

CONTENTS

Cited in: BIOSIS/Biological Abstracts; CAB Abstracts; Chemical Abstracts Services; Current Contents (Life Sciences); EMBASE/Excerpta Medica; International Pharmaceutical Abstracts; PUBMED/MEDLINE/Index Medicus; Polymer Contents; Science Citation Index. Also covered in the abstract and citation database Scopus®. Full text available in ScienceDirect®

Special Issue: New Horizons in Drug and Gene Delivery - ICRS 2016

Guest Editors: Tal Dvir, Avi Schroeder and Dan Peer

Graphical Abstracts Contents Listing @ doi: 10.1016/S0168-3659(17)30619-3	e1
Preface	
Editorial	
K. Park (West Lafayette, USA)	1
Therapeutic efficacy of combined PEGylated liposomal doxorubicin and radiofrequency ablation: Comparing single and combined therapy in young and old mice	
A.V. Andriyanov, E. Portnoy, E. Koren, S. Inesa, S. Eyal, S.N. Goldberg and Y. Barenholz (Jerusalem, Israel)	2
Inhibition of CD44v3 and CD44v6 function blocks tumor invasion and metastatic colonization	
M. Zaiden, V. Feinshtein and A. David (Beer-Sheva, Israel)	10
Targeting and modulating infarct macrophages with hemin formulated in designed lipid-based particles improves cardiac remodeling and function	
T. Ben-Mordechai, D. Kain, R. Holbova, N. Landa, L.-P. Levin, I. Elron-Gross, Y. Glucksam-Galnoy, M.S. Feinberg, R. Margalit and J. Leor (Tel Aviv, Tel-Hashomer, Israel)	21
Nuclear and perinuclear targeting efficiency of quantum dots depends on density of peptidic targeting residues on their surface	
A.R. Maity and D. Stepensky (Beer Sheva, Israel; New Delhi, India)	32
Rigidity of polymer micelles affects interactions with tumor cells	
T. Stern, I. Kaner, N.L. Zer, H. Shoval, D. Dror, Z. Manevitch, L. Chai, Y. Brill-Karniely and O. Benny (Jerusalem, Core Research, Israel)	40
Prolonged controlled delivery of nerve growth factor using porous silicon nanostructures	
N. Zilony, M. Rosenberg, L. Holtzman, H. Schori, O. Shefi and E. Segal (Ramat-Gan, Haifa, Israel)	51
Cathepsin nanofiber substrates as potential agents for targeted drug delivery	
Y. Ben-Nun, G. Fichman, L. Adler-Abramovich, B. Turk, E. Gazit and G. Blum (Jerusalem, Tel Aviv, Israel; Ljubljana, Slovenia)	60
Autonomous bacterial nanoswimmers target cancer	
N. Zoaby, J. Shainsky-Roitman, S. Badarneh, H. Abumanhal, A. Leshansky, S. Yaron and A. Schroeder (Haifa, Israel)	68
Amphiphilic star PEG-Camptothecin conjugates for intracellular targeting	
R. Omar, Y.L. Bardoogo, E. Corem-Salkmon and B. Mizrahi (Haifa, Israel)	76
ECM-based macroporous sponges release essential factors to support the growth of hematopoietic cells	
N. Soffer-Tsur, D. Peer and T. Dvir (Tel Aviv, Israel)	84
Innovative encapsulation platform based on pancreatic extracellular matrix achieve substantial insulin delivery	
D. Chaimov, L. Baruch, S. Krishdul, I. Meivar-levy, S. Ferber and M. Machluf (Haifa, Tel-Hashomer, Tel-Aviv, Israel)	91
The effect of linker type and recognition peptide conjugation chemistry on tissue affinity and cytotoxicity of charged polyacrylamide	
M.B.D. Bloch, E. Yavin, A. Nissan, I. Ariel, R. Kenett, D. Brass and A. Rubinstein (Jerusalem, Tel Hashomer, Israel; Turin, Italy)	102
<i>In vivo</i> comparative study of distinct polymeric architectures bearing a combination of paclitaxel and doxorubicin at a synergistic ratio	
H. Baabur-Cohen, L.I. Vossen, H.R. Krüger, A. Eldar-boock, E. Yeini, N. Landa-Rouben, G. Tiram, S. Wedepohl, E. Markovsky, J. Leor, M. Calderón and R. Satchi-Fainaro (Tel Aviv, Tel-Hashomer, Israel; Berlin, Germany)	118
Systemic delivery of siRNA by aminated poly(α)glutamate for the treatment of solid tumors	
D. Polyak, A. Krivitsky, A. Scomparin, S. Eliyahu, H. Kalinski, S. Avkin-Nachum and R. Satchi-Fainaro (Tel Aviv, Ness-Ziona, Israel)	132
Solid nano-in-nanoparticles for potential delivery of siRNA	
O. Amsalem, T. Nassar, S. Benhamron, P. Lazarovici, S. Benita and E. Yavin (Jerusalem, Israel)	144
Stable polyanhydride synthesized from sebacic acid and ricinoleic acid	
M. Haim-Zada, A. Basu, T. Hagigit, R. Schlinger, M. Grishko, A. Kraminsky, E. Hanuka and A.J. Domb (Jerusalem, Or-Akiva, Haifa Bay, Israel)	156
Treatment of respiratory damage in mice by aerosols of drug-encapsulating targeted lipid-based particles	
I. Rivkin, Y. Galnoy-Glucksam, I. Elron-Gross, A. Afriat, A. Eisenkraft and R. Margalit (Tel Aviv, Jerusalem, Israel)	163
Calendar	1

