General Information for Individuals with a MC1R Risk Allele or Mutation

Cancer Risks and General Management Considerations

The cancer risks for individuals who have an MC1R mutation are still being understood. However, it has been suggested that individuals with one mutation in the MC1R gene may be at an increased chance to develop skin cancer, particularly melanoma. The exact lifetime risk for individuals with a mutation in the MC1R gene have not been established, but may indicated a slightly increased risk for melanoma (2.6%-11.8%)\textsuperscript{1-3} and may confer a slightly increased risk for basal cell carcinoma. Associations with other cancers have not been reported for individuals with a MC1R risk allele or mutation at this time.

No consensus management recommendations or guidelines have been published for individuals with a mutation in the MC1R gene at this time. Individuals may consider a formal dermatological evaluation based on the increased chance to develop skin cancer.

Implications for Family Members/Reproductive Considerations

- First-degree relatives (i.e., parents, siblings, and children) have a 50% chance to have the familial M1CR mutation. Second-degree relatives (i.e., nieces/nephews, aunts/uncles, and grandparents) have a 25% chance to have the familial mutation.
- Individuals with two MC1R mutations (one inherited from each parent) have a chance for red hair and paler skin.
- Family members may pursue genetic counseling to clarify their risks. Family members can visit www.FindAGeneticCounselor.com to find genetic services near them.

References