



Saving Lives Through Innovation: Driving Automation and Accuracy In Blood Bank Technology

Fast Facts

Industry

Blood bank technology

Headquarters

United States

Challenge

Product development and research efficiency

Solution

Invention Machine Goldfire

Benefits

"Goldfire offers functionality to help us model solutions for new products and do root cause analysis to speed up our ability to resolve issues. It supports our formal design control processes very well."

**- Dr. Lyle Sinor,
vice president, research
and development**

"The semantic technology helps index and access information stored in files, email, and databases—as well as external data."

**- David McCampbell,
vice president,
world wide information
services**

About Immucor

Immucor, Inc. plays a vital role in making blood transfusions safe. Specializing in pre-transfusion diagnostics, the company develops, manufactures, and sells products used by hospital transfusion centers, blood donor centers, and clinical laboratories to detect certain properties of human blood prior to patient transfusion.

Since 1982, the company has revolutionized the blood bank industry through their dedication to automating manual processes in the blood bank laboratory. Today, it is the market leader in North America and recognized as one of the best-run companies in its home state of Georgia.

Challenge

Millions of lives are saved by blood transfusions. Safe blood and accurate compatibility testing prevent serious and potentially fatal patient reactions. Because of the critical importance of matching patient and donor blood, highly skilled and educated technologists generally perform procedures for testing compatibility. The majority of these tests are performed manually, making this a labor-intensive task.

The current reliance on skilled technologists—an aging workforce—combined with the importance of accurate testing have led to increasing demand for Immucor's instruments, which improve test precision and reduce time to perform certain test procedures. Also, since medical universities are not graduating enough students to replace retirees, there will soon be a shortage of qualified technologists.

As such, hospitals worldwide are turning to Immucor for blood bank automation solutions, reliable technology, and next-generation products to ensure patient safety.



Usage Highlights

Immucor's research and development teams are energized by a powerful and completely different way of understanding their products.

- Inventive Principles to predict reactions
- Root Cause tools to improve troubleshooting capabilities
- Integrated Semantic Technology to access relevant information
- Failure Mode Effects Analysis (FMEA) to meet rigid government health standards and eliminate post-installation problems

Solution

As part of Immucor's commitment to delivering reliable products and developing future blood bank technology, the company selected Invention Machine Goldfire to improve research efficiency, support design process controls, and speed root cause problem understanding.

Because Goldfire is optimized for helping teams identify next-generation concepts and generate innovation solutions, the research and development area was a natural fit. Dr. Lyle Sinor, vice president of research and development, commented, "Goldfire offers functionality to help us model solutions for new products and do root cause analysis to speed up our ability to resolve issues. It supports our formal design control processes very well."

When the wider evaluation team witnessed the power of Goldfire's capabilities, eventual uses across their larger environment were clear. "Our first attention is on R&D and providing reliable technology," stated David McCampbell, vice president of worldwide information services, "and having semantic access to information stored in files, email, and databases—as well as external data—will certainly work well in our environment."

Benefits

Since installing the software, receiving training, and exploring its versatility, Immucor's research and development teams have been energized by a powerful and completely different way of understanding their products.

By creating dynamic function and process models for their key products in Goldfire, these models are brought to life with precision access to relevant concepts from inside and outside of the company. As Immucor's talented team of scientists leverage Goldfire's Inventive Principles to predict reactions and Root Cause tools to improve troubleshooting capabilities, the company continues its mission to assist laboratories worldwide with leading-edge blood bank technology. In addition, the company's ability to document and quickly access research and development work in Goldfire will be a valuable benefit, as new ideas are vigorously reviewed in this highly regulated industry.

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More than ever, blood bank laboratories need automated solutions and products to continue their work of saving lives with the gift of blood. Immucor's never loses sight of this miracle and promise of blood. The company's commitment to constant innovation will continue to answer this true, human need.