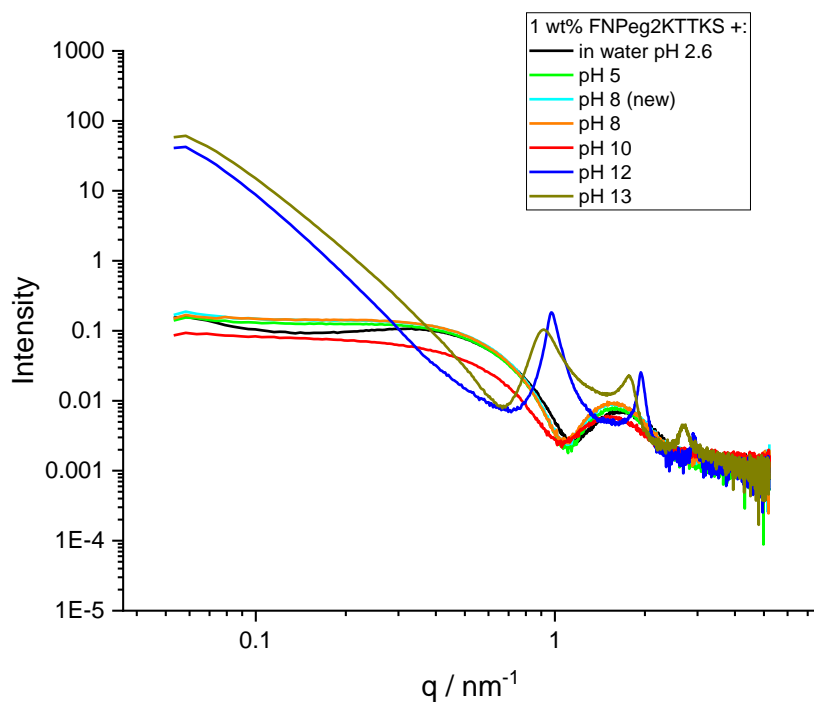




	<b>Experiment title:</b> A SAXS Study on the Nanostructure of Novel Collagen-Stimulating Peptide Amphiphiles	<b>Experiment number:</b> MX-2513
<b>Beamline:</b> BM29	<b>Date of experiment:</b> from: 15/02/23 to: 17/02/23	<b>Date of report:</b> 09/03/23  <i>Received at ESRF:</i>
<b>Shifts:</b> 6	<b>Local contact(s):</b> Dihia Moussaoui	
<b>Names and affiliations of applicants</b> (* indicates experimentalists):  Prof. Ian W. Hamley, Valeria Castelletto*		

**Report:**

SAXS was performed on the novel collagen-stimulating PA. This was designed with the aim to enhance the KTTKS collagen-stimulating sequence and also achieve better cytocompatibility. The SAXS data shows that the micellar structure observed at lower pH (e.g. pH 5, pH 8, Fig.1) is replaced at high pH by lamellar structure. This data has been fitted using lamellar structure factor models (with bilayer form factors).<sup>1</sup>



**Figure 1.** SAXS data measured for the novel collagen-stimulating PA in aqueous solutions at the pH values indicated.

The data obtained in this run has been already analyzed and may be used in IP (patent protection under discussion) and/or will be incorporated in a publication.<sup>2</sup> Cryo-TEM images have been obtained and spectroscopic measurements have been performed in our lab.

A large number of other peptide samples were also studied using the BioSAXS set-up and the data will be useful in the preparation of further papers.

## References

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- (2) Castelletto, V.; de Mello, L. R.; da Silva, E. R.; Seitsonen, J.; Hamley, I. W., *in preparation* **2023**.