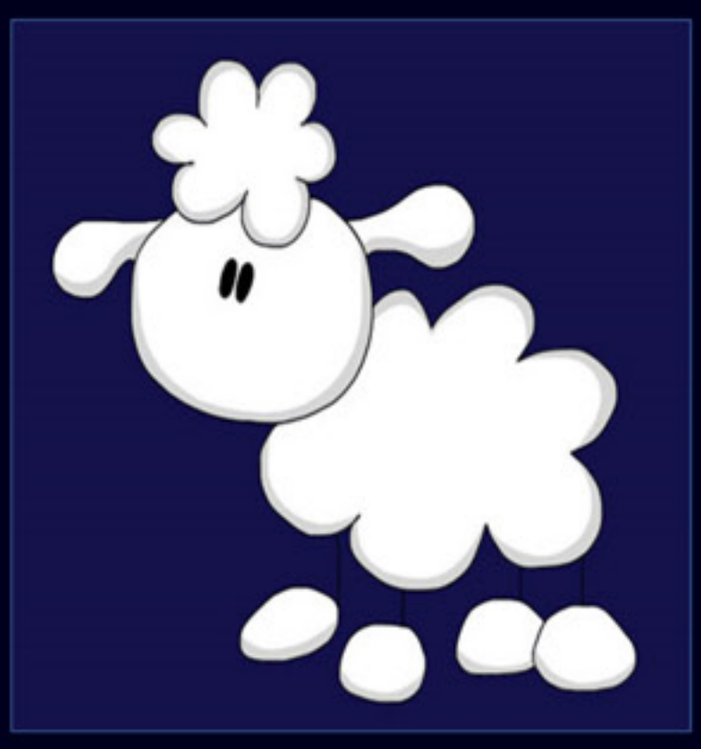
Distribution of autonomic neurons supplying the hip joint capsule in the sheep - preliminary study.

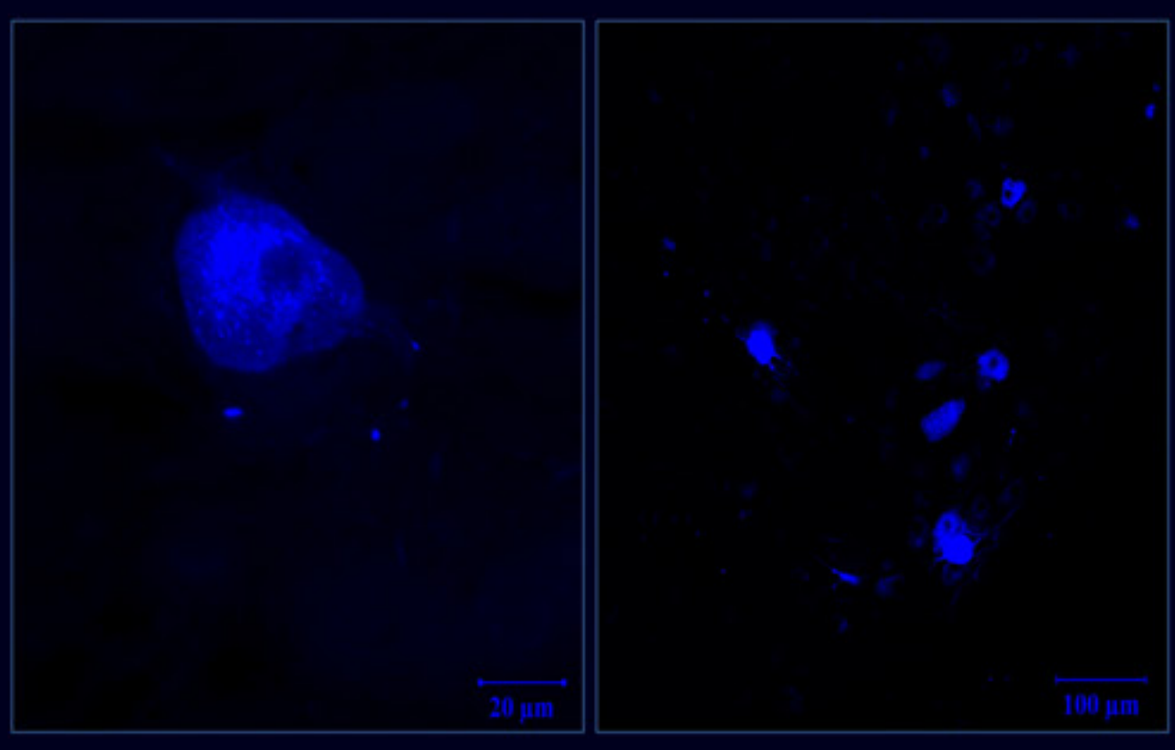
Dudek A.[1], Sienkiewicz W.[1], Chrószcz A.[2], Janeczek M.[2] and Kaleczyc J.[1]

[1]University of Warmia and Mazury, Faculty of Veterinary Medicine, Department of Animal Anatomy, Oczapowskiego 13, 10-719 Olsztyn, Poland
[2]Wroclaw University of Environmental and Life Sciences, Faculty of Veterinary Medicine, Department of Animal Anatomy, Kozuchowska 1, 51-631 Wroclaw



Retrograde tracing method using fluorescent tracer **Fast blue** (FB) was applied to investigate the localization of autonomic neurons involved in the innervation of the hip joint capsule (HJC) in the sheep. Individual animals were injected with **20 µl of 5%** water suspension of FB into the lateral aspect of the right hip joint capsule (group LAT, n= 3) or into the medial aspect of the hip joint capsule (group MED, n=3),respectively.

FB-positive (FB+) neurons were found within ipsilateral lumbar (L) and sacral (S) sympathetic chain ganglia (SCHG) from L2 to S3 and from L2 to S2 in animals of LAT and MED group, respectively.
They were round- or oval-shaped with a longitudinal axis of approximately 35µm and a short axis of approximately 25µm. The neurons were evenly distributed throughout the ganglia.



The average number of FB+ neurons was **312 ± 99.1** and **954.3 ± 54.5** in sheep of group **LAT** and **MED**, respectively.