

# Synthesis of proteoglycans and hyaluronic acid by long-term cultures of testicular cells from immature and pubertal rats

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Long-term cultures of somatic testicular cells derived from immature and pubertal rats were used to study the synthesis of proteoglycans (PG) and hyaluronic acid (HA). Labelled PG and HA in the culture medium, membrane-associated and intracellular pools were characterized by gel filtration, ion exchange chromatography and selected enzymatic and chemical treatments. Somatic cells synthesize a PG containing both heparan and chondroitin/dermatan sulfate (CS/DS) chains and a PG containing only CS/DS chains. No major qualitative changes in the type of PG were observed in cells derived from immature and pubertal animals. However, significant age-dependent differences in the cell distribution pattern of PG and HA were determined. This may have implications in the regulation of spermatogenesis. Copyright © 1989 John Wiley & Sons Ltd.