**VIVA SUGGESTED CORRECTIONS CHECKLIST**

1. **The candidate was provided with a copy of the thesis from the internal examiner where minor typographical errors were noted, for correction.**
2. **Redefining dactylitis pathological process**
3. **A sentence explaining why PsA and psoriasis may be increasing could be included on page 2.**

**I have altered page 2 paragraph (“﻿For PsA incidence in the general population varies between 0.04 and 1.2\%, with peak age of onset between the 35 and 45 years of age. The estimation of psoriasis patients with concominant PsA ranges from 10 to 30\%, with arthritis onset occuring approximately ten years after the onset of the skin disease \parencite{Greb2016}. This clearly evidences the strong association between both diseases \parencite{Gelfand2005,Reich2015,Perera2012}.”) and I have moved the sentence and hypothesis for the increase of psoriasis incidence in the last 30 years to the subsection of Environmental factors and disease (“﻿Interestingly, epidemiological data suggests a steady increase in psoriasis and PsA prevalence over the last 30 years, particularly in older age groups \parencite{Springate2017,Organization2016}. This trend may be the result of the increase in frequency of various environmental risk factors over the same period of time (e.g prevalence of obesity and beta blockers in patients with myocardial infarction), rather than a consequence of the improvement in diagnosis and access to medical care \parencite{Icen2009}. Altogether this reinforces the role of environmental factors in the risk of developing psoriasis and PsA. }”)**

1. **In the introduction, it would be useful to include a short discussion on whether PsA may be a complication of psoriasis or a distinct disease entity and whether either or both are single diseases.**
2. **The verbal explanation of the results of GWAS / immunochip studies comparing psoriasis and PsA was better than the written and I would suggest updating this in the thesis.**
3. **In the section on missing heritability, how polygenic risk scores may capture some of this could be included.**
4. **Pros and cons of positive versus negative selection could be included.**
5. **Some discussion about why peaks from CD4 cells always appear lower than CD14 could be included.**
6. **Fig 3.3 was incorrectly labelled and should be corrected.**
7. **In the chapter comparing fresh vs frozen processing, some discussion as to whether this is feasible for all studies would be useful.**
8. **In the gene expression profile chapter discussion, it would be useful to include a brief discussion about separating cause from effect of the transcriptional changes.**
9. **In the overall Discussion, a brief concluding paragraph discussing which are likely to be the driving cells based on this work and why monocytes were selected for scRNA-seq would be helpful. It would also be useful to summarise which technique(s) should be prioritised going forward and the immediate next steps.**
10. **Reference errors need corrections**