

TOPIC

HORIBA's Immunoassay Method receives the Honor

-The Prize of the President of the Japan Patent Attorneys Association-



From the Left,
Yasuo Yamao
President & CEO
Atsushi Horiba
Narihiro Oku



Certificate of Merit



Medal



Award Panel

On 26 May 2004, HORIBA, Ltd. was awarded for inventing “An Immunoassay Method for Use with Whole Blood Sample” at the National Commendation for Invention at the Hotel Okura Tokyo. On this occasion of the 100th anniversary of the event, the presence of the Japan Institute of Invention and Innovation’s foundation, together with our Majesties the Emperor and Empress as well as our Prime Minister Koizumi made this 100th anniversary ceremony and the National Commendation for Invention a spectacular and unforgettable celebration. In this memorable ceremony, HORIBA, Ltd. received its first the Prize of the President of the Japan Patent Attorneys Association for developing the method as well as the Prize for the Person of Merit for the Invention. We would like to express our appreciation for the support and cooperation of the affiliate companies that have surely contributed to the great accomplishments of HORIBA, Ltd.

National Commendation for Invention

Since 1919, the National Commendation for Invention has been rewarded inventors and individuals who accomplished the invention or made significant contribution to the invention work by giving advice, encouragement and support. The commendation ceremony is yearly held with support of the sponsors: the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Economy, Trade and Industry, the Japan Patent Office, the Japan Federation of Economic Organizations, the Japan Chamber of Commerce and Industry, the Japan Patent Attorneys Association, and Asahi Shimbun. The award seeks to enhance science, technology and industrial promotion in Japan by encouraging and fostering inventions. Furthermore, it receives the Imperial Grant every year with the special attention of the Imperial House to inventions by rewarding inventor with the Imperial Invention Prize.

The Prize from the President of the Japan Patent Attorneys Association

Yasuo Yamao

HORIBA, Ltd.

Scientific & Medical Products Manufacturing Dept.

Production Center

Medical Products team

Manager

Narihiro Oku

HORIBA, Ltd.

Medical Electronic Systems Division

R&D Dept.

Manager



“An Immunoassay Method for Use with Whole Blood Sample”

Equipment used for the invention:

Automatic Blood Cell Counter Plus CRP (LC-175 CRP, LC-170 CRP, LC-275 CRP, FL-270 CRP, LT-120)

Japanese patent number : 3249919

The Prize for the person of merit for the invention

Atsushi Horiba

HORIBA, Ltd.