@ Additional material available online.

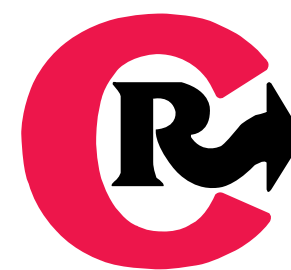
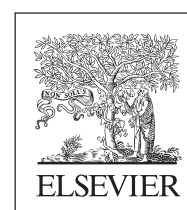


0168-3659(20170710)257:C;1-L

Available online at www.sciencedirect.com

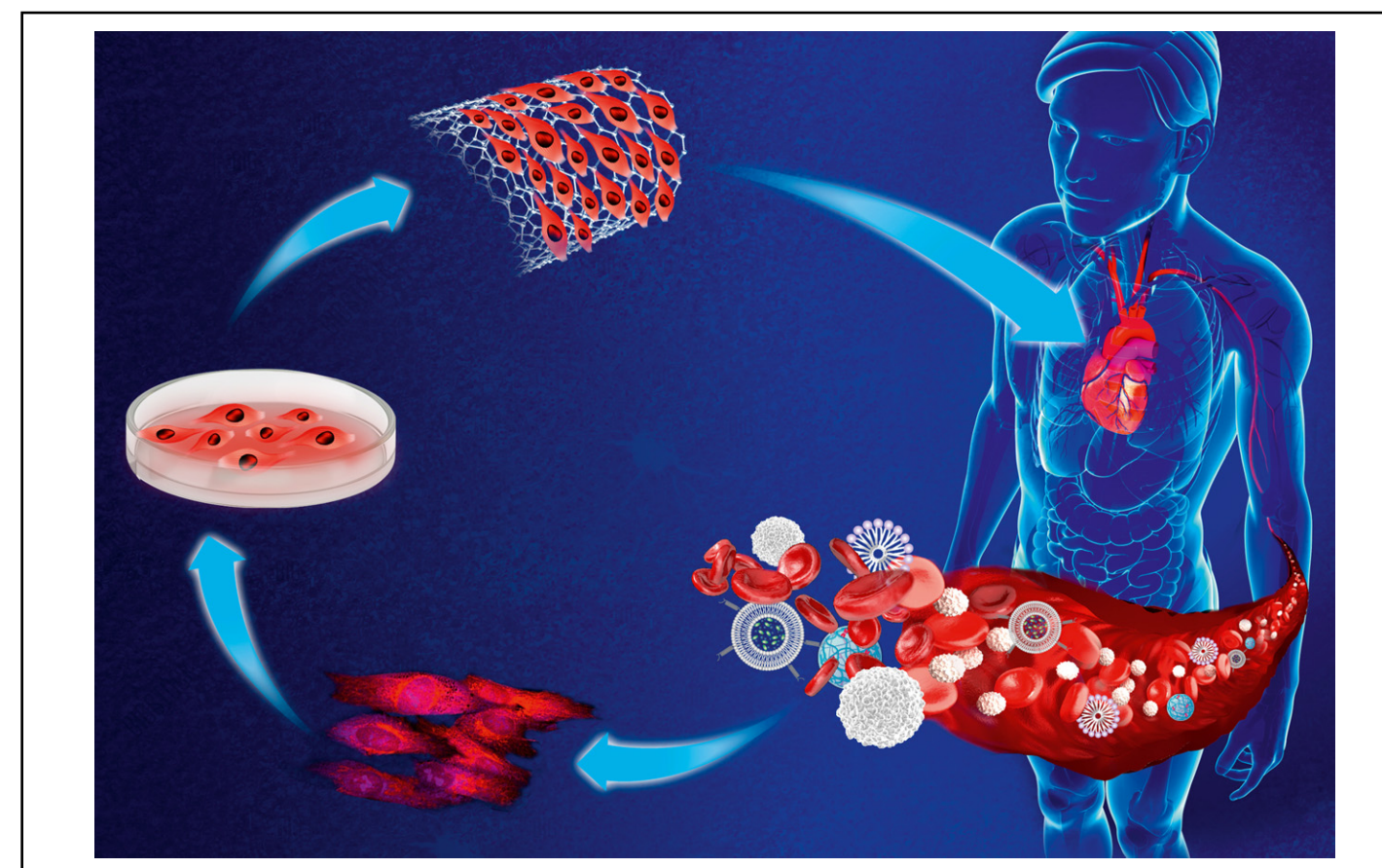
ScienceDirect

05054



journal of controlled release

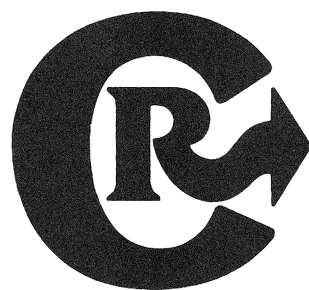
OFFICIAL JOURNAL OF THE CONTROLLED RELEASE SOCIETY
AND THE JAPANESE SOCIETY OF DRUG DELIVERY SYSTEM



Special Issue
New Horizons in Drug and Gene Delivery - ICRS 2016

Guest Editors: Tal Dvir, Avi Schroeder and Dan Peer

journal of controlled release



Official Journal of the Controlled Release Society and of the Japanese Society of Drug Delivery System

The *Journal of Controlled Release* (JCR) publishes high-quality research articles in the broad field of delivery science and technology. This includes drug delivery systems and all aspects of formulations, such as physicochemical and biological properties of drugs, design and characterization of dosage forms, release mechanisms, *in vivo* testing, and formulation research and development in the disciplines of pharmaceutical, diagnostic, agricultural, environmental, cosmetic, and food industries. Manuscripts that advance fundamental understanding of principles and/or demonstrate advantages of novel technologies in safety and efficacy over current clinical standards will be given priority. Each issue has the cover story highlighting the significance of a selected article published in the issue. At the end of each quarter, the JCR editors select "The Editors' Choice" from the published research articles.

EDITORS

EDITOR-IN-CHIEF

Prof. K. Park, Purdue University, Departments of Biomedical Engineering and Pharmaceutics, West Lafayette, IN, USA;
