

EVOLUTION

Sexual Healing

Sex arose as a means to mix DNA and thereby boost genetic diversity, according to standard evolutionary theory. But it may also exist to help repair DNA damaged by environmental stress, such as heat, for fitter offspring. Work supporting this idea exists for single-celled life-forms, so evolutionary biologist Richard Michod of the University of Arizona at Tucson and his associates experimented on a multicellular species, the green alga *Volvox carteri*, which can reproduce both sexually and asexually. *Volvox* colonies heated for 10 minutes to 42.5 degrees Celsius had twice the number of DNA-damaging oxidants as unheated ones. Researchers found that these high oxidant levels triggered the microbe's genetic pathway for sexual reproduction, leading the algae to release mating pheromones. The report appears in the June 9 *Proceedings of the Royal Society of London B*. —Charles Choi

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