



Effect of *Qualea multiflora* on Macrophages and Tumour Cells

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SUMMARY. Species of the genus *Qualea* are used by the Brazilian people as a natural anti-inflammatory. Based on this evidence, we evaluated the effects of terpene fractions β F and TF (rich in β -sitosterol and terpenoids, respectively) obtained from *Qualea multiflora* on nitric oxide production, cytokines (IL-1, IL-10, IL-12, and TNF- α) and the transcription factor NF- κ B by peritoneal macrophages. Since there is a relationship between inflammation and cancer, the cytotoxicity of β F and TF against mammary and pulmonary tumoural cell lineages, and macrophages was evaluated. Inhibition levels close to 90% of the production of NO, IL-1, IL-12 and TNF- α ; about 32% of NF- κ B; and a large stimulation of IL-10 production (close to the positive control) by peritoneal macrophages were observed in response to β F and TF which are correlated with anti-inflammatory activity. Additionally, the samples showed cytotoxic activity against tumoural cells but not against macrophages. Since anti-inflammatory activity is important in tumour inhibition, further examination of potential anti-cancerous activity of *Qualea multiflora* is warranted.

KEY WORDS: Cancer, Macrophages, *Qualea multiflora*.

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