

## Factsheet



# ImmUniverse

**ACRONYM** ImmUniverse

**FULL TITLE** ImmUniverse – Better control and treatment of immune-mediated diseases by exploring the universe of microenvironment imposed tissue signatures and their correlates in liquid biopsies

**PROGRAMME** Horizon 2020/Innovative Medicines Initiative 2 Joint Undertaking (JU)

**CONTRACT NUMBER** 853995

**ABSTRACT** Immune-mediated diseases (IMIDs) are an increasing medical burden in industrialized countries worldwide. IMIDs are characterized by an enormous heterogeneity with regard to disease outcome and response to targeted therapies, which currently cannot be adequately anticipated to tailor individual patient management. Hence, mechanistic understanding of this heterogeneity and biomarkers predictive for disease control and therapy response over time are important prerequisites of a future precision medicine in IMIDs. ImmUniverse has been formed as a European transdisciplinary consortium to tackle these unmet needs and to understand the role of the crosstalk between tissue microenvironment and immune cells in disease progression and response to therapy of two different IMIDs: ulcerative colitis and atopic dermatitis. Following this unique cross-disease approach ImmUniverse will fill the gap and the limitations of current studies, which do not systematically compare the complex interactions between recirculating immune cells and the respective tissue microenvironment. The consortium will combine analysis of tissue-derived signatures with “circulating signatures” detectable in liquid biopsies, employing state-of-the-art profiling technologies corresponding to multi-Omics datasets. The project will also bring diagnostics in IMID to a new level by implementing disruptive non-invasive liquid-biopsy methodology in combination with novel, validated circulating biomarker assays which are expected to improve diagnosis, inform early in the clinical course on disease severity and progression and enable treatment response monitoring. The identified signature will be validated to monitor state/progression and response to therapy in prospective observational cohorts. Realization of these objectives will result in improvement of patient management, lead to increased patient well-being and will significantly reduce the socioeconomic burden of these diseases.

**DURATION** 60 months (01/01/2020 - 31/12/2024)

**PROJECT FUNDING** 31.000.000,00 €

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- Information Technology for Translational Medicine (ITTM) SA
- Université du Luxembourg

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#### Switzerland

- Novartis Pharma AG

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- Eli Lilly and Company Limited
- GlaxoSmithKline Research and Development Limited
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