DROPLET DIGITAL™ PCR (DDPCR™)

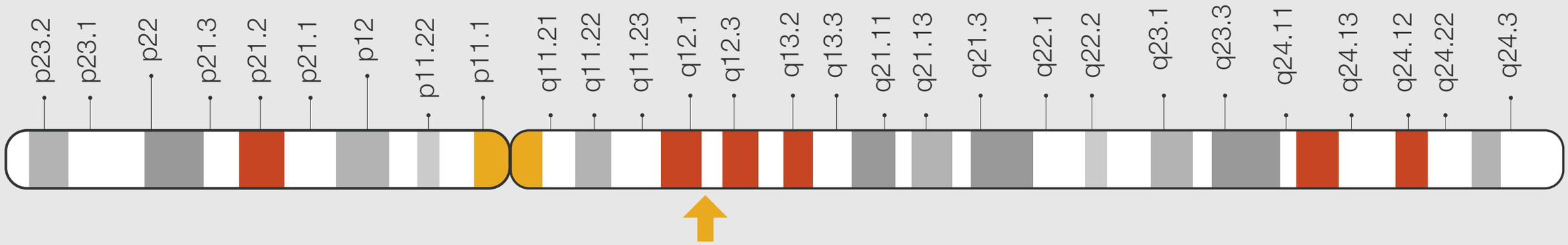
BIO-RAD

What *do you* Gene?

CHD7

The Differentiation Predictor

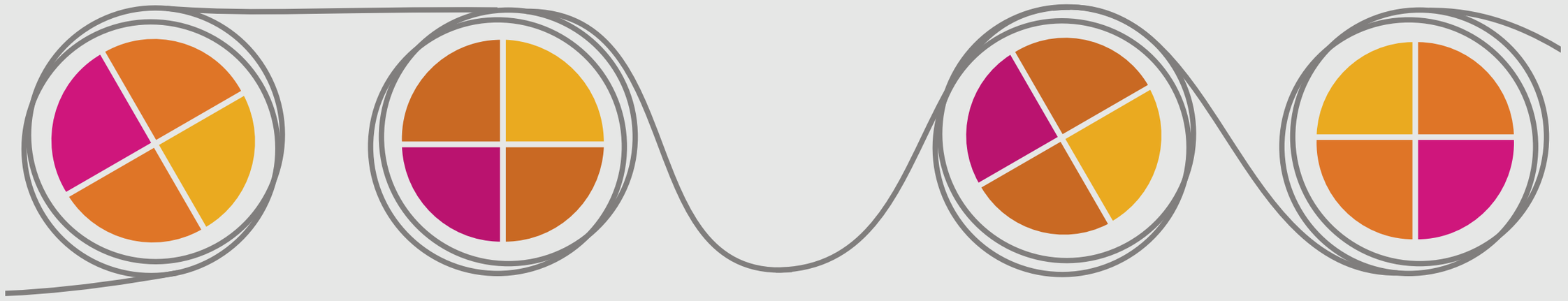
WHAT IS IT?



The *CHD7* gene is found on chromosome 8 and codes for chromodomain helicase DNA-binding protein 7.

