

HOME HELP FEEDBACK SUBSCRIPTIONS ARCHIVE SEARCH TABLE OF CONTENTS

Q.

Need to search many journals at once?

Journal of Andrology, Vol. 23, No. 4, July/August 2002 Copyright © <u>American Society of Andrology</u>

DNA Replication and Germ Cell Apoptosis During Spermatogenesis in the Cat

JOSEFA BLANCO-RODRÍGUEZ

From the Department of Cell Biology, School of Medicine, Valladolid University, Spain.

Correspondence to: Josefa Blanco Rodríguez, MD, PhD, Departamento de Biología Celular, Facultad de Medicina, Ramón y Cajal, 7, 47005 Valladolid, Spain (email: jblanco{at}med.uva.es).

Stages at which DNA synthesis and germ cell death take place have recently been found to be equivalent in rabbits and rats. Preservation of the timing of these processes in different orders of mammals indicates that this timing may be crucial for testis cell biology. Since there is no previous study on either germ cell proliferation or apoptosis in upper mammals, an analysis of DNA replication (by

bromodeoxyuridine labeling) and of the location of apoptotic germ cells (by the TUNEL assay) has been performed in 3 young adult cats. Our observations indicated that in this animal, spermatogonial DNA synthesis occurs at stages V (at which point the first generation of replicating spermatogonia appears, together with replicating preleptotene spermatocytes), early VII, VIII, and early I, II, and IV. Apoptosis of both spermatogonia and spermatocytes was located mostly at stages early I, early VI, early VII, and VIII. Interestingly, DNA synthesis and germ cell death were found to occur at the same stages of the spermatogenic cycle (that is, to occur at the same specific stages of development) as those reported for the rabbit and small rodents.

Key words: Spermatogonia, spermatocytes, spermatogenic stages, DNA synthesis, programmed cell death

This article has been cited by other articles:



BIOLOGY of REPRODUCT

BIOLOGI OJ KEPRODUCIION PHOM
K. Neubauer, K. Jewgenow, S. Blottner, D. E. Wildt, and B. S. Pukazhenthi
Quantity Rather Than Quality in Teratospermic Males: A
Histomorphometric and Flow Cytometric Evaluation of
Spermatogenesis in the Domestic Cat (Felis catus)
Biol Reprod, November 1, 2004; 71(5): 1517 - 1524.
[Abstract] [Full Text] [PDF]

This Article

- Full Text
- Full Text (PDF)
- Alert me when this article is cited
- Alert me if a correction is posted

Services

- Similar articles in this journal
- Similar articles in PubMed
- Alert me to new issues of the journal
- Download to citation manager

Citing Articles

- Citing Articles via HighWire
- Citing Articles via Google Scholar

Google Schola

- Articles by Blanco-Rodríguez, J.
- Search for Related Content

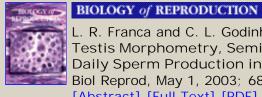
PubMed

PubMed Citation

LUOME

Articles by Blanco-Rodríguez, J.





L. R. Franca and C. L. Godinho Testis Morphometry, Seminiferous Epithelium Cycle Length, and Daily Sperm Production in Domestic Cats (Felis catus) Biol Reprod, May 1, 2003; 68(5): 1554 - 1561. [Abstract] [Full Text] [PDF]

HOME HELP FEEDBACK SUBSCRIPTIONS ARCHIVE SEARCH TABLE OF CONTENTS

Copyright © 2002 by The American Society of Andrology.