
PRESS RELEASE

3TR: Largest-ever Innovative Medicine Initiative 2 (IMI2) immunology project to improve disease management of non-responders to therapy across seven immune-mediated diseases

- *This large-scale public-private research initiative will provide new insights into the mechanisms of response and non-response to treatment within and across seven different immune-mediated diseases through integrated, cross-disease analysis of the most state-of-the-art profiling technologies*
- *3TR will have access to an unprecedented quantity of clinical data and samples of more than 50,000 patients across 50 clinical trials, ultimately aiming to discover and verify stratification biomarkers to improve patient management*
- *The project unites renowned, interdisciplinary experts from 69 academic and industrial partner institutions covering 15 European countries*
- *3TR is funded with a total of over € 80 mio over the next seven years by IMI2 – a joint undertaking of the European Union and the European Federation of Pharmaceutical Industries and Associations (EFPIA)*

Granada/Spain, 29 Oct 2019 – Autoimmune, inflammatory and allergic diseases are common chronic diseases that significantly affect the wellbeing of millions of people around the globe and pose a substantial burden to healthcare systems. While different treatments are available, response and disease progression in individual patients remain unpredictable. Currently, still too little is known about the molecular basis underpinning these diseases. In order to be able to better predict treatment response and potentially identify novel biomarkers leading to improved patient management and personalised therapy, a deeper understanding of the cellular mechanisms driving disease development is urgently needed.

In a never-before-seen effort to bring together experts from different medical fields, profiling technologies, systems biology and bioinformatics with specialists from innovative SMEs and leading pharmaceutical companies, 3TR – a public-private partnership project under the IMI umbrella – sets out to fundamentally increase our knowledge of the molecular pathways and mechanisms linked to response and non-response to therapy in seven different immune-mediated, allergic and inflammatory diseases: systemic lupus erythematosus, rheumatoid arthritis, multiple sclerosis, inflammatory bowel disease (incl. ulcerative colitis and Crohn's disease), asthma, and chronic obstructive pulmonary disease. Despite their heterogeneity, recent studies have shown that on the molecular level certain patterns are shared by patients across these diseases, thus suggesting they may also share pathways of response to treatment and disease progression.

A groundbreaking approach: integrated, cross-disease analysis

“For the first time, the 3TR team will align and integrate the analysis of autoimmune, allergic, and inflammatory conditions to identify the relationship between longitudinal molecular and microbiome

profiles in blood cells and tissues, and disease paths. In a unique approach we will study the seven diseases both in parallel and jointly”, explains Marta Alarcón-Riquelme, scientific coordinator of 3TR and Head of Medical Genomics at the GENYO centre at the Fundación Pública Andaluza Progreso y Salud. “We believe that this high-resolution multi-omics profiling analysis of individualised response to treatment and disease progression will facilitate stratification and identification of molecular patterns that better predict response or non-response to therapy. This comprehensive approach will help identify biomarkers to improve patient management within these diseases.”

Frank Nestle, MD, Sanofi’s head of research in immunology and inflammation, adds: “This consortium is focused on addressing unmet treatment needs for many of the immunological and inflammatory conditions covered in this initiative. 3TR will provide the unique opportunity to investigate a considerable amount of clinical and molecular data across important inflammatory disease categories including treatment responders and non-responders. As scientific project lead of 3TR, Sanofi is confident that this public-private partnership will bring valuable insights to help in the discovery of more effective treatment options for people living with chronic inflammatory conditions.”

Data management and translation into clinics

All data generated within the project will be gathered on a centralised data management platform. The latter will enable detailed and comprehensive, state-of-the-art bioinformatics and biostatistics analyses based on machine learning and dynamic, mechanistic methods.

By involving medical associations in close relationship with patient groups 3TR will also contribute to swiftly translating relevant knowledge and project outcomes into clinics. “3TR has great potential to transform and significantly enhance the management of patients with chronic inflammatory diseases by introducing a scientific evidence-based rationale for treatment selection, rather than following the traditional trial and error approach. This will increase therapeutic success, reduce risks of avoidable side effects in patients unlikely to benefit from the drug they are prescribed, reduce health care costs, but above all: improve the patient’s quality of life”, underlines Dr Pierre Meulien, Executive Director of the Innovative Medicines Initiative (IMI).

The 3TR team will officially kick off their activities with a first meeting in Granada, Spain from 30-31 October 2019.

About 3TR

3TR brings together 69 partner organisations from 15 European member states including academic and research institutions, small and medium-sized enterprises (SME) and pharmaceutical companies. For a full partner list, please visit: www.3tr-imi.eu/partners

The project is supported with a funding of over € 80 million from the Innovative Medicines Initiative 2 (IMI2), a joint undertaking of the European Commission and the European Federation of Pharmaceutical Industries and Associations (EFPIA).

Visit the 3TR website: www.3tr-imi.eu

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Project Facts

Full Project Title:	T <u>ax</u> onomy, T <u>re</u> atment, T <u>ar</u> gets and R <u>em</u> ission. Identification of the Molecular Mechanisms of non-response to Treatments, Relapses and Remission in Autoimmune, Inflammatory, and Allergic Conditions
Project Acronym:	3TR
Start Date:	1 September 2019
Duration:	84 months
Budget:	80,648,441.50 €
Coordination:	Fundación Pública Andaluza Progreso y Salud (FPS)
Project Lead:	Sanofi-Aventis Deutschland GmbH (SANOFI)

About IMI

The Innovative Medicines Initiative (IMI) is Europe's largest public-private initiative aiming to improve health by speeding up the development of, and patient access to, innovative medicines, particularly in areas where there is an unmet medical or social need. IMI facilitates collaboration between the key players involved in healthcare research, including universities, the pharmaceutical and other industries, small and medium-sized enterprises (SMEs), patient organisations, and medicines regulators. It is a partnership between the European Union (represented by the European Commission) and the European pharmaceutical industry (represented by EFPIA, the European Federation of Pharmaceutical Industries and Associations).

For further information: www.imi.europa.eu

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This project has received funding from the Innovative Medicines Initiative 2 Joint Undertaking (JU) under grant agreement No 831434. The JU receives support from the European Union's Horizon 2020 research and innovation programme and EFPIA.