Seminars in Zoophysiology at Aarhus University

Shedding light on fetal survival and adaptive responses to undernutrition

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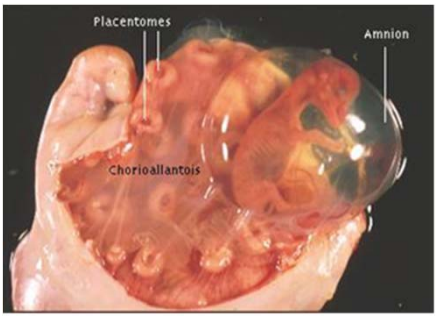
Considerable human and animal evidence suggests that the risk of non-communicable diseases (e.g. cardiovascular disease) is increased by environmental cues in early life. Our work in sheep has measured fetal cardiovascular responses to cues from a suboptimal intrauterine environment and underlying mechanisms. Such prenatal adaptive responses may start as means of immediate fetal survival or to optimize phenotype for the predicted later environment – but there may be limits to these adaptations or the prediction may be wrong (i.e. mismatched) and lead to longer-term problems. Our group produced the first animal evidence which tested this 'mismatch' concept. A recurring feature of the fetal adaptive response to maternal undernutrition was altered peripheral blood flow, and we found that this was linked to altered skeletal muscle development. This has prompted new research questions concerning vitamin D status in pregnancy and cardiovascular / skeletal muscle development.



Thursday April 25th at 12.00
Room 127 (zoofys kaffestue), building 1131

Activity: open field