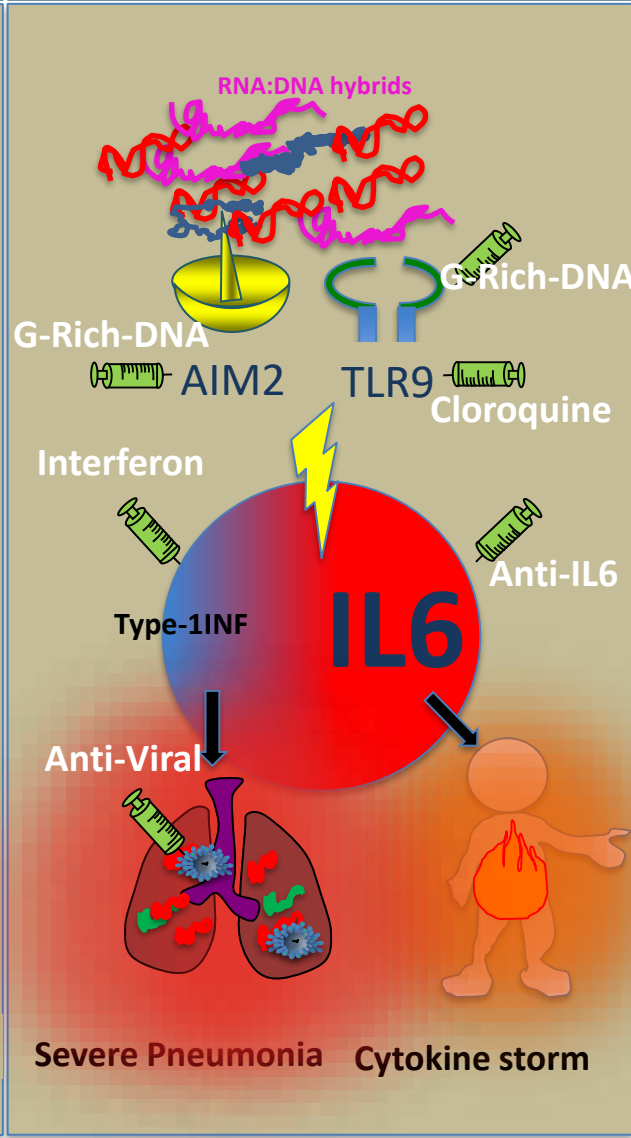
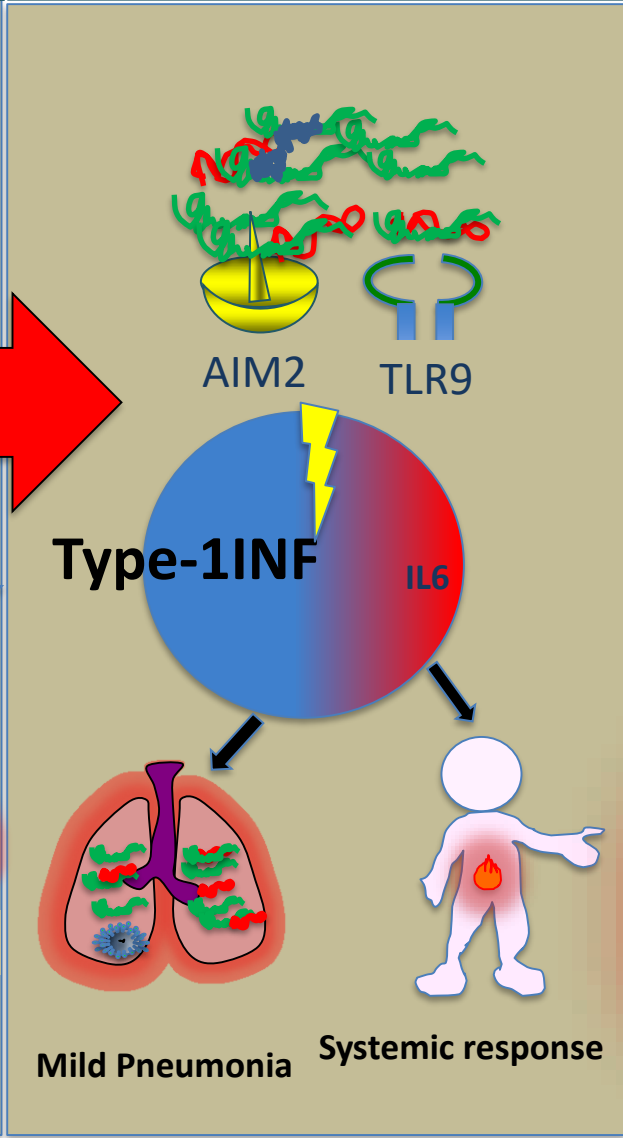
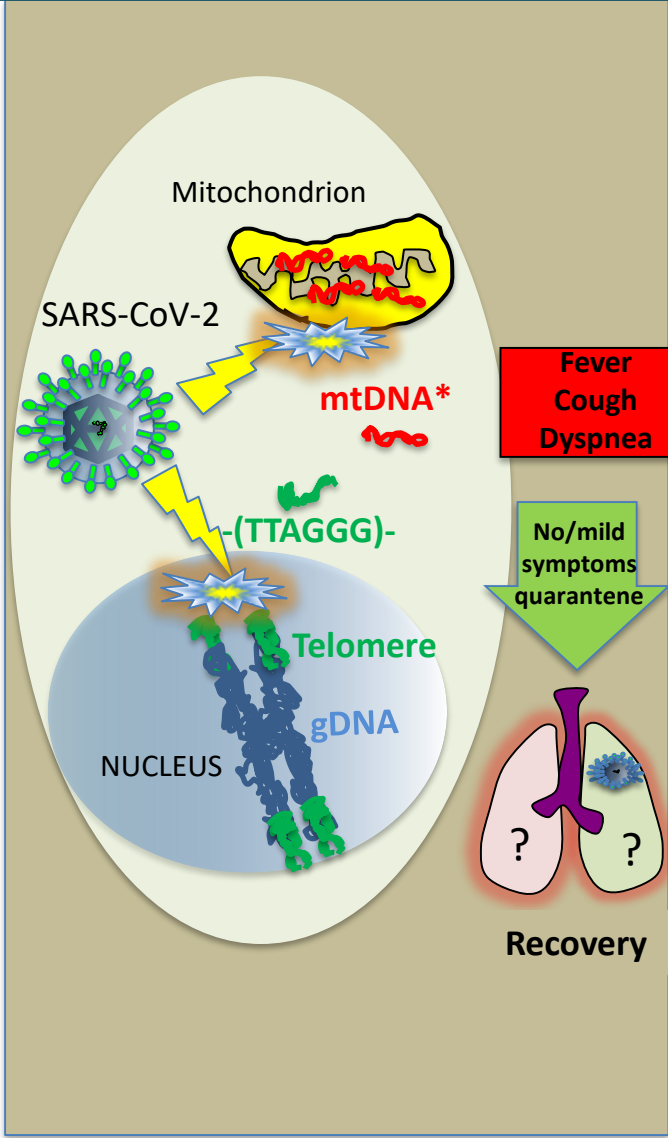


**Cells infected by SARS-COV2
release mtDNA and gDNA**

**Young people/no comorbidities
(Adequate Telomere stock)****

**Old people/comorbidities
(Inadequate Telomere stock)**



* mtDNA is highly polymorphic among individuals and ethnic groups.

** Type-I interferon response is favoured in females

* Telomeric pro-inflammatory RNA:DNA hybrids

Figure 1

The SARS-CoV-2 infection induces a strong release of mtDNA and gDNA. In young people and in absence of comorbidities affected patients the telomeric stock efficiently quenches the mtDNA-dependent induced inflammation. In aged and/or comorbidities affected people the scarce telomeric stock is insufficient to taper mtDNA induced inflammation. This phenomenon is more likely to occur in aged men who show an accelerated inflamm-aging compared to women (**Marquez 2020; Fischer 2018**). The presence of telomeric pro-inflammatory DNA:RNA hybrids, increase the inflammatory status leading to cytokine storm. Several drugs have been proven to be beneficial in patients subsets, some of them may benefit of the synergistic effects of g-rich oligo DNA-based drugs.