

Honors 177

Midterm

Chromo-Go!:

Give your body what it wants

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ABSTRACT

Part science experiment, part social commentary, this project is a step up from personality based relationship dating sites by matching members based on their DNA. The project will follow volunteers through their matched relationships and explore how these relationships compare to their previous relationships. The intent of this project is to explore the nature versus nurture concept in regards to an individual's identity in a romantic relationship.

CONCEPT / TOPIC

The ideal relationship has been sought after for years. In the US, the vast majority of relationships are based on a perception of personality compatibility. Although this seems to work, it often takes years of dating and many failed relationships to finally find “the one”. Often these relationships fail because of incompatibility leading to an unsatisfactory relationship for one or both parties. Part science experiment, part social experiment, the intent of this project is to explore the link between genetic and environmental factors in the relationship building process.

CONTEXT & PRECEDENTS

In April of 2003, the human genome project successfully sequenced 99% of gene-containing DNA in humans¹. Although this project sparked a debate of the dangers of readily available genetic information, the potential benefits have been limited to the predisposition to disease. Even before this accomplishment, psychologists have sought to link behavior and personality to one's genetic information.

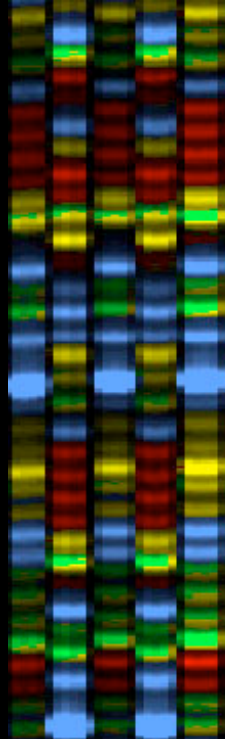
Patents² have been issued on genetic information of animals in small portions over the years. While research³ completed by Christine Garver-Apgar has shown links between genes and relationships, and the idea of "good breeding" has existed for centuries, we have yet to join the two to create a method of matchmaking based solely on genetics.

