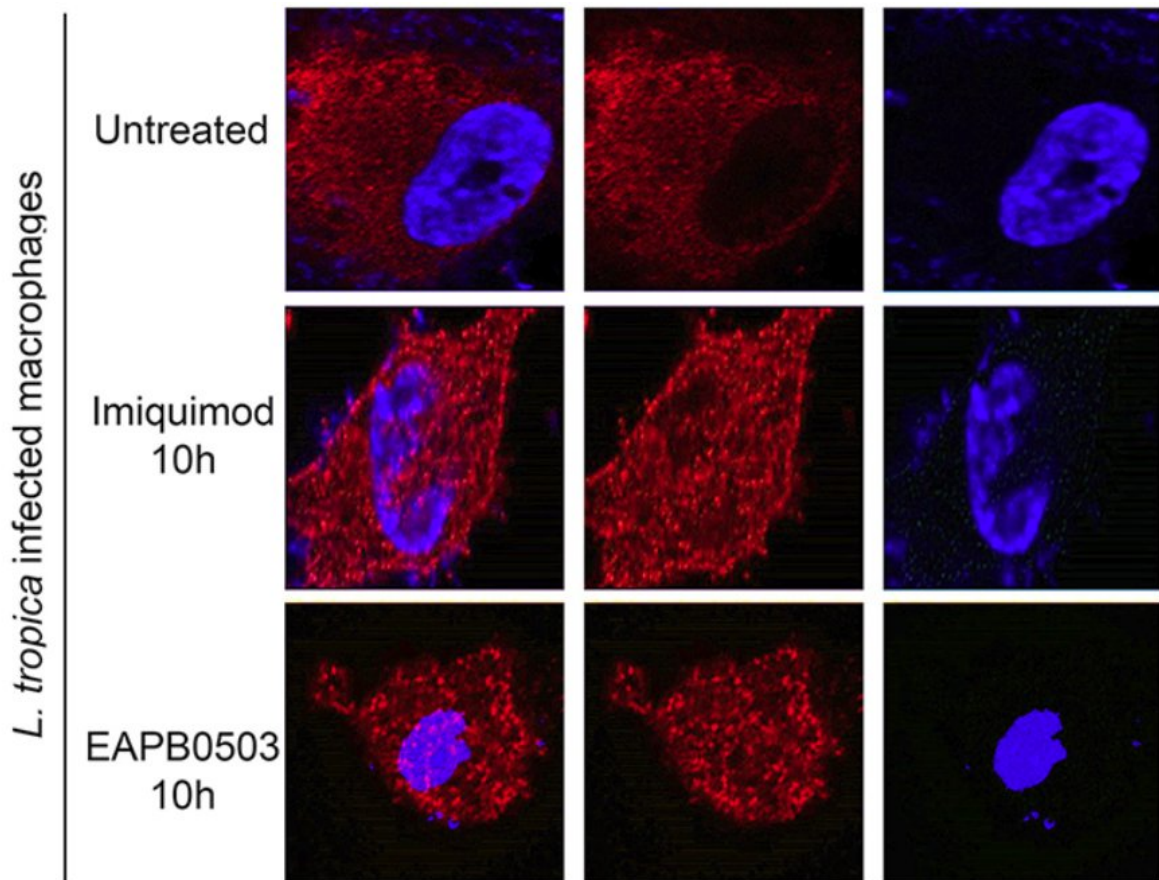


# Advancement in drug therapies may provide new treatment for Cutaneous leishmaniasis

November 21 2018



"Confocal microscopy on *L. tropica* infected macrophages treated with 0.1  $\mu$ M of Imiquimod or EAPB0503 for 10h." Credit: Hajj, *et al.* (2018)

Cutaneous leishmaniasis (CL) is a parasitic infection caused by

Leishmania parasite. CL cases have increased dramatically in Syria and neighboring countries due to conflict-related displacement of Syrians. A study published in *PLOS Neglected Tropical Diseases* by Rana El Hajj at the American University of Beirut, Lebanon describes the development of a novel immunomodulatory analog that may be an effective treatment of CL.

Currently used therapies against CL may lead to partial or complete cure. However, they associate with many limitations, including repetitive painful injections, lack of availability, expensive cost, and emergence of resistant strains. Furthermore, their efficacy remains hindered by the patient's age and immune system. Researchers investigated the pre-clinical efficacy of an immunomodulatory drug, Imiquimod and one of its analogs, EAPB0503 on two strains (*Leishmania major* and *Leishmania tropica*) causing CL in the Middle East Area. They also tested these drugs on freshly isolated parasites from patients' biopsies and proved their leishmanicidal potency.

According to the authors, "Our findings establish Imiquimod as a strong candidate for treating *L. tropica* and show the higher potency of its [analog](#) EAPB0503 against CL". Their research is a promising advancement for the development of effective therapies for CL.

**More information:** El Hajj R, Bou Youness H, Lachaud L, Bastien P, Masquefa C, et al. (2018) EAPB0503: An Imiquimod analog with potent in vitro activity against cutaneous leishmaniasis caused by *Leishmania major* and *Leishmania tropica*. *PLOS Neglected Tropical Diseases* 12(11): e0006854. [doi.org/10.1371/journal.pntd.0006854](https://doi.org/10.1371/journal.pntd.0006854)

Provided by Public Library of Science

Citation: Advancement in drug therapies may provide new treatment for Cutaneous leishmaniasis (2018, November 21) retrieved 11 May 2024 from <https://medicalxpress.com/news/2018-11-advancement-drug-therapies-treatment-cutaneous.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.