

Bioactive plants from northeastern of Brazil as a new resource to World pharmaceutical, cosmetic and food industries

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Folk medicine in northeastern Brazil and the knowledge about the medicinal use of plants are the result of a series of cultural influences of the original indigenous populations with those brought by European and Africans populations. The state of Pernambuco, situated at the Atlantic coast, about 8 degrees below the Equator line, has a big botanical diversity. It is divided in five regions, separated by diverse geographical and climatic conditions. This various environments provide different conditions for the production of different kinds and levels of secondary metabolites. Moving inwards from the Atlantic forest region to the semiarid regions, we arrive in a wide area called "Caatinga", an exclusive world biome localized in the northeast of Brazil. The secondary metabolites produced by various plants in these regions have different levels of oxygenated substituents, allowing pharmacological applications such as antimicrobial, antitumor, anthelmintic, among others. Our research group denominated "Biotechnology of Natural Products" is dedicated to the study of diverse botanical species of the Caatinga bioma. We develop new protocols in order to correlate experimental phytochemical, molecular and biological quality controls of medicinal plants of all regions of Pernambuco for applications in medicine, food and cosmetics. Our great emphasis is to improve the quality of raw materials in order to develop sustainable supply chains. We also study the metabolic changes introduced by ionizing radiation in dry extracts of medicinal plants containing phenolic groups.

Biography

Claudia Sampaio de Andrade Lima is Professor from the Federal University of Pernambuco, Recife, Brazil. She has experience in Chemistry, focusing on Chemistry of the Natural Products, working on the following subjects: phenolic compounds from medicinal plants, microorganisms and marine resource, for pharmacological and cosmetic utilization and with development of biopharmaceuticals in the neurogenesis. Actually is evaluator for graduate and undergraduate courses and institutional accredited by Ministry of Education of Brazil. Currently, she serves as coordinator of CTFITO-PE (Technical Comittee of Medicinal Plants and Phytotherapy of Pernambuco state).