Response to: 'Variation in antinuclear antibody detection by automated indirect immunofluorescence analysis' by van Hoovels *et al*

We thank van Hoovels *et al*¹ for their comments on our article² on the variability of antinuclear antibody (ANA) determinations; other letters also discussed ANA testing issues.^{3 4} Meroni *et al* noted the value of distinguishing staining patterns by immunofluorescence assays (IFAs).³ In his discussion, Dr Mahler recommended the use of automated or computer-assisted diagnostic (CAD) systems as a way to reduce the variability and subjectivity that can occur with visual reading of IFA for ANA determinations.⁴ As the data presented by Van Hoovels and colleagues in their letter indicate, even automated systems have limitations. A prior publication on CAD systems highlighted quality assurance approaches to address these problems.⁵

Clearly, even with well-validated assays that include CAD interpretation, available ANA assays show variability. This variability can affect diagnostic evaluation and decision-making; in the context of clinical trials for 'active, autoantibody positive' disease, these assay issues can determine trial entry and lead to screen failures. Furthermore, assay variability could affect the prescription of agents that have been approved for patients who are ANA or anti-DNA positive. We, therefore, welcome further discussion on ANA testing and the opportunity to develop more robust and reproducible assays as well as to achieve greater harmonisation with existing platforms.

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