

The variety of genes present in different populations (groups of people) throughout the world has changed over hundreds of years. These changes have been caused by natural and man-made disasters, changes in lifestyle and by historical events. Can this history of populations help us to understand the links between certain genetic variations and disease - or health?

**Who can explain why one group of people is more likely to get a certain disease and help us use this knowledge to fight sickness and improve health?**

## The Human Geneticist!

**Meet Himla Soodyall,**  
a Human Geneticist at the National Health Laboratory Service (NHLS) affiliated with the University of the Witwatersrand  
**BSc (Microbiology and Biochemistry),  
BSc Hons (Microbiology),  
MSc (Biotechnology),  
PhD (Human Genetics),  
Post Doc in Anthropology**

**... the challenge of the job:**

*"It is challenging to work in a field fraught with public fears and misconceptions."*

**... career satisfaction:**

*"It is extremely rewarding to contribute to capacity development in the country in which I was given chances during the apartheid era."*

**... a common misconception about the job:**

*"Everyone thinks I do everything related to genes!"*



### What does Himla do?

Himla studies how DNA, the inherited material that makes us who we are, is passed from parents to children. This helps us understand why certain people are at risk for certain diseases and how this risk developed throughout history. DNA often changes for no reason (mutations). Some mutations can cause disease, while others do not, and geneticists are able to identify those that are and those that aren't linked to disease.

Recently, Himla has been studying the differences in people from all over Africa and how this compares with people from around the world. This can explain why people in certain countries are prone to certain diseases, such as diabetes and types of cancer.

### What do I need to be a human geneticist?

**Characteristics:**

Natural inquisitiveness, endurance

**Important school subjects:**

Biology, Mathematics, Physical Science

**Qualifications:**

BSc – Biochemistry/Natural Sciences/Biological and Life Sciences/Biotechnology; Microbiology/Molecular and Cell Biology/Environmental

and Biological Sciences/Chemical and Biological Sciences

**Note:** You need an MSc or PhD for higher positions in lecturing and research.

### Where can I get a job as a human geneticist?

Laboratories conducting medical diagnostic services, universities, medical research laboratories

**Related careers:**

Pathologist, Geneticist, Clinical Geneticist, Genetic Counsellor