your other healthcare providers.

As you may recall, your blood was tested for mutations, or "spelling mistakes", in many genes that have been shown to cause different types of monogenic diabetes. Our genes contain the instructions for our bodies to grow and develop properly. We have two copies of every gene (one inherited from Mom, and the other from Dad). As we discussed, a mutation called [xxx] in the gene *GCK* was found. This mutation has been reported before and is predicted to cause one copy of the *GCK* gene to not work properly. Mutations in *GCK* cause Maturity-Onset Diabetes of the Young, type 2 (MODY2).

This mutation, along with your history of [e.g. high blood sugar in the absence of obesity and complications of diabetes], is consistent with a diagnosis of MODY2. MODY2 is one of the most common types of monogenic diabetes. Affected people usually have stable, mild raised blood sugars throughout their lives. Treatment with insulin or oral medication is rarely needed for people with MODY2. It is important to note, however, that individuals with MODY2 are at population risk for other forms of diabetes such as type 1 and type 2, which would need to be treated. Risk factors such as being overweight or inactive can increase the risk for type 2 diabetes and its complications such as heart disease.

Dr. [Name] included treatment considerations for you in her clinic note. Do not make any changes to your treatment based on this genetic test result. Please follow-up with your doctor for instructions on management of your high blood sugar.

As we reviewed, MODY2 is inherited in an autosomal dominant manner. This means that having a mutation in only one of the two copies of the *GCK* gene is enough to cause symptoms of MODY2. It is most likely that you inherited the mutation from your [mother/father], given your [maternal/paternal] family history of diabetes. As we discussed, your family members with a diagnosis of diabetes or pre-diabetes may find it helpful to know if they have this form of diabetes. You can share your result with your family member which will help them to get the appropriate genetic test. If your family members without diabetes are interested in genetic testing, we recommend that they be screened for diabetes by fasting blood sugar or HbA1c measurement through their doctors first. If MODY2 is suspected, they can choose to have the genetic testing for this mutation through their doctors or they can join the study.

I hope you find the information in this letter useful. I know that a lot of information has been given to you, and the study team would like to help in any way we can. Below are some other resources on monogenic diabetes. If you or your doctors have any questions, please feel free to contact me at [email] or [phone].

Resources:

- Monogenic Diabetes Research and Advocacy Project: http://medschool.umaryland.edu/endocrinology/mdrap.asp
- University of Exeter Monogenic Diabetes Site: http://diabetesgenes.org/
- My46 Trait MODY Trait Profile: https://www.my46.org/learning-center/traits (Search for "maturity-onset diabetes of the young")
- National Diabetes Information Clearinghouse: http://diabetes.niddk.nih.gov/dm/pubs/mody/
- University of Chicago Diabetes Center: http://monogenicdiabetes.uchicago.edu/2015/10/02/gene-corner-2/

Best wishes,

[Name]
Certified Genetic Counselor
University of Maryland School of Medicine
Division of Endocrinology, Diabetes and Nutrition
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