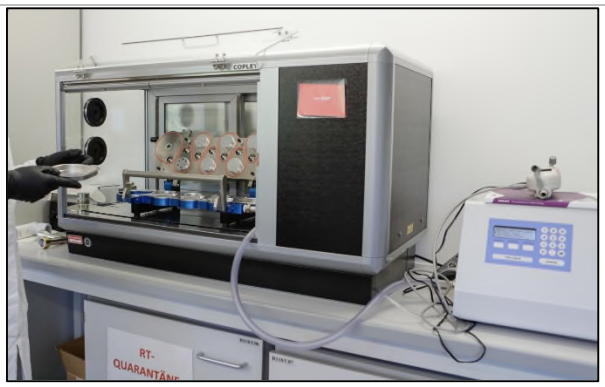
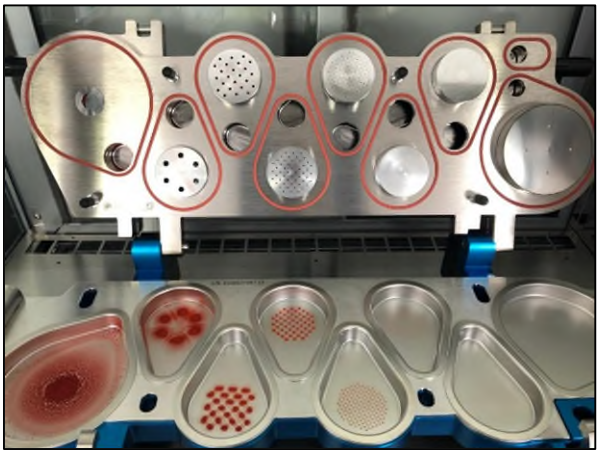
Evaluation of aerodynamic properties of aerosols in the lungs

Method name	Determination of the MMAD (Aerodynamic Diameter) of substances
Organ system	Lungs
Subject area	Drug development
Area of application	Formulation development
Relation of the method to the 3Rs	Replacement & Reduction, Prediction of the physical behavior of formulations in the lungs
Figure	  *The figure shows the cascade impactor 'Next Generation Impactor' (NGI) by Copley Scientific Limited® with its 'Breath Actuation Flow Controllers' (upper figure) and the inside view after particle size separation (lower figure).*
Brief description	The cascade impactor 'Next Generation Impactor' (NGI) mirrors the airways of a human lung. An applied air stream enables particle size separation of a wide variety of formulations. Both solids and liquids can thus be evaluated according to their physical properties. Using these values, the Mass Median Aerodynamic Diameter (MMAD) can be calculated, which provides information about the amount of substances deposited in different areas of the airways.
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Publication	n. a.

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