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See Yusuke Sato *et al.*, pp. 77–87.

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Inside cover
See Elisa E. Konofagou *et al.*, pp. 60–66.

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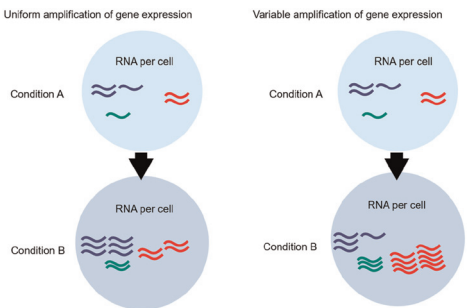
mRNA therapeutics beyond vaccines: dosing precision challenges and clinical translation framework

Sarfaraz K. Niazi



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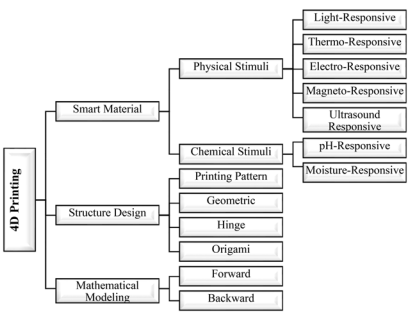
4D printing innovations and the embracing of additive manufacturing transformations

Debarupa Dutta Chakraborty, Prithviraj Chakraborty,* Subhasish Pramanik, Manali Dutta, Arpan Sen, Sudarshana Borah, Pallab Kumar Nath and Sabnam Nargis



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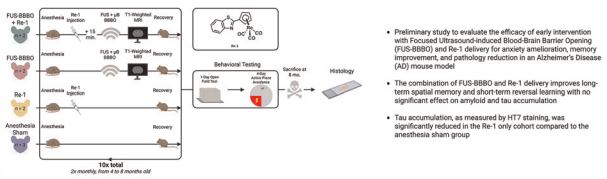
Rebecca L. Noel, Samantha L. Gorman, Alec J. Batts, Despoina Tsakri, Daniella A. Jimenez, Maria Pelecanou, Marina Sagnou and Elisa E. Konofagou*



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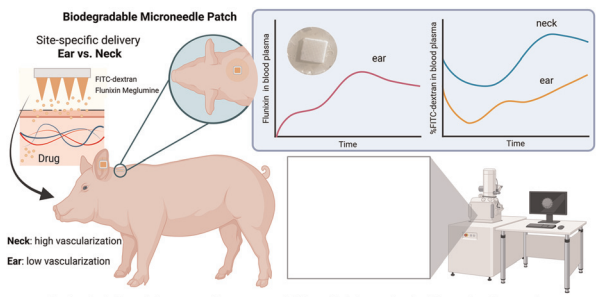
Systemic drug delivery in pigs using biodegradable microneedle patches

Katherine A. Miranda-Muñoz, Tsungcheng Tsai, Jacy L. Riddle, Ke He, Lee Blaney, Jeremy G. Powell and Jorge Almodovar*



Anatomical site and drug properties are essential for optimizing systemic delivery via microneedles

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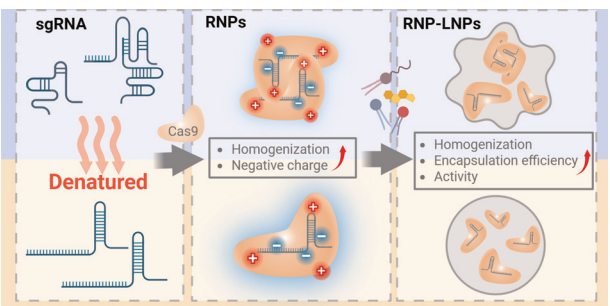
The effect of guide RNA thermal denaturation on the quality of Cas9 ribonucleoprotein-loaded lipid nanoparticle formulations

Rina Shimizu, Yuji Kashiwakura, Morisada Hayakawa, Shunsuke Kita, Mina Sato, Masatoshi Maeki, Manabu Tokeshi, Katsumi Maenaka, Tsukasa Ohmori, Yuma Yamada, Hideyoshi Harashima and Yusuke Sato*



