



This occasional section within the journal surveys visions and achievements, often not on the main track of the developing biomedical sciences, but all relating to discoveries and developments of medicinal – both ancient and modern. What they have in common, in one way or another, is providing further background and glances around the edges of the core discipline of pharmacognosy, as it has been and continues to evolve within our times.

***Rhododendron subarcticum* Leaf Essential Oil is Effective against Drug-Resistant *Plasmodium falciparum* and may therefore be Useful for Malaria Prophylaxis**

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A Canadian research team recently published a study in ACS Omega reporting that an essential oil produced using *Rhododendron subarcticum* leaves was effective at inhibiting the growth of *Plasmodium falciparum* parasites ($IC_{50} = 105\text{nM}$).¹ The parasite strain tested in that study was reported to be a drug-resistant strain, although the authors did not define which drugs the strain was resistant to. The authors of that study also examined the terpenoid compounds in the essential oil and reported ascaridole (67% relative abundance) and p-cymene (21% relative abundance) to be the major essential oil

constituents. Furthermore, the authors reported that ascaridole contributed the anti-*P. falciparum* activity, with an IC_{50} of 147nM. Interestingly, as the activity of the essential oil was greater (lower IC_{50}) than isolated ascaridole, it is likely that other components in the essential oil also contribute to this activity, either directly, or as potentiators of ascaridole's activity.

REFERENCE

1. Séguin JC, Gagnon D, Bélanger S, Richard D, Fernandez X, Boudreau S, Voyer N. Chemical composition and anti-plasmodial activity of the essential oil of *Rhododendron subarcticum* leaves from Nunavik, Québec, Canada. ACS Omega 2023;8(19):16729



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