

## Author's Response

Sir:

The emergence of new molecular genetic markers has rejuvenated old arguments about species concepts in *Cannabis*. We adhere to a broader circumscription of *Cannabis sativa* than McPartland and others who recognize *C. indica* as a separate species. While we agree with McPartland's comments on pedigrees and cannabinoid profiles, we point out that principal components analyses do not provide evidence of speciation. McPartland goes on to support his species concept with a hypothetical single locus with two alleles corresponding to *C. sativa* and *C. indica*. Would we follow this logic and regard as separate species two regional, interfertile primate populations exhibiting a difference in skin color determined by alleles at a single locus? Probably not. Instead we favor biological species recognized by reproductive isolation or phylogenetic species recognized by reciprocal monophyly (1) and *Cannabis* ecotypes exhibit neither.

In regard to the article that drew this letter we wish to correct two errors in the list of primer pairs used for the survey of *Cannabis* genetic variation. *EcoRI*-ACA-*MseI*-CAG was not used.

The correct pair is *EcoRI*-ACA-*MseI*-CAC. Second, *EcoRI*-AGG-*MseI*-AAC is incorrect. The correct pair is *EcoRI*-AGG-*MseI*-CAT. We also belatedly acknowledge the contribution of Zlatko Mehmedic and his laboratory assistants at the University of Mississippi for analysis of cannabinoids. Support for this aspect of the work was provided by the National Institute on Drug Abuse contract number N01DA-5-7746.

## References

1. de Queiroz K. The general lineage concept of species, species criteria, and the process of speciation: a conceptual unification and terminological recommendations. In: Howard DJ, Berlocher SH, editors. *Endless forms: species and speciation*. Oxford, U.K.: Oxford University Press, 1998.

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