Imagine you are trying to solve a burglary, and your sole lead is a cigarette butt. It has enough DNA on it to check against the national DNA database, but this throws up no matches. Running the DNA through machines capable of identifying physical characteristics could help – only there is not enough DNA to deduce more than two traits.

A new all-in-one chip that can identify multiple traits should help. The Identitas v1 Forensic Chip allows investigators to home in on someone's gender, eye colour and hair colour, as well as ancestry – all based on a small sample of DNA such as that from saliva on a cigarette butt.

View the original article here: DNA 'identichip' gives a detailed picture of a suspect