

## SCREEN-RA : Newsletter aut 2020

Dear participants,

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

### **Our research on the intestinal microbiota in rheumatoid arthritis (RA)**

Following our last newsletter, and despite the suspension of our activity during the COVID-19 epidemic, we managed to collect more than 200 stool samples, coupled with a blood test. We thank all donors! Nevertheless, in order to guarantee quality analyses and reliable conclusions, we would like to collect a total of 400 samples.

In 2016, our first study of the intestinal microbiota showed that bacteria of the genus "Prevotella", already implicated in some experiments in mice, were present more often in individuals at increased risk of RA. This was confirmed in [another study](#) we collaborated on, recently published in the prestigious journal The Lancet.



In addition, a [German study](#) with a small sample of patients published in the journal Nature showed that in the pre-clinical phases of RA, individuals do indeed appear to have increased intestinal permeability. In mice, this alteration in the integrity of the intestine precedes the development of arthritis.

This does not "prove" that these bacteria initiate RA, but it supports our hypotheses. We therefore wish to verify on a larger number of people, whether the pre-clinical phases of RA are associated with detectable intestinal immunological disorders (such as increased intestinal permeability, inflammation, etc.).

If we confirm these observations in humans, we hope in the future to be able to test preventive measures in individuals at risk. Thus, it might one day be possible to detect and solve the intestinal problem before the appearance of polyarthritis, using specific probiotics, a diet, or certain medications.



## **News and useful links**

For scientific readers (English), see also :

- A [literature review](#) of the latest findings on the microbiota in rheumatology.

→ We are therefore looking for other stool donors in the cohort, especially people who have tested positive on one of our blood tests and/or have joint symptoms.

Please do not hesitate to contact us via [arthritis-checkup@hcuge.ch](mailto:arthritis-checkup@hcuge.ch), so that we can redirect you to the nearest center!

## **"COVID-19" and rheumatoid arthritis :**

Patients with established rheumatoid arthritis (RA) appear to be at slightly higher risk of being infected with COVID-19.

Indeed, a Chinese study has studied the rate of familial contamination when a direct family member is infected with COVID-19. Family members with an autoimmune disease such as RA seem to catch the virus more often (63%) than family members without autoimmune disease (34%). It is not yet clear whether it is the disease itself that causes this increased susceptibility to COVID-19, or the immune modulating treatments received. Exposure to the virus may aggravate the evolution of COVID-19, although advanced age, obesity, cardiovascular and pulmonary diseases remain the main risk factors for this disease.

In particular, patients receiving high doses of cortisone (prednisone > 10 mg/d) are at risk, whereas the usual background treatments do not seem to significantly increase the risk of an unfavorable evolution of COVID-19.

### **Can COVID-19 trigger a PR?**

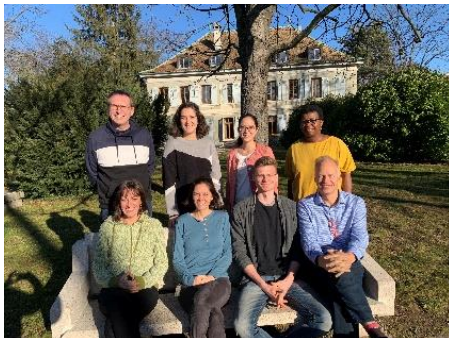
It is too early to answer this question definitively, but like all viral infections, the COVID-19 virus can cause acute arthritis. For the moment, no polyarthritis that persists after this disease has been described.

Nevertheless, we have recently included some questions related to COVID-19 in the annual patient questionnaire of the SCREEN-RA study, in order to assess this aspect.

**The next newsletter should reach you in February 2021.**

## Acknowledgements

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

Prof. Axel FINCKH



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