

## Editorial

# Special issue on Phytopharmaceutical Technology

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*Guest Editor*

The idea of this special issue on Phytopharmaceutical Technology started at the Phytopharmatech 2011, a conference devoted to the technological aspects in the field of plant derived products held in Ribeirão Preto, Brazil, from August 20<sup>th</sup> to 21<sup>st</sup> as a satellite event of the well recognized CIFARP 2011 - International Congress on Pharmaceutical Sciences.

We consider ourselves honored by the opportunity open to us by Professor Cid Aimbiré de Moraes Santos, Editor-in-Chief of RBFAR. Since the very beginning the aim of this issue was to congregate Brazilian and international researchers in the field of phytopharmaceutical technology for discussion of new trends and research networks in this field. Brazil has one of the world largest biodiversities, however just few herbal medicines manufactured in Brazil are derived from native medicinal species. The Brazilian academic community is expected play an essential role in the process of developing new phytomedicines from our flora. It means that we need to catch up fast the new technologies available in the modern pharmaceutics and pharmaceutical technology and work it out together with the outstanding Brazilian researchers in phytochemistry. It is time to work together!

The scientific papers in this special issue include topics on phytopharmaceuticals and functional foods post-harvest technologies, extraction and drying processes for preparation and standardization, drying as a micro/nano encapsulation tool, effect of drying on in vitro and in vivo biological activities, granulation, development of quality control methodologies for plant derived products and others. Many of the papers bring a comprehensive characterization of processes studied with the aid of multivariate analysis, response surface methodology and optimization by desirability functions. The use of such tools will be a basic requirement for future publications in this field since they allow a better understanding of the complex relationship between independent and dependent variables in technological approaches. Furthermore, the future of pharmaceutical development will also be bounded by the International Conference on Harmonization Guidelines for Pharmaceutical Development Q8, which recommends the use of multivariate modeling tools. When

editing this special issue on phytopharmaceutical technology we also noted the lack of works on promising technologies for plant derived products, like microwave or ultrasound assisted extraction (MAE and UAE), supercritical extraction, purification or concentration techniques such as cryoconcentration, innovative drying techniques like fluid bed, microwave or superheated steam drying or even the recently proposed method of spray-freeze drying. We hope to see many contributions to RBFAR dealing with breakthrough phytopharmaceutical technologies in a near future.

Finally, we would also like to render our tribute to Professor Pedro Ros Petrovick in the celebration of his 30<sup>th</sup> anniversary of academic life. Professor Petrovick gave a great contribution to the development of phytopharmaceutical technology in Brazil, in special in the research areas of pharmaceutical adjuvants in herbal preparations, development of spray dried extracts and solid dosage phytopharmaceutical forms. Professor Pedro R Petrovick constructed a life of academic achievements engaged at the Universidade Federal do Rio Grande do Sul since 1981, where he also got his BSc (1972) and MSc (1975) in Pharmacy. He got his PhD (1982) in Pharmacy from the Westfälische Wilhelms - Universität Münster, Germany. Professor Petrovick has also worked as a visiting scientist at the Université Montpellier 1, France, during 1990. He has published over 76 original papers in reputable journals, edited or organized 16 books and has the authorship of other 18 book chapters. Professor Petrovick's group has presented over 180 works in local and international conferences. However, the supervision on graduate projects is undoubtedly the highlight of his academic career. Professor Petrovick has supervised 40 undergraduate students, 36 Master dissertations and 3 PhD Thesis. His contribution to the development of Phytopharmaceutical Technology in Brazil is reflected in this special issue, where many of the corresponding authors got their academic titles under his supervision. The growth of Phytopharmaceutical Technology in Brazil owes a lot to him, and we give our congratulations for this 30<sup>th</sup> anniversary of a fruitful and productive academic career.