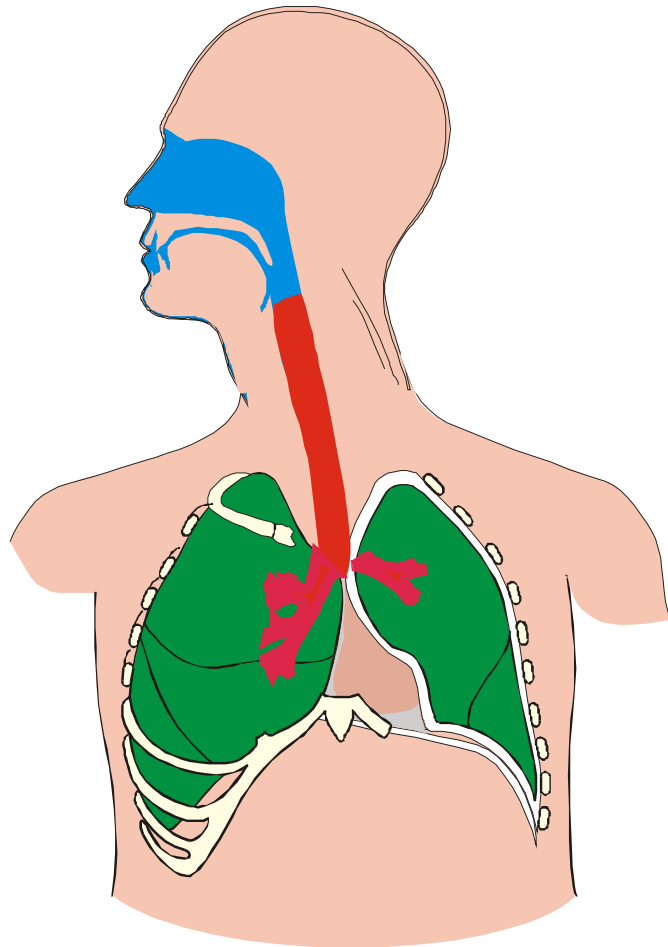

Feinstaub als Verursacher von Lungenerkrankungen



Prof. Dr. med. Norbert Krug

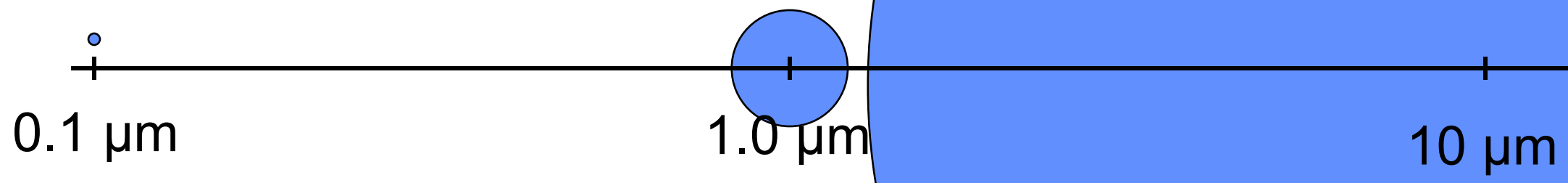
Immunologie, Allergologie
und Klinische Inhalationsforschung

