

DROPLET DIGITAL™ PCR (DDPCR™)

BIO-RAD



What do you **Gene**?

EDNRA

The Pigmentation Gene

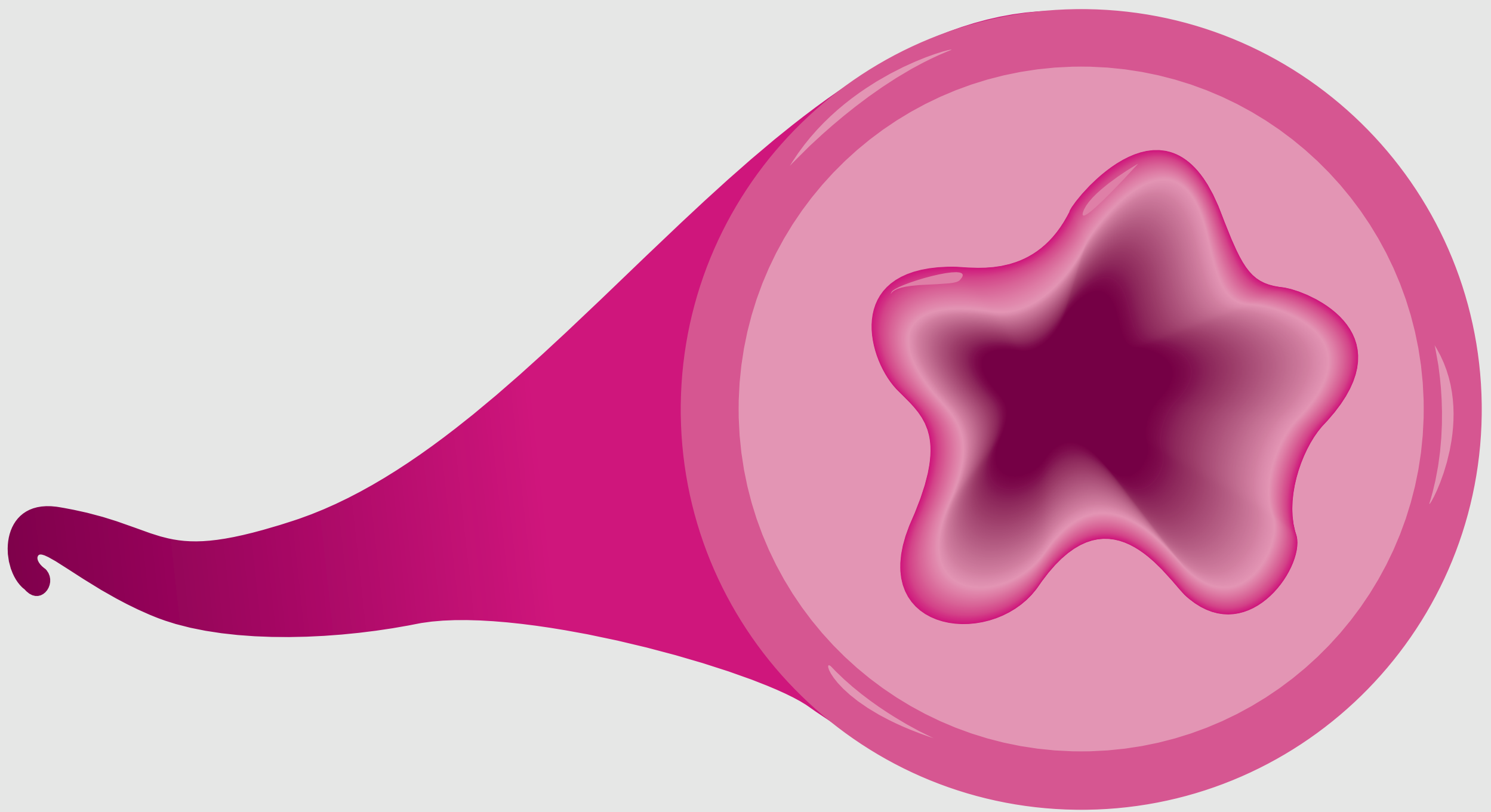
WHAT IS IT?

EDNRA (endothelin receptor type A) is a gene that encodes the receptor for **endothelin-1**.



WHAT IS IT?

Endothelin-1 is a peptide that plays a role in potent and long-lasting **vasoconstriction**.



