

ESOCAP – UNIQUE TARGETED APPLICATION PLATFORM TO TREAT THE UPPER GASTROINTESTINAL TRACT



EsoCap

Basel, Switzerland, September 9, 2021

- **EsoCap's targeted application technology drastically increases mucosal contact time and enables effective local treatment of various esophageal diseases for the first time**
- **Proof of principle in human established; Phase II trial underway**
- **Strong IP granted and Orphan Drug Designation approved in lead indication**
- **Partnerships up and running**

EsoCap AG, the Swiss biotech company dedicated to improving the lives of patients with serious diseases of the upper gastrointestinal tract, owns and develops the worldwide first local Esophagus therapy. Effective topical treatment of the esophagus is extremely difficult to achieve due to the ultra-short drug contact time of one to two seconds from the mouth to the stomach with the currently available drug formulations. While a study demonstrates that prolonged mucosal contact time results in better drug efficacy¹, even the passing time of orodispersible tablets from mouth to stomach is less than one minute², too little time for drug substances to stick

to their designated application site, the esophagus, and unravel their full potential.

EsoCap's novel targeted application platform, designed to increase mucosal contact time and esophageal drug deposition, aims for an effective treatment of various upper gastrointestinal diseases affecting 370 million patients, including Eosinophilic Esophagitis (EoE), gastrointestinal reflux disease (GERD), and Barrett's Syndrome. The EsoCap technology consists of a capsule containing a thin film loaded with an active pharmaceutical ingredient (API). Upon drinking the capsule from a specially designed drinking cup, the film unrolls and sticks to the patient's esophageal mucosa, where it dissolves slowly while releasing the drug substance. The technology offers maximum flexibility, as multiple relevant drug substances, including biologics and other innovative compounds, can be incorporated into the thin film, making the drug delivery platform applicable to various clinical indications, including approved APIs and APIs under development.

"We strongly believe that our targeted application platform has the potential to radically

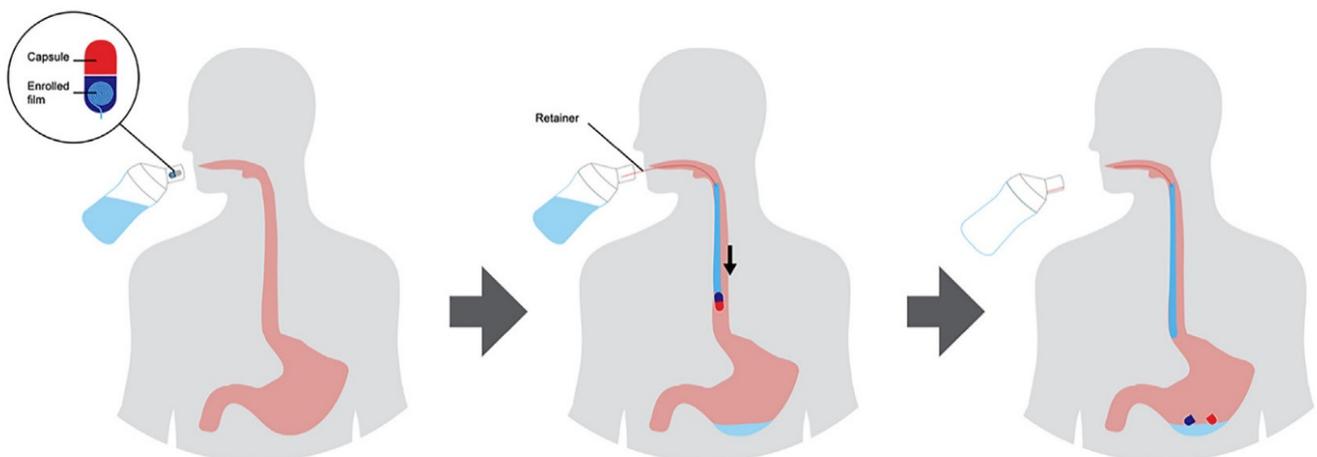


Diagram of EsoCap application, Krause et al. 2020. © EsoCap AG



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change the treatment of upper gastrointestinal diseases. We finally enable a local and most importantly, a long-lasting mucosal contact time in

the esophagus. With this easy-to-administer capsule, we aim to help patients across the world with conditions of high and unmet need," said Isabelle Racamier, CEO of EsoCap AG. "We are looking forward to our first clinical trial with ESO-101 in patients with Eosinophilic Esophagitis, a rare inflammatory disease of the esophagus, with only one approved treatment option in Europe at this stage."

In an extensive proof of principle trial, the application platform's functionality was demonstrated via MRI (magnetic resonance imaging), using the fully developed device loaded with a contrast agent. Twelve healthy volunteers participated in the study, each swallowing a capsule six times. In all 72 tests, the film rolled off the capsule and was correctly placed and attached to the esophageal mucosa. MRI images were generated at different time points after application. It was determined that the film was visible on the esophageal mucosa for at least 15 minutes. This is significantly longer than the contact time of less than one minute for oral or orally disintegrating tablets.² The general swallowability and acceptance were very good and no severe reactions (e.g., vomiting) were observed.^{3,4}

„In this study, we could prove the principal functionality of the EsoCap system. Overall, the EsoCap system was well tolerated by the healthy volunteers. The study showed that the contrast-enhanced polymer film was detectable in the

esophagus even 15 minutes after administration. This prolonged mucosal contact time is considered essential for efficacious treatment," explained Dr. Werner Weitschies, Professor at the Center of Drug Absorption and Transport, Institute of Pharmacy at the University Greifswald. "Due to the multitude of possible applications, the EsoCap system represents an exciting, forward-looking and highly variable platform for the local application of various films in the esophagus."

About EsoCap

EsoCap AG is a privately funded company based in Basel, Switzerland.

EsoCap's vision is to improve the lives of patients with serious diseases of the upper gastrointestinal tract through development of a unique and innovative topical drug delivery platform.

Effective topical treatment of the esophagus is extremely difficult to achieve due to the ultra-short drug contact time of one to two seconds from the mouth to the stomach with the current standard of care. The lead candidate ESO-101 has received Orphan Drug Designation from the FDA in the treatment of EoE and is in clinical development.

EsoCap owns and develops a unique drug delivery platform allowing the efficient topical application of drug substances for the local treatment of diseases of the upper gastrointestinal tract. With a strong IP position, the EsoCap technology is widely protected.

For more information, please visit www.esocap-biotech.com and follow EsoCap on [LinkedIn](#) and [Twitter](#).



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References:

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- ¹ Dellon et al., 2012. *Viscous Topical Is More Effective Than Nebulized Steroid Therapy for Patients with Eosinophilic Esophagitis*. *Gastroenterology*, 143 (2):321-324.
 - ² Burton et al., 1995. *Intragastric Distribution of Ion-exchange Resins: a Drug Delivery System for the Topical Treatment of the Gastric Mucosa*. *J. of Pharmacy and Pharmacology*, 47: 901-906
 - ³ C Rosenbaum et al, 2021. *Functionality and Acceptance of the EsoCap System—A Novel Film-Based Drug Delivery Technology: Results of an In Vivo Study*. *Pharmaceutics*, 13 (6): 828.
 - ⁴ Krause et al., 2020. *The EsoCap-system – An innovative platform to drug targeting in the esophagus*. *Journal of controlled release*, 327:1–7.