Fraunhofer Institut für Toxikologie
und Experimentelle Medizin

Hannover



Umweltstaub: Ultrafein - fein - grob



Größeneinteilung der Partikel

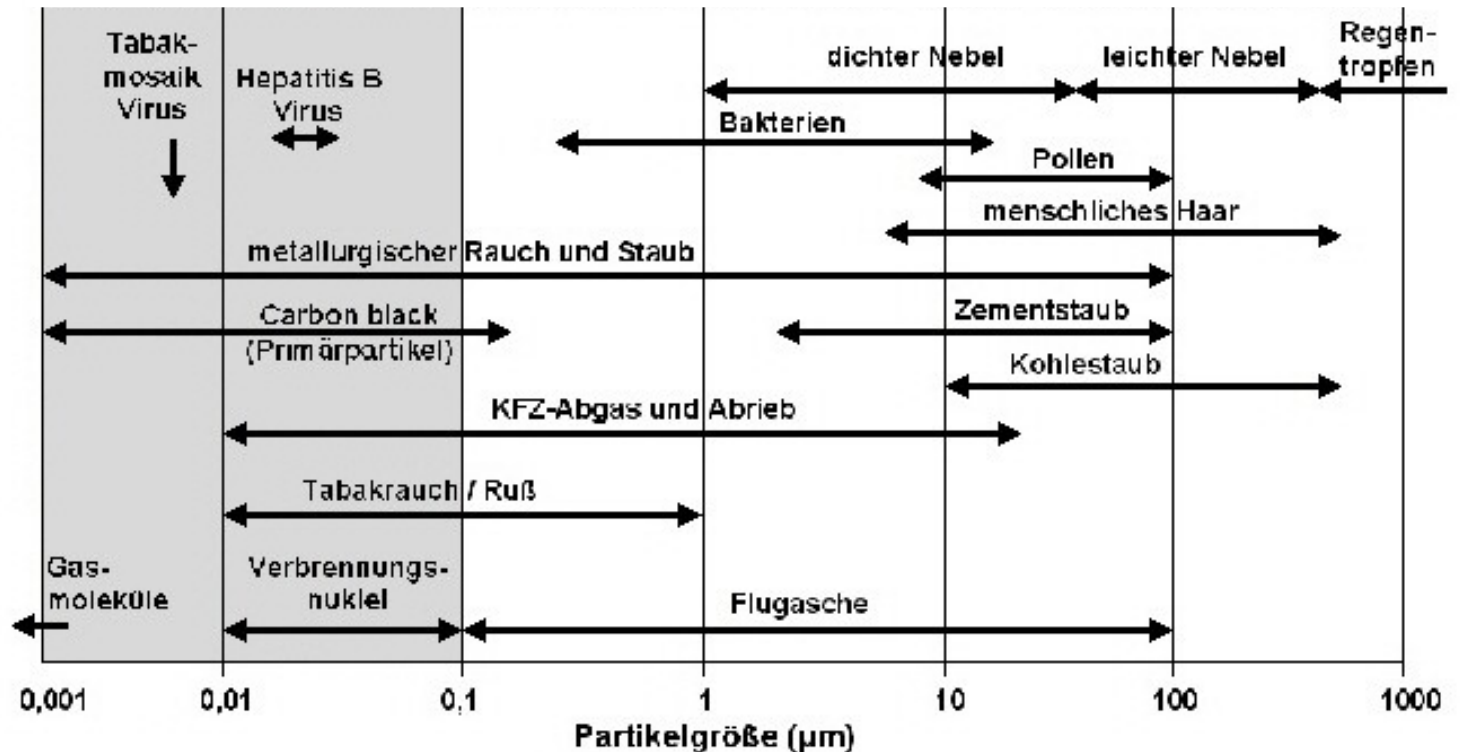
Ultrafein < 0.1 μm →

PM_{2.5} < 2.5 μm →

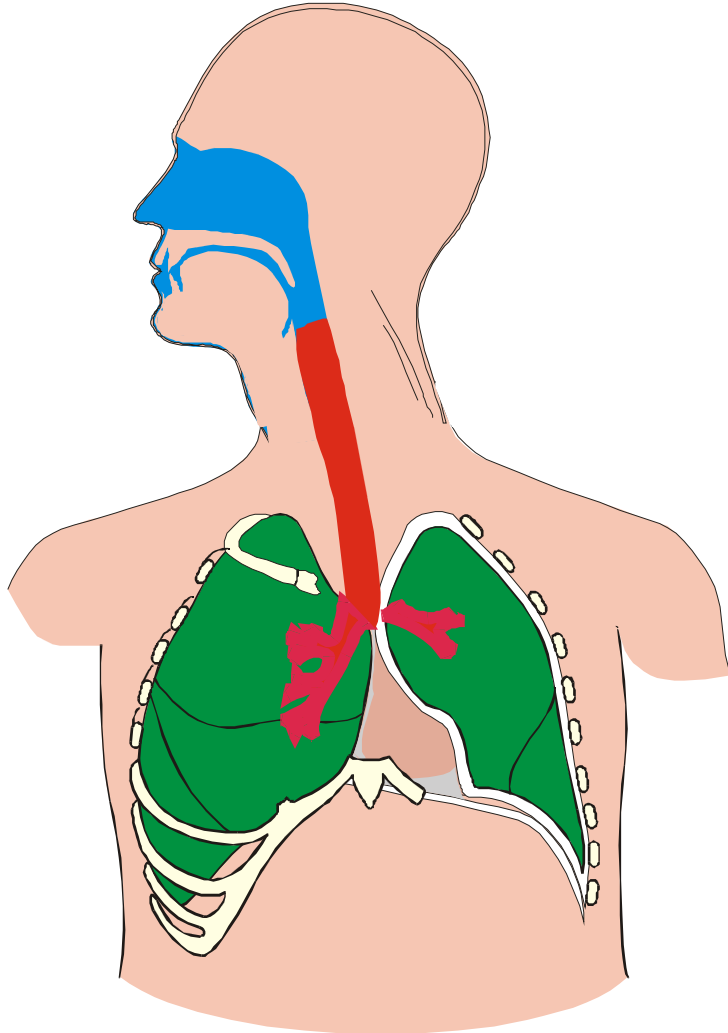
PM₁₀ < 10 μm →

TSP* < 30 μm

*Total suspended particulates



Welche Staube gelangen in die Lunge ?



