

Journal of Andrology, Vol 14, Issue 2 99-109, Copyright © 1993 by The American Society of Andrology

JOURNAL ARTICLE

Sertoli cell secreted growth factor. Cellular origin, paracrine and endocrine regulation of secretion

S. Shubhada, M. Glinz and D. J. Lamb

Scott Department of Urology, Baylor College of Medicine, Houston, Texas 77030.

Rat and human Sertoli cells in culture secrete a growth factor, Sertoli cell secreted growth factor (SCSGF). The aims of the present study were (1) to evaluate other testicular cell types as additional sources of SCSGF, as well as their paracrine effect, and (2) to study the hormonal regulation of SCSGF secretion using an A431 cell growth assay. The Sertoli cell was the only testicular cell type tested that secreted SCSGF activity in vitro. Peritubular cells enhanced Sertoli cell attachment and SCSGF secretion. Spermatogenic cells had no effect. The secretion of SCSGF was specifically stimulated by follicle-stimulating hormone (FSH) and testosterone. Treatment with agents that increase intracellular cAMP levels and adenosine stimulated the secretion of mitogenic activity into Sertoli cell-conditioned medium by three- to fivefold. This growth factor, secreted by the Sertoli cell and regulated by FSH and testosterone, may play a critical role in the regulation of spermatogenesis.

This article has been cited by other articles:



BIOLOGY of REPRODUCTION

[HOME](#)

H. Roelants, F. Schneider, F. Goritz, J. Streich, and S. Blottner
Seasonal Changes of Spermatogonial Proliferation in Roe Deer,
Demonstrated by Flow Cytometric Analysis of c-kit Receptor, in
Relation to Follicle-Stimulating Hormone, Luteinizing Hormone, and
Testosterone

Biol Reprod, February 1, 2002; 66(2): 305 - 312.

[\[Abstract\]](#) [\[Full Text\]](#) [\[PDF\]](#)



BIOLOGY of REPRODUCTION

[HOME](#)

G. Dirami, N. Ravindranath, V. Pursel, and M. Dym
Effects of Stem Cell Factor and Granulocyte Macrophage-Colony
Stimulating Factor on Survival of Porcine Type A Spermatogonia
Cultured in KSOM

Biol Reprod, July 1, 1999; 61(1): 225 - 230.

[\[Abstract\]](#) [\[Full Text\]](#)

This Article

- ▶ [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 Scholar

- ▶ [Articles by Shubhada, S.](#)
- ▶ [Articles by Lamb, D. J.](#)
- ▶ [Search for Related Content](#)

PubMed

- ▶ [PubMed Citation](#)
- ▶ [Articles by Shubhada, S.](#)
- ▶ [Articles by Lamb, D. J.](#)

[HOME](#) [HELP](#) [FEEDBACK](#) [SUBSCRIPTIONS](#) [ARCHIVE](#) [SEARCH](#) [TABLE OF CONTENTS](#)

[Copyright © 1993 by The American Society of Andrology.](#)