December 2024

Hilltop Cloud

Time Travellers Club

Dear Club Members,

On 21st December 1990 geneticist Mary-Claire King published a paper identifying the BRCA1 gene on Chromosome 17. This is the gene that can predispose some people to develop breast cancer, and was the proof that breast cancer could be hereditary, some people have a greater chance of developing the disease simply because of their genetic make-up, and explained why breast cancer was more prevalent in some families than in others. Genetic testing now allows people in those families to be identified and either have increased levels of monitoring or preventative surgery. It took King and her team 17 years to identify the location of the gene. King had already been a pioneer, her PhD changed the accepted world view of evolution by proving that the DNA sequences of humans and chimpanzees were 99% identical.

Forty years ago in 1984 she used her genetic knowledge to help develop a test to identify children based on their grandparents genetics. The Abuelas (Grandmothers) of Plaza de Mayo in Argentina had contacted King via the publishers of the journal Science. They were trying to search for the bodies of their children, and possibly surviving grandchildren who had been abducted and murdered by Argentina's military dictatorship. King made her first trip in June 1984, anticipating that she would not return, but thirty years later she was still visiting the area and working with local scientists. As a result of her testing fifty nine children were reunited with their families purely based on their grandparents genetics. Her work has then gone on to the basis of testing to identify missing people worldwide.

She grew up in Chicago, born in February 1946. Graduated in Mathematics from Carleton College in Minnesota, before gaining her her PhD in Genetics from the University of California at Berkeley, and went on to do postdoctoral training at UC San Francisco. She was professor at UC Berkeley from 1976-1995 following which she became American Cancer Society Professor of Medical Genetics and of Genome Sciences at the University of Washington.

There aren't many prizes on Science that haven't been awarded to King and her work, the one remaining notable gap is a Nobel prize. The thousands of women who owe their lives and health to her work would probably argue that it's glaring omission.

I suspect you can probably guess the colour of the fibre this month. . .

Happy Spinning

Katie

Fibre Content- In case your parcel is missing the label

63% Merino

10% Viscose Tweed
27% South American Wool

Further Reading-
In her own words
https://www.shawprize.org/autobiography/mary-claire-king/
https://www.youtube.com/watch?v=tOP5pUlYhv4