All related persons

August 30, 2018

Nissui Pharmaceutical Co.,Ltd.

Relevant Notice on Global Service of Colony Counter (@BactLAB™) Making Flexible Use of the AWS Cloud Service and AI Technology

Nissui Pharmaceutical Co.,Ltd. (headquarters: Taito-ku, Tokyo, Japan; President: Tokuya Ono) will carry out the trial operation to count the colonies cultured in the "simple culture medium for bacteria counting CompactDry™", by using the Amazon Web Service (AWS) cloud service and Artificial Intelligence (AI) technology for specific overseas customers from August 2018, as a part of active investment in the new developing area. "CompactDry™" is a major product of inspection reagents used for food quality inspection and sanitary control of manufacturing facilities.

【 Simple culture medium for bacteria counting CompactDry™ 】

CompactDry™ is a dry and simple culture medium culturing with only 1mL of sample solution without requiring the preparation of culture medium. CompactDry™ is applicable to the indices inspection of bacterial contaminations, such as viable bacteria count, coliforms and Escherichia coli, also applicable to the bacteria inspection in case of food poisoning. It has been included in the *Food Hygiene Inspection Guideline*. (Included in *2018 Food Hygiene Inspection Guidelinein Japan*).

To meet requirements for the overseas market, our company is actively preparing for the international standard (FDA & ISO) certifications of food hygiene. Currently, we have obtained AOAC certificates and MicroVal and NordVal certificates. In recent years, the sales amount has been growing steadily since products can be transported and stored at room temperature and can keep high performance under severe environments.

Given the circumstances, our company establishes the global service of colony counter "@BactLAB™" by improving the added values of products, with the aim to reduce the workload of food hygiene management, improve and network the QC and QA for suppliers, manufacturing sites and the company Head Quarter. This service can make it possible for you to achieve the centralized QC/QA management.

【 Global service of colony counter (@BactLAB™) 】

You can use an APP to easily count the number of bacteria (colonies) cultured in CompactDry™ by using the smart phones.

After registering as a member on the APP or service web, users can take a photo of colonies cultured in CompactDry™ via a smart phone or PC, upload the photo, and can confirm colony counting several seconds later.

※ This service is only provided for overseas customers.

※ The counting result may have a deviation around8%, subject to the image resolution.

※ Even if the colony count is "0", the result does not indicate "negative".

・Official website for @BactLAB™ :
https://www.nissui-pharm.co.jp/english/products/global/bactlab/

・Application (Google Play / Apple Store / Online Service) :
APPs on Android, iOS or PC are currently limited to be used by some specific customers.

【 AWS (Amazon Web Service) 】

The AWS cloud platform not only satisfies the safety and stability requirements, but offers high availability and extendibility for future demands of overseas customers.

【 AI Technology 】

The cloud image recognition technology used in this service is an AI Technology (applying for joint patent) for image recognition system, co-developed by Nissui Pharmaceutical Co.,Ltd. and the associate company of system integration. The colony count image processing combines the conventional "image processing" method and the new counting technique of "machine learning (deep learning)". The colony count image processing is an AI technology developed independently by combining several technologies (: "SVM※" recognition algorithm learning multiple groups of samples and making a distinction : "CNN※"and multi-layered linkable cranial nerve network for learning and judging), which can be used to learn and recognize the candidate colony.

※Support Vector Machine (SVM): A recognition algorithm learning multiple groups of samples and making a distinction.

※CNN: Convolution neural network Learn and judge through the multi-layered linkable cranial nerve network (neural network).

【 List of relevant issues and trademarks of service and specifications 】

Food safety is of vital importance for people's life. It is essential for protecting human life to detect the number of bacteria contained in food and drinking water easily and correctly, whenever and wherever. The concept of this service is to enable people, in every corner of the world, measure the number of bacteria easily by using their mobile devices, to improve business efficiency by adopting the global cloud service and AI, and to make CompactDry™ contribute to the Quality Of Life (QOL) by adding the value to it. In the future, our company is planning to accelerate the various measures to actively expand relevant businesses in the overseas food hygiene testing market.

【 Service consultation 】

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【 Contact of related issues 】

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