# **RSC Pharmaceutics**

# rsc.li/RSCPharma

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

#### IN THIS ISSUE

eISSN 2976-8713 CODEN RPSHBW 2(1) 1-198 (2025)

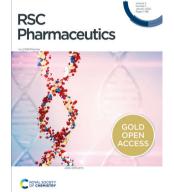
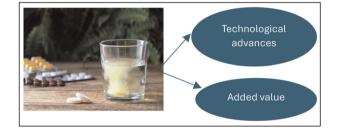


Image credit to @ ad.just/ Shutterstock.

# **REVIEWS**

Recent advances in the technology of effervescent tablets: lessons learned and future perspectives

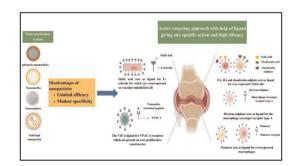
Paraskevi Chatzidopavlaki, Efstathia Triantafyllopoulou, Natassa Pippa,\* Georgia Valsami and Paraskevas P. Dallas



19

Navigating rheumatoid arthritis: insights into ligand-anchored nanoparticle strategies for anti-inflammatory therapy and relief

Shriya Karmarkar, Trinette Fernandes, Zainab Choonia, Sankalp Gharat and Sujata Sawarkar\*





# Royal Society of Chemistry approved training courses

Explore your options.

Develop your skills.

Discover learning
that suits you.

Courses in the classroom, the lab, or online

Find something for every stage of your professional development. Search our database by:

- subject area
- location
- event type
- skill level

Members get at least 10% off

Visit rsc.li/cpd-training

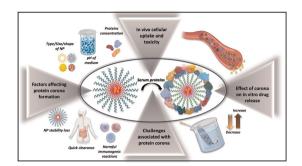


#### **REVIEWS**

#### 44

Nano-bio interactions and drug delivery using soft nanoparticles: a new paradigm in pharmaceutical cargo release

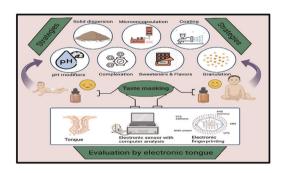
Rohini Singh, Fei Rui Long, Anjali Saini, Natali Joma, Abhirup Basu, Morteza Mahmoudi, Hojatollah Vali and Ashok Kakkar\*



#### 59

Strategies for beating the bitter taste of pharmaceutical formulations towards better therapeutic outcomes

Lohare Rahul Sanjay, Makka Krupali Ashokbhai, Shubham Ghatole, Subhadeep Roy, Kardile Punam Kashinath and Santanu Kaity\*

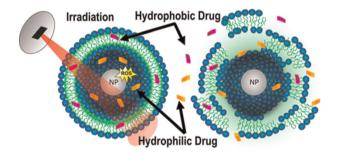


#### **PAPERS**

#### 82

On-demand release of encapsulated ZnO nanoparticles and chemotherapeutics for drug delivery applications

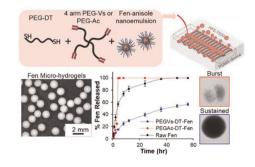
Josh E. Eixenberger,\* Catherine B. Anders, Rebecca Hermann, Katelyn Wada, Kongara M. Reddy, Raquel J. Montenegro-Brown, Daniel Fologea and Denise G. Wingett\*



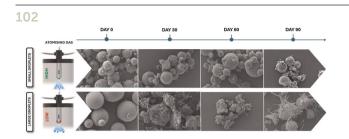
#### 94

From burst to controlled release: using hydrogel crosslinking chemistry to tune release of micro-crystalline active pharmaceutical ingredients

Purnima N. Manghnani, Arif Z. Nelson, Kelvin Wong, Yi Wei Lee, Saif A. Khan\* and Patrick S. Doyle\*

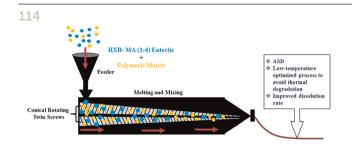


# **PAPERS**



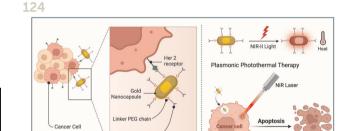
# Controlling the solid-state and particle properties of a fixed-dose combination co-amorphous system by spray drying

Alice Parkes, Ahmad Ziaee and Emmet O'Reilly\*



# A novel solid formulation of a rivaroxaban eutectic using a hot melt extruder with improved thermal stability and dissolution profile

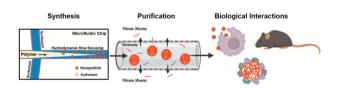
Parth S. Shaligram, Ranjitsinh Pawar, Nagabhushan Shet and Rajesh G. Gonnade\*



# Herceptin-conjugated plasmonic gold nanocapsules for targeted NIR-II photothermal therapy

Prem Singh, Ankita Sarkar, Nivedita Mukherjee and Amit Jaiswal\*

135



Microfluidics-generated PLA nanoparticles: impact of purification method on macrophage interactions, anti-inflammatory effects, biodistribution, and protein corona formation

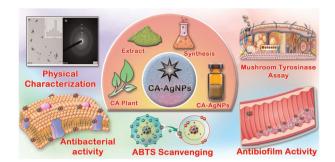
Jacob R. Shaw, Radha Vaidya, Fanny Xu, Shruti Dharmaraj and Ryan M. Pearson\*

# **PAPERS**

#### 147

Systematic antimicrobial, biofilm, free radical inhibition and tyrosinase inhibition assessments of efficient green silver nanoparticles from the aqueous root extract of *Cyphostemma adenocaule* (*CA*)

Kamalakkannan Kaliappan,\* Pradeep Nagarajan, Jayaprakash Jayabalan, Hemalatha Pushparaj, Selvaraja Elumalai, Baranidharan Paramanathan, Vijayabaskaran Manickam, Huyn Tae Jang and Ganesh Mani\*



#### 163

Dual-action antimicrobial surface coatings: methylene blue and quaternary ammonium cation conjugated silica nanoparticles

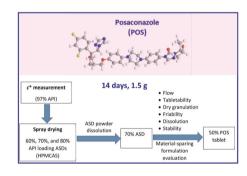
Haritha Kirla,\* Juliana Hamzah, Zhong-Tao Jiang and David J. Henry\*



#### 178

Efficient development of high drug loaded posaconazole tablets enabled by amorphous solid dispersion

Tianyi Xiang, Sichen Song, Ronald A. Siegel\* and Changquan Calvin Sun\*



#### 186

Injectable sustained-release hydrogel for high-concentration antibody delivery

Talia Zheng and Patrick S. Doyle\*