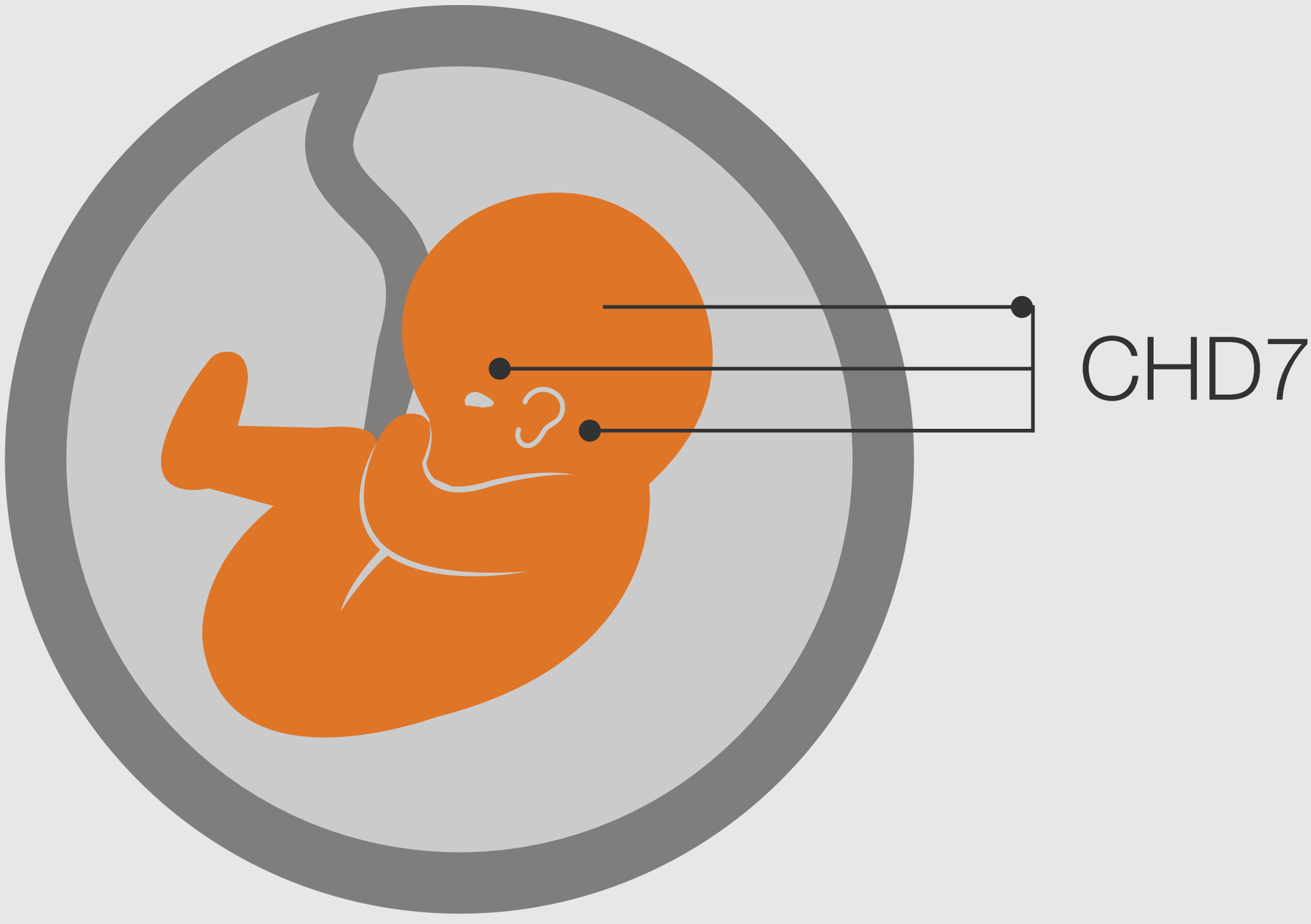
WHAT IS IT?

CHD7 is required for maintaining open chromatin structure and activating a neuronal differentiation program.



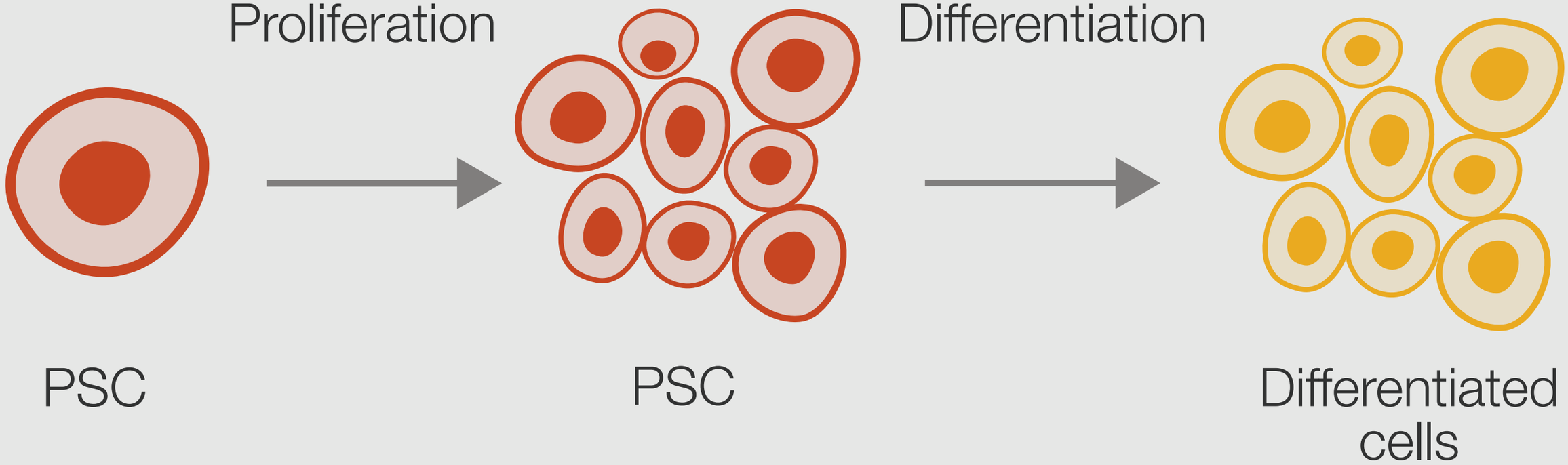
WHAT IS IT?

CHD7 is found in many parts of the fetus such as the brain, eye, and inner ear.



