

„microONE – Microplastic Particles: A Hazard for Human Health?“
a graphical introduction

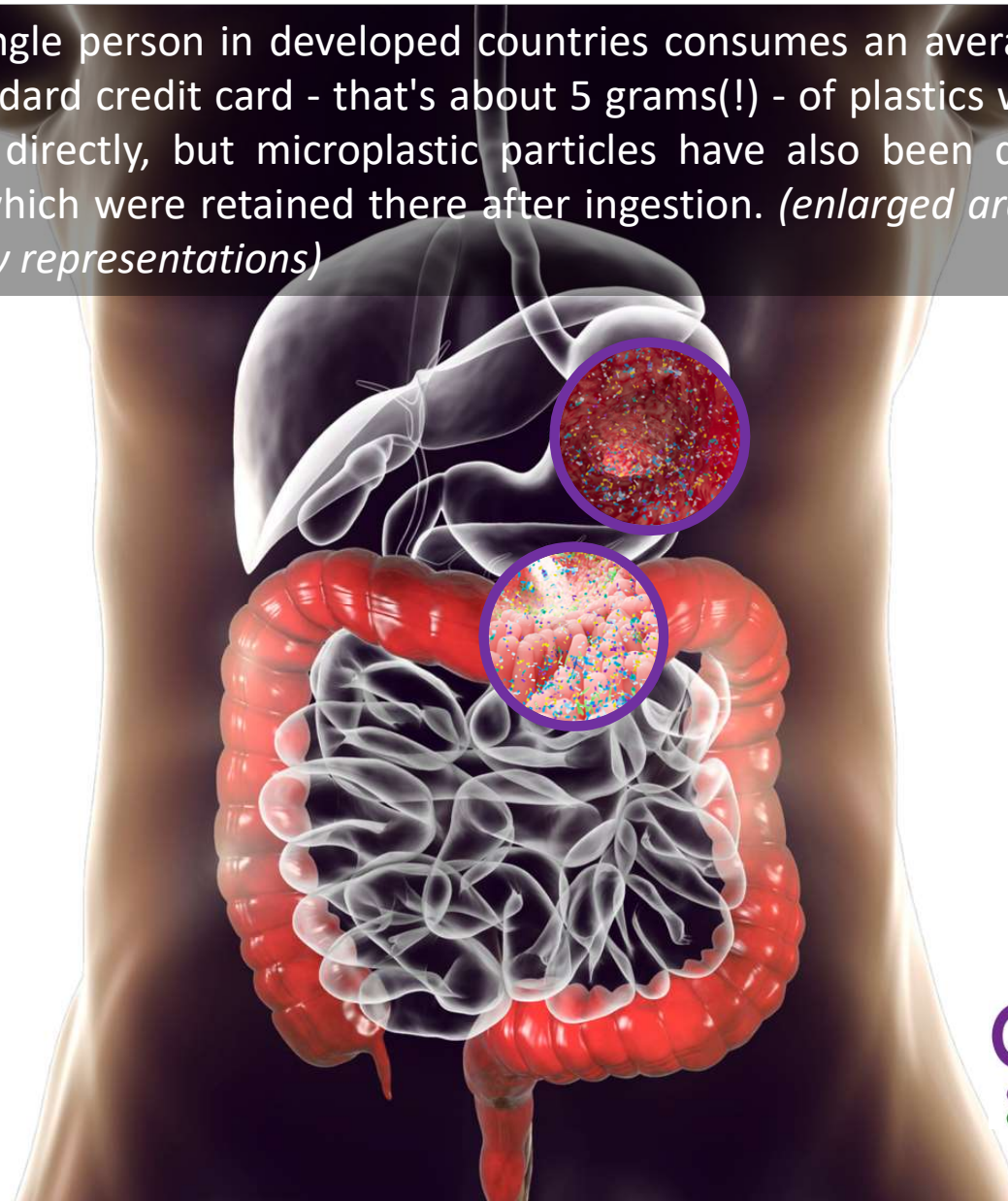




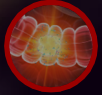
The degradation of plastics in nature creates micro- and nanoplastic particles (MNP) of different size, shape and composition. Together with the plastics released from food packaging (e.g. PET bottles, PE films), they enter the human organism.

