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Short Communication

Analytical Methods: Where do we Stand in the Current Environmental Scenario?

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Analysts can choose among different types of methodologies: there are chromatography, UV spectrophotometry, IR spectrometry, capillary electrophoresis, titrimetry, bioassay, and so one. Often the product to be analyzed has different options of analytical techniques. Every type of technique has particular characteristics. The comparison of the equivalence between them is important and should be performed before the analysis, aiming at reliable results. Antimicrobials, for example, require at least two types of analysis, one physicochemical and one microbiological [1-10].

Review manuscripts can show theoretical knowledge and emphasize research. They focus more on analytical methods than on biological activities. Then range of subjects comprises analytical specific fields such as liquid chromatography, gas chromatography, spectrophotometry, titrimetry, capillary electrophoresis and microbiological assays [11-25].

All analytical methods have numerous pros and cons. New technologies have shown the benefits of development and innovative techniques, aiming to minimize human and environmental consequences [11,12,25].

Analytical methods should also be suitable for the intended purpose and should not be chosen randomly or because they are fashionable. The analyst plays a key role in this case; this person has several techniques available and they should choose the one most appropriate to his own goal targeting the final cost. Finally, researchers are responsible for the final analytical decision.

ISO and ANVISA quality system regulation encourage device researchers to adopt continuous quality improvement procedures. It is a challenge to implement and follow up a specific quality process. The concept behind the addition of quality tools make the logistics process more efficient and systematically [25,26].

United to this thought we have the Green Analytical Chemistry. It is the process of using clean solvents and smaller amount of reagents to reduce variables that could affect all biological systems. Academic research generates solutions for routine industrial analysis. Moreover, it help them to get good clean and fast methods. Additionally the academic life teaches new professionals with new concepts and habits which will be used multiplied in new teams.

Academic knowledge responds to industrial and global challenges. Community understanding and engagement with university, reaching the popularization of science are fundamental to make informed society and professional choices. It is important to mention that Governments need to make decisions based on quality scientific information on issues such as agriculture and health.

However our parliaments should to legislate on societal needs and national government should understand the science and university behind major global challenges such as health and welfare.

Finally, challenges today cut across the traditional analytical methods and stretch across the lifecycle of innovation, from academic research to effective massive use by chemical and pharmaceutical industries and institutes. We cannot forget that science is a great collective knowledge which has been included in our lives to improve the health, not only human but also animals and environmental health.

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