

British Journal of Pharmacy

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Editorial

The Science of Differentiated Medicines: The 9th APS PharmSci Conference @FIP 2018

The Academy of Pharmaceutical Sciences (APSGB) hosts the annual Pharm Sci Conference, the UK's premier pharmaceutical sciences event championing 'The Science of Medicines'. In 2018 the 9th conference was linked to the FIP Conference held in Glasgow and consequently was a shorter meeting. The theme of APS Pharm Sci 2018 was 'The Science of Differentiated Medicines' and was chaired by Dr Claire Thompson, CEO of Agility Health Tech and Entrepreneur in Residence at the University of Cambridge. The conference had three streams focussing on age-related medicine; medicines and diagnostics in the developing world and targeted/stratified therapies. Key abstracts and posters are published in this issue of the British Journal of Pharmacy covering not only the topics of the conference, but other aspects related to the discovery, development, production and testing of drug products.

On the theme of age-related medicines there are abstracts on adding slippery coatings to tablets to improve their swallowability; manipulation of medicines for paediatric use; the development of multi-dose sustained release suspensions for older patients with dysphagia; assessment of multi-particulate grittiness and ability of commercial swallowing aids to mask this; medicines administration accuracy in paediatric patients; the STEP database which records the safety and toxicity of excipients for paediatric formulations; details of a survey issued by the European Paediatric Translational Research Infrastructure aimed at bridging the gap between early phase drug development and translation into paediatric medicines and finally details of a literature survey looking at how the formulation of solid oral dosage forms affects adherence and acceptance in older people

Nanomedicines remain a hot topic with abstracts covering the preparation and characterisation of liposomes for cell transfection in gene therapy and in another abstract for formulations of cinnarizine; the effect of the preparation method on the characteristics of niosomes; the delivery of anticancer peptides by biodegradable nanostructures; the fabrication and characterisation of PLGA nanoparticles for delivery of the antipsychotic pimozide; the nano-precipitation of budesonide in various systems; the use of microneedles to deliver hypericin-loaded nanocapsules for improved localised photodynamic therapy.

The authors of the abstracts don't fight shy of some of the most difficult delivery challenges either, with abstracts looking at the delivery of insulin via the buccal mucosa using transferosomes and orally in rats with PLGA nanoparticles in combination with an enzyme inhibitor.

Other abstracts cover the manufacturing and processing of medicines by improving the physico-mechanical properties of paracetamol-PVP mixtures; by using PAT tools to image droplets produced during spray drying; by the physico-chemical characterisation of spray dried ternary dispersions of simvastatin with PVP and nano-crystals of sodium chloride; and the use of hot melt extrusion for anti-hypertensive combinations and also looking at in-line Raman to study this.

Research in 3D printing also continues apace. The development of sub-dermal implants by 3D printing and tablets by stereolithography is covered.

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30th March 2019