Model A: the effect of G is to produce or increase expression of a risk factor (E) than can also be produced nongenetically (e.g. PKU)

Model B: G exacerbates the effect of E (e.g. UV and skin cancer)

Model C: E exacerbates the effect of G but there is no effect in persons with the low-risk genotype (e.g. porphyria variegata)

Model D: both G and E are required to obtain the effect (e.g. G6PD deficiency)

Model E: G and E both have a separate effect, but when they occur together the effect is much higher (e.g. alpha-1-antitrypsin and COPD)