

Extracellular Vesicles
Applications to Regenerative Medicine, Therapeutics and Diagnostics

Biomaterials Science Series

Editor-in-chief:

Julian Jones, *Imperial College London, UK*

Series editors:

Cole DeForest, *University of Washington, USA*

Changyou Gao, *Zhejiang University, China*

Titles in the Series:

- 1: Stimuli-responsive Drug Delivery Systems
- 2: Biodegradable Thermogels
- 3: Biofabrication and 3D Tissue Modeling
- 4: Biomaterial Control of Therapeutic Stem Cells
- 5: Antimicrobial Materials for Biomedical Applications
- 6: Decellularized Extracellular Matrix: Characterization, Fabrication and Applications
- 7: The Chemistry of Medical and Dental Materials, 2nd edition
- 8: Injectable Hydrogels for 3D Bioprinting
- 9: Extracellular Vesicles: Applications to Regenerative Medicine, Therapeutics and Diagnostics

How to obtain future titles on publication:

A standing order plan is available for this series. A standing order will bring delivery of each new volume immediately on publication.

For further information please contact:

Book Sales Department, Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF, UK

Telephone: +44 (0)1223 420066, Fax: +44 (0)1223 420247,

Email: booksales@rsc.org

Visit our website at www.rsc.org/books

Extracellular Vesicles

Applications to Regenerative Medicine, Therapeutics and Diagnostics

Edited by

Wojciech Chrzanowski

University of Sydney, Australia

Email: wojciech.chrzanowski@sydney.edu.au

Chwee Teck Lim

National University of Singapore, Singapore

Email: ctim@nus.edu.sg

and

Sally Yunsun Kim

Imperial College London, UK

Email: sally.kim@imperial.ac.uk



ROYAL SOCIETY
OF **CHEMISTRY**

Biomaterials Science Series No. 9

Print ISBN: 978-1-78801-894-4

PDF ISBN: 978-1-83916-455-2

EPUB ISBN: 978-1-83916-456-9

Print ISSN: 2397-1401

Electronic ISSN: 2397-141X

A catalogue record for this book is available from the British Library

© The Royal Society of Chemistry 2022

All rights reserved

Apart from fair dealing for the purposes of research for non-commercial purposes or for private study, criticism or review, as permitted under the Copyright, Designs and Patents Act 1988 and the Copyright and Related Rights Regulations 2003, this publication may not be reproduced, stored or transmitted, in any form or by any means, without the prior permission in writing of The Royal Society of Chemistry or the copyright owner, or in the case of reproduction in accordance with the terms of licences issued by the Copyright Licensing Agency in the UK, or in accordance with the terms of the licences issued by the appropriate Reproduction Rights Organization outside the UK. Enquiries concerning reproduction outside the terms stated here should be sent to The Royal Society of Chemistry at the address printed on this page.

Whilst this material has been produced with all due care, The Royal Society of Chemistry cannot be held responsible or liable for its accuracy and completeness, nor for any consequences arising from any errors or the use of the information contained in this publication. The publication of advertisements does not constitute any endorsement by The Royal Society of Chemistry or Authors of any products advertised. The views and opinions advanced by contributors do not necessarily reflect those of The Royal Society of Chemistry which shall not be liable for any resulting loss or damage arising as a result of reliance upon this material.

The Royal Society of Chemistry is a charity, registered in England and Wales, Number 207890, and a company incorporated in England by Royal Charter (Registered No. RC000524), registered office: Burlington House, Piccadilly, London W1J 0BA, UK, Telephone: +44 (0) 20 7437 8656.

For further information see our website at www.rsc.org

Printed in the United Kingdom by CPI Group (UK) Ltd, Croydon, CR0 4YY, UK