Response to: 'ANA testing in "real life"' by Infantino *et al*

We thank Dr Infantino and colleagues for their comments¹ on our paper on assay variability in antinuclear antibody (ANA) testing by indirect immunofluorescence (IIF)² and subsequent communications that have been published in the journal.^{3–7} We agree with their observations on assay variability as well as the potential role of computer-aided diagnosis in improving IIF determinations. The issue of titre is also important, although changing the threshold from 1:80 to 1:160, while reducing the frequency of false-positive results (ie, results from otherwise healthy subjects), will also likely decrease the frequency of positive results for patients with systemic lupus erythematosus (SLE), impacting on classification and diagnosis.

We think that the discussion of our paper has been important in highlighting the limitations of ANA testing in SLE, especially in the setting of clinical trials for 'active, autoantibody positive disease'. These limitations may also affect the utilisation of the newly proposed classification criteria for SLE; these criteria require a positive ANA by human epithelial type 2 cell IIF before a person can be further considered for classification.⁸ In this regard, it is important to consider the experience of 'real life testing' by hospital or commercial laboratories as opposed to research studies in which experts make IIF determinations. Thus, while IIF testing has been considered the gold standard for ANA determinations, current approaches have notable variation that may relate to the performance characteristics of kits as well as the subjective nature of these determinations, especially with sera with low titre.

In view of the importance of ANA testing for both research and routine clinical care, we look forward to further dialogue on this subject as well as the development and validation of new analytic platforms for ANA determinations in SLE as well as related rheumatic diseases.

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