

## Identifying innovative smart materials for gastric drug delivery



**A pharma company that provides medicines for animals.**

The client was developing a novel gastroretentive solution that would allow delivered animal medications to remain in the stomach for extended periods of time, potentially looking for development partners.

### **Challenge:**

The client engaged PreScouter in this research support service project to explore novel smart materials, such as hydrogels, for drug delivery. Ideally, the materials identified would respond to physiological conditions within the gastric environment, resulting in a long retention time in the animal's stomach, with the potential for controlled release.

### **Approach:**

PreScouter first evaluated scientific literature to identify leading research centers developing hydrogel-based materials that could change their size and properties in response to different environments, such as pH, temperature, and ionic strength, while having the potential to be loaded with specific drugs. Additionally, PreScouter utilized proprietary databases to identify startups active in the area of hydrogel-based gastroretentive solutions.

Finally, after evaluating all candidates from Phase 1 with the client, PreScouter conducted outreach interviews with the most promising candidates to evaluate their respective capabilities, development status, and potential fit and interests..

### **Outcome:**

PreScouter's team highlighted 46 examples of materials being developed for gastroretentive solutions, primarily based on hydrogels, and analyzed the most promising solutions to identify microparticle-mediated drug delivery as a potential avenue of interest.

PreScouter identified one technology and developer as a great fit for the client's goals and performed an informational, anonymous interview that helped the client understand the developer's capabilities.