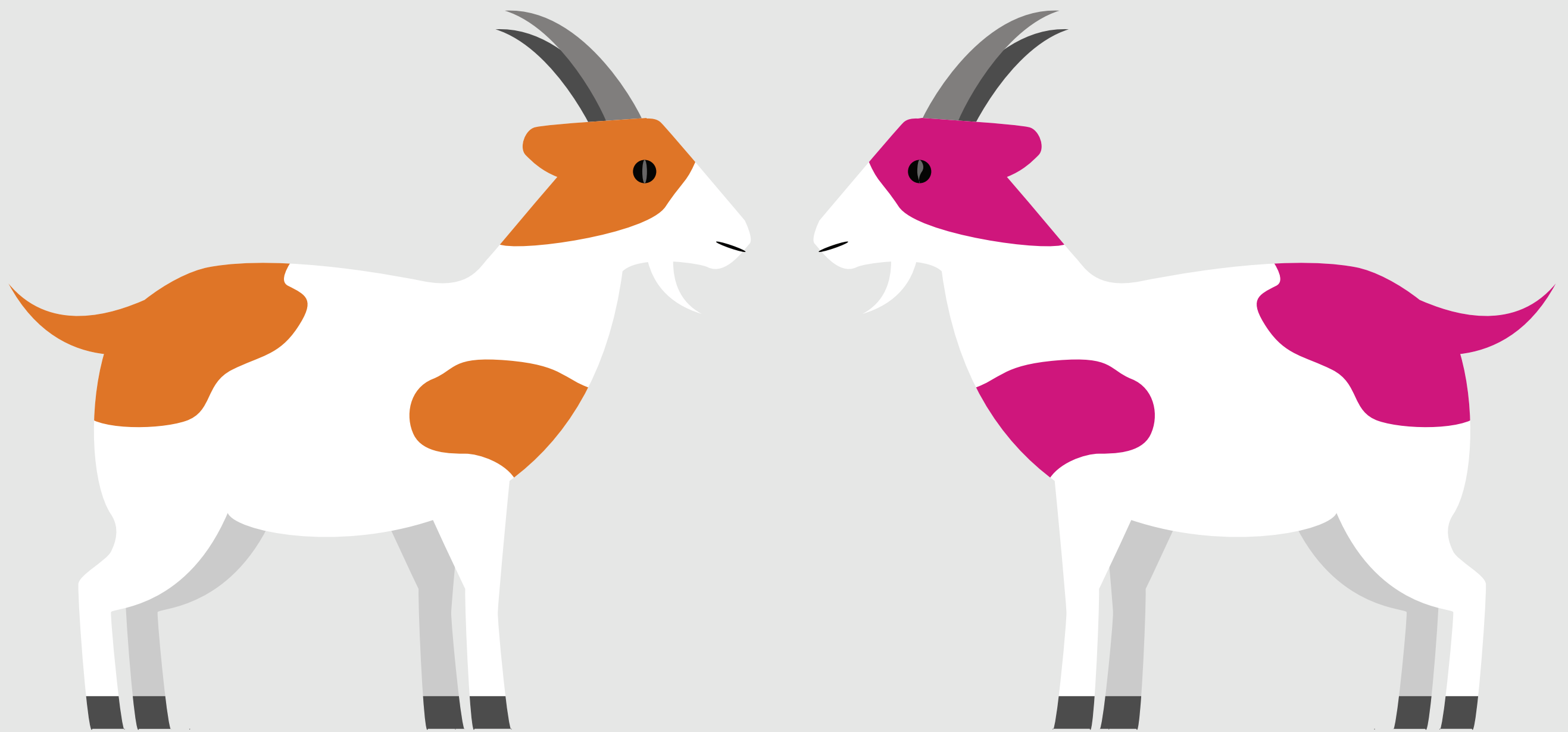
WHAT IS IT?

Polymorphisms in this gene have been linked to **migraine headache resistance.**



EDNRA AND BOER GOAT PIGMENTATION

There is a 1 Mb copy number variant (CNV) on **chromosome 17** that potentially causes the striking coat color in Boer goats.

