

IN THIS ISSUE

eISSN 2976-8713 CODEN RPSHBW 2(5) 841–1190 (2025)



Cover

See Masahiro Goto et al., pp. 1078–1086.

Image reproduced by permission of Masahiro Goto from *RSC Pharm.*, 2025, **2**, 1078.



Inside cover

See Padma V. Devarajan et al., pp. 1087–1095.

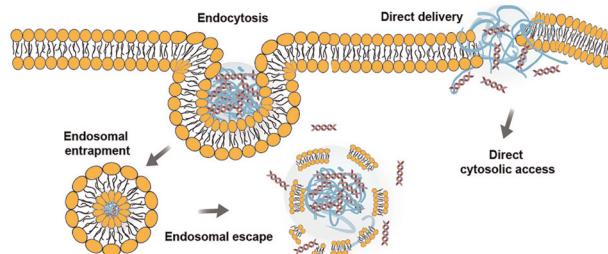
Image reproduced by permission of Simmi Gupta from *RSC Pharm.*, 2025, **2**, 1087. Created with Biorender.com

REVIEWS

850

Breaking the cellular delivery bottleneck: recent developments in direct cytosolic delivery of biologics

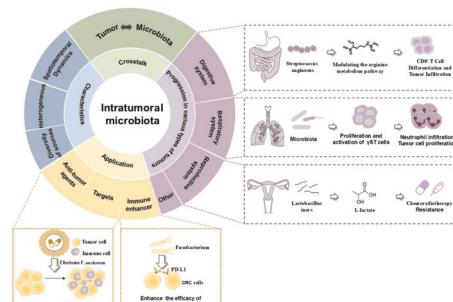
Harini Nagaraj, Victor Lehot, Nourina Nasim, Yagiz Anil Cicek, Ritabrita Goswami, Taewon Jeon and Vincent M. Rotello*



865

Intratumoral microbiota: a new perspective in cancer initiation, development, and therapy

Huilin Liu, Zhonghui Luo, Fangzhen Luo,* Xilian Wang, Hua Wei* and Cui-Yun Yu*



EES Solar

**Exceptional research on solar
energy and photovoltaics**

Part of the EES family

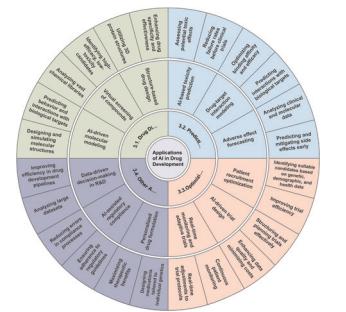
**Join
in** | Publish with us
rsc.li/EESSolar

REVIEWS

882

Artificial intelligence in smart drug delivery systems: a step toward personalized medicine

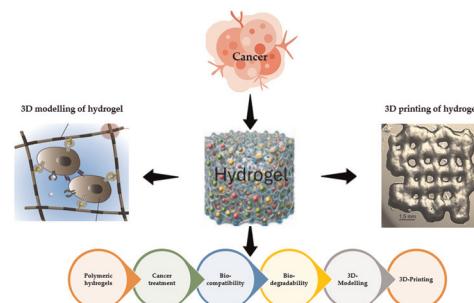
Mitali Panchpuri, Ritu Painuli and Chetan Kumar*



915

Introduction, classification and applications of 3D bioprinted hydrogels for cancer treatment: a review

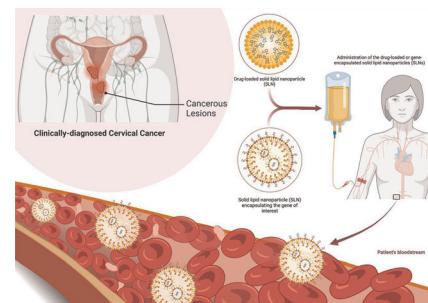
Anusha Thumma



930

Solid lipid nanoparticles in cervical cancer: a comprehensive review of a decade of progress and prospects

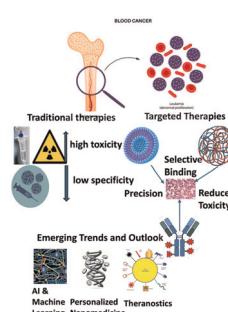
Pooja Tiwary, Krishil Oswal, Ryan Varghese,*
Ravi Vamsi Peri and Pardeep Gupta*



950

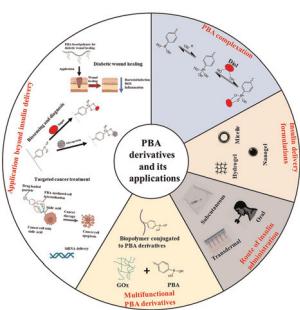
Advances in targeted therapies and emerging strategies for blood cancer treatment

