

Reviewer's report

Title: High Throughput Molecular Beacon-Based Assays for Genotyping Common HFE Variants

Version: 4 **Date:** 22 March 2006

Reviewer: Finn Cilius C Nielsen

Reviewer's report:

Re: Osama A Alsmadi, Fadi Al-Kayal, Mohamed Al-Hamed and Brian F Meyer
BMC Medical Genetics - High Throughput Molecular Beacon-Based Assays for Genotyping Common HFE Variants.

The study by alsmadi et al describes the use molecular beacons to genotype common HFE variations. The methods is compared to conventional restriction analysis and sequencing.

Molecular beacon analysis is based on the principle that a fluorescens coupled probe is quenched in its unbound conformation, but after binding the probe is activated and emits the fluorophor. The assay has the advantage of being fast and reliable.

The study is well performed and technically sound. The text is clear and the method carefully described so it is easy to reproduce.

My major reservation is that the technology previously has been described and that HFE genotyping in most laboratories already is automated and does not provide a major technical obstacle. Nevertheless this study may provide a useful alternative.

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

'I declare that I have no competing interests'