E-mail: kpark@purdue.edu

Associate Editors for the Americas

Prof. Y.H. Bae, Dept. of Pharmaceutics and Pharmaceutical Chemistry, University of Utah, 421 Wakara Way, Salt Lake City, UT 84108, USA;
E-mail: you.bae@utah.edu

Prof. S. Mitragotri, Dept. of Chemical Engineering, University of California at Santa Barbara, Mail Code 5080, Santa Barbara, CA 93106, USA;
E-mail: samir@engineering.ucsb.edu

Prof. S.P. Schwendeman, Dept. of Pharmaceutical Sciences, University of Michigan, 428 Church Street, Ann Arbor, MI 48109, USA;
E-mail: schwende@umich.edu

EDITORS FOR EUROPE

Editor

Prof. S.C. De Smedt, Ghent Research Group on Nanomedicines, Ghent University, Ottergemsesteenweg 460, 9000 Ghent, Belgium
E-mail: Stefaan.desmedt@ugent.be

Associate Editors

Prof. T.G.G.M. Lammers, Department of Experimental Molecular Imaging, RWTH Aachen University Clinic, Pauwelsstrasse 30, 52074 Aachen, Germany;
E-mail: tlammers@ukaachen.de

Prof. J.-C. Leroux, Inst. of Pharmaceutical Sciences, Eidgenössische Technische Hochschule (ETH) Zürich, Wolfgang-Pauli-Str. 10, 8093 Zürich, Switzerland
E-mail: jleroux@ethz.ch

Prof. D. Peer, Department of Cell Research and Immunology, Tel-Aviv University Ramat Aviv, Tel-Aviv, 69978 Israel;
E-mail: peer@post.tau.ac.il

EDITORS FOR ASIA

Editor

Prof. I.C. Kwon, Biomedical Research Center, Korea Institute of Science and Technology (KIST), 39-1 Hawolgok-Dong, 136-791 Seongbuk-Gu, Seoul, South Korea;
E-mail: ikwon@kist.re.kr

Associate Editors

Prof. H. Harashima, Lab. Mol. Design of Pharmaceutics, Fac. of Pharmaceutical Sciences, Hokkaido University, Kita 12, Nishi 6, Kita-ku, 060-0812 Sapporo, Japan;
E-mail: harasima@pharm.hokudai.ac.jp

