



Figure 36. Epigenetic inheritance. The transcriptional response (e.g., silencing) of an epiallele can occur stochastically within a genetically identical population of somatic cells, as indicated by the single cell in dark gray shading. To inherit such an altered expression state, this epigenetic information must be transferred to the germ cells. Possible transducers for epigenetic information are mobile RNAs and hormones or cytokines. Within the germ cell epigenome, an epigenetic imprint (e.g., RNA association, histone modification, nucleosome position, and DNA methylation) can then be established and propagated to ensure transmission to the next generations.