Derivation of over-dispersed distributions:

Using notation from these sources:

<http://www-m4.ma.tum.de/fileadmin/w00bdb/www/czado/lec7.pdf>

<http://www.r-project.org/>

<http://www.openbugs.info/Manuals/ModelSpecification.html#ContentsAI>

Using DNA information from:

<http://www.cstl.nist.gov/strbase/pub_pres/6_qPCR_LCN.pdf>

½ ng of Human DNA includes 151 copies of the DNA loci, D=151

j = locus

i = individual contributor

k = allele at locus j

From the papers, we want

η=pcr efficiency

n\_pcr = number of PCR cycles

pcr­­jk=number of copies of DNA after PCR

McCulloch and Nelder

R, k=shape, θ=scale

OpenBUGS