

L7 Informatics

Rethinking Data Management to Accelerate Discoveries in Life Sciences

In a library, readers generally use a catalog to search for a specific book in order to avoid the time and energy of searching for books on every shelf. Similarly, this is precisely what L7 Informatics Enterprise Science Platform (ESP) does in the life-sciences big data space.

“In the current digital health scenario, large volumes of data is generated on a constant basis is often not cataloged in an appropriate manner,” states Vasu Rangadass, Ph.D., President and CEO, L7 Informatics, “making it difficult for analysts to glean insights from them.”

Unlocking the full potential of clinical research and trials, L7 ushers in a focused way of managing data and solving complex problems in the life sciences world. This customer-centric scientific information management (SIM) solution provider enables life science and healthcare companies to connect people, processes, and systems to accelerate discoveries and drive precision healthcare.

As revealed by Rangadass, there are a lot of silos between various process owners in precision medicine and translational research workflows. Information does not flow easily between the various departments such as sample/bio-repository management, wet lab and bio-informatics. Information flow is even poorer across companies – between life sciences companies, Clinical Research Organizations (CROs), Contract Manufacturing Organizations (CMOs) and the health systems. This lack of information flow regarding the patients and samples obstructs the workflow and hinders positive operational and health outcomes.

With a vision to turn silos into synergies and enable seamless collaboration, L7 ESP consolidates all information into one customizable and intuitive platform for streamlining next generation sequencing (NGS) lab operations or cell and gene therapy treatment protocols. The ESP platform allows users to integrate with any laboratory instrumentation as well as a pharmaceutical process equipment and patient health monitoring devices, creating unforeseen synergies to optimize precision medicine workflows.

“Similar to a Visio chart editing process, one can take any laboratory or precision medicine process for a stem cell or cell therapy, and can create workflows with a few clicks on the user-interface,” describes Rangadass. Following this, bi-directional

connectors are built into process equipment, lab instrumentation and the workflow is ready to run and manage all the research and regulatory compliance data that is generated.

Offering a holistic approach to data management, the L7 ESP meets and/or exceeds regulatory compliant, with an audit trail and provenance graph for all processes conducted with the aid of the platform. The platform supports generally accepted good manufacturing processes (GMP), generally accepted good lab practices (GLP) along with generally accepted good clinical practices (GCP).

“We sketch out the business objectives of our clients after understanding their requirements,” explains Rangadass. L7’s Laboratory Operations Assessment (LOA) highlights the clients’ scope for operational improvement via on-site interviews with the clients’ stakeholders, thereby evaluating the challenges faced by the business entity. The business process is strategized and implemented into the ESP, which is followed by deploying both cloud-based and on-premise installation of the system after approval from the client. L7 Informatics executes rigorous training for all users to ensure complete understanding of the ESP.

For instance, L7 assisted Dallas-based immunotherapy company, Gradalis, Inc., in automating the capture of the batch manufacturing records, while simultaneously automating the workflow of the cancer vaccine in terms of clinical, regulatory, provider, manufacturing, and study participant needs. While serving patients with Ewing’s Sarcoma with the aid of L7 ESP, Gradalis experienced on-time, best-in-class functionality.

With a firm hold in the Canadian market, L7 Informatics has aggressive plans to expand in Europe and Asia. Additionally, the company has outlined a three-year roadmap focusing on translational research and cellular therapies, which includes multi-enterprise collaborative research workflows across enterprises. This will enable any two companies to engage in an electronic exchange of critical clinical, operational and regulatory data.

“L7 is also integrating machine learning, AI and analytics into its ESP platform, thus ensuring complete support for workflows to enable novel bio-marker discovery, NGS-based diagnostic decision support as well as optimizing bio-process manufacturing processes,” concludes Rangadass. ☺



Vasu Rangadass, Ph.D.