Advancements in multidimensional LC-MS for the detailed characterization of monoclonal antibodies

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Monoclonal antibodies (mAbs) represent one of the most promising and fastest growing class of therapeutics. Their favorable safety and efficacy profile offer great opportunities in the treatment of a wide range of diseases including cancer, autoimmune and infectious diseases. From a structural point of view, mAbs come with a complexity highly demanding towards analytics. Unraveling this structural complexity demands for a wide range of complementary analytical tools and methodologies with chromatography and mass spectrometry (MS) at the forefront.

In recent years, there has been a trend to combine several of these methodologies in one analytical platform. As such, different structural characteristics can simultaneously be assessed. Multidimensional liquid chromatography (mD-LC) is highly promising in that respect and in this lecture various online mD-LC-MS protein analyzers will be presented and discussed. Their use in biopharmaceutical analysis will be illustrated with real life examples from the presenter's laboratory.

Biography
Koen Sandra

CEO and Co-owner at RIC group (Kortrijk, Belgium)
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Koen Sandra received a PhD degree in Biochemistry from the Ghent University, Belgium in 2005. After his PhD, he joined Pronota, a molecular diagnostics company where he was active in developing analytical platforms for disease biomarker discovery and in setting up external collaborations. In 2008, he joined RIC, a company that provides chromatographic, electrophoretic and mass spectrometric support to the chemical, life sciences and pharmaceutical industries, where he holds the position of CEO. As a non-academic scientist, Koen Sandra is author of over 50 highly cited scientific papers and has presented his work at numerous conferences as an invited speaker.