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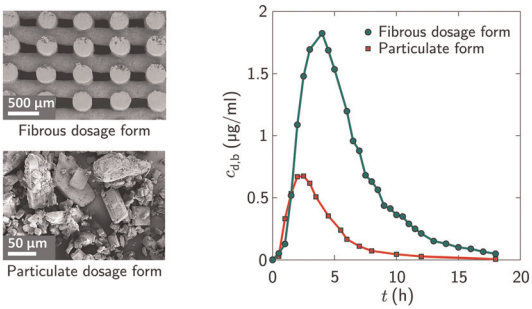

Enhancing the bioavailability of sparingly-soluble drugs by expandable, solid-solution fibrous dosage forms

Aron H. Blaesi,* Henning Richter and Nannaji Saka

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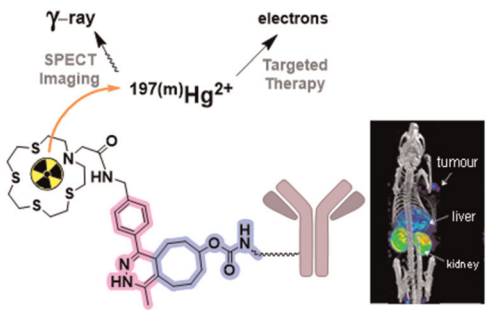

Bifunctional sulfur-rich macrocyclic chelators and their immunoconjugates for the targeted delivery of theranostic mercury-197

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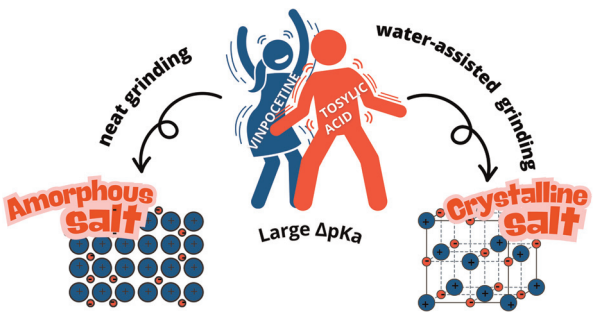

The ideal duo for salt formation: vinpocetine and tosylic acid

Ilenia D'Abbrunzo, Francesca Beltrame, Lara Gigli, Nicola Demitri, Cinzia Cepek, Ferdinando Bassato, Giuseppe Procida, Dario Voinovich and Beatrice Perissutti*

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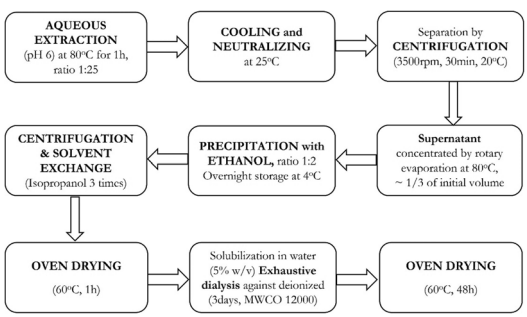

An evaluation of the pharmaceutical properties of the Nigerian baobab polysaccharide for sustained release oral tablets

Munirah A. Ajiboye, Yogesh Rawat, Nihad Mawla, Rand Abdulhussain, Haja Muhamad, Adeola O. Adebisi, Barbara R. Conway, Alan M. Smith, Gordon A. Morris, Katie Addinall, Maria Dimopoulou, Athanasios Angelis-Dimakis and Kofi Asare-Addo*

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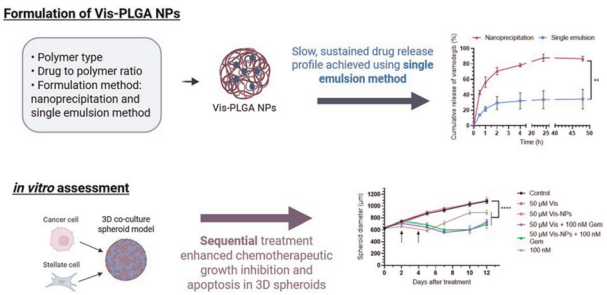
Development of vismodegib-loaded PLGA nanoparticles for the treatment of pancreatic cancer: formulation and *in vitro* assessment in co-culture monolayers and spheroids

