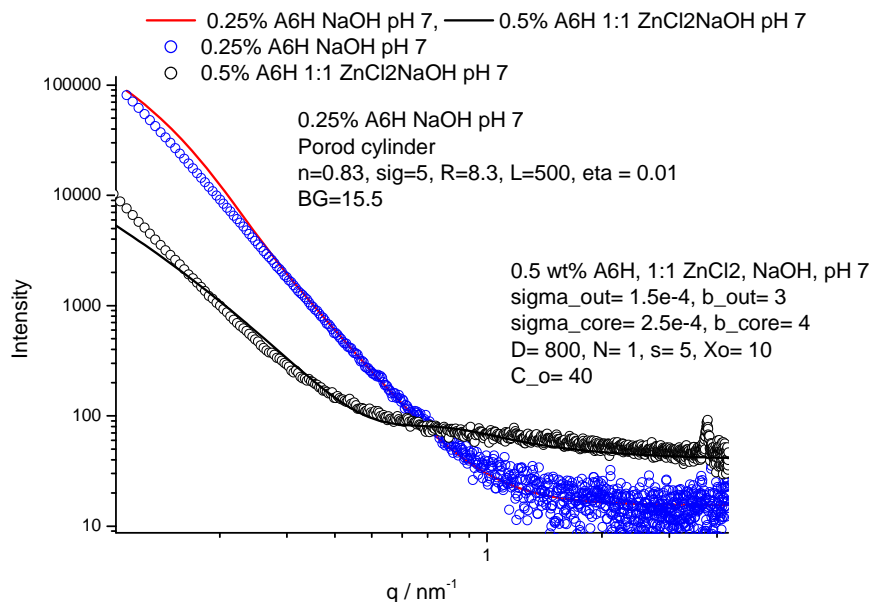




	<b>Experiment title:</b> A BioSAXS Study of the Self-Assembly of a Core Pentapeptide from Amyloid beta	<b>Experiment number:</b> MX-1511
<b>Beamline:</b>	<b>Date of experiment:</b> from: 25/6/13 to: 29/6/13	<b>Date of report:</b> 14/8/15
<b>Shifts:</b>	<b>Local contact(s):</b> A. Round	<i>Received at ESRF:</i>
<b>Names and affiliations of applicants</b> (* indicates experimentalists):  <i>I. W. Hamley and V. Castelletto*</i> , Dept of Chemistry, University of Reading, Whiteknights, Reading RG6 6AD, UK		

### Report:

Unfortunately, there were sample issues with the KLVFF peptide as proposed. Instead the beamtime was used to perform an extensive study via solution SAXS of a series of related peptides and lipopeptides including C<sub>16</sub>-KTTKS, C<sub>16</sub>-ETTES, A<sub>6</sub>H and A<sub>6</sub>RGD. Selected data for A<sub>6</sub>H is shown in Fig.1, along with model form factor fits to a Porod cylinder model in the case of A<sub>6</sub>H in NaOH but to a Gaussian bilayer model (used to model bilayer membranes) for the sample in a ZnCl<sub>2</sub> solution. The fitting was done using the software SASfit. This data was used in the Supporting Info of a paper published in Biomacromolecules.<sup>1</sup>



**Fig.1.** SAXS intensity profiles for A6H under the conditions shown, along with (solid lines) form factor models as described in the text.

Data for A<sub>6</sub>RGD have been useful to complement data for the same sample obtained on ID02 and published in another paper published recently.<sup>2</sup>

SAXS data obtained during this beamtime for KA<sub>6</sub>E, which is a peptide designed as a substrate for elastase were used in another paper.<sup>3</sup>

SAXS data obtained during this beamtime and also MX-1620 for Apo-AI in mixtures with lipopeptide C<sub>16</sub>G<sub>3</sub>RGDS have also been published.<sup>4</sup>

Also measured was some preliminary data for related surfactant-like peptides including P<sub>6</sub>K, which is still under investigation in our group and about which a paper will ultimately be published.

## References

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