Samson A. Adeyemi,* Lindokuhle M. Ngema and
Yahya E. Choonara*



REVIEWS

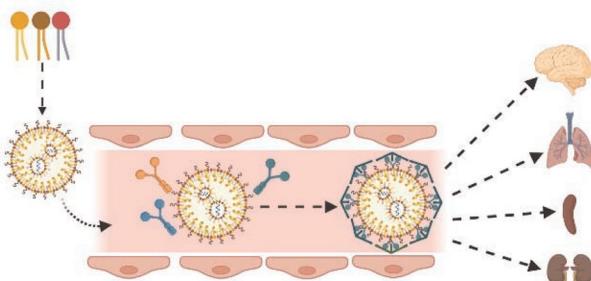
962



Phenylboronic acid derivatives: advancing glucose-responsive insulin delivery and multifunctional biomedical applications

Kofi Oti Boakye-Yiadom, Debmalya Roy, Hajra Zafar and Faisal Raza*

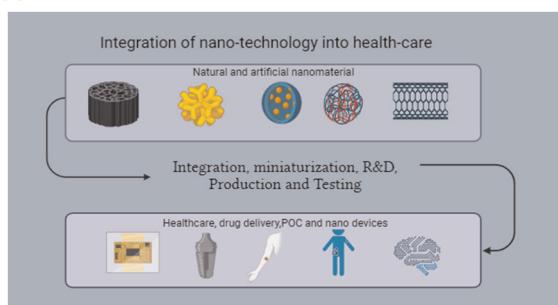
982



A new strategy for the extrahepatic delivery of lipid-based nanomedicines: a protein corona-mediated selective targeting system based on an ionizable cationic lipid library

Mahmoud A. Younis, Yusuke Sato, Seigo Kimura and Hideyoshi Harashima*

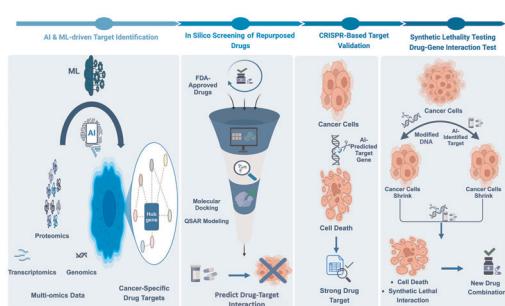
1003



Nanosensors in healthcare: transforming real-time monitoring and disease management with cutting-edge nanotechnology

Shikha Gulati,* Rakshita Yadav, Varsha Kumari, Shivangi Nair, Chetna Gupta and Meenal Aishwari

1019



Incorporating AI, *in silico*, and CRISPR technologies to uncover the potential of repurposed drugs in cancer therapy

Hend Gamal,* Eman Mostafa Shoeib, Areej Hajjaj, Heba Elsafy Abdelaziz Abdullah, Esmaeil H. Elraby, Doaa Ahmed Abd Ellah, Shorouk Mahmoud El-Sayed and Mohammad Fadl Khder

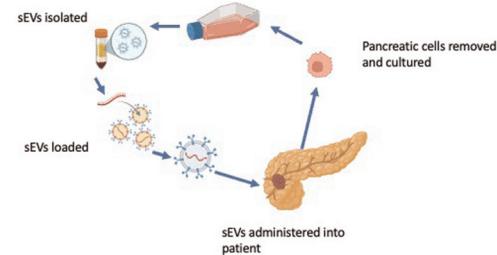


REVIEWS

1034

The potential of small extracellular vesicles for pancreatic cancer therapy

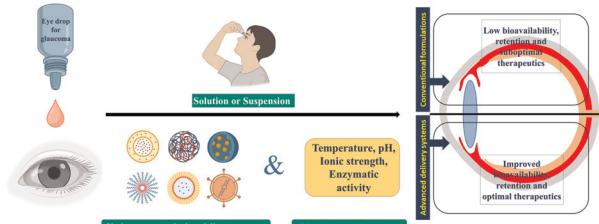
Richard Crow, Oksana Kehoe and Clare Hoskins*

Created in <https://Biorender.com>

1050

Emerging drug delivery strategies for glaucoma therapy: focus on nanoparticles and stimuli-responsive systems

Sourabh Kundu, Gitika Kumari and Dadi A. Srinivasarao*

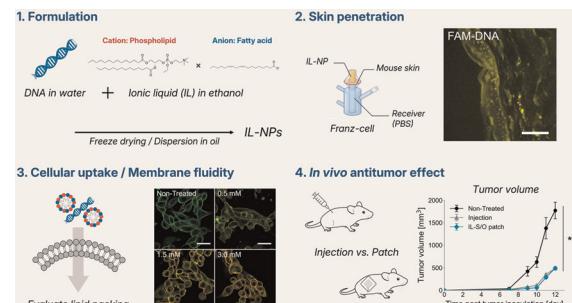


PAPERS

1078

Biocompatible ionic liquid-based nanoparticles for effective skin penetration and intracellular uptake of antisense oligonucleotides

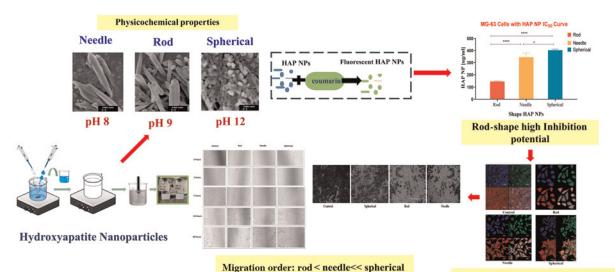
Kiyohiro Toyofuku, Rie Wakabayashi, Yoshiro Kawaguchi, Noriho Kamiya and Masahiro Goto*



