Media release

Penzberg, March 23, 2010

The 2010 analytica Research Award

Professor Petra S. Dittrich and Dr. Matthias Selbach honored for their research

Scientists Prof. Petra S. Dittrich (36) of the Organic Chemistry Laboratory at the Swiss Federal Institute of Technology in Zurich and Dr. Matthias Selbach (39) of the "Cellular signal pathways and mass spectrometry" work group at the Max Delbrück Center in Berlin-Buch, Germany, were named the winners of the 2010 analytica Research Award today. They are sharing the 50,000-euro science award for their groundbreaking work in the areas of microchips and cellular analysis. Prof. Nikolaus Pfanner, president of the Society for Biochemistry and Molecular Biology (GBM), will present the research award, which is sponsored by Roche, at the world conference on analysis, lab technology and biotechnology, the analytica, in Munich. "As an innovative healthcare company, Roche is very interested in the development of new concepts and technologies," said Dr. Gerd Grenner, Chief Technology Officer of Basel Diagnostics, explaining Roche's involvement in the analytica Research Award. "Both these laureates embody the high standards we set for modern medical research: thinking and working across multiple disciplines, breaking new ground but never losing sight of the goal, and, in the end, creating real added value."

Chemist Prof. Petra Dittrich develops credit card-sized chips with miniaturized lab components, using methods from both microtechnology and nanotechnology. Her goal is to create lab-on-a-chip systems that integrate all the functions of a large laboratory onto a plastic carrier, able to run even complex analyses simultaneously. "This could eliminate long wait times for lab results because blood samples or samples of other bodily fluids will be able to be analyzed and evaluated directly on site in doctors' offices," she explained. Her tiny reaction platforms are also well suited for performing basic research. Petra Dittrich is currently working on a chip to which individual cells can be applied which could allow direct observation of the reaction of a single cell, helping researchers understand fundamental processes and reaction mechanisms of systems as highly complex as a living cell.

Biologist Dr. Matthias Selbach of the Max Delbrück Center for Molecular Medicine at Berlin-Buch, Germany, studies how cells control protein biosynthesis. He used a new marking method, the "pulsed SILAC method," to show that so-called microribonucleic acids (microRNA) are vitally important to protein production in cells. To do this, the researcher and his team marked amino acids, the building blocks of proteins, with stable isotopes. The cells incorporated the marked amino acids into their proteins, and researchers then used a mass spectrometer to quantify the protein synthesis. "Our goal is to understand fundamental life processes at the protein level," Matthias Selbach said. "And it would be great if this approach yields concrete diagnostic and therapeutic applications in the near future."

Roche Diagnostics GmbH Nonnenwald 2 D-82377 Penzberg Communications Tel. +49-8856-60-2600 Fax +49-8856-60-3417 http://www.roche.de

MicroRNAs are very small RNA molecules consisting of only about 25 nucleotide bases. They are able to attach to complementary sections of messenger RNA and thus prevent that protein from being built. In this way, they decide which proteins are produced.

About the analytica Research Award

The analytica Research Award honors innovative research that was carried out in Germany. The 50,000-euro prize is awarded by the Society for Biochemistry and Molecular Biology (GBM) and Roche. Its mission is to identify top bioanalysis researchers and honor their groundbreaking work. The prize is also intended to provide support and encouragement for Germany as a location for excellence in science and research. It honors new methods and new scientific knowledge in the areas of molecular, biological and biochemical analysis. Candidates for the prize are proposed by GBM and Roche. The recipients are chosen by a jury consisting of representatives from GBM and Roche.

About Roche

Headquartered in Basel, Switzerland, Roche is a leader in research-focused healthcare with combined strengths in pharmaceuticals and diagnostics. Roche is the world's largest biotech company with truly differentiated medicines in oncology, virology, inflammation, metabolism and CNS. Roche is also the world leader in in-vitro diagnostics, tissue-based cancer diagnostics and a pioneer in diabetes management. Roche's personalised healthcare strategy aims at providing medicines and diagnostic tools that enable tangible improvements in the health, quality of life and survival of patients. In 2009, Roche had over 80'000 employees worldwide and invested almost 10 billion Swiss francs in R&D. The Group posted sales of 49.1 billion Swiss francs. Genentech, United States, is a wholly owned member of the Roche Group. Roche has a majority stake in Chugai Pharmaceutical, Japan. For more information see www.roche.com.

Roche Diagnostics GmbH
Barbara Jopp-Heins
Communications
Nonnenwald 2
82377 Penzberg
Germany
Tel. +49.8856.60.3202
Email: barbara.jopp-heins@roche.com

Dr. Johannes Ritter
Head of Communications Penzberg
Nonnenwald 2
82377 Penzberg
Germany
Tel. _+49.8856.60.4223
Email: johannes.ritter@roche.com