

UNGAP – summary of WG4 session in Sofia

General information:

- more than 150 members from different fields of research (pharmaceutics, gastroenterology, food science, nutrition, pharmacology,...)
- several STSMs were already initiated and conducted

Scientific presentations:

1. Michael Grimm *“The application of MRI to study gastric emptying in the fed state”*
2. Kristina Radić *“Comparison of different in vitro tools for prediction of intestinal permeability of olive derived nutraceuticals”*
3. Aleksandar Cvetkovski *„Screening for nutraceutical-drug interactions toward the noncovalent interactions of their solid binary systems (Case study on Piperine)”*

Topics suggested for Best Practice documents:

- *In vitro* tools
 - Specification of the reference conditions for *in vitro* investigations / dissolution media for simulation of fed conditions
 - Biorelevant dissolution methods for enteric coated multiparticulates (Marija Bogataj)
- *In vivo* tools
 - Determination of fluid volumes in the gut
 - Application of SmartPill in humans

Topics suggested for webinars:

- What can we learn from in vitro tools in food science?
- Update on specific food-drug interactions
- QSAR modelling of ADME properties
- In vivo tools

Possible projects:

- The prediction of competitive way of natural carbohydrate digestion inhibitors (found in food, i.e. carmosic acid) with selected antidiabetic drugs
- Permeability enhancers from food to optimize oral drug delivery
- Characterization of rat GI physiology (e.g. transporter expression, fluid volumes, motility)

Open STSM projects:

- “Effects of lipid digestion on drug release and absorption”, offered by Myriam Grundy (University of Reading, UK)