1087

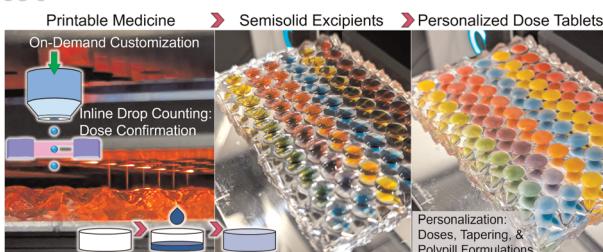
Effect of shape on cellular internalization and anti-cancer efficacy of hydroxyapatite nanoparticles in an osteosarcoma cell line

Simmi Gupta, Esha S. Attar, Vishvvesh Joshi and Padma V. Devarajan*



PAPERS

1096



Personalized medicine: a quality by design approach to printable tablet production

Thomas P. Forbes,* Olivia Agolini, Zainab Altamimi and Jeffrey Lawrence

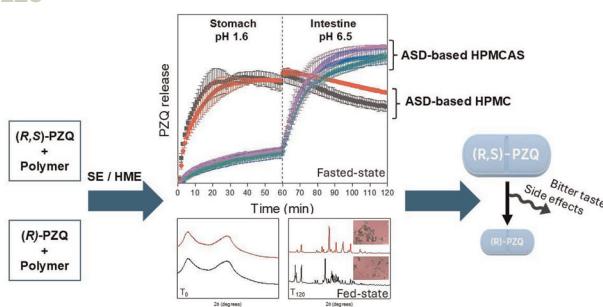
1110



Comparative analysis of the inhibitory effects of aloin on tyrosinase supported by $\text{Fe}_3\text{O}_4@\text{rGO}$: investigation of interaction mechanisms, inhibitory activity, and conformational changes

Zhu Wang, Lu Chen, Jing Yuan, Qulan Zhang* and Yongnian Ni

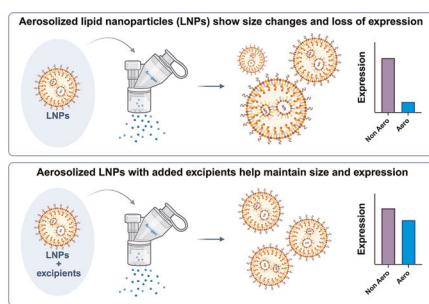
1125



Release performance and crystallization of racemic and enantiopure praziquantel amorphous solid dispersion in various media

Benedito Roberto de Alvarenga Junior and Lynne S. Taylor*

1139



Systematic screening of excipients to stabilize aerosolized lipid nanoparticles for enhanced mRNA delivery

Brittany J. Heiser, Mae M. Lewis, Meysam Mohammadi Zerankeshi, Emily K. Netemeyer, Ashlee M. Hernandez, Alexander E. Marras and Debadyuti Ghosh*



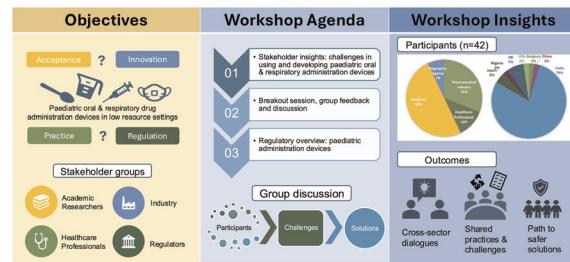
PAPERS

1155

Accelerating safer administration of medicines to children in low resource settings – bridging stakeholder viewpoints

Sifan Hu, Alka Mukne, Vandana Patravale, Pradeep Behera, Krishnarajan Bangarurajan, Esmerald Hermans, Jennifer Walsh and Smita Salunke*

Accelerating Safer Administration of Medicines to Children in Low Resource Settings – Bridging Stakeholder Viewpoints

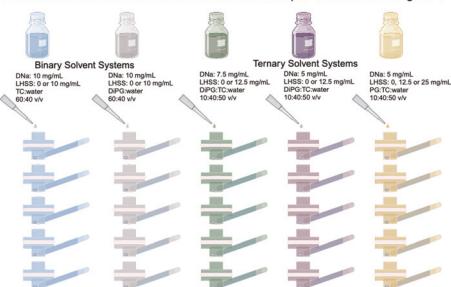


1163

Ion pairing as a strategy to enhance the delivery of diclofenac

Mignon Cristofoli,* Jonathan Hadgraft, Majella E. Lane and Bruno C. Sil

Evaluation of the effect of solvent substitution on ion pair formulations using IVPT



1175

Clobetasol propionate and pramoxine hydrochloride loaded nanolipid carrier gel for the treatment of atopic dermatitis

Akhil Suresh, K. V. Navyasree, M. S. Sreelakshmi and Vidya Viswanad*

