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Rhythm disorder alleles

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The genes that regulate circadian rhythms have been genetically characterized in flies and mice. In the April issue of EMBO Reports, Ebisawa *et al*. describe a screen for genetic polymorphisms associated with human circadian rhythm disorders (*EMBO Reports* 2001, **2:**342-346). They performed a PCR-based analysis of the human *period3* gene (*hPer3*), a homolog of a *Drosophila* clock gene, and identified 20 sequence variations, of which six predicted amino acid changes. Ebisawa *et al*. defined four haplotypes for the *hPer3* gene. Screening a group of 48 patients with delayed sleep phase syndrome (DSPS), they discovered that the H4 haplotype was associated with DSPS in approx 15% of cases. The authors speculate that a structural polymorphism may affect hPer3 phosphorylation, causing DSPS susceptibility.

References

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3. *EMBO Reports*, [http://www.embo-reports.oupjournals.org]

4. Delayed sleep phase syndrome: a review of its clinical aspects.