Seminar Series 2008

DEPARTMENT OF ZOOLOGY

Development of the Diaphragm: It may leave you breathless

David Cannata
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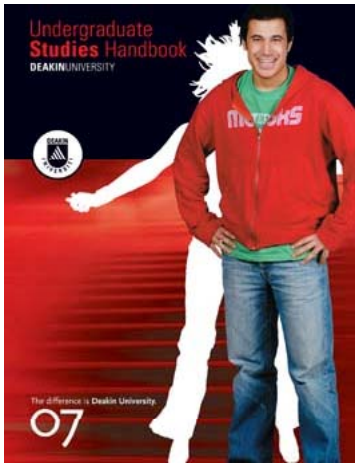
Breathing difficulties are common in newborns, particularly in cases of premature birth or factors that can compromise the development of the fetus during pregnancy. The diaphragm is the main respiratory muscle that enables us to breathe, thus proper development is crucial for the newborn to establish breathing. To investigate how the diaphragm muscle develops, two developmental models, the sheep and the spiny mouse were used. Results show diaphragm muscle fibres undergo changes in their contractile and activation properties from a predominately fast-twitch phenotype to include oxidative/slow-twitch properties, to cope with the act of air ventilation. Properties of the diaphragm were also observed after neonates underwent asphyxia. Creatine supplementation was used to determine if it had any affect on survival.



Wednesday 6 August 2008
12.05 – 1pm

Zoology Seminar Room
Room 350,
Biological Sciences 1

All welcome

David Cannata is a 3rd year PhD student in the School of Life and Environmental Sciences at Deakin University. Under the supervision of Dr. Jan West, and collaboration with Monash University, his current work revolves around pre- and post-natal development of the diaphragm in the spiny mouse and sheep to gain insight into breathing difficulties around the time of birth.

For further information about the seminar series contact:
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http://www.zoo.latrobe.edu.au/Seminar/seminars.html

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