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Poster Abstracts:
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A SYSTEMATIC REVIEW OF VIRULENCE FACTORS IN THE LEISHMANIA GENUS

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Background: Parasite factors play a role in leishmaniasis pathogenesis, a disease due to protozoans (genus *Leishmania*) with diverse and species-specific clinical manifestations. Virulence factors (VFs) can heighten host damage via increased expression, host cell invasion, stress tolerance, and modulating immunity. With large eukaryotic genomes in *Leishmania* spp., there is a wide set of VFs adding to pathogenesis.

Methods: We conducted a comprehensive systematic review of the literature about *Leishmania* spp. VFs to fully picture parasite-determined patrons to the pathogenesis of clinical forms of leishmaniasis. PubMed (NCBI), MEDLINE (OVID), EMBASE (OVID), Web of Science, and LILACS (VHL) were searched (inception to July 2018) using blends of the search terms "virulence factor*", "Leishmania", and "Leishmaniasis*", while considering unique database syntax. Iterative inclusion/exclusion of search terms was employed to augment article extraction. We will include mainly molecular and mechanistic pathogenesis studies in many model systems, observational studies, review studies, cohort studies, and clinical trials. Evidence will be summarized with descriptive measures for each spp and VF. 760 MEDLINE, 1942 PubMed, 1314 EMBASE, 438 Web of Science, and 8 LILACS records were obtained for title and abstract screening; after a multi-step de-duplication pipeline, 2620 remained. Double-reviewer screening, with tertiary arbiters, reduced inclusion/exclusion disparities. Five main VFs in the *Leishmania* genus are heat shock proteins (e.g. HSP23, HSP70), cysteine peptidases (e.g. CPB), mannose phosphate isomerases (e.g. MPI), metalloproteases (e.g. GP63), and elongation factors (e.g. EF1-alpha), amid others. Data will be grouped and summarized by spp, geographic region of endemicity, and VFs. This set of mechanistic VF data will add to the body of work in the molecular pathogenesis of kinetoplastids and our knowledge of spp and regional variations in *Leishmania* pathogenesis.



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