


## EuChemS-DAC Study Group / Task Force Annual Report for 2019-2020

Study Group / Task Force Name: <b>Bioanalytics Study Group</b>
Study Group / Task Force Members and Affiliations: <b>Head of Study Group: Raluca-Ioana van Staden</b> – Romanian Chemical Society <b>Guenter Gauglitz</b> – Gesellschaft Deutscher Chemiker (GDCh) <b>Jan Labuda</b> – Slovak Chemical Society <b>Jacobus Frederick van Staden</b> – South African Chemical Institute <b>Marcela Alves Segundo</b> – ex officio <b>Wolfgang Buchberger</b> – ex officio <b>Hendrik Emons</b> – IRMM-JRC, European Commission <b>Jose M. Pingarron</b> – Spanish Royal Society of Chemistry <b>George Horvai</b> – Hungarian Chemical Society
<b>Objectives:</b> The aim of the Bioanalytics study group is to search ways for bringing closer the analytical and bioanalytical chemistry community. Main purpose of this group is besides „listing“ of methods and „applications“ a help for deciding which to use for what and warn about pitfalls. It might be a help for those using analytics in fields like life science, environment and food analysis and not being a really well-trained Analyzer.
<b>Activities and Outputs in 2019-2020 (e.g. reports, publications, seminars, meetings):</b> Specialists in proteomics, MS, and microfluidics are busy contributing to the Concept of Bioanalytics. Planning for a DAC analytical column to be publish in the near future – in which to present the concept. Over 500 publication were published in the field of bioanalysis. The ROICAC 2020 conference was postponed for 2021 – a special session on bioanalysis will be organized. At Analytica 2020 4 sessions have been planned closely connected to bioanalytics: ABC: Model-based Process Design and Control; ABC: Digital Analytical Sciences; ABC: Bioanalytics I - Nanomaterials in BioAnalysis; ABC: Bioanalytics II - Analytics Enabling the Concept of Anywhere Care. The original date was cancelled because of Corona, and it is planned now for 19.-21.10.2020. ABC published a Topical collection (Baeumner, Gauglitz, Homola eds.) on “Direct Optical Detection” mostly related to biosensors, where an open access review on “Critical assessment of relevant methods in the field of biosensors with direct optical detection based on fibers and waveguides using plasmonic, resonance, and interference effects“ was included. Furthermore ABC recently published an open access Spotlight on “ABC Spotlight on single-molecule detection“.
<b>Activities planned for 2020-2021:</b> Improving the document on Concept for study group Bioanalytics. Planning for a special session on Bioanalysis at the next EUROANALYSIS conference. Preparing reviews related to bioanalysis, and their publication as open access for increasing the visibility of the study group. Special issues related to bioanalytics will be published in inter and multidisciplinary journals – for strengthens the multi and interdisciplinary role of bioanalytics in life sciences: <ol style="list-style-type: none"><li>1. Serum and Tissue Biomarkers in Cancer: A Translational Approach, from Biochemistry to Molecular Characterization and Clinical Impact – a special issue approved in Life Basel journal. Bioanalysis is included as main field on the special issue. (RI van Staden – Guest Editor)</li><li>2. From Molecular Genetics to Diagnosis and Therapy of Gastric Cancer, published by Journal of Oncology – with a strong content on bioanalytics. (R.I. van Staden – Guest Editor)</li></ol>
Report submitted by: Prof Dr habil Raluca-Ioana van Staden 
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