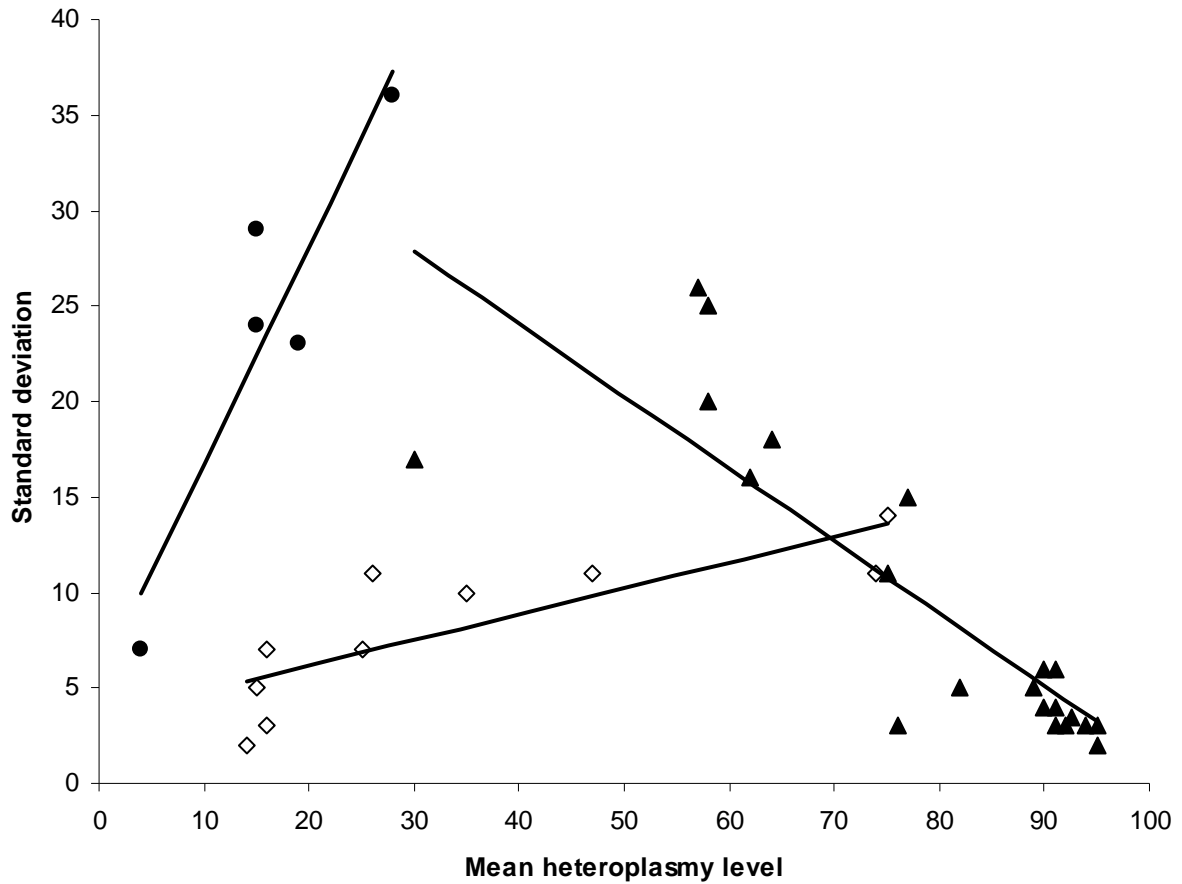


**Supp. Figure S1.** Standardization of m.3243A>G load assessment over a  $10^2$ - $10^5$  mtDNA copy range. The rate of m.3243A>G heteroplasmy was assessed by semi-quantitative fluorescent PCR using 5 samples containing various proportions of mutant plasmid (11%, 33%, 50%, 67%, 89%) and 5 different template amounts ( $10^2$ ,  $10^3$ ,  $10^4$ ,  $10^5$ ,  $10^6$ ). Values achieved with  $10^6$  copies are displayed as Figure 1. Each dot depicts the result of one experiment. Y axis: expected percentage of m.3243A>G mutant load. X axis: observed percentage of m.3243A>G mutant load.



**Supp. Figure S2.** Distribution of inter cell dispersion of m.3243A>G mutant load according to the heteroplasmy rate of overall cell pools. Data are represented as standard deviation of the mean mutant load vs mean heteroplasmy rate for each pool.  $\diamond$  prenatal cell pools: syncytiotrophoblasts and amniocytes (data from Table 2 and Figure 2); Black symbols: postnatal cell pools:  $\bullet$  lymphocytes (data from Table 2),  $\blacktriangle$  muscle fibers (data from Petruzella et al., 1994; Tokunaga et al., 1994; Silvestri et al., 2000). Each symbol reflects the analysis of one cell pool for one individual.