The 'Smell Like Somebody' Aphrodisiac

The promise of transforming someone into a walking aphrodisiac may remain the holy grail of the perfume industry, but the secret scent that can snare man or woman, or both, as yet remins elusive.

It is 50 years since the term pheromone was coined, but the jury is still out as to whether there are genuinely human smells which can elicit the most primitive subconscious urges in those around us. While insects and animals respond automatically to chemical clues given off by their contemporaries and even have a special organ dedicated to the job of doing so, scientists have struggled to pin down a single component which has such a strong physiological effect on humans. "We may never find a real human pheromone - our free will gets in the way," says Professor Tim Jacobs, of Cardiff University's School of Biosciences. "But are there chemical signals which can influence behaviour? The answer is almost certainly yes." Yet the professor warns: "We would do well to remember it's not all about sex." The key contender on the human pheromone front remains the old tale that women who live in close proximity for long enough synchronise their menstrual cycles. This was first suggested in the early 1970s by Martha McClintock of Harvard University, and by the late 1990s she had found some evidence to support the hypothesis - but was unable to determine the chemical which had this effect. "But this one I think is the most likely - and this could have a really good practical application," says Dr Tristram Wyatt, an Oxford University zoologist who has written an essay in Nature marking the fiftieth anniversary. "If you could genuinely interefere with female hormones in this way and affect the menstrual cycle you could end up with an effective, sniffable contraceptive." There is also some evidence that the smell of fear, which is well documented to elicit a response in animals, may have a human equivalent. A study from New York tested the brain responses of volunteers who were given two sets of absorbent pads to sniff: the first contained the sweat of 40 people who were preparing to skydive for the first time, the second the perspiration of those who were not under any undue stress. The skydivers' sweat did indeed produce the signals in the parts of the volunteers' brains associated with fear, although it is unclear whether they did in fact feel scared. Some potentially sinister applications have been read into this, particularly as the project was funded by the research section of the US Department of Defense. On a more benign front, one study at least has suggested that some specimens of male sweat can calm women. "By starting to understand how the brain responds to human chemicals - how it becomes stressed or de-stressed for instance, we are looking at a future where we could, potentially at least, effectively treat a number of conditions," says Ivanka Savic, a neuroscientist at the Karolinska Institute in Stockholm. Schizophrenia is another condition which might benefit from a better understanding of human pheromones, as anecdotal evidence suggests an uncanny ability to pick up on the moods. This may, it has been speculated, be the result of a heightened response to chemical signals. Light may also be shed on autism, which conversely affects the ability to understand human emotion. Nonetheless, unlocking sexual desire and decoding love is still what may pique the interest of the majority. Some of the suggestions sound far from alluring: the smell emanating from lactating women, according to one study at least, increases fellow females' sex drive. This could be due, researchers suggest, to the idea that for early communities it would make sense for women to have their children at the same time. But much of the research has focused on two substances - one called androstadienone - mostly found in male sweat, the other estratetraenol, found in some women's urine. Despite the fact that the original high-profile study on these was tainted by a conflict of interest, subsequent studies have show that androstadienone can send signals to women's brains - although whether this actually changes behaviour is a moot point. It has been suggested that our ancestors' shift to full colour vision 25 million years ago was when we dispensed of pheromones as a way of detecting partners. But smell clearly continues to play a role. There is substantial evidence to suggest each of us individually emanates an exclusive smell on the basis of which prospective partners decide whether we are suitably genetically different to make a good potential partner. "Once the initial contact has been made, chemical signals may then be exchanged," Professor Jacob suggests. "This can lead to further bonding between the pair." "Unfortunately all this doesn't seem to leave much room for romance.” source: bbcnews.com