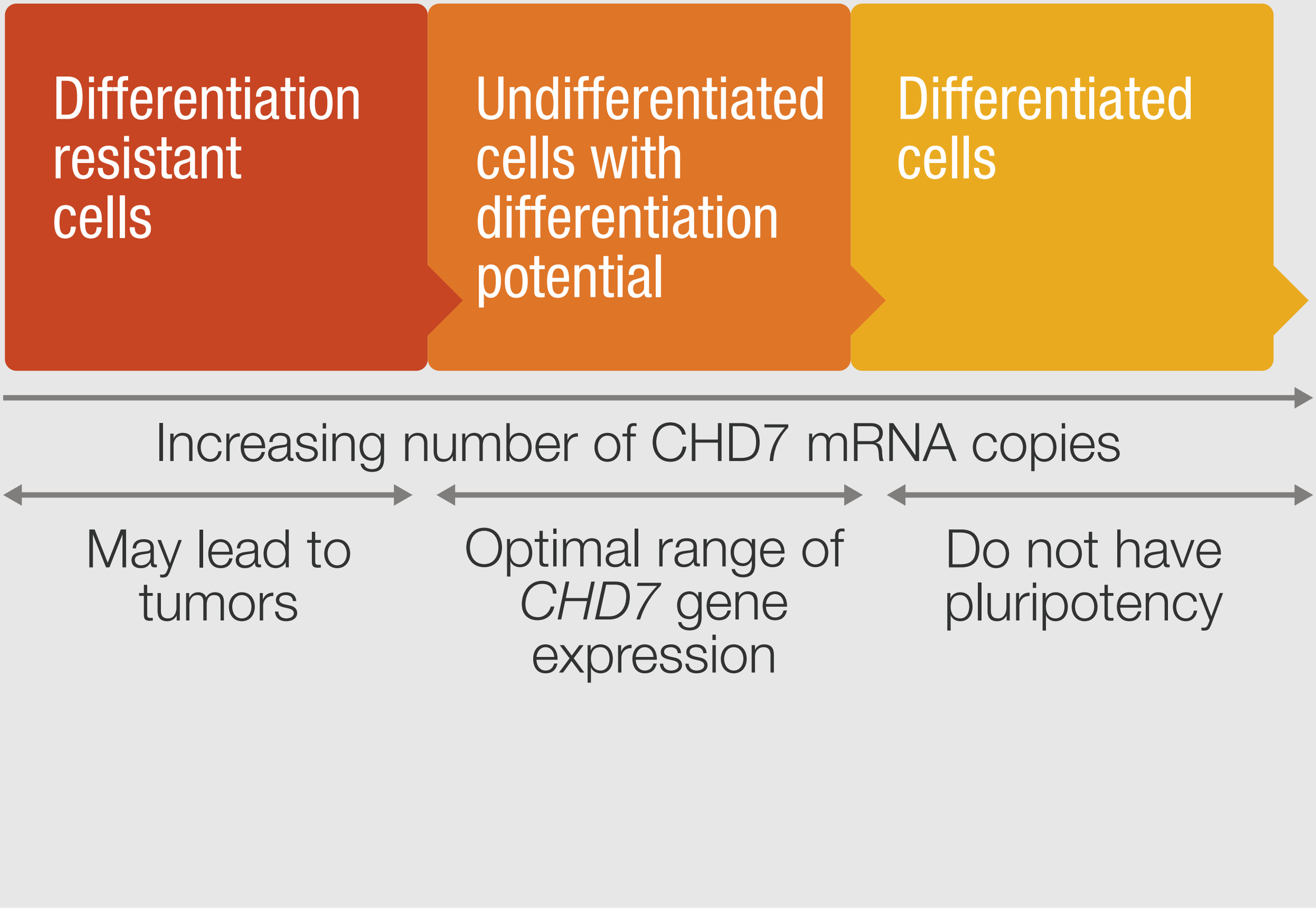
CHD7 COPY NUMBER AS A USEFUL INDEX TO PREDICT DIFFERENTIATION

Pluripotent stem cells (PSCs) demonstrate the ability to differentiate and can proliferate in the undifferentiated state.



CHD7 COPY NUMBER AS A USEFUL INDEX TO PREDICT DIFFERENTIATION

PSCs having a certain range of copies of CHD7 show differentiation potential.



CHD7

DROPLET DIGITAL PCR (ddPCR) AND PSCs

ddPCR provides the absolute quantification needed to evaluate the differentiation potential of PSCs cultured in different conditions.

Visit **bio-rad.com/ddPCR/publications** for more information. For research use only.

References

National Center for Biotechnology Information, U.S. National Library of Medicine (2022). CHD7 chromodomain helicase DNA binding protein 7, https://www.ncbi.nlm.nih.gov/gene/55636, accessed August 4, 2022.

Yamamoto T et al. (2018). Differentiation potential of pluripotent stem cells correlates to the level of CHD7. Sci Rep 8, 241.

Feng W et al. (2017). Chd7 is indispensable for mammalian brain development through activation of a neuronal differentiation programme. Nat Commun 8,14,758.

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