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**Press release**  
**For immediate release**

**New insight into microchimerism: Research in Graz sets international standards**  
**Research in dialog with society: Conference at Med Uni Graz**

Graz, 5 March 2026: At the Medical University of Graz, groundbreaking findings are currently emerging in the research field of microchimerism (MC), a biological phenomenon in which genetically distinct cells coexist in an organism: For example, a pregnant woman's cells that migrate into the tissue of the fetus before it is born, and conversely cells of the developing child that end up in the mother and remain part of her for decades. The research project led by Thomas Kroneis aims to better understand microchimerism, to explain its role in human health and to identify and surmount previous methodological limitations in its analysis.

**International survey leads to a publication in Advanced Science**

Microchimerism has been little understood yet is a highly relevant biological phenomenon. "To grasp its importance in health and disease, we need not only new technologies but also an international consensus in analysis," explains project leader Thomas Kroneis of the Division of Cell Biology, Histology and Embryology at the Gottfried Schatz Research Center for Cell Signaling, Metabolism and Aging and at Med Uni Graz. A key finding of the project has been published recently in the renowned journal *Advanced Science*. This publication is based on an international survey of well-known experts in microchimerism that was conducted with the involvement of a scientific advisory board. The goal was to create a common scientific basis for the future analysis and interpretation of microchimerism. "The findings show the different ways that microchimerism has been investigated so far—and how great the need for commonly defined standards is," says Katja Sallinger, a postdoc in Thomas Kroneis' working group and co-first author of the publication.

**New technology for analyzing rare cells applied to microchimerism for the first time**

In parallel, a second scientific publication describes the first successful application of a new technology to detect microchimerism and its specific adaptation for the analysis of extremely rare cells. It was influenced not only by the ongoing MC project but also by Thomas Kroneis' many years of experience in single cell analysis. "The greatest challenge with microchimerism is its rarity. Now that we are able to detect these cells more directly, sensitively and reliably, new opportunities in research and diagnostics are opening up," says Kroneis. Advances in methodology might be able to be applied in other biomedical areas—for example, cancer research, organ transplantation or prenatal diagnostics.

**International conference 2026 in Graz: Research in dialog with society**

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The next milestone will be the organization of an international microchimerism conference at Med Uni Graz in 2026. It will take place on 27 and 28 May 2026 and bring leading scientists from around the world to Graz. On 26 May 2026, a Public Symposium on Microchimerism will also be held at Med Uni Graz. This public scientific event is aimed at interested members of the general public and will present current findings in a readily and easily understandable manner. "It is very important to us that this complex topic is accessible not just within the professional community but also to the general public. Scientific progress thrives on exchange and dialog with society," stresses Kroneis.

Further information on the conference and public symposium is available at:  
[www.microchimerism.info](http://www.microchimerism.info)

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#### **Profile: Thomas Kroneis**

Thomas Kroneis is a researcher in the Division of Cell Biology, Histology and Embryology at the Medical University of Graz and is head of the Research Unit for Single Cell Analysis. His work focuses on the development of diagnostic methods for analyzing rare cells that often only appear in very small numbers and are surrounded by a large number of non-target (background) cells in the background. The goal is to identify these cells precisely and characterize their molecules. He is directing a John Templeton Foundation project on microchimerism research that has received a \$5.34 million grant. Other key projects included cell-based noninvasive prenatal diagnostics, investigation of circulating tumor cells in breast cancer and characterization of human trophoblast stem cells. Furthermore, he investigates microchimeric cells associated with pregnancy and their role in disease and tissue regeneration in the research focus Reproduction, Pregnancy and Regeneration.