

**OTSUKA  
PHARMACEUTICAL  
FACTORY, INC.  
RECEIVES THE 2023  
NEW PRODUCT  
INNOVATION AWARD**

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*Identified as best in class in the Asia-Pacific  
gel immersion endoscopy industry*

## Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Otsuka Pharmaceutical Factory, Inc. excels in many of the criteria in the Gel Immersion Endoscopy (GIE) space.

AWARD CRITERIA	
<i>New Product Attributes</i>	<i>Customer Impact</i>
Match to Needs	Price/Performance Value
Reliability	Customer Purchase Experience
Quality	Customer Ownership Experience
Positioning	Customer Service Experience
Design	Brand Equity

### Match to Needs

During endoscopic procedures, visibility in the digestive tract is limited due to bleeding and food residue. Stool, vomit, or food residue might hide the gastrointestinal (GI) tract bleeding site and obstruct the view. In addition, blood can get mixed with fluid in the GI tract and decrease visibility. In such a scenario, the doctor will perform air/gas/fluid insufflation to improve visibility; however, this maneuver often fails to deliver optimal visual clarity.

Otsuka Pharmaceutical Factory’s VISCOCLEAR is a gel-based medical device (Class II) with moderate viscosity and is injectable through the accessory channel of an endoscope. VISCOCLEAR helps maintain a clear visual field during endoscopic procedures to identify the bleeding site or view inside the GI tract for further intervention. Injecting VISCOCLEAR through an endoscope pushes objects away from the path,

*“VISCOCLEAR helps maintain a clear visual field during endoscopic procedures to identify the bleeding site or view inside the GI tract for further intervention.”*

*- Madiha Siddiqui,  
Senior Consultant*

improving visibility to locate the bleeding point. The gel is less likely to get mixed with blood or fluid and helps maintain a clear visual field and avoid post-treatment complications.

Underwater EMR (UEMR) is an endoscopic procedure in which water is injected into the lumen of the digestive tract, and the lesion is immersed in the water for strangulation without local injection. In certain cases, UEMR leads to limited visual field due to digestive fluids and bleeding during the procedure, and treatment in areas

where water is difficult to retain. The gel immersion endoscopic mucosal resection (EMR) using VISCOCLEAR addresses these challenges.

### **Reliability and Quality**

In clinical practice, VISCOCLEAR is used to secure endoscopic views of the esophagus, stomach, duodenum, small intestine, and large intestine during gastrointestinal endoscopy and treatment. The product's strategy is to provide high-quality patient care, reduce endoscopic surgery time, and improve

*“The product's strategy is to provide high-quality patient care, reduce endoscopic surgery time, and improve resection rates.”*

*- Madiha Siddiqui,  
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resection rates. VISCOCLEAR's optimized viscosity secures the field of view and improves endoscopic operability. Patents protect its composition and other properties, making it difficult to imitate.

Lack of visual field increases the likelihood of misdiagnosing, leading to serious patient health consequences. VISCOCLEAR aids in minimizing such misdiagnosis, avoiding post-procedural complications, and providing appropriate time to complete the procedure. Current interventions, such as water irrigation and gas

insufflation, could increase the pressure on organs, leading to transient decrease in blood pressure or post-endoscopy complications, such as pain and bloating. In addition, incomplete endoscopic surgeries lead to multiple procedures, prolonged hospital stays, longer recovery time, and financial burdens.

### **Design**

Otsuka Pharmaceutical Factory, Inc. contributes to the medical community as a leader of intravenous solutions in the field of clinical nutrition in Japan. In horizontal development, the company developed OS-1 Jelly, a gelatinous oral rehydration solution for patients with dysphagia. Professor Tomonori Yano of the Department of Gastroenterology at Jichi Medical University presented the gel's use in maintaining the endoscopic visual field. GIE was invented to improve the poor visual field by trans-endoscopically injecting gel. However, as it contained many electrolytes, hemostasis with monopolar hemostatic forceps was hard to achieve in the gel because of the diffusion of electricity. In addition, based on feedback from key opinion leaders (KOLs), the proposal was to develop a product that excluded electrolytes, commercializing VISCOCLEAR as a gel-type medical device exclusively for GIE.

### **Price/Performance Value**

The endoscopic procedure market is growing due to several factors, such as a rise in the prevalence of GI disorders, an aging population, and a high focus on screening/preventive measures. The high endoscopic procedure demand in 2021 and 2022 can be attributed to the disruption in the procedure schedule due to the COVID-19 pandemic.

In addition to the increased demand for endoscopic procedures, VISCOCLEAR gained strong traction as soon as it was launched. The product was launched in Japan in October 2020 and has been adopted by many facilities, including university hospitals.

Since its use in Japan began, other uses have been devised besides securing the visual field, and expansion of VISCOCLEAR's indication is expected. The company is currently looking for a partner to expand its business to Europe, the U.S., and Asia.

### **Brand Equity**

Otsuka Pharmaceutical Factory, Inc. is a part of the Otsuka Group, which celebrated its 100th anniversary in September 2021. The Otsuka Group's corporate philosophy is 'Otsuka people creating new products for better health worldwide,' which encompasses 3 aspirations of creating original products, benefitting people's health, and contributing to people around the world. With VISCOCLEAR, the company fulfills its corporate philosophy by creating new markets, improving the quality of medical care, and supporting patients in Japan and overseas. In Japan, Otsuka's brand heritage allows its sales representatives to conduct most of its business. Over the years, the company has earned the trust of its customers as a leading manufacturer of intravenous nutritional solutions as well.

### **Conclusion**

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Across countries, different visibility interventions are used depending on the cause of poor visibility during endoscopic procedures. While these interventions are beneficial in less complicated cases, maintaining a clear visual field is a universal challenge.

GI endoscopic procedures face several visibility challenges, indicating a widespread need for VISCOCLEAR across hospitals, clinics, or centers providing endoscopy services. With its strong overall performance, Otsuka Pharmaceutical Factory, Inc. earns Frost & Sullivan's 2023 Asia-Pacific New Product Innovation Award in the gel immersion endoscopy industry.



## What You Need to Know about the New Product Innovation Recognition

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Frost & Sullivan's New Product Innovation Award recognizes the company that offers a new product or solution that uniquely addresses key customer challenges.

### Best Practices Award Analysis

For the New Product Innovation Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

#### *New Product Attributes*

**Match to Needs:** Customer needs directly influence and inspire product design and positioning

**Reliability:** Product consistently meets or exceeds customer performance expectations

**Quality:** Product offers best-in-class quality with a full complement of features and functionality

**Positioning:** Product serves a unique, unmet need that competitors cannot easily replicate

**Design:** Product features an innovative design that enhances both visual appeal and ease of use

#### *Customer Impact*

**Price/Performance Value:** Products or services provide the best value for the price compared to similar market offerings

**Customer Purchase Experience:** Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

**Customer Ownership Experience:** Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

**Customer Service Experience:** Customer service is accessible, fast, stress-free, and high quality

**Brand Equity:** Customers perceive the brand positively and exhibit high brand loyalty

## About Frost & Sullivan

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- **Innovation Culture:** Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- **Transformational Growth:** Industry Leadership



## The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

### Analytical Perspectives:

- **Mega Trend (MT)**
- **Business Model (BM)**
- **Technology (TE)**
- **Industries (IN)**
- **Customer (CU)**
- **Geographies (GE)**