Ubah Abdi, Minao Zhang and Wafa T. Al-Jamal*



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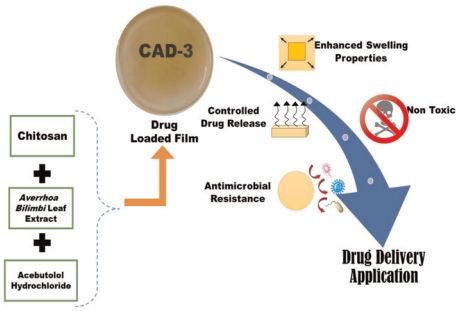
Sustained drug delivery of the β-blocker acebutolol hydrochloride *via* chitosan–bilimbi leaf extract films

Jennifer P. Pinto, Manjunath B. Megalamani, Ajitkumar Appayya Hunashyal, Oshin Jacintha D'souza, Sharanappa T. Nandibewoor, Saraswati P. Masti and Ravindra B. Chougale*



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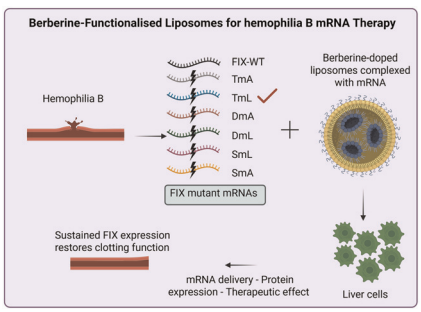
Berberine-doped liposomes enhance factor IX mutant mRNA delivery for protein replacement therapy in hemophilia B

Porkizhi Arjunan, Gokulnath Mahalingam, Harini Manogaran, Mohankumar Murugesan, Saravanabhavan Thangavel and Srujan Marepally*



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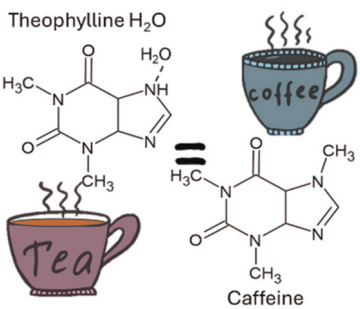
Water mimicry enables the formation of a solid solution of caffeine and theophylline sulphate and a new type of non-stoichiometric hydrate

Enrico Spoletti, Ricardo Albarran Velo, Greta Camilla Magnano, Chiara Cappuccino, Daniel O'Nolan, Lilia Croitor, Dario Voinovich, Beatrice Perissutti and Matteo Lusi*



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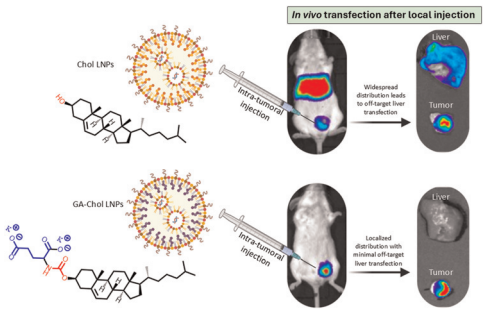

Improved localized mRNA delivery using lipid nanoparticles with a novel synthetic cholesterol derivative

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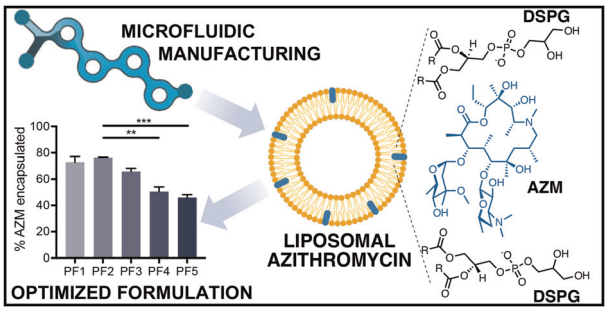

Systematic development and optimization of a microfluidic formulation protocol for liposomal azithromycin

Abdullah A. Masud, Nabilah Ibnat, Areli Medina Hernandez, Kaysi M. Lee, Sophia Li, Ryan Marion, David J. Feola and Vincent J. Venditto*