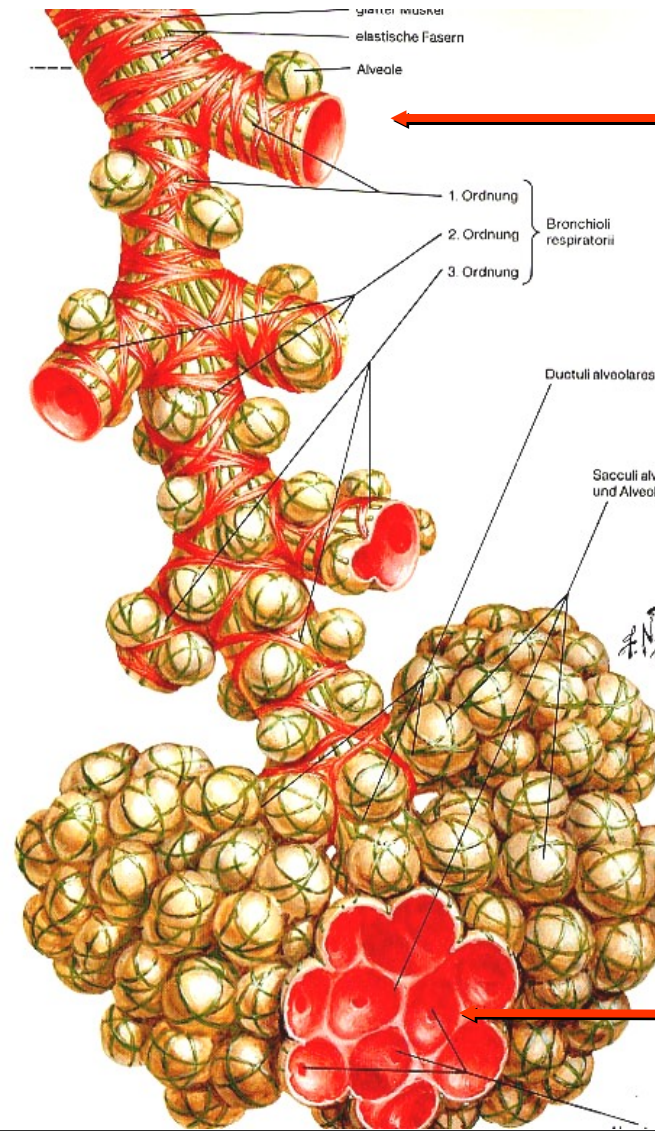
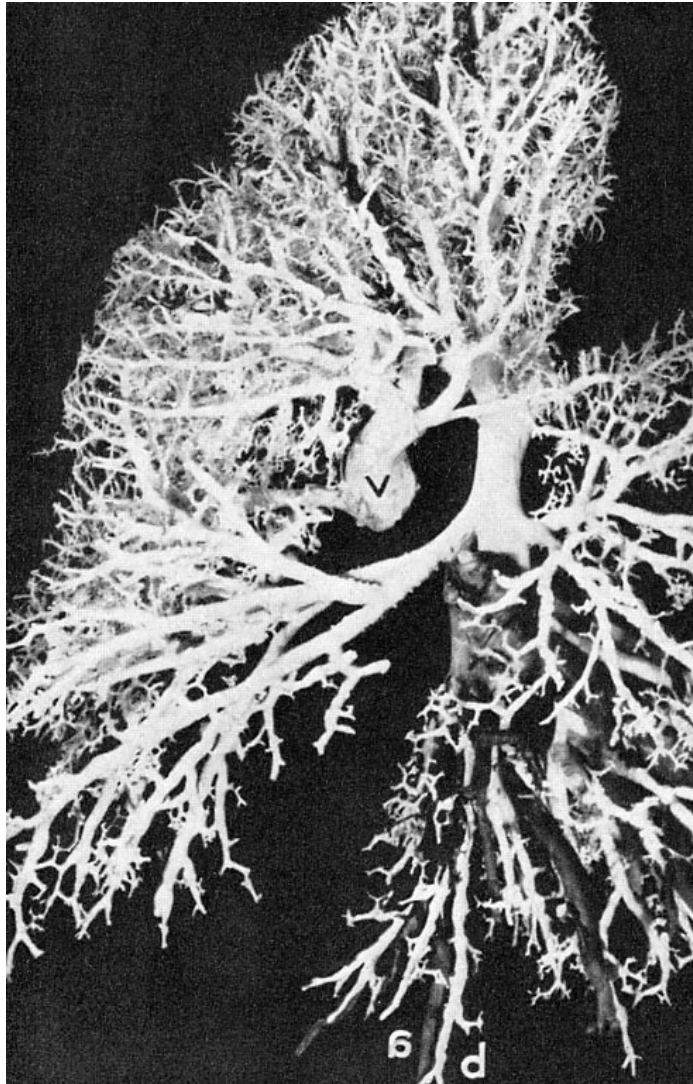
Nase, obere Atemwege ($> 10 \mu\text{m}$)

Luftrohre, groe Bronchien ($< 10 \mu\text{m}$)

Kleine Bronchien, Lungenblaschen ($< 2.5 \mu\text{m}$)



Welche Staube gelangen in die Lunge ?



< 10 μm

< 2.5 μm

< 0.1 μm

