



Novel Devices for the Oral Delivery of Macromolecules

Guest Editors:

Dr. Ester Caffarel-Salvador

1. Department of Regenerative
Medicine, LEO Pharma,
Cambridge, MA, USA
2. Institute for Medical
Engineering and Science,
Massachusetts Institute of
Technology, Cambridge, MA
02139, USA

Prof. Dr. Jinyao Liu

Institute of Molecular Medicine,
Shanghai Jiao Tong University,
Shanghai, China

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Message from the Guest Editors

Dear Colleagues,

It is challenging to deliver macromolecules (e.g., proteins, peptides, antibodies, and oligonucleotides) orally due to the delivery barriers and microenvironmental challenges encountered along the gastrointestinal tract. In the last few years, novel medical devices have been developed which are capable of overcoming these barriers and delivering a wide range of molecules in different organs, all the way from the mouth to the colon. Microneedle-based pills, nanostraws, microjets, hydrogels and intestinal patches are some of the device-based solutions that researchers have designed to enable the oral dosing of macromolecules. These alternative delivery methods have the potential to revolutionize many treatments by increasing patient adherence and efficacy while reducing pain and other side effects.

This Special Issue aims to capture the most recent advances to overcome the oral drug delivery barriers of the gastrointestinal tract. We invite reviews and research articles from clinical, academic, and industry settings on “Novel Devices for the Oral Delivery of Macromolecules.”





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Editor-in-Chief

Prof. Dr. Patrick J. Sinko

Department of Pharmaceutics,
Ernest Mario School of
Pharmacy, Rutgers University,
Piscataway, NJ 08854, USA

Message from the Editor-in-Chief

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Pharmaceutics Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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