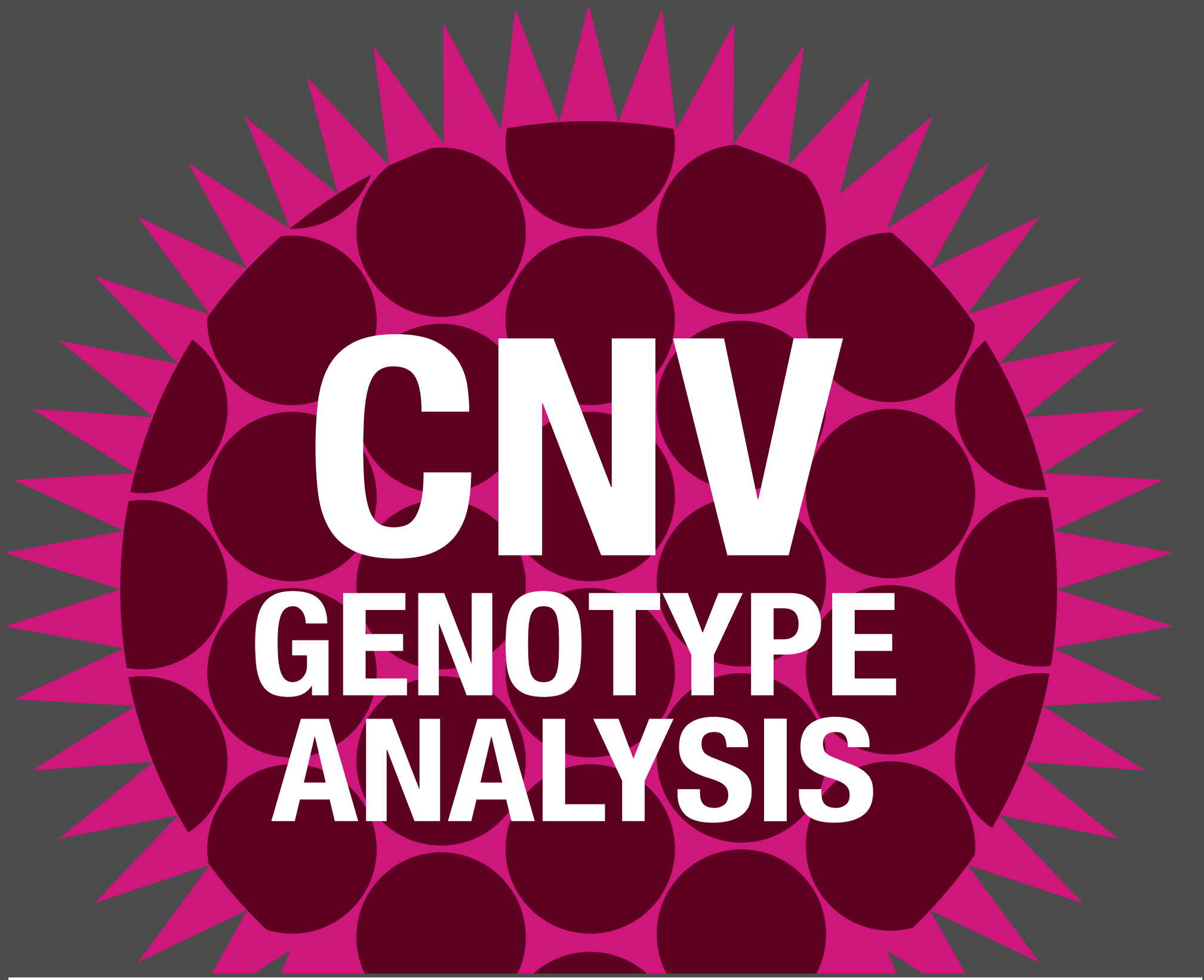


EDNRA AND BOER GOAT PIGMENTATION

Boer goat *EDNRA* CNV can modulate endothelin signaling to alter pigmentation without any **harmful side-effects**.



**HARMFUL SIDE
EFFECTS**



CNV GENOTYPE ANALYSIS

DROPLET DIGITAL PCR (ddPCR) PRODUCTS FROM BIO-RAD

ddPCR was used to confirm and refine the CNV genotype analysis in a cohort of 358 Boer goats.

Visit [bio-rad.com/digital-assays](https://www.bio-rad.com/digital-assays) for more information on ddPCR assays. For research use only.

References:

Menzi F (2016). Genomic amplification of the caprine EDNRA locus might lead to a dose dependent loss of pigmentation. *Scientific Reports*. 6, 28438.

NCBI Gene Report. EDNRA endothelin receptor type A [*Homo sapiens* (human)], Gene ID 1909, accessed September 28, 2018.

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