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Email interview, 3/15/2013

How has the HGP helped doctors treat and cure diseases?

The sequencing has provided insight into the causes of disease, ways disorders are inherited and also helped us understand how much more complicated diseases are. It also has provided new ways to treat disease, by understanding they type of mutations.

What was the medical community's reaction to the complete sequencing of the human genome?

There was a lot of excitement, however, as more and more is understood genetics has become more complicated, not less. So, excitement, but also angst to try to understand what it all means.

How will personalized medicine improve treatments in the medical field?

It will help to ensure that dosing of medicines is more accurate, but it also can help with common diseases and identifying risk factors that may not be obvious in order to prevent things like diabetes and heart disease.

Can information from the HGP be misused? How?

The information involved and revealed by genetic sequencing is difficult to interpret and can overestimate or under estimate risk of health problems, that in turn can cause either issues with life insurance or even with planning for the future. It also can reveal things that may not be necessary- for instance issues about paternity or late onset disease that someone may not want to know.

What are positive and negative consequences of learning one's genetic information?

By understanding the genetics, we can intervene and prevent disorders before they occur. However, the genetics are just one part of the picture and environment has a major impact, so educating people is very important.

Are doctors for or against knowing one's genetic information?

In my experience, it isn't a matter of for or against, rather it is information that is either useful or not, it is not a moral decision, rather, a practical issue, will the information really improve health?

Should healthy people have their genomes sequenced?

They can if they like, but it is important to understand the limitations of the information and to include ongoing counseling and education regarding the results since so much is still unknown.

This is the 10th anniversary of the sequencing of the human genome. What are your thoughts about how this will benefit us in the future?

Ultimately I think it will improve health and provide new ways to treat disease and improve outcomes, but it is still mostly unknown and not understood.

Is there anything else you want to share?

What I believe is crucial is that people understand genetics is not destiny, it is one part of a picture that makes up your health, environment and other factors play a huge role in health and need to be given great consideration when using genetic information for any type of prediction or decision making, especially if there is no associated signs or symptoms.