

## HETEROZYGOSITY-FITNESS CORRELATIONS

### Summary

Though heterozygosity-fitness correlations have been studied since more than three decades they are still a subject of discussions. Two assumptions for testing heterozygosity-fitness correlations are crucial: firstly, the heterozygosity across genome can be used as a measure of inbreeding; secondly, individual heterozygosity is correlated with fitness. In theoretical background, three hypotheses are suggested: general effect, direct effect and local effect. The gen-

eral effect hypothesis suggests that heterozygosity in markers reflects heterozygosity at genome-wide loci. The direct effect hypothesis elucidates heterozygote advantage as a result of functional overdominance in comparison with homozygote. The local effect hypothesis explains heterozygosity-fitness correlation as a result of physical linkage between neutral molecular markers and closely linked gene fitness loci.