



## Editorial

### The pharmacognosy and the research and development of herbal medicine: seeking the necessary approach

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Pharmacognosy is an applied pharmaceutical science; it uses several, basic, supporting sciences, such as botany, chemistry and pharmacology, aggregates knowledge from other pharmaceutical areas, such as pharmacotechnic and pharmaceutical technology, but has its focus on specific applications.

By saying that, my intention is to express that the essence of our field has an unquestionable relation with product development, much more than just with research, as great as it is the merit in this activity. By virtue of the history of the post-grad courses, the professionals in our field are much more chemists and pharmacologists (botanists almost inexistent) than actually pharmacognosists, condition that by itself should not be a problem, if professionally we were to understand our social role.

In this scenery and understanding, I was invited to write this editorial about the importance of herbal medicines in our country and, on my behalf, the relationship of Pharmacognosy with these. In that sense, we can say that, unfortunately, we still have very little genuine national products, conceived, researched and developed with our competence and labor. On the other hand, researches we have plenty, thousands even, but that are published out of context and without purpose, with potential to be applied but with no follow up. Maybe we lack the objectivity of the Americans and Japanese, as well as the systematic European way to work, we talk and discuss a lot, but we develop and undertake very little. Thus the international research and development prevail, which constantly enter our consumer market with overwhelming force, because of their great quality. The most recent examples are seen in the drugstores, products based on *Boswellia serrata*, *Hedera helix*, *Pelargonium sidoides*, *Petasites hybridus*, *Rhodiola rosea*, to name a few recent releases, all of from European research.

In parallel, the national pharmaceutical industries also show a low productivity in this area, made worse by the lack of resources and funding, familiar management with no boldness, the governmental paternalism tradition, among many other problems, and have been losing new products and market, some already part of history as it happened to Flora Medicinal laboratory. We, pharmacognosists, should return our focus and our competence to old phytotherapeutic products still existing in the markets, formulated with species still almost unknown today, like carapiá, quina-mineira, mandacaru, amongst others, and add to them the new knowledge necessary to maintain it, and even insert new therapeutic horizons, in the market.

This idea has been spread for decades and, along with the construction of the phytotherapeutic regulatory mark, it has been giving palpable results expressed in a small portfolio of phytotherapeutics, which should be acknowledged as examples to be followed. The pioneer products were developed in Pernambuco based on “hortelã-miúda” for giardia (Giamebil®) and “aroeira” for bacterial vaginosis (Kronel®); “guaraná” and its multiple applications (eight commercial brands), the bronchodilator syrups of “guaco” (25 commercial brands) and the antiulcers of “espinheira-santa” (21 commercial brands) that represent products from scientific investigation developed communally by several researchers, showing the potential of combined efforts into a panel of species of national interest. It is important to mention the mixed product based on “catuaba”, “muirapuama”, guaraná and ginger (Catuama®), evaluated as a general and sexual stimulant that generated, in addition, antidepressants and antiarrhythmic results not previously known; as latest developments we can name the phytotherapeutic for memory based on *Pfaffia glomerata* (Brazilian ginseng), the leaves of the “baleeira” herb as an anti-inflammatory (Acheflan®), “unha-de-gato” for oral herpes (Imuno-Max®), “barbatimão” for scabs (Fitoscar®), and, lastly, the “aroeira” for gastritis and ulcers (Kios®), recently launched in 2011.

There are eleven products developed with Brazilian species and national research, with different degrees of technical complexity according to the financing condition and regulatory classification, but all interesting and timely, representing a combined revenue of US\$ 35 millions (5,4% of the Brazilian phytotherapeutic market) obtained only with native species. This all shows us a clear sign that we have competence and capability to accomplish them, but we need to broaden our ways, still not enough walked on by the pharmacognosists.

The special edition of the Brazilian Journal of Pharmacognosy this year, in an effort to value the research aimed at the field of the development of phytotherapeutic products, will focus on the studies of the Phytopharmaceutics and Technology, hoping to receive and spread the results in the fields of quality control, selected analytical methods, new extractive, purification, concentration and drying technologies, stability studies, modern pharmaceutical forms of controlled release systems, improvement of drug bioavailability, phytocosmetics, among others. These are important aspects that will help us to enlarge the genuinely national phytotherapeutics portfolio, desire of all the professionals and the sector companies.