

In the year 2025, the journal Analytical and Bioanalytical Chemistry (ABC) will be publishing a collection of papers in a topical collection of 'Analytical and Bioanalytical Chemistry' (ABC) featuring **Bioanalytical Chemistry for the One Health Challenge** (Guest Editors: Barbara Roda, Laura Anfossi, Sandra Furlanetto, Alessandro Porchetta).

The role of Bioanalytical chemistry has emerged in various fields, from healthcare to food safety and environmental monitoring. The integration of simple and advanced techniques, such as separation and hyphenated techniques, mass spectrometry, ligand binding assays, biosensors, miniaturization devices and data science has allowed the development of extremely sensitive and reliable detection and quantification methods and tools. **One Health is an integrated approach aimed to simultaneously optimize the health of people, environment, and animals** through the involvement of multiple disciplines and sectors, in a sustainable way. It recognizes that the origins of several significant human diseases and infections can be traced back to animals and plants. The development and diffusion of these diseases are intricately linked to human activities, including lifestyle and environment exploitation. **Bioanalytical sciences**, encompassing techniques to detect biotic and xenobiotic markers in biological fluids, hold great promise in the One Health approach. They enable simultaneous monitoring of various parameters across human, animal, and ecosystems health. **Bioanalytical tools** contribute to disease surveillance, environmental monitoring, drug residues and antimicrobial resistance tracking, biomarker discovery, and genomic/proteomic analysis. New simple, portable and robust **Bioanalytical devices/methods** can support the One Health approach and its translational application in medicine to offer solutions for the improvement of prevention, diagnosis and therapies. This integrated approach helps understand and address health challenges comprehensively, promoting early disease detection, assessing environmental impact of human activities, ensuring food safety, and supporting personalized medicine strategies. In essence, **bioanalytical sciences** play a **vital role in bridging the diverse aspects of the One Health** concept. In this Issue we want to collect most recent contributions from researchers in Bioanalytical Chemistry for the development of new analytical platforms/devices that may contribute to the One Health approach.

Research Papers in bioanalytical chemistry for the One Health approach *-OR-* Critical Reviews on recent developments and likely future Trends in bioanalytical chemistry for the One Health approach are welcome to submit.

Keywords

One Health approach

Integrated approaches

Early detection

Portable devices

Diagnostics

Animal health

Ecosystems

Translational medicine

Dates:

ABC scheduled publication of the paper collection for **August 2025**. The submission deadline for the contributions has thus been set as **December 31, 2024**. Earlier submissions are encouraged, and papers will be published online within about 20 days after acceptance, fully citable by DOI (Digital Object Identifier) prior to print publication in the special ABC issue featuring this topical collection.

As a special feature, each paper is displayed in an online list on Springer link showing all published contributions to this topical collection, thus facilitating readers to find each contribution even before the topical paper collection is published in an ABC issue.

Submission:

We kindly request that **submissions** be made online to ABC's submission portal at <http://mc.manuscriptcentral.com/abc>. Please clearly indicate that the submission is dedicated to the collection **Bioanalytical Chemistry for the One Health Challenge**.

Scope and paper types:

Attached, you will find the journal's 'Aims and Scope' document and a paper type description. For further information and general instructions for authors we recommend checking the journal's homepage at www.springer.com/abc.

Here are further details on Research Papers, Critical Reviews, Trends:

- For a full **Research Paper**, paper length must be appropriate to content. There is no strict page limit, but ABC advises a maximum length of up to 6000 words including 20-30 references, plus 4-6 figures and 1-3 tables. Extensive tables, procedures, computer programs or animated graphics should be presented in form of Electronic Supplementary Material.
- A **Critical Review** is expected to present and critically evaluate the current state of the field with a maximum length of 5000-6000 words plus 5-8 figures, 1-3 comparative / evaluative tables, and a maximum of 100 references.
- **Trends** offer readers a bird's-eye view concluding with an outlook, namely, the author's vision of future developments and research directions in the area. They typically have about 3000 words (excluding references), with 4 figures and approx. 30 key references.

We advise you to clearly point out not only **the novelty** in the analytical development and analytical significance of your paper but most importantly **how your work contributes to the one-health concept** in your cover letter and in the paper abstract, to ensure that this essential information is visible for Editors and reviewers.

Peer review procedures:

ABC strives for excellence in its selection of topics and papers accepted for publication. Presently, the rejection rate is well above 60%, including invited contributions to topical collections. Based on the *ABC Framework of Editorial Procedures*, each submitted paper is subject to customary rigorous peer-review including prescreening by the Editors and full copy-editing procedures:

- Each contribution to the topical collection must meet the journal's '**Aims and Scope**' with respect to topical focus, scientific quality, and potential significance for the (bio)analytical readership of the journal.
- Each submitted paper is first **prescreened** by an ABC Editor to ensure that it complies with these requirements; based on this prescreening, a decision is made whether a paper is forwarded to **external experts** for peer review or not.
- **Criteria for acceptance** of a contribution include the receipt of two positive referee reports by renowned experts of the respective field in analytical or bioanalytical chemistry, and this **decision lies with the ABC Editors**.

In case of a rejection decision ABC informs the Guest Editors, enclosing Editor's and reviewers' comments, to allow feedback if needed. Should you prefer that such information is kept confidential please inform the ABC editorial office (abc@springer.com).

After acceptance:

Each accepted paper will be immediately forwarded to copy-editing in preparation for online publication. A footnote will be added including title and Guest Editors of the paper collection. ABC is pleased to announce that color figures will be printed in color free-of-charge, both in the online and print versions of the journal. As a special feature for topical collection contributions, the published article receives an electronic link to the topical collection's page at ABC (link.springer.com/journal/216), where each contribution is displayed immediately upon its online publication.