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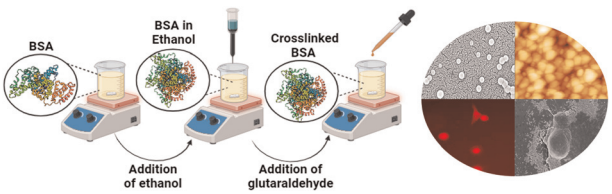

Chemotherapeutic loaded dynamic aggregated albumin nanoparticles for lung cancer therapy

Jyotish Kumar, Sourima Kundu, Asmita Mojumdar, B. S. Unnikrishnan,* Devika B. Chithrani and Gopinath Packirisamy*

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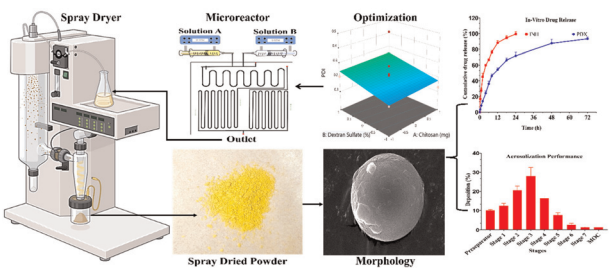

Spray-dried inhalable nano-embedded microparticles of isoniazid and pyridoxine hydrochloride for pulmonary tuberculosis

Eknath Kole, Krishna Jadhav, Priya Chichmalkar, Rahul K. Verma, Arun Mujumdar and Jitendra Naik*

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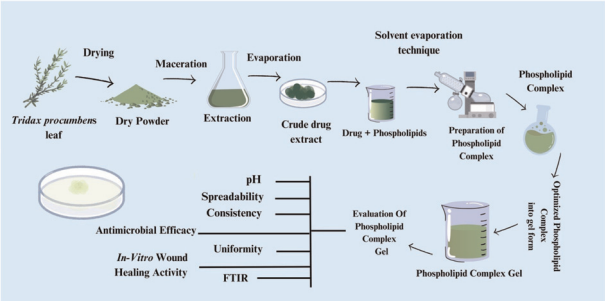
Formulation and evaluation of a *Tridax procumbens*-loaded phospholipid complex (phytosome) gel for wound healing and antimicrobial activities

Priyanka S. Jadhav, Priyanka H. Shinde and Jameel Ahmed S. Mulla*



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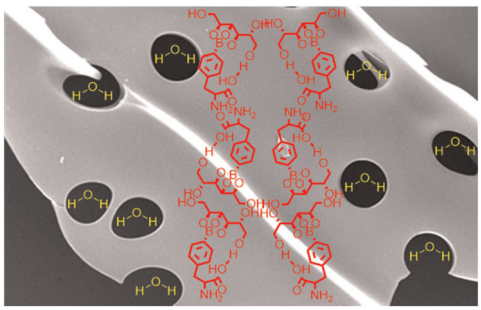
Alditols in complex with boronophenylalanine for improving aqueous solubility for boron neutron capture therapy

Teng-San Hsieh, Yu-Hou Yu, Zhen-Fan You, Rong-Jiun Sheu, Jin-Pei Deng and Chung-Shan Yu*



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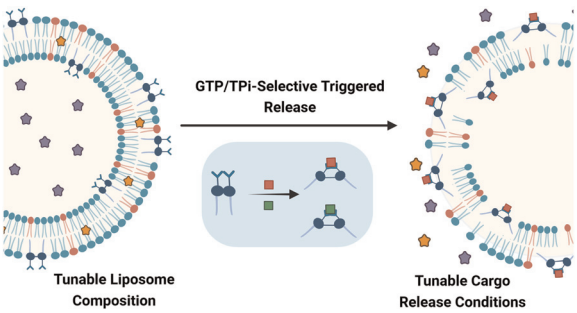
Engineering tunable GTP/TPi-responsive liposomes through liposomal membrane modulation using a bis-triphenylphosphonium lipid switch

Brooke E. Smith, Caleb G. Russell, Mayesha B. Mustafa and Michael D. Best*



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