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Yeaseul Park, CEO and Co-Founder of Orange Biomed

Development of the World's First Glycated Hemoglobin Analyzer Without Protein Reagents | Yeaseul Park (29) CEO of Orange Biomed

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Established in 2021, Orange Biomed succeeded in developing the world's first glycated hemoglobin analyzer through single-cell analysis of red blood cells. Glycated hemoglobin is the most important biomarker in diabetes management. It is used to diagnose diabetes, and is a value that must be constantly monitored every 2 to 3 months to prevent complications.

Existing test instruments are difficult to maintain as they are based on protein quantification methods. Only experts can use them because they must collect the exact amount of blood needed in microliter units. Due to the protein variants, accuracy issues and limitations persist. On the other hand, Orange Biomed's portable glycated hemoglobin analyzer is the first new diagnostic method that leverages single cell analysis of red blood cells without using protein reagents. Recognized for its technology and growth potential, Orange Biomed has exceeded \$2M in cumulative investments.

Currently, clinical research is being conducted in cooperation with the Diabetes Center of Asan Medical Center. The goal is to obtain final approval from the U.S. FDA within this year. The miniaturized device has an anticipated low price of \$100~\$200 while ensuring high accuracy, at the same level of hospitals. CEO Yeaseul Park explained, "Because there is no protein, it does not deteriorate even when stored for a long time, and maintenance or zero-point adjustment is not required, so it is possible to test without the help of experts."



OBM rapid a1c

Orange Biomed was co-founded by co-presidents Yeaseul Park and Duke University alumnus Dr. Unghyeon Ko. While pursuing her MBA degree at Duke University, serial entrepreneur Park collaborated with Dr. Ko, who was a postdoctoral researcher at Duke University Hospital, to start a business. Together they established Orange Biomed. Despite being only two years old, the company has made significant progress in its development, owing to the expertise and experience of its six-member founding team.

CEO Park said, "I hope that the portable HbA1c monitor, our first product, will form a successful foundation in the market so that we could further develop the next medical devices in our pipeline."