Human blood types remain a mystery despite a hundred years of study

In 1900 the Austrian physician Karl Landsteiner first discovered blood types, winning the Nobel Prize in Physiology or Medicine for his research in 1930. Since then scientists have developed ever more powerful tools for probing the biology of blood types. They've found some intriguing clues about them – tracing their deep ancestry, for example, and detecting influences of blood types on our health. And yet I found that in many ways blood types remain strangely mysterious. Scientists have yet to come up with a good explanation for their very existence.

"Isn't it amazing?" says Ajit Varki, a biologist at the University of California, San Diego. "Almost a hundred years after the Nobel Prize was awarded for this discovery, we still don't know exactly what they're for."

Doctors first began to notice a link between blood types and different diseases in the middle of the 20th century, and the list has continued to grow. "There are still many associations being found between blood groups and infections, cancers and a range of diseases," Pamela Greenwell of the University of Westminster tells me.

Links between blood types and diseases have a mysterious arbitrariness about them, and scientists have only begun to work out the reasons behind some of them. For example, Kevin Kain of the University of Toronto and his colleagues have been investigating why people with type O are better protected against severe malaria than people with other blood types. His studies indicate that immune cells have an easier job of recognising infected blood cells if they're type O rather than other blood types.

Read the full, original story: Why do we have blood types?