



Library of Congress Cataloging-in-Publication Data

Names: Fujiwara, Tomoko, editor. | Liu, X. Michael, editor. | Ohya, Yuichi, editor. | Wang, Yongmei, editor.

Title: Polymers in therapeutic delivery / Tomoko Fujiwara, editor, the University of Memphis, Memphis, Tennessee, X. Michael Liu, editor, Glaukos Corporation, San Clemente, California, Yuichi Ohya, editor, Kansai University, Osaka, Japan, Yongmei Wang, editor, the University of Memphis, Memphis, Tennessee.

Description: Washington, DC: American Chemical Society, [2020] | Series: ACS symposium series; 1350 | "Sponsored by the ACS Division of Polymer Chemistry, Inc" | Includes bibliographical references and index. | Summary: "This book is about Polymers in Therapeutic Delivery"-- Provided by publisher.

Identifiers: LCCN 2020019070 (print) | LCCN 2020019071 (ebook) | ISBN 9780841238145 (hardcover OP) | ISBN 9780841298996 (ebook other) | ISBN 9781713890164 (pod)

Subjects: LCSH: Polymeric drug delivery systems. | Polymeric drugs.

Classification: LCC RS201.P65 P66 2020 (print) | LCC RS201.P65 (ebook) |

DDC 615.1--dc23

LC record available at https://lccn.loc.gov/2020019070 LC ebook record available at https://lccn.loc.gov/2020019071

The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences—Permanence of Paper for Printed Library Materials, ANSI Z39.48n1984.

Copyright © 2020 American Chemical Society

All Rights Reserved. Reprographic copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Act is allowed for internal use only, provided that a per-chapter fee of \$40.25 plus \$0.75 per page is paid to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, USA. Republication or reproduction for sale of pages in this book is permitted only under license from ACS. Direct these and other permission requests to ACS Copyright Office, Publications Division, 1155 16th Street, N.W., Washington, DC 20036.

The citation of trade names and/or names of manufacturers in this publication is not to be construed as an endorsement or as approval by ACS of the commercial products or services referenced herein; nor should the mere reference herein to any drawing, specification, chemical process, or other data be regarded as a license or as a conveyance of any right or permission to the holder, reader, or any other person or corporation, to manufacture, reproduce, use, or sell any patented invention or copyrighted work that may in any way be related thereto. Registered names, trademarks, etc., used in this publication, even without specific indication thereof, are not to be considered unprotected by law.

PRINTED IN THE UNITED STATES OF AMERICA

Contents

Pro	eface	ix
1.	A Polymer Physics Perspective on Why PEI Is an Effective Nonviral Gene Delivery Vector Caleb Gallops, Jesse Ziebarth, and Yongmei Wang	1
2.	Comparison of In Vitro Performances of Nanorod and Nanofiber Polyplexes Prepared from Plasmid DNA and Poly(L-lysine) Terminally Bearing Multi-Arm PEG Ryuta Aono, Kenta Nomura, Eiji Yuba, and Atsushi Harada	13
3.	A Novel Polysaccharide Carrier for Targeted Delivery of Therapeutic Oligonucleotides to β-Glucan Receptors Noriko Miyamoto, Shinichi Mochizuki, Nobuaki Fujiwara, Hiroto Izumi, and Kazuo Sakura	
4.	Sustained Drug-Releasing Systems Using Temperature-Responsive Injectable Polymers Containing Liposomes Yuta Yoshizaki, Hiroki Yamamoto, Akinori Kuzuya, and Yuichi Ohya	35
5.	Design of Stimuli-Responsive Polyampholytes and Their Transformation into Micro- Hydrogels for Drug Delivery	47
6.	Cellular Delivery of Hoechst 33342 Anticancer Drug from Crosslinked Poly(thioether anhydrides): A Cytotoxicity and Efficacy Study Halimatu S. Mohammed, Damien S. K. Samways, and Devon A. Shipp	63
7.	Metal-Organic Nanomaterials for Drug Delivery Chung-Hui Huang, Pengyu Chen, X. Michael Liu, and Feng Li	79
Ed	itors' Biographies	97
	Indexes	
Au	thor Index	101
Sul	hiect Index	103