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## The forefront of Amazonia biodiversity studies: from neglected diseases to biotechnology

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The announced and celebrated the biotechnological potential of the Amazon Region never came true other than short brief sighs of development in the Age of Rubber. With important issues of sovereignty involved, in the nine countries where the Amazonia occupies an extensive region of 5.5 million km<sup>2</sup> with immense historical logistical challenges, the region's bioproducts are marketed as commodities. Heterogeneous, extractive products without technology have the low added value that makes the maintenance of standing forest unfeasible. Essential, fixed and resinous oils are some of the materials with greater possibilities of standardization and production on an industrial scale. Residual materials from the fruit pulp and fatty oil industries also contain substances of great interest, byproducts that can be extracted prior to the use of biomass in bio refinery application models. Studying the chemical composition of several oils and extracts and searching for intrinsic variations by region, biotic and abiotic factors, we relate their characteristics to biological actions, especially to neglected diseases, describe patterns of the composition by Amazonian mesoregion, define chemical fingerprints and finally achieved new scaleable products. With a systematic research on the phytochemistry of several of these historical potential products, we were able to define the parameters for the quality control that allow their use as drugs, in Protected Designation of Origin (AOC) systems, and the production of byproducts that improve the value chains and create bioproducts where there were only promises, poverty and environmental agroindustry problems.

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