

PRESS RELEASE

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**BRIEF EXPOSURE TO PERFORMANCE-ENHANCING DRUGS MAY
HAVE PERMANENT EFFECTS**

Researchers from the University of Oslo have demonstrated that a brief exposure to anabolic steroids may have long lasting, possibly permanent, performance-enhancing effects.

In the study, mice were briefly exposed to steroids which resulted in increased muscle mass and number of cell nuclei in the muscle fibers. Three months after withdrawal of the drug (approximately 15% of a mouse's life span) their muscles grew by 30% over 6 days following load exercise. The untreated mice grew insignificantly.

In humans this may correspond to an effect lasting for decades given the same cellular "muscle memory" mechanism. The new results might spur a debate on the current World Anti-Doping Agency (WADA) code in which the maximum exclusion time is currently 2 years.

The study will be published in the upcoming issue of Journal of Physiology (October 29th). A copy of the manuscript is available upon request.

Media resources, including photos and quotes, are available freely at the following site:

<http://www.mn.uio.no/ibv/english/research/groups/physiology/labgrupper/gundersen/for-media/>

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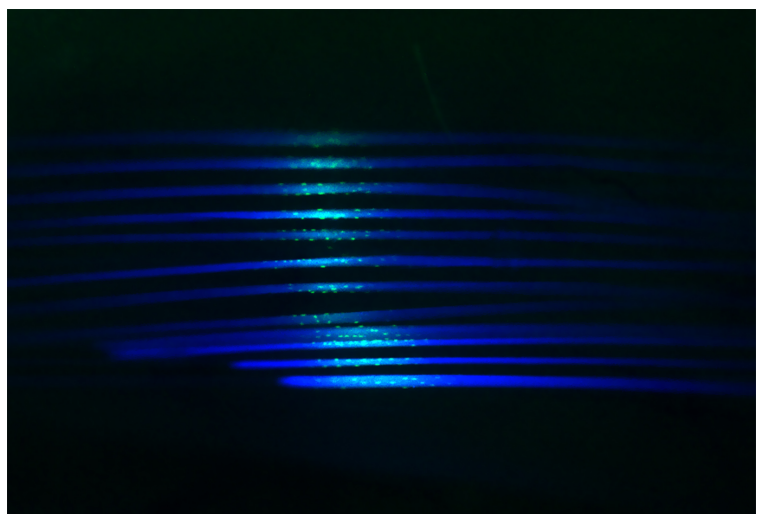


Photo of muscle fibres with cell nuclei. Photo to be credited Jo C. Bruusgaard.



Publication:

Ingrid M. Egner, Jo C Bruusgaard, Einar Eftestøl & Kristian Gundersen (2013) A cellular memory mechanism aids overload hypertrophy in muscle long after an episodic exposure to anabolic steroids. Journal of Physiology