

Surrey creates innovative lab test to develop easy-to-swallow medicine for children

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Scientists at the University of Surrey and University College London have revealed an innovative in vitro method that can help to develop easy to swallow medicine for children and older people.

In an article published by the *European Journal of Pharmaceutical Sciences*, scientists compared traditional sensory tests and the new in vitro method that was able to explain why smaller multiparticulates eased the travel of medicine from the mouth into the throat and body, reducing mouth residue.

The new [test](#) let scientists easily screen different compositions of the carrier liquid and concentration of the particulates, in order to make swallowing as easy as possible.

Dr. Marco Ramaioli, Senior Lecturer at the University of Surrey and co-author of the study, said: "Many [young children](#) and [older people](#) find conventional tablets hard to swallow—making it difficult for them to complete drug therapy. We hope that this in vitro [method](#), together with sensory tests, will help to develop novel medicines that could improve the lives of many people across the world."

Professor Catherine Tuleu from UCL School of Pharmacy commented: "It is exciting to see advancements in age appropriate medicine design such as multiparticulate systems but successful therapeutic outcomes rely on the development of appropriate administration vehicles."

Dr. Mine Orlu, also from UCL School of Pharmacy, added: "The availability of predictive models to characterise the promising formulation platforms early during medicine development is key to producing medicines that are easier to take for patients with different swallowing capabilities."

More information: Marco Marconati et al, In vitro and sensory tests to design easy-to-swallow multi-particulate formulations, *European Journal of Pharmaceutical Sciences* (2019). [DOI: 10.1016/j.ejps.2019.02.026](https://doi.org/10.1016/j.ejps.2019.02.026)

Provided by University of Surrey

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