

# Marco Spruit Inaugural lecture: 'Translational Data Science in Population Health'

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On April 1, Marco Spruit, Professor of Advanced Data Science in Population Health at the Leiden University Medical Center (LUMC) and the Leiden Institute of Advanced Computer Science (LIACS), will deliver his inaugural lecture 'Translational Data Science in Population Health'. Spruit will use the opportunity to explain how what is considered basic research can be transformed into effective tools for healthcare.

Despite much criticism in recent decades, scientific work has been traditionally classified as either basic or applied since the 40's. Simply put, the first aims at understanding fundamental problems (such as how to detect SARS-CoV-2 in a research laboratory setting) and the second focuses on solving practical problems through the application of basic scientific knowledge (such as administering the right COVID-19 vaccine for a vulnerable population group). "Translational research serves to bridge both worlds, as it is an approach that turns observations stemming from the laboratory, clinic and community into interventions that can improve the health of entire populations", Spruit explains.



## Integrating basic and applied data science research

According to the professor: "Integrating basic and applied data science research also provides added value for both data science and society". For data science, this results in a better understanding of the exact behaviour of data models and techniques in real world scenarios. For population health, it provides insight into the new intervention possibilities for prevention, diagnosis and treatment of diseases. "In my inaugural lecture I will also explain how the standard process for translational data science is to be carried out, by positioning the process explicitly as an extension of the time-honoured and long-tested scientific method", says Spruit.

## A new research field in the Netherlands

At present, translational data science is only being taught at a few high-profile universities around the world. As Professor at the Health Campus The Hague, Spruit wishes to launch a Translational Data Science Centre and introduce the niche research field in the Netherlands. "I will focus primarily on the field of population health and its data-driven management. This interdisciplinary approach is one of the eight strategic focus areas of the LUMC. Thus, drawing from various scientific and clinical perspectives, as well as in cooperation with regional partners, my central mission is to contribute to a longer and healthier life for everyone by democratising data science".

*\*Photographer: Anniek van der Helm*