

Mapping of Vitiligo Susceptible Genes

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With the enthusiastic participation of the membership of the National Vitiligo Foundation and the Vitiligo Society (England), our laboratory has been studying the epidemiology and genetic basis of vitiligo, funded by a large grant from the National Institutes of Health. Many of you have sent back questionnaires providing information about yourself, your family, and vitiligo. Some of you have participated by sending blood samples and helping us obtain samples from other family members. We thank you all. All of your help has been invaluable. So far, we've received questionnaires from about 5000 respondents. This information has helped us get a much clearer picture of what vitiligo is, exactly what other autoimmune diseases it's associated with, and about its genetics. We've learned that the average age of onset is 24 years, but tends to be earlier in families with multiple people with vitiligo; this is evidence that genes are important. But genes are not the whole story—even identical twins only both get vitiligo about a quarter of the time, even though they share all their genes in common. Unfortunately, we don't yet know what the non-genetic triggers might be. Vitiligo is highly associated with certain other autoimmune diseases—principally thyroid disease, pernicious anemia, adult-onset insulin-dependent diabetes, and less commonly lupus or Addison's disease. This is true both in people with vitiligo and also in their close relatives, even if those relatives don't themselves have vitiligo. Again, this means that genes are involved in this familial predisposition to autoimmune disease. Certainly, people with vitiligo deserve screening for thyroid disease at the least. Many of you have already participated in our research to find vitiligo genes. We are not allowed to give anybody back individual information; in fact, these lab 'results' really wouldn't have any meaning in the context of just one person or even just one family. But summed across many families, the data highlight the locations of vitiligo genes on specific chromosomes. We've found strong evidence of a gene on chromosome 1, and we think we may have even identified that gene, which is basically one of the master switches for melanocytes. Unfortunately, that gene doesn't seem to play a role in most families. We've also found evidence of genes on chromosomes 7, 8, 9, and 17. The genes on chromosomes 1, 7, 9, and 17 seem to play major roles in families with both vitiligo and also other autoimmune diseases (different genes being more or less important in different families and for different diseases), whereas the gene on chromosome 8 seems to play a role principally in families that have only vitiligo. We're working very hard on discovering what those genes might be, and we very much need the participation of additional families (or key family members who may not yet have sent in their blood samples) to make this happen. This remains the best way to understand fully what causes vitiligo, and we hope this will eventually lead to new treatments or even prevention. Again, for those who have participated, thank you. And for those who have not yet participated, please take a few minutes to fill out the questionnaire on the NVF website and mail it back to us. Every one of you counts.

With very best wishes,
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