**Thank you for your interest to present your work at xMAP® Connect 2017!**

* Prepare a presentation title, the title included on the submission should be suitable for published material.
* Abstract text is limited to 3000 characters (approx 500 words).
* We ask to use 4 core elements: 1) background and aim, 2) methods, 3) results, 4) conclusions. We kindly ask you to use the format below.
* Please ensure the submission has been approved by all authors.
* By submitting an abstract, you agree to be present the 8th and 9th of November at the congress, should your abstract be selected.
* Please indicate if you would like to be a speaker or present a poster.

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| **Title:** **Luminex-based diagnostic kit for Rheumatoid Arthritis** |
| 1) Background and aim:Rheumatoid Arthritis (RA) is a chronic inflammatory joint disease affecting up to 1% of the population. Autoantibodies against citrullinated proteins (ACPA) is a highly specific (98%) biomarker for RA, yet around one-third of the patients are ACPA-negative and there are currently no biomarkers that can help clinicians predict treatment outcome.We asked whether by using a multiplex assay to detect autoantibodies towards joint derived peptides we could find new biomarkers to increase diagnostic sensitivity and predict disease severity and treatment outcome.2) Methods:Using a Luminex-multiplex protocol we have screened over 400 new joint peptides for autoantibody response in four cohorts of RA patients (n≥3000) and healthy controls and correlated the responses with clinical data. 3) Results:Our results show a set of biomarkers that can identify a subset of the ACPA-negative patients. New biomarkers correlating with clinical data on future disease activity (DAS28), pain (VAS) & joint destruction (Larsen score) have also been identified.4) Conclusion:These results indicate that multiplexing can be used to increase the diagnostic sensitivity and may help clinicians predict disease severity and treatment outcome for RA patients.  |