BBC NEWS

Forensic role for hand bacteria

The bacteria on our hands could be used in forensic identification, in the same way as DNA, say scientists.

Researchers in the US discovered that the "communities" of bacteria living on a person's skin are different for each individual.

The team took swabs from keyboards and were able to match the bacteria they found to the computer owners.

They describe their findings in the journal Proceedings of the National Academy of Sciences (PNAS).

Even on the hands of the most scrupulously clean people, about 150 different species of bacteria can be found.

And these numbers are not significantly affected by regular hand-washing.

Each person leaves behind a unique trail of bugs as they go about their daily lives. And this trail, scientists say, could be the basis of a new forensic tool.

The team of scientists led by Professor Noah Fierer from the University of Colorado in Boulder, US, was able to match samples of bacteria from three computer keyboards to each computer's owner.

They also saw very clear differences between those samples and samples taken from random volunteers.

Hand bacteria, they found, can survive at room temperatures for up to two weeks and the bugs could be identified even when fingerprints were smudged, or there was not enough DNA to obtain a profile.

Germ profile

The scientists say that this emerging technology is 70-90% accurate, and that this will increase as it is refined over time.

It could soon provide an additional forensic tool that could be used to corroborate other evidence.

The scientists wrote in their PNAS paper that even identical twins who share the same DNA profile have "substantially" different bacteria living and growing on their hands.

"This suggests that the collective genomes of [these microbes] may be more personally identifying than our own human genomes."

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