J Develop Drugs 2016, 5:2(Suppl)
http://dx.doi.org/10.4172/2329-6631.C1.015

Formulation and preparation techniques of ancient Greek remedies

E Evergetis and S A Haroutounian
Agricultural University of Athens, Greece

Dioscorides's De *Materia Medica* is probably the most prominent of the antique herbals that describe plants utilized as drugs. The retrieval and consequent exploitation of the knowledge hidden therein incorporates two major tasks, the identification of the processed herbal material, and the description of the remedy preparation. This second task conforms the subject of the present endeavour. An extensive review of a 7th century manuscript indicates that all of the described preparation techniques involve 5 fundamental solvents, namely water, wine, vinegar, oil, and milk that are used to retrieve the pharmaceutical extracts from plant tissues. The utilization of each solvent is correlated with the described remedy's indications and pharmaceutical properties and consequently is discussed against the current advances in phytochemistry, and bioactivity of indicative *taxa*. Consequently, contemporary laboratory protocols for each solvent of the antiquity are proposed in order to replicate the original remedy preparation, and the relative discrepancies with modern screening protocols are discussed. Finally, is explored the value and future industrial perspectives on each suggested protocol.

epaev@mac.com

Applications of NIR spectroscopy in pharmaceutical sciences

Josef Jampilek[1], **Erika Bojnanska**[1] and **Zbynek Oktabec**[2]
[1]University of Veterinary and Pharmaceutical Sciences Brno, Czech Republic
[2]Remedies Ltd., Czech Republic

Near infrared (NIR) spectroscopy is a fast, non-destructive and cheap method of spectral analysis that gains its importance. Nowadays, the applications of this analytical method are very broad: It is useful as a powerful tool in pharmaceutical industry, food industry as well as in the field of law enforcement, i.e., in identification of counterfeit medicines or quick identification of drugs of abuse, forensic medicine and many more. NIR spectroscopy was recognized as a leading analytical method of process analytical technology (PAT) applied within innovative approaches to the pharmaceutical quality assurance systems. This contribution is focused on qualitative and quantitative applications of NIR spectroscopy in pharmaceutical analysis and related areas. However, examples of PAT monitoring of granulation processes during manufacturing of solid drug formulations and the utilization of NIR spectroscopy within Quality-by-Design approach to specify critical quality parameters of active pharmaceutical ingredients and excipients is mentioned as well.

josef.jampilek@gmail.com