Prof. A. Kikuchi, Dept. of Materials Science and Technology, Tokyo University of Science, 6-3-1 Niijuku, Katsushika, 125-8585 Tokyo, Japan;
E-mail: kikuchia@rs.noda.tus.ac.jp

Prof. Y. Oh, College of Pharmacy, Seoul National University, 1 Gwanak-ro, Gwanak-gu, Seoul, 151-742 Korea;
Email: ohyk@snu.ac.kr

Review Editor

Prof. V.P. Torchilin, Pharmaceutical Sciences, Northeastern University, 360 Huntington Ave., Boston, MA 02115-5000, USA;
E-mail: v.torchilin@neu.edu

Special Issue Editor

Prof. W.E. Hennink, Dept. of Pharmaceutics, Utrecht Inst. for Pharmaceutical Sciences, Universiteit Utrecht, Universiteitsweg 99, 3584 CG Utrecht, Netherlands

Theme Issue Editor

Prof. J. Hanes, The Wilmer Eye Institute, Johns Hopkins School of Medicine, 400 N. Broadway, Baltimore, MD, USA;
E-mail: hanes@jhmi.edu

Concept Papers Editor

Prof. Y.H. Bae, Dept. of Pharmaceutics and Pharmaceutical Chemistry, University of Utah, 421 Wakara Way, Salt Lake City, UT 84108, USA;
E-mail: you.bae@utah.edu

Advisor

Prof. T. Nagai, E-mail: nagai-t@mbc.ocn.ne.jp

Editorial Board

M.J. Alonso, Santiago de Compostela, Spain

T.L. Bowersock, Kalamazoo, MI, USA

X. Chen, Changchun, China

P. Colombo, Parma, Italy

P. Couvreur, Châtenay-Malabry, France

M.C. Davies, Nottingham, UK

A.J. Domb, Jerusalem, Israel

R. Duncan, Cardiff, UK

L. Ensign, Baltimore, MD, USA

E. Fattal, Châtenay-Malabry, France

M. Foldvart, Waterloo, Canada

B. Gander, Zürich, Switzerland

H. Ghandehari, Salt Lake City, UT, USA

G. Golomb, Jerusalem, Israel

D.W. Grainger, Salt Lake City, UT, USA

R. Gurny, Geneva, Switzerland

M. Hashida, Kyoto, Japan

J.A. Hubbell, Lausanne, Switzerland

L. Illum, Nottingham, UK

S.Y. Jeong, Seoul, Korea

T. Jin, Shanghai, China

A.T. Jones, Cardiff, UK

Founding Editors
Prof. J. Feijen, University of Twente, The Netherlands

Dr. J. Heller, USA

A. Kabanov, Omaha, NE, USA

K. Kataoka, Tokyo, Japan

Y. Kawashima, Gifu, Japan

J. Kopeček, Salt Lake City, UT, USA

G.S. Kwon, Madison, WI, USA

S.J. Lee, Seoul, Korea

C.M. Lehr, Saarbrücken, Germany

K.W. Leong, Baltimore, MD, USA

T. Li, Lexington, KY, USA

K. Mäder, Halle (Saale), Germany

H. Maeda, Kumamoto, Japan

E. Mathiowitz, Providence, RI, USA

A.G. Mikos, Houston, TX, USA

T. Minko, Piscataway, NJ, USA

S.M. Moghimi, Stockton on Tees, United Kingdom

R. Niven, Half Moon Bay, CA, USA

H. Okada, Tokyo, Japan

T. Okano, Tokyo, Japan

D.W. Pack, Urbana, IL, USA

N.A. Peppas, Austin, TX, USA

Y. Perrie, Birmingham, UK

M. Prausnitz, Atlanta, GA, USA

D. Putnam, Ithaca, NY, USA

T. Rades, Copenhagen, Denmark

M.J. Rathbone, Kuala Lumpur, Malaysia

A.P. Rolland, San Diego, CA, USA

K. Roy, Atlanta, GA, USA

W.M. Saltzman, New Haven, CT, USA

R.A. Siegel, Minneapolis, MN, USA

J. Siewmann, Lille, France

P.S. Stayton, Seattle, WA, USA

Y. Sugiyama, Tokyo, Japan

H.-W. Sung, Hsinchu, Taiwan

K. Takayama, Tokyo, Japan

I. Uchegbu, London, UK

K. Ulbrich, Prague, Czech Republic

A. Urtti, Helsinki, Finland

E. Wagner, Munich, Germany

C. Wang, Minneapolis, MN, USA

C.-H. Wang, Singapore

C.O. Yun, Seoul, Korea

Q. Zhang, Beijing, China

Z. Zhong, Suzhou, China

For a full and complete Guide for Authors, please go to <http://www.elsevier.com/locate/jconrel>