Image adapted from: G. Rothert. plastic-food-chain. (<https://georgerothert.com/plastic-food-chain/>)

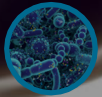
Every week, every single person in developed countries consumes an average of one heaping teaspoon or one standard credit card - that's about 5 grams(!) - of plastics with their food. The majority is excreted directly, but microplastic particles have also been detected in various organs and tissues, which were retained there after ingestion. *(enlarged areas in stomach and intestine as exemplary representations)*



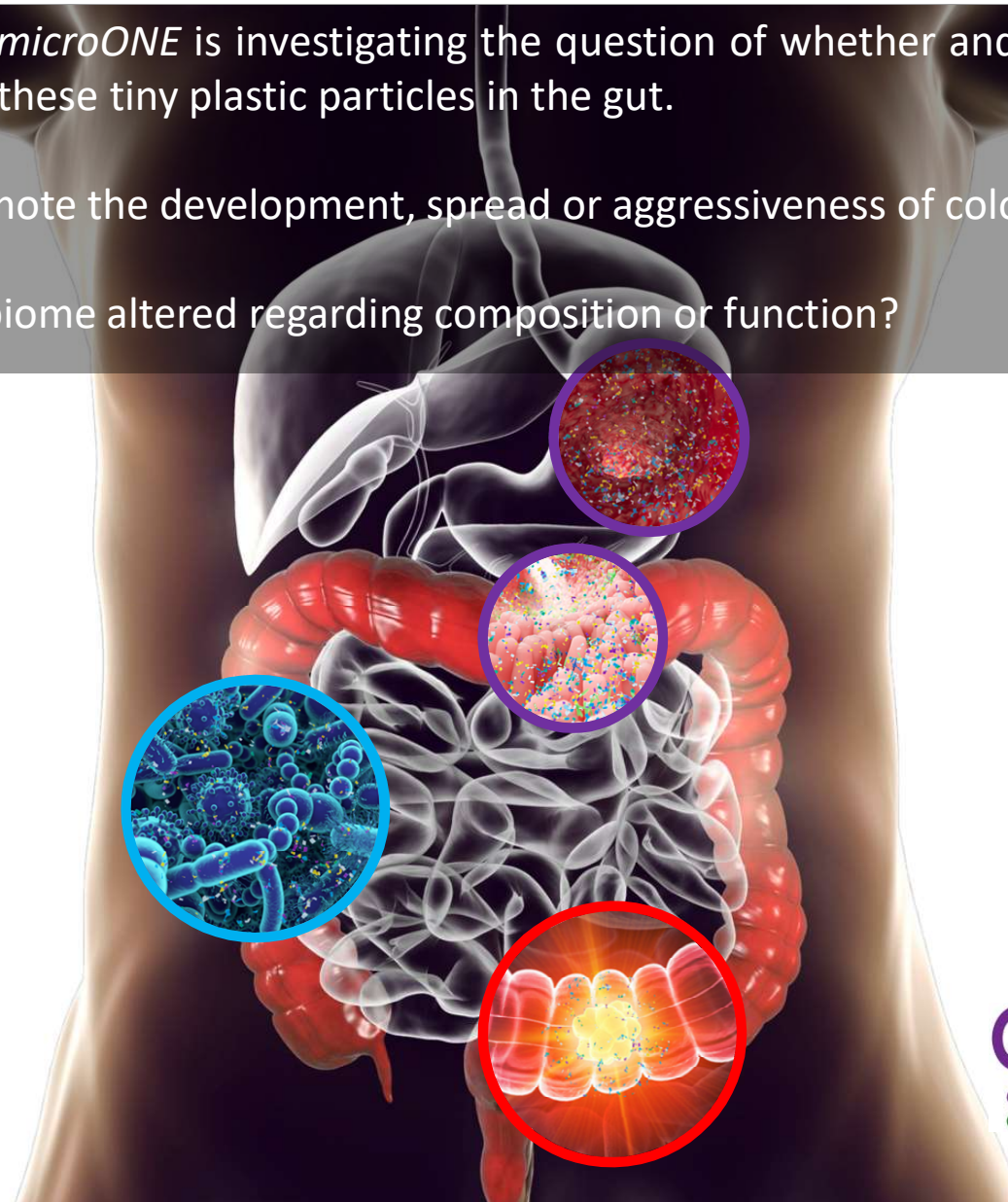
The research project *microONE* is investigating the question of whether and, if so, what health effects are caused by these tiny plastic particles in the gut.



Do they promote the development, spread or aggressiveness of colorectal cancer?



Is the microbiome altered regarding composition or function?



As part of the multidisciplinary, international research project *microONE*, the necessary scientific evidence is being generated to answer the still open questions and enable safer handling of plastics in the future.




**Let's change
the world,
together.**








Prof. Wolfgang Wadsak PhD (left)
 Prof. Lukas Kenner MD (right)
 leading team *microONE*



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Under Cbmed's roof as consortium leader, more than 20 national and international partners from science (left: national; middle: international) and industry (right) are researching the effects of microplastic particles on human health conjointly.



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more info:

www.microone.at

www.cbmed.at

<https://www.ffg.at/en/comet-competence-centers-excellent-technologies-alt>

<https://www.ffg.at/en/press/gewessler-and-schrambock-launch-7-comet-research-projects>

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