Cyclops® Co-Development

PureIMS offers **Cyclops®** for licensing; a proprietary, pre-filled, safe and very convenient dry powder inhaler **(DPI)** for a wide range of applications.

PureIMS is a clinical-stage pharmaceutical company focused on developing and commercializing innovative inhaled therapies for the treatment of systemic and respiratory diseases with significant unmet medical needs.



Cyclops®



Cyclops® is a pre-filled, readyand-easy-to-use, credit cardsize dry powder inhaler (DPI), developed by PureIMS for a wide range of pulmonary and systemic applications, such as high dose delivery, emergency treatments and vaccination.

Cyclops® versions for single-, dual- or multi-use are available.

Upon inhalation, Cyclops® uses the patient's breath to disperse the powder dose into small particles appropriately sized for deep lung deposition, either for local delivery or rapid systemic absorption.

Owing to its patented Air Classifier Technology, Cyclops® achieves unmatched dispersion results. This is mostly with minimal excipient usage and straightforward formulation techniques, such as spiral jet milling or spray drying.

To date, nearly 100,000 doses of Colistin Cyclops® for the treatment of pulmonary *Pseudomonas aeruginosa* infections have been **prescribed and reimbursed.** For this, the medication is extemporaneously compounded and dispensed in a *Named Patient Program*.

Advantages of Cyclops® for:

Local use: high pulmonary concentrations • low systemic exposure • fewer (local) side-effects, e.g. cough

Systemic use: clinically proven fast absorption and fast onset of clinical effect • no hepatic first-pass metabolism

• no influence of food intake • elegant needle-free alternative for injectable drugs

Manufacturing and IP Protection

PureIMS has a **GMP-licensed** manufacturing facility to produce Cyclops® study medication. **IP** for single use Cyclops® is protected, patents applications for dual and multi-use Cyclops® versions have been filed.

Co-development

PureIMS offers its Cyclops® platform for the effective and convenient pulmonary delivery of your API or formulation. In this co-development framework, **PureIMS is flexible** and open to the clients' needs. We are able to develop new formulations or test existing ones in Cyclops®.

Our scientific and technical experts aim to jointly develop the optimal drug-inhaler combination. They consistently strive for the **highest achievable Fine Particle Fraction** (FPF) and powder emission, thereby minimizing the number of inhalations required for even the highest doses. We quickly identify any necessary adjustments to Cyclops® or the powder formulation itself, in order to optimize drug delivery to the lungs.

Current projects:

PureIMS proudly collaborates with partners pursuing the pulmonary delivery of New Chemical Entities (NCEs), New Biological Entities (NBEs), and repurposed medicines for local or systemic applications, such as:

- Antibiotics
- Emergency treatments
- Monoclonal antibodies (mAbs)
- Mucosal vaccines
- Lung cancer chemotherapeutics
- Diagnostic agents

Low threshold feasibility testing

Let us determine the compatibility of your formulation with Cyclops® in an early stage. It is simple, fast and affordable. Outcome data might confirm compatibility or lead to new insights for formulation improvement. Flexible contracts prevent any potential roadblocks that could hinder the development process. Based on positive outcomes of the early feasibility testing, an appropriate partnership format will be jointly selected.

Contact

Jaap Wieling

E: <u>jwieling@pureims.com</u> **W:** <u>www.pureims.com</u>



Scan for Cyclops® videos



