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ASIA EDITION

Q-Sera's Blood Clotting Technology Granted Patent in US

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Venom of Australia's deadliest snake leads to revolutionary serum collection technology

Australia based Medical device company Q-Sera Pty Ltd has announced that it has received a Notice of Allowance from the United States Patent & Trademark Office for the foundation patent of its innovative blood clotting technology for use in blood collection tubes.

The Q-Sera technology is based on lead active RAPClot™ which has been shown to rapidly produce high-quality serum for biochemical analysis, even if the blood sample contains anti-coagulants. The ability to clot all blood samples in less than five minutes, including those containing anti-coagulants which affect around 10 percent of hospital patients, make the technology a game changer.

In acute situations where speed matters such as emergency departments, blood tests are commonly used to assist the accurate diagnosis of medical problems ranging from heart attacks to diabetes. A delay in test results means a delay in diagnosis and the right care for very sick patients. Having access to a technology that universally clots all blood samples within 5 minutes will contribute to improved patient outcomes and reduced healthcare costs.

"Q-Sera is delighted with this tremendous milestone, as it underlines the value of our technology as a 'universal' blood collection tube to produce high-quality serum. The issued patent provides protection through 2030 in the United States, which is a key market for us," says Q-Sera CEO Michael Grant.

Q-Sera's technology now has patent protection for use in blood collection tubes in the United States, Europe, Japan, China, Mexico, Russia, Canada, South Africa and Australia. Q-Sera is progressing additional patents to cover novel formulations and expanded uses for its unique actives, extending the commercial opportunities.

Q-Sera has harnessed prothrombin activators found in the venom of some of the world's deadliest snakes, particularly the Australian Coastal Taipan, to clot blood samples producing serum for analysis. However, Q-Sera is now able to produce the cost-effective RAPClot™ protein from modified cell lines using standard pharmaceutical manufacturing processes.

Serum is the gold standard for biochemical analysis of blood samples however current technologies are unable to routinely produce high-quality serum for biochemical analysis from all samples. Q-Sera's technology seeks to improve laboratory efficiencies by reducing time for sample analysis (turn-around time) with consistently high-quality serum. Standard serum

tubes which are based on silica require up to 30 minutes to clot blood, can clot poorly leading to laboratory issues and are unable to clot anticoagulated blood from patients treated with blood thinners such as warfarin, heparin or the newer oral anticoagulants.

Q-Sera aims to provide a 'universal' serum tube with these advantages which is cost-effective. Thrombin-based serum tubes are faster than a standard serum tube, however can cost up to five times more, and are still unable to clot anticoagulated blood at high levels.

Q-Sera's technology has recently been published in a peer-reviewed study *"Next-generation rapid serum tube technology using prothrombin activator coagulant: fast, high-quality serum from normal samples"*, (Clinical Chemical Laboratory Medicine Volume 57, Issue 4). The study finds that Q-Sera's technology demonstrates rapid generation of high-quality serum from normal samples, potentially contributing to faster turn-around times.

The Q-Sera technology is based on the research of a team of scientists from The University of Queensland, Australia (UQ). It was licensed to Q-Sera by UniQuest, UQ's commercialisation company and has received investment from two of Australia's premier innovation sector investors, the Medical Research Commercialisation Fund (MRCF), managed by Australia's largest venture capital firm Brandon Capital Partners, and Uniseed who along with other institutional investors have funded Q-Sera's activities.