

(HD)

HD

CAG

HD

Dr Jeff Carroll 2016 7 06
Dr Ed Wild ; Xi Cao
2016 7 05



HD

CAG

CAG

CAG

CAG

CAG

HD

HD

HTT

HD

HD

DNA

CAG

HD

10-20

CAG

HD

CAG

10-26 Normal

27-35 Intermediate

36-39 Reduced penetrance

40+ Full penetrance



HD

HD

CAG 36 39

HD

HD CAG

42

180 CAG

CAG

HD

C-A-G

CAG

1993

HD

CAG

CAG

HD

CAG HD

HD

HDbuzz

the so-called genetic gray area what it might mean for brains

40 CAG

CAG 35

CAG

CAG 36-39

CAG 37

CAG 40

CAG 27 35

HD

HD

' '

CAG 36-39 HD

CAG 27-35 HD

HD

CAG

HD -HD

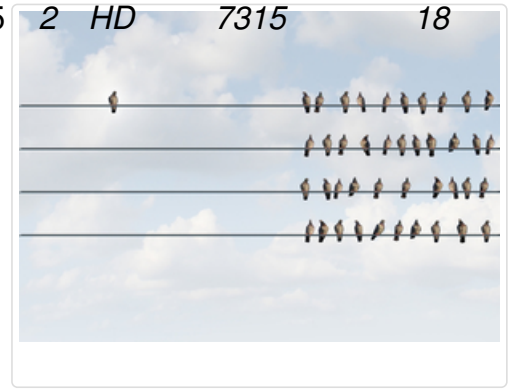
DNA

7000 HD

HD

DNA

7315 CAG HD 14630 7315
 HD 18 3 -CAG 40
 *HD
 HD 15 36 39 1/400 HD
 10



“ ”
 - 400 - HD 800000 HD 800000
 36-39 CAG HD
 HD
 CAG HD HD

“ 1/400 HD ” — 36-39 CAG
 39 CAG CAG HD
 HD