

## Accepted Manuscript

Title: TGF- $\beta$  Superfamily Signaling in Testis Formation and Early Male Germline Development

Author: Julia C. Young Shoichi Wakitani Kate L. Loveland

PII: S1084-9521(15)00227-X  
DOI: <http://dx.doi.org/doi:10.1016/j.semcd.2015.10.029>  
Reference: YSCDB 1860

To appear in: *Seminars in Cell & Developmental Biology*

Received date: 14-10-2015  
Accepted date: 16-10-2015

Please cite this article as: Young JC, Wakitani S, Loveland KL, TGF-*rm*beta Superfamily Signaling in Testis Formation and Early Male Germline Development, *Seminars in Cell and Developmental Biology* (2015), <http://dx.doi.org/10.1016/j.semcd.2015.10.029>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



# TGF- $\beta$ Superfamily Signaling in Testis Formation and Early Male Germline Development

<sup>1,3</sup> Julia C. Young, <sup>1,4</sup> Shoichi Wakitani, <sup>1,2,3</sup> \* Kate L. Loveland

(1) Hudson Institute of Medical Research, Clayton Victoria Australia

(2) School of Clinical Sciences, Monash University, Clayton Victoria Australia

(3) Department of Anatomy and Developmental Biology, Monash University, Clayton Victoria Australia

(4) Laboratory of Veterinary Biochemistry and Molecular Biology, University of Miyazaki, Japan

## Contents:

1. Introduction
2. TGF- $\beta$  superfamily members and signaling pathways
3. TGF- $\beta$  superfamily ligands control fetal testis development
  - 3.1 Germline fate specification and cellular reorganization underpin testis formation
  - 3.2 Dynamic synthesis of TGF- $\beta$  superfamily signaling components during testis formation
  - 3.3 TGF- $\beta$  superfamily roles in gender-specific organ growth and male germline differentiation in the foetus
4. TGF- $\beta$  superfamily in postnatal testes
  - 4.1 Juvenile testis development
  - 4.2 Expression profiles of TGF- $\beta$  superfamily signaling components in the growing testis
  - 4.3 TGF- $\beta$  superfamily roles in juvenile testis growth
5. TGF- $\beta$  superfamily members in human testicular germ cell tumours: reflecting their foetal origin
  - 5.1 Testicular germ cell tumours
  - 5.2 TGF- $\beta$  superfamily signaling components in TGCT
  - 5.3 TGF- $\beta$  superfamily signaling in human testicular tumours: reflecting their foetal origins
6. Conclusions

Download English Version:

<https://daneshyari.com/en/article/8480304>

Download Persian Version:

<https://daneshyari.com/article/8480304>

[Daneshyari.com](https://daneshyari.com)