

The present book has been written to cover up the course on 'Reproductive Biology' prescribed for the biology students of different Indian Universities. The discussion is suitable for post graduate students; it provides the indispensable knowledge without which the most recent advancements over a wide front cannot be understood. The subject matter of the book is represented in the way which is best suited to the needs of our Indian students. The book presents the fundamental ideas of the 'Reproductive Biology' in simple and concise form and it gives to the students a proper background of subject and introduces them to the body of factual informations revealed by modern researches of the last two decades. The special features of this book are described as: 1) It has been written in simple and fluent language. 2) The subject matter is systematically arranged and it is fully illustrated by easy diagrams. 3) Each topic is discussed in the light of recent researches that have greatly illuminated many of the earlier discoveries on embryological phenomena by revealing the molecular basis of those phenomena. It is hoped that the teachers and students will find this book suitable.



Shivkumar Ghaturkar studied at Gondwana University, India. Recently he completed his Bachelor's Degree and now he is pursuing his Master's Degree in Zoology; research topic including systematics and biology of nephilidae pilipes and clavipes (spiders). The author likes to spend his free time to observe animal behaviour.

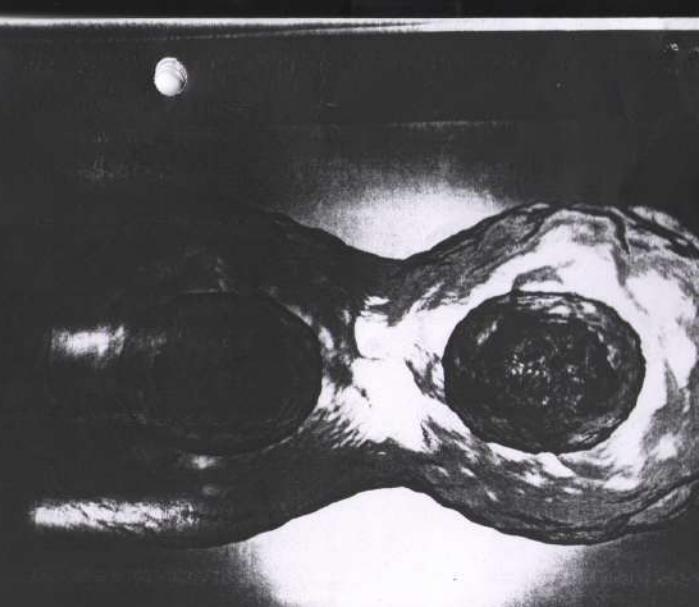


978-3-659-95876-2



Principal  
Mahatma Gandhi Arts,  
Science & Late  
N. P. Commerce College,  
Amori, Dist - Gadchiroli

LAP LAMBERT Academic Publishing



Shivkumar Ghaturkar

## Reproductive Biology

**Pressum / Imprint**

Bibliografische Information der Deutschen Nationalbibliothek: Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über <http://dnb.d-nb.de> abrufbar.

Alle in diesem Buch genannten Marken und Produktnamen unterliegen Warenzeichen-, marken- oder patentrechtlichem Schutz bzw. sind Warenzeichen oder eingetragene Warenzeichen der jeweiligen Inhaber. Die Wiedergabe von Marken, Produktnamen, Gebrauchsnamen, Handelsnamen, Warenbezeichnungen u.s.w. in diesem Werk berechtigt auch ohne besondere Kennzeichnung nicht zu der Annahme, dass solche Namen im Sinne der Warenzeichen- und Markenschutzgesetzgebung als frei zu betrachten wären und daher von jedermann benutzt werden dürfen.

Bibliographic information published by the Deutsche Nationalbibliothek: The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>.

Any brand names and product names mentioned in this book are subject to trademark, brand or patent protection and are trademarks or registered trademarks of their respective holders. The use of brand names, product names, common names, trade names, product descriptions etc. even without a particular marking in this work is in no way to be construed to mean that such names may be regarded as unrestricted in respect of trademark and brand protection legislation and could thus be used by anyone.

Coverbild / Cover image: [www.ingimage.com](http://www.ingimage.com)

**Verlag / Publisher:**

LAP LAMBERT Academic Publishing  
ist ein Imprint der / is a trademark of  
OmniScriptum GmbH & Co. KG  
Bahnhofstraße 28, 66111 Saarbrücken, Deutschland / Germany  
Email: [info@omniscriptum.com](mailto:info@omniscriptum.com)

Herstellung: siehe letzte Seite /

Printed at: see last page

ISBN: 978-3-659-95876-2

Copyright © Shivkumar Ghaturkar

Copyright © 2016 OmniScriptum GmbH & Co. KG

Alle Rechte vorbehalten. / All rights reserved. Saarbrücken 2016

# REPRODUCTIVE BIOLOGY

SHIVKUMAR GHATURKAR  
JAYESH PAPADKAR



Papadkar  
Mahatma Gandhi Arts,  
Science & Law  
N. P. Commerce College,  
Armoi, Dist - Gadchiroli



Sertoli cell-1,2,9,10,14,21  
Semen-17,18,19,20,21,44  
Spermatogenesis-1,2,3,4,5,6,8,9,12,14,16  
Spermatozoa-1,3,5,6,9,17,18,19,21,23,45  
Seminiferous tubules-1,3,9,10,12,21  
Somites-102,104,107  
Spermatogonia-1,2,3,8  
Spermatocytes-1,2,3,4,8  
Spermatids-1,2,3,4,8

T

Testosterone-5,6,7,10,11,12,13,15,21

V

Vitellogenin-25,26,27

Vitellogenesis-25,27

Y

Yolk-25,26,28,29,32,38,76,80,81,88,90,92,107,109,138

Reproductive Biology

This book - "Reproductive Biology" comprising of five chapters, containing the study Spermatogenesis, Oogenesis, Cleavage, Differentiation of Germ Layers, Implantation Mammals. To understand this book one must have knowledge of basic embryology. The investigations in the present book are based on the research works of Shivkumar Ghaturkar and Jayesh Papadkar where they have studied Reproductive Biology.

23 years teaching experience on UG, 04 years teaching experience on PG; Three books published as co-author through Celebration Infomedia Publisher for UG syllabus of R.T.M.Nagpur University, Nagpur; 02 research papers published at international journals; 01 poster presented at international Conferences; 05 papers published at various National Conferences; 05 National seminars, 05 National workshops, 05 National Conferences attended; 01 organised National Conferences work as organising secretary; IQAC Coordinator.



Jayesh Papadkar

01 paper published in international journal of researches in biosciences, agriculture and technology with ISSN 2347-517X; 04 poster presented in National conference; 02 posters presented in Avishkar.



Shivkumar Ghaturkar



184

  
Principal  
Mahatma Gandhi Arts,  
Science & Law  
N. P. Commerce College,  
Armori, Dist - Gadchiroli

185