President & CEO

Concept of the Immunoassay Method Development

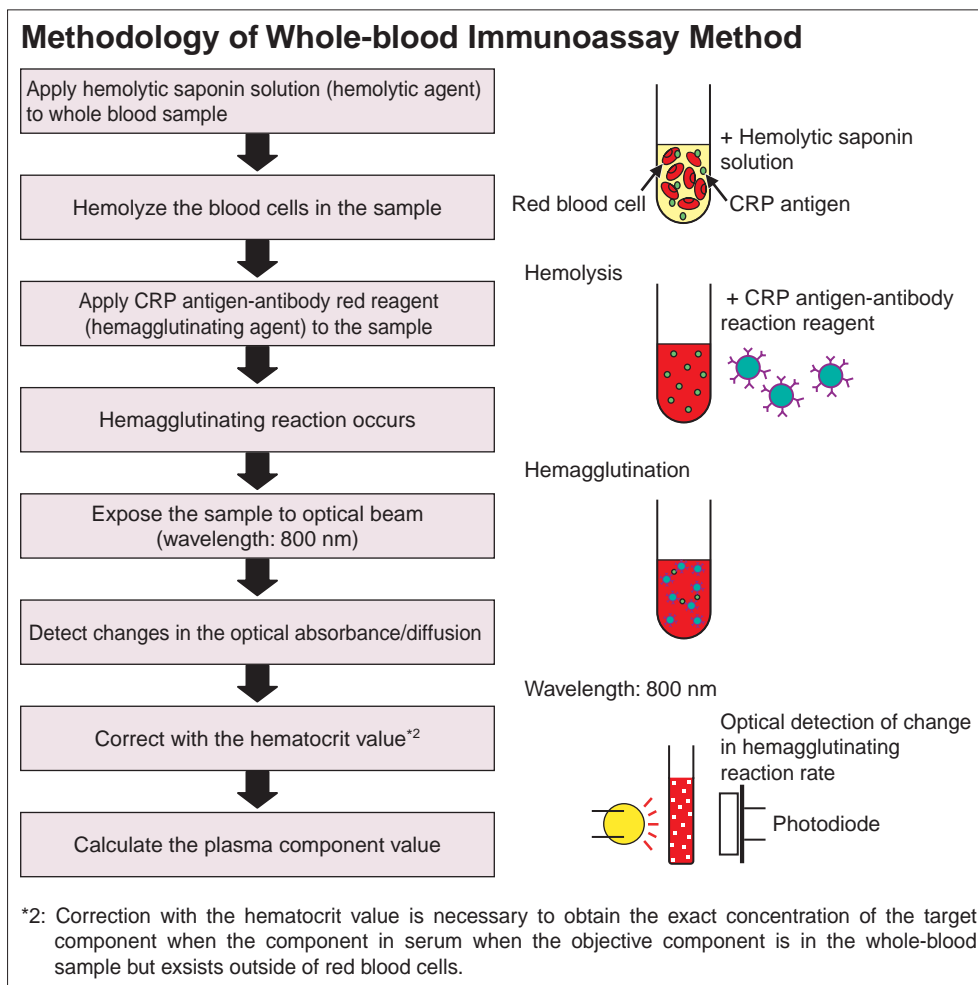
This immunoassay method has been invented for the purpose of ensuring the quick, simple and suitable diagnosis of infections in private hospitals and small clinics by just sampling a small volume of whole-blood from a fully automated device without any initial processing. In clinical examinations such as immune serum testing, hemolysis^{*1} has been avoided as much as possible by following the conventional standard method. However this method can use a specimen where blood cells are purposely hemolyzed without affecting the immune reaction. This new method with combination of various reagents for latex immuno-turbidimetry offers the great advantage to avoid sample preparation such as centrifugation and gives great result accuracy in a short time. conventional method requires a blood sample of 2 to 3 ml and more

than 30 minutes to measure specific parameters such as C-reactive protein (CRP) and blood cell count (18 parameters including white blood cell count, red blood cell count and hemoglobin content) to diagnose infection. On the other hand, this new whole-blood immunoassay method requires only 18 mL of whole blood and 260 seconds for a complete 19 parameters report. In addition, such low volume of whole blood is very convenient for pediatric and geriatric use. Such LC-175 CRP system has already been marketed as the Automatic Blood Cell Counter Plus CRP with integration of CRP immuno reagents. today approximately 3,800 units are installed in Japan and approximately 800 units overseas.

Clinical examination especially blood test is indispensable in medical field in term of diagnosis. Indeed, white blood cells (WBC) generally increases with acute inflammation, and blood test is significantly important as a primary test in private hospitals and small clinics. Meanwhile, C-reactive protein level, measured in the immune serum test will rapidly increase with acute inflammation giving effective information in case of tissue destruction, acute diagnosis of tissue destruction, acute inflammation and infections. Combining CRP and CBC tests will provide useful markers for diagnosis of bacterial and virus infections.

The new method allows physicians to define diagnosis and treatment in a very short time. Clearly contributes to reduce the consumption of antibiotics and X-ray examinations and consequently saves hospitalization and medical costs.

*1 : The concept of releasing the content of red blood cells.



Inventor's Comments

This new invention fascinated me and gave me a great pleasure to learn more about CRP with the cooperation of our sister company HORIBA ABX and offer better patient medical treatment. This is the result of effort from many people and I feel very fortunate and honored to receive this award. I am sure that this award will contribute toward HORIBA medical engineers to continue developing new technologies in the medical field.



Yasuo Yamao

This method was invented during the process of developing a technique for the simultaneous measurement of white blood cell count and CRP concentration.

This combination was confirmed by doing market research for new product and established that both parameters are significantly important in initial diagnosis of infectious diseases. The instrument using this measurement method has been widely accepted in Japan and other countries, especially for pediatric and emergency use.

I am delighted that our development is contributing to medical progress.



Narihiro Oku