Comprehensive Biobanking Solution & Services

Your informatics partner for critical biodata management

“...enjoyed over 5 years of working with Persistent. We have worked with many different professionals within the organization and in varying capacities. The company members always deliver a high level of drive, competency, efficiency and value to every project we have implemented. The company also continuously works with us to be cost-effective without suffering integrity. Most recently, we successfully implemented the caTissue Biobanking application with Persistent’s assistance. This involved enhancing the software to accommodate our needs as well as several institute-wide, complex migrations from our legacy system. Overall, we have been quite pleased to work with Persistent and we will continue to engage the company’s services for any future project needs.”

Erica R. Wolf, MBA
Corporate Team Lead
Enterprise Informatics for Research Administration
Dana-Farber Cancer Institute/Partners Healthcare

Standardized, high quality biospecimens are vital elements to personalized medicine platforms. The need for effective management of biological samples along with clinical data has led to the importance of molecular data management. With advances in technology to capture, deliver, integrate, and exchange biomedical and molecular information more effectively is a clear indication that we are in the era of ‘personalized medicine’. Clinicians, researchers and thought leaders from the industry have recognized the ever-increasing need to access molecular information as well the information contained in medical records or collected in the course of clinical trials. Biobanks, also called biorepositories provide storage for all of this critical information. Thus, biobanks serve as an important translational bridge between research and clinical practice, accelerating the discovery and development of more personalized medicines.

For more than a decade, Persistent Systems has been active in developing various informatics solutions for biobanks. With our strong domain understanding, deep informatics experience and strong academic partnerships, we offer a wide range of solutions and services for the biobanks.

BioBanking Solution

Persistent Systems understands the biobanking domain and the unique challenges faced by the industry as described below. We provide comprehensive solutions and services to overcome these challenges specifically for this uniquely poised sector.

Persistent is one of the licensed caBIG® support service provider to offer services around caTissue, an open source biobanking solution backed by NCI. Persistent Systems promotes caTissue and offers various support services around the development, implementation and adaptation of this open source biobanking solution.

caTissue provides the following features to better manage biobanking operations:

- **Standardizing Data Capture**: Biobanks maintain a growing repository of different tissues and samples. Detailed information and annotations related to these samples must be stored in a standardized format. It is not uncommon for individual researchers to use their own methods to annotate important information related to the specimens stored in each biobank. The lack of standardization makes it difficult for others to understand and use this information in a meaningful way. caTissue solves this problem through the use of standardized vocabulary and workflows that are built based on your needs and implemented as part of the overall solution, all while maintaining the flexibility to accommodate custom annotations through dynamic extensions.

- **Centralizing data storage and access**: Many times biobanks use a standalone application to store information related to individual specimens. caTissue provides a single web-based interface that overcomes these disadvantages associated with standalone applications. Web-based solutions provide platform independence, centralization of data storage, easy accessibility, improved user-experience and lower customer support costs.
Solution brief

- **Complying with Regulatory Standards**: caTissue is compliant with different regulatory standards and adhere to HIPAA guidelines for patient safety. caTissue also maintains a chain of custody of user interactions by providing a complete audit trail.

- **Managing and Integrating Complementary Clinical and Biological data**: Different types of information are associated with different types of samples and specimens. This information may be stored across multiple data stores. By integrating different systems, caTissue enables researchers to access information faster, even when stored in different data stores and as a result, caTissue enables medical professionals to carry out their analysis more efficiently.

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**Why Persistent?**

- Comprehensive domain knowledge of Life Sciences with a focus on providing technical solutions
- Experience of working with 30+ biobanks
- Involved in caBIG® since inception and executed six caBIG® projects
- Cost effective and can easily create a 24-hour work day in collaboration with end users

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**Enterprise Adaptation Services**

- Persistent works with the biobanks to install, deploy, and configure the biobanking application. We understand that each institution have their customized biobanking workflow
- Our domain experts work along with the biobank users to identify the workflow and map it correctly in the application. This ensures the optimum and correct usage of the application
- We also provide several training options for the end users to familiarize them with the application and also host a demo server offering hands-on learning for them

**Legacy Data Migration Services**

- For biobanks wishing to migrate from their current legacy biobanking systems to an open source solution, Persistent helps with data migration services enabling migration from legacy data to caTissue
- The entire exercise is carried out in a structured fashion with appropriate reviews and approvals at each stage to ensure hassle free migration

**Integration Services**

- Biospecimen management systems can exist as independent software systems or can work cohesively with other informatics solution within the organization
- Persistent Systems provides integration services which allow standard based modular integrations to various informatics solutions within the biobanks
- We have integrated caTissue with pathology systems, electronic health record systems, enterprise master patient index, freezer management solutions, pre-clinical data management systems, clinical trials management systems, patient survey management tools, external data sources etc

**Application Development & Deployment Services**

- Although a good biobanking solution provides many useful features, there are organization specific customizations which are inevitable
- Our highly experienced development team works in co-ordination with the biobank’s IT staff/stakeholders, to develop modular extensions, enhancements or totally new applications which can work seamlessly with the existing biobanking solution
- Our reusable artifact repository built out of strong experience working in the industry for more than a decade, reduces unnecessary costs and reduces time to production

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**About Persistent Systems**

Established in 1990, Persistent Systems (BSE & NSE: PERSISTENT) is a global company specializing in software product development services. For more than two decades, Persistent has been an innovation partner for the world’s largest technology brands, leading enterprises and pioneering start-ups. With a global team of 6,700+ employees, Persistent has 300+ customers spread across North America, Europe, and Asia. Today, Persistent focuses on developing best-in-class solutions in four key next-generation technology areas: Cloud Computing, Mobility, BI & Analytics, Collaboration across technology, telecommunications, life sciences, consumer packaged goods, banking & financial services and healthcare verticals. For more information, please visit: [www.persistentsys.com](http://www.persistentsys.com).

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