

Rosetta Genomics and the Institute of Molecular Translational Medicine Partner on Development of Thyroid Cancer Diagnostic

EATRIS Developed Collaboration to Accelerate the Validation of New Thyroid Cancer Diagnostic

PRINCETON, N.J., REHOVOT, Israel and OLOMOUC, Czech Republic (October 21, 2014) – Rosetta Genomics Ltd. (NASDAQ: ROSG), a leading developer and provider of microRNA-based molecular diagnostics, announces the initiation by the European Infrastructure for Translational Medicine (EATRIS), of a new public-private translational research project between Rosetta Genomics and the Institute of Molecular Translational Medicine (IMTM) at Palacky University, Olomouc, Czech Republic. The new partnership will work towards the validation and development of a new thyroid cancer diagnostic tool.

The partnership was facilitated by EATRIS' new business model that brings together private industry and academia, and is the result of a partnering meeting held at the BIO USA 2014 convention in San Diego, California.

Under this EATRIS private-public arrangement, the partners will work towards improving the diagnosis of malignant tumours in suspected thyroid cancer patients by connecting the expertise and clinical samples available at IMTM with the microRNA platform technology and product development expertise of Rosetta Genomics.

An estimated 4% to 7% of the general population develops nodules in the thyroid that can be felt on examination, though fewer than 10% are malignant. Fine Needle Aspirate (FNA) to obtain tissue for analysis is the standard technique for detecting cancer. It is estimated that nearly 500,000 FNAs are performed each year in the U.S. and approximately 740,000 are performed annually in Europe. Interpretation of FNA samples is not always straightforward, leading to an indeterminate result in up to 30% of the samples. Many patients with indeterminate results are sent to surgery as a precaution, despite the fact that the majority of these cases are benign. This exposes patients to unnecessary surgical risk and costs the system hundreds of millions of dollars.

Prof. Marian Hajduch, M.D., Director at IMTM, commented, "This collaboration with Rosetta Genomics is significant for IMTM and for the field of translational research. By utilizing our translational expertise and clinical samples in collaboration with Rosetta's proven product development capabilities, we hope to expedite the development of a high-value thyroid cancer diagnostic. We are delighted to be a part of this novel way of working with industry through the EATRIS infrastructure."

"Our initial studies have demonstrated that microRNA expression levels can differentiate malignant nodules from benign nodules, and also demonstrated the ability to extract and

profile microRNAs from thyroid FNAs. The access to IMTM's thyroid cancer samples and translation research should enhance and accelerate the larger validating studies we have underway, as we plan for a third quarter 2015 launch of our thyroid assay in the U.S.," stated Kenneth A. Berlin, President and Chief Executive Officer of Rosetta Genomics. "This partnership represents a good opportunity to work with distinguished partners on a high-value thyroid diagnostic. We have been pleased with our interactions with EATRIS and impressed with their smooth and efficient international collaboration process."

"This partnership is a prime example of how EATRIS is paving the way to improved product development by facilitating collaborations that combine access to innovative translational research infrastructure and industry expertise. This is a great time to be part of EATRIS as patient outcomes are within reach," noted Anton Ussi, Head of Operations at EATRIS.

About EATRIS and ERIC

The European Advanced Translational Research Infrastructure is comprised of leading academic groups and institutions, in eight countries, which provide access to innovative translational research infrastructure and expertise. They leverage their state-of-the-art facilities and knowledge to reduce risks within translational research across Europe, while increasing productivity. Participating institutes are selected and continuously monitored on the basis of the available infrastructure, expertise and quality standards which comply with current European pharmaceutical regulations, laws and guidelines. As a European Research Infrastructure (ERIC), EATRIS headquarters provide 'Coordination & Support' activities in organizing one-stop access to over 70 research centres of excellence across Europe. For more information, please visit www.eatris.eu.

About IMTM

The Institute of Molecular and Translational Medicine, Faculty of Medicine and Dentistry, Palacký University in Olomouc, is the leading translation medicine institute in the Czech Republic and national node for EATRIS. The IMTM's mission is basic and translational biomedical research with the goal to better understand the underlying causes of human diseases, mostly cancer and infections, and to develop future human medicines, medical devices and diagnostics. For more information, please visit <https://www.imtm.cz>.

About Rosetta Genomics

Founded in 2000, Rosetta's integrative research platform combining bioinformatics and state-of-the-art laboratory processes has led to the discovery of hundreds of biologically validated novel human microRNAs. Building on its strong patent position and proprietary platform technologies, Rosetta is working on the application of these technologies in the development and commercialization of a full range of microRNA-based diagnostic tools and therapeutics. Rosetta currently commercializes a full range of microRNA-based molecular diagnostics. Rosetta's cancer testing services are commercially available through its Philadelphia-based CAP-accredited, CLIA-certified lab. For more information, please visit www.rosettagenomics.com.

Forward-Looking Statement Disclaimer

Various statements in this release concerning Rosetta's future expectations, plans and prospects, including without limitation, statements relating to the potential that the collaboration between Rosetta and IMTM will expedite the development of a high-value thyroid cancer diagnostic and the expected timing of the launch of Rosetta's thyroid assay in the U.S., constitute forward-looking statements for the purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors, including those risks more fully discussed in the "Risk Factors" section of Rosetta's Annual Report on Form 20-F for the year ended December 31, 2013 as filed with the SEC. In addition, any forward-looking statements represent Rosetta's views only as of the date of this release and should not be relied upon as representing its views as of any subsequent date. Rosetta does not assume any obligation to update any forward-looking statements unless required by law.

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