Genetic Counseling Service
75 Claremont Rd Suite 305
Bernardsville, NJ 07924

Dear Family Member,

A member of your family has been identified as having a genetic mutation in the ***MLH1* gene**. Mutations in this gene are known to be associated with an increased risk for certain cancers. This means that other family members are at risk to carry this same gene mutation and hence at an increased risk for certain cancers. This letter has been written to summarize information regarding *MLH1* mutations.

Individuals with a mutation in the *MLH1* gene have a diagnosis of Lynch syndrome (Hereditary Non-Polyposis Colon Cancer (HNPCC)). *MLH1* associated-Lynch syndrome is also associated with an increased risk of colon cancer (52-82% risk), endometrial cancer (25-60% risk), ovarian cancer, stomach cancer, small intestinal cancer, gallbladder duct cancer, urinary tract cancer, pancreatic cancer, sebaceous neoplasms, brain cancer, and possibly other cancer type (i.e. prostate).

Understanding risk is an important tool in prevention and management of cancer. It is important to note that some individuals with *MLH1* mutations will never develop cancer over their lifetime. When one inherits a *MLH1* mutation, he/she is not inheriting cancer; rather they are inheriting a predisposition to cancer.

When an individual has one copy of the *MLH1*gene mutation they have an increased risk for colon and possibly other cancers as outlined above. Because everyone has two copies of the gene for *MLH1,* this means that a parent who carries an *MLH1* mutation has a 50% chance of passing the mutation onto each of their children. It also means that if a person carries such a mutation, their siblings have a 50% chance to carry the same mutation. Extended family members may also be at risk for having the same mutation. If a person does not carry the mutation, they cannot pass it onto their children. It should be noted that very rarely an individual may have two *MLH1* mutations, one inherited from their mother, and one inherited from their father. If a person has two *MLH1* mutations, they have a condition known as Constitutional Mismatch Repair-Deficiency syndrome (CMMR-D). Individuals with CMMR-D often have significant complications in childhood, including colorectal polyposis and a high risk for colorectal, small bowel, brain, and hematologic cancers. Individuals with CMMR-D often have café-au-lait spots.

We strongly recommend that you and all persons in your family who are at risk for carrying the *MLH1* gene mutation consider scheduling an appointment for cancer genetic counseling to discuss the benefits and limitations of genetic testing. To pursue cancer genetic testing, it is helpful if you have a copy of your family member's genetic testing report indicating that they have an *MLH1* mutation.

GeneScreen is available to discuss this information in more detail with you and coordinate appropriate testing. Please visit the following website to submit your request for genetic counseling: https://hipaa.jotform.com/200926739003048. You can also contact Genescreen directly at 908-766-2800 to schedule a remote consultation with a genetic counselor.

Sincerely,

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Genescreen

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