PROJECT PROPOSAL



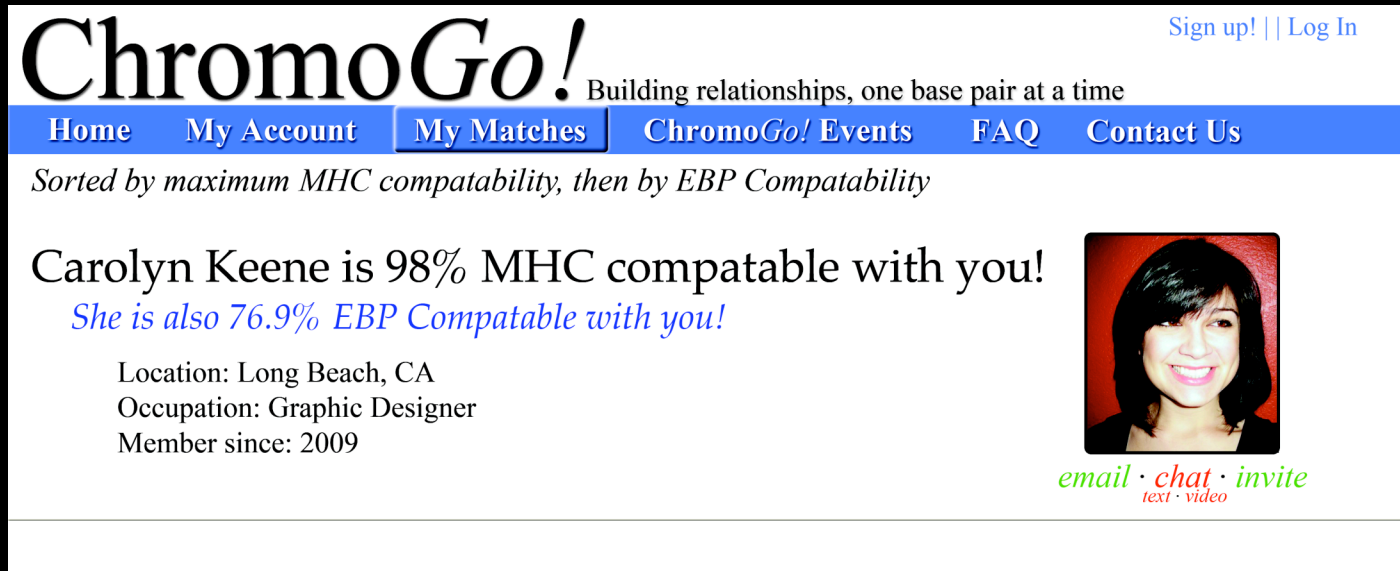
Image: © 2008 Adfero Ltd

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DNA Sequencing Core



Initially, a primary database will be established using DNA samples from couples who have been identified through a survey as happily involved in a marriage or single-partner relationship for at least 15 years. Samples will be taken from individuals of varying sexual orientations, ages and backgrounds to gain samples from at least 100 couples (200 individuals). Individuals who wish to participate in ChromoGo! Will submit a DNA sample to ChromoGo! labs for sequencing and analysis.

Project Proposal (cont.)



The screenshot shows the ChromoGo! website interface. At the top right, there are links for "Sign up!" and "Log In". The main navigation bar includes "Home", "My Account", "My Matches" (which is highlighted), "ChromoGo! Events", "FAQ", and "Contact Us". Below the navigation bar, the text reads "Sorted by maximum MHC compatability, then by EBP Compatability". The main content area features a match summary for Carolyn Keene, stating she is 98% MHC compatible and 76.9% EBP compatible. Her profile information includes her location (Long Beach, CA), occupation (Graphic Designer), and membership since (2009). A small portrait photo of Carolyn Keene is shown to the right of her name. Below the photo are icons for "email", "chat", "invite", "text", and "video".

ChromoGo! Building relationships, one base pair at a time

Sign up! || Log In

Home My Account **My Matches** ChromoGo! Events FAQ Contact Us

Sorted by maximum MHC compatability, then by EBP Compatability

Carolyn Keene is 98% MHC compatable with you!
She is also 76.9% EBP Compatable with you!

Location: Long Beach, CA
Occupation: Graphic Designer
Member since: 2009

email · chat · invite
text · video

Upon recruitment in the ChromoGo! Program, an individual's own genome is sequenced. Once sequenced, the genetic information is then compared to the happily "in a relationship" couples to determine the possible identity of an individual's ideal mate. Research³ suggests that romantic compatibility is dependent on the *incompatability* of Major Histone Complex (MHC) genes, with the idea that this is an evolutionary adaptation against inbreeding. Based on this, an individual's MHC compatibility percentage will be the primary focus of matching individuals. The other differences will be shown as an EBP (extra base pair) compatability percentage for the individual to determine the ultimate match threshold.

For example, a person's match summary would appear in a sortable list much like the image above.

Project Proposal (cont.)



Once the genetic identity of a single individual has been established, it is stored in an online database and given to the individual in a magnetized card. This card can be swiped at ChromoGo! events to verify membership status upon entry and match genetic compatibilities with individuals at the event. It would not, however, limit incompatible individuals from talking to one another, allowing the possibility of new genetic combinations and more accurate matching to occur as the ChromoGo! company grows.

Conclusion

ChromoGo! is not intended to take the place of dating or human interaction in any way, it is simply designed to provide a starting point in a world where dating is difficult and divorce is all too common. It forces people to be more critical of relationships and more conscious of their dating decisions, and it brings people together who may not have found each other in their daily routines. In the future, the ChromoGo! market could expand to cover many different types of services. One might use ChromoGo! to find ideal roommates in college dormitories. ChromoGo! can be used to give product recommendations at grocery stores based on one's genetic predisposition toward obesity or chronic illness. It can also be a useful tool for business and product producers who can make product recommendations based on the genome rather than manipulation or persuasion.

In addition, this project is designed to make people more aware of how the environment they live and are raised in shapes who they are and their perception of the world around them. Furthermore, it is a commentary on the commercialism of life that exists in so many daily used items. Corporations significantly invest in the manipulation of agricultural genes and profit off of these genetic manipulations, animals are grown to achieve more human like qualities for medical purposes--they are sold for profit. Human genetic manipulation for profit seems to be the next step, but where should we draw the line between the sanctity of life and innovation fuelled capitalism?

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faculty

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