

By ~~Stefano~~ Stefano 2007 Science Editor

## [Your Dandruff Has Sex!](#)

### *Scientists have decoded the DNA of Malassezia fungus*

Do you look like a Christmas tree under the strobe light of the club? Covered by "globes" of dandruff? That's because of a fungus that impedes your search for a mate. All this while having sex on your head perhaps even at this moment. A research team at Procter & Gamble Beauty, a subsidiary of the company producing the large array of household items, from toilet tissue to shampoo, announced on Tuesday they had sequenced the DNA of *Malassezia globosa*, the fungus culprit for dandruff (and other skin conditions) which infects between 50 and 90 % of the population. This research "can shed light on ways to fight not only dandruff, but an infection that can threaten the lives of newborns." wrote the authors in the Proceedings of the National Academy of Sciences. "A complete genomic sequencing of a *Malassezia* genome opens tremendous opportunities for researchers to understand the interactions of fungi and humans. It's amazing that the understanding of the genetic make-up of a microscopic organism can have broad implications ranging from human health to agricultural science." said lead author Thomas Dawson, a scientist at P&G Beauty. "M. globosa is capable of excreting more than 50 different enzymes that help digest and break down compounds in the hair and scalp. The M. globosa genome sequence also revealed the presence of mating-type genes, providing an indication that *Malassezia* may be capable of sex," wrote the researchers. "Other fungi can reproduce sexually, but this particular type had not been known to. This means it could find a way to evade dandruff shampoo. Dandruff can affect up to 90 % of people, and that it has been known for more than 100 years that *Malassezia* can cause dandruff and eczema." they added. *Malassezia* fungi can also provoke systemic infections in newborns and is closely related to species of fungi inducing great damage to crops such as corn. The research team cultivated 10 liters of *Malassezia*, "equal to the amount of fungus that would be found on the heads of 10 million people".