

Gene could play role in body's muscle mass

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Scientists at the University of Aberdeen identify gene which could play role in determining muscle mass. Credit: University of Aberdeen

Scientists have identified a gene they think could play a role in determining a person's muscle mass - which is linked to a number of health factors, including how long someone lives.

Previous studies have shown a link between [muscle mass](#) and [life expectancy](#) in [elderly people](#).

Muscle is the most abundant tissue in the body and enables many

functions from allowing us to move around to allowing us to breathe.

The amount of skeletal muscle mass each person has can vary significantly.

Skeletal muscle mass can be increased if a person undertakes strength exercise but genetic factors play an equally important role in determining how much muscle mass a person can have.

Now, scientists at the University of Aberdeen, led by Dr Arimantas Lionikas, have identified a gene that appears to affect muscle mass in mice. The findings have been published in *Nature Genetics*.

The same gene has previously been linked with the spread of cancer and drugs have been developed to target it.

The team hope to study these drugs further to understand their effects on [muscle tissue](#). If there are different drugs targeting the same gene, the research could uncover which drug has the less negative effect on muscle mass.

"Skeletal muscle mass is incredibly important in humans, especially as they get older. We have already seen in older adults that statistically, those with lower muscle mass are more likely to die at a younger age.

"Our research suggests this gene could play a role in regulating muscle mass and the fact that drugs have already been developed to target the gene gives us an obvious focus for further research."

More information: Jérôme Nicod et al. Genome-wide association of multiple complex traits in outbred mice by ultra-low-coverage sequencing, *Nature Genetics* (2016). [DOI: 10.1038/ng.3595](https://doi.org/10.1038/ng.3595)

Provided by University of Aberdeen

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