

Update: Merck Gene Chip Study

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Followup Story

An update and interview with Cornell physicians performing hair loss gene chip studyBack in September HairlossTalk broke the news on a new study funded by Merck pharmaceuticals, makers of Propecia, which was to use something known as micro arrays to do an analysis and comparison of tissue experiencing alopecia and tissue not experiencing alopecia (hair loss). We promised updates to you, and recently got in contact with the actual head of the study, Dr. Animesh Sinha. He and his team were kind enough to give us a more in-depth look at what exactly this study is going to entail.

They are looking for participants for this study who live in the New York area, which will only include a very tiny piece of scalp tissue from an alopecia affected portion of the scalp.

Project Title: Gene Expression Profiling in Human Skin Diseases, Including Studies in Androgenetic Alopecia, Alopecia Areata, and the Follicular Degeneration Syndrome

Principal Investigator: Animesh A. Sinha, MD, PhD (Immunology) ; Board Certified in Dermatology

Sponsors: Weill Medical College of Cornell University; Merck, Inc.; L'Oreal, Inc.

Description of project: We are undertaking a pilot study whose specific aims are to gain a better understanding of the genetic basis of hair loss at the molecular level. For this work we are utilizing high density DNA micro arrays, or so-called "gene chips," which represent a technological intersection between biology and computers. This newly emerging technology should prove extremely powerful in profiling complex diseases in terms of gene expression and discovery of novel disease-related genes. We are analyzing tissue samples from patients with androgenetic alopecia, alopecia areata, and the follicular degeneration syndrome to further elucidate mechanisms of disease induction, progression, response to treatment, and to uncover new targets for prevention and therapy.

Studies like this **HAVE** been done in the past privately, but have not yielded conclusive results, and consequently were not published to the general public. Major hair loss researchers have expressed concern to HairlossTalk that this endeavour may be a waste of valuable time and money, but the Sinha team is of the opinion that several similar studies with slight variations are needed in order to get a better understanding of the situation, even if many of them are inconclusive.

We had some questions of our own regarding this study. Hadley King, one of the team members was kind enough to answer them

HairlossTalk: Some mention of Propecia users being part of the study had been made in the past, is this study just for Propecia users?

Hadley: According to our Merck protocol, the idea is this: We are looking for males between the ages of 18-41 who have mild to moderate hair loss and are otherwise healthy. They should not be on Propecia or Rogaine for at least one month prior to their entry into the study. If a patient is presently on Propecia or Rogaine, we would ask him to discontinue the medication for one month, and then enter into the study. We then ask the patient to come into the clinic, at which time we would like to take 2 small biopsies from an area of the scalp that has been affected by hair loss, and 2 small biopsies from an area of the scalp that has not been affected by hair loss. Then we would give the patient a 6 month supply of Propecia. The patient would return to the clinic after 6 months, having completed the course of Propecia, for assessment and repeat biopsies. At this time, the patient could be asked to continue the Propecia for another 6 months. All participation is completely voluntary, and there is an informed consent form. However, if the patient is not interested in taking Propecia because he has had a bad experience with it in the past, or for any other reason, he can still donate biopsy samples from bald and non-bald areas of the scalp. This will allow us to compare gene expression between the bald scalp and the non-bald scalp, we just won't be able to do the second part, where we assess how the gene expression has been affected by Propecia, but that is ok, both parts are important.

HairlossTalk: For those people who are not located in New York, would it be possible for them to have a registered dermatologist take the skin sample and have it mailed to you all, or would you rather see them in person?

Hadley: We have not yet established a system for remote biopsy sites, but we hope to do so in the near future. For now, the problem is that the tissue must be placed immediately in liquid nitrogen and kept in there until it is processed, in order to prevent degradation of the RNA.

HairlossTalk: How many people are you looking for, and how long will you be having open enrollment?

Hadley: For the initial phase of the Propecia study, we are looking for approximately 10 men. So far we have only enrolled one. There is no limit on the number we will accept for biopsies only.

HairlossTalk: Another web site owner recently announced that you were about to have all the participants you needed because he had gotten a well known hair transplant company to provide them. Is this true?

Hadley: No, we definitely still need study participants. They did mention a doctor at a Hair Transplant company to Dr. Sinha, but Dr. Sinha has not yet even spoken to him. And even if this doctor does become involved, subjects will still need to be recruited.

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