Optimised Nasal Drug Delivery

Objectives:
Investigate the influence of nasal spray device parameters on drug deposition in the nasal cavity.

Methodology:
Computer simulation of air flow and particle trajectories.
Characterisation and modelling of drug particles in nasal sprays.
LDA, PIV laser experimental measurements to validate.
PDIA laser measurements of spray formation.

Findings:
High deposition in frontal nasal cavity.
10µm particles follow the airflow.
Deposition is highly dependent on particle size.

Key Outcomes:
Develop optimised nasal sprays for effective drug delivery.
Attain a knowledge of air flow fields in the nasal cavity.

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