

SCREEN-RA : Newsletter Juin 2021

Dear participants,

This newsletter informs you about the latest news of the SCREEN-RA study.

It has long been known that there are families in which there are multiple cases of RA. It is estimated that the hereditary component of this disease is about 50%, which also implies that ~50% of the causality is due to other factors, such as environmental factors. Unfortunately, there is no 'RA gene' that can simply predict risk, but there are multiple gene variations associated with increased risk. As many as 120 genetic variants ("SNPs") have been identified as associated with the disease. However, only some variants of the 'major histocompatibility complex', collectively known as the 'shared epitope', carry a significantly increased risk. Interestingly, the familial risk of RA is the same for men and women, and the hereditary contribution is greater for early RA or RA that started at a young age.

What does it mean to you if one of your family members has RA?

Being a first-degree relative (i.e. parent, sibling, child) of a RA patient triples the risk of developing the disease yourself. About 15% of identical twins (identical genes) are likely to develop RA, but in fraternal twins (different genes from other siblings) the figure is only 4%. In the SCREEN-RA study, we are measuring this 'shared epitope' and reporting the result. As for all our genes we have two copies, - one from the father and one from the mother. Only if we have a double copy of this shared 'epitope' are we really at risk of increasing our risk of developing RA. If this is the case for you, you may be recommended certain behaviours that could decrease the risk of disease in this particular case. It may therefore be useful to know this genetic result.

Prof. Axel Finckh

Rheumatologist

If you are already participating in our study, we encourage you to tell your siblings or adult children about it as well, to encourage them to participate in the study.

Acknowledgements

My team and I would like to thank you personally for your support for this project.



We would also like to thank our staff at the other rheumatology hospitals in Switzerland.

Research question :

Some studies suggest that viral infections may be a trigger for autoimmune diseases such as rheumatoid arthritis (RA). In some individuals, poor infection control and chronic exposure to viral antigens may be the source of the chronic inflammatory response leading to the development of early RA symptoms. This unprecedented pandemic period provides an opportunity to study the potential impact of a infection with a novel coronavirus (COVID-19/SARS-Cov2) in the onset of RA. We would like to contact participants who have tested positive for COVID-19 infection to offer them a follow-up appointment including a physical examination and blood sampling. The clinical and biological information collected will allow us to know if a COVID-19 infection is capable of triggering an autoimmune response and/or the development of joint symptoms, or even to accentuate these phenomena if they already exist.

Dre. Celine Lamacchia

Biologiste, PhD

Study "Gut microbiota in the development of rheumatoid arthritis".

We would like to thank you for your participation and the time you took to come to a centre to give your samples.

The stool sample collection is coming to an end. We were able to collect over 300 samples. The analysis phase of the samples will start in the next few weeks at the University of Geneva

Benoît GILBERT

MD-PhD candidate

The next newsletter should reach you in October 2021

