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Editorial

A new direction for the Journal of Chromatography B "Analytical Technologies in the Biomedical and Life Sciences"

Our knowledge of the natural and physical world continually expands moving from paradigm to paradigm. As our technical abilities advance, so does the rapidity of the changes in our knowledge and experimental approaches. This progression is clearly demonstrated by the field of genomics that moved from an immature technique to a mature field of science in less than a decade — and then created the need for new fields of research such as proteomics, pharmacogenomics, glycomics, metabolomics.

The transition from one paradigm to another expands the existing basis of knowledge as well as challenges it. Intellectual advances are the product of technical progress and, once established, produce continual technological development. For example, FOR-based amplification, followed by restriction fragment length analysis, introduced genotyping and then genomic research. The growing acceptance of genomic research and the need for rapid results resulted in the replacement of gel chromatography with capillary electrophoresis and chip technologies. The latter advances enabled the deciphering of the human genome and created the need to identify and understand the proteins expressed by the newly discovered genes. Thus, functional genomics and proteomics were born out of the necessity to answer questions raised by genomics and the availability of technology capable of answering these questions. In proteomic research, there is no doubt that 2-D gels, the current backbone of protein separations, will be supplanted by complimentary liquid phase separation techniques in miniaturized formats like capillary LO and CE, and the process will continue. This includes also time-of-flight based separation methodologies on the one side and immunoaffinity techniques on the other side.

A scientific journal is a reflection of the current state of scientific theory and practice. It is an evolving platform that must change with the developing paradigms. Some journals change and adapt to the new environment; others do not change and eventually become outdated; while a third approach is to create a new journal to reflect the current hot topics, for example the explosion of new journals devoted to proteomics. The Journal of Chromatography B has chosen the first path.

Over three years ago, the Editors of the Journal of Chromatography B began the process of changing the direction of this journal. This process was based on our understanding that this journal was in a unique position; it was the platform for the discussion of the application of separation science to the Life Sciences. Indeed, the Journal plays a key role in the expansion and development of new technologies and their associated scientific knowledge. This occurs because the application of a new technology to basic or clinical research is a test and a challenge for that technology. Each study expands and develops our understanding. Thus, the rapid development of LC-MS,CE-MS, TOF-MS, to name just a few, for analysis of small and large molecules including sequence analysis opened up the use of the technique in bioanalytical chemistry. Along this line the MS assays reported in the pages of this journal have reflected and affected the maturation of this technique.

The world has moved quickly in the past years and it is with these developments in mind that we have taken the following steps:

1. We have expanded the Board of editors through

the addition of Professor Rainer Bischoff. Professor Bischoff brings a broad-based knowledge of proteomics to our board and will play a key role in the new direction.

2. We have changed the subtitle of the Journal to Analytical Technologies in the Biomedical and

Life Sciences in order to accurately reflect the role it plays in the Life Sciences.

It is our hope that our readers, contributors and reviewers will join us in this transition. We encourage your participation and help in this process.