



Dear Family Member,

A member of your family has been identified as having a genetic mutation in the **SMARCA4** 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 SMARCA4 mutations.

SMARCA4-associated tumors are highly aggressive and include atypical teratoid/rhabdoid tumors of the central nervous system, malignant rhabdoid tumors of the kidney, and small cell carcinoma of the ovary, hypercalcemic type. The lifetime cancer risks for SMARCA4 mutation carriers has yet to be defined; however, age of onset is extremely variable, with some carriers presenting prenatally while others remain unaffected.

Understanding risk is an important tool in prevention and management of cancer. It is important to note that many individuals with SMARCA4 mutations will never develop cancer over their lifetime. When one inherits an SMARCA4 mutation, he/she is not inheriting cancer; rather they are inheriting a predisposition to cancer.

When an individual has one copy of the SMARCA4 gene mutation they have an increased risk for cancers as outlined above. Because everyone has two copies of the gene for SMARCA4, this means that a parent who carries an SMARCA4 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.

**We strongly recommend that you and all persons in your family who are at risk for carrying the SMARCA4 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 SMARCA4 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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Genescreen