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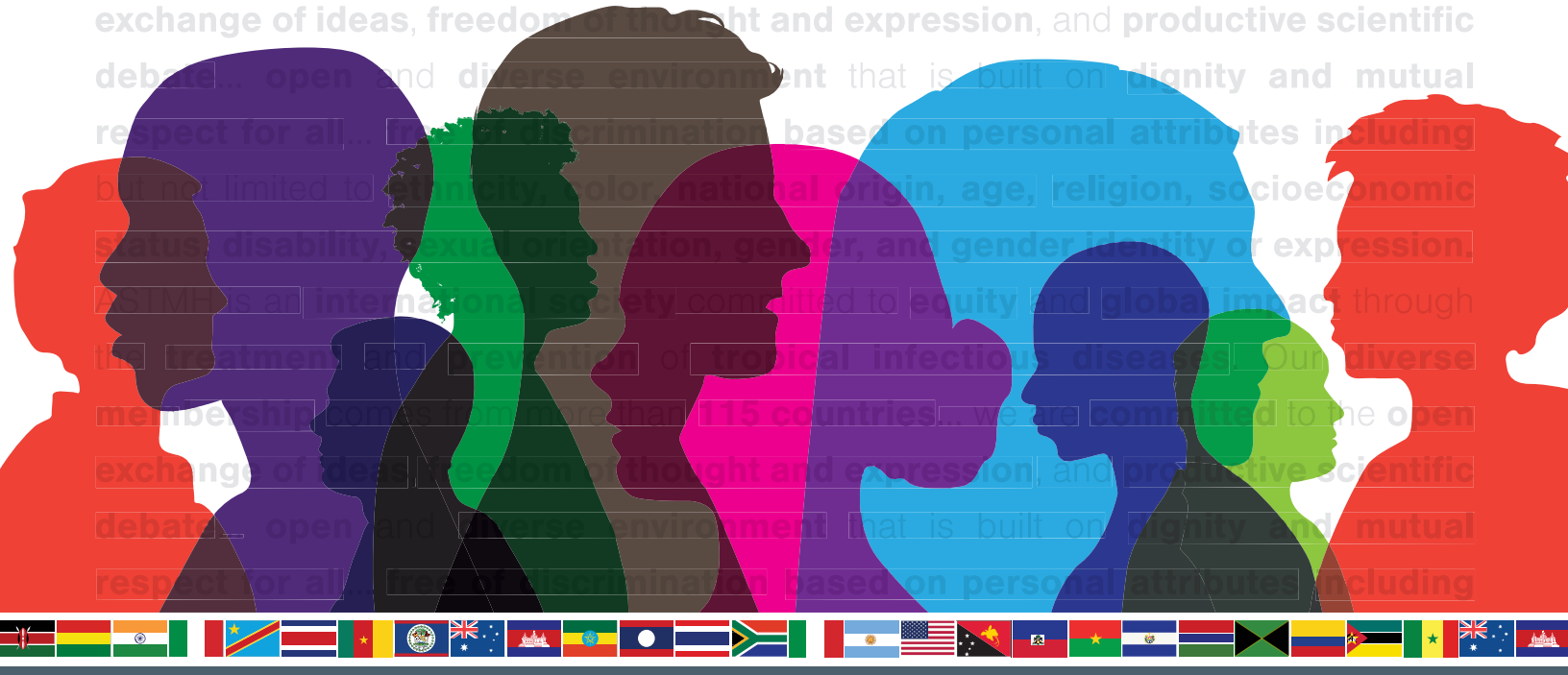
ABSTRACT BOOK



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abstracts, 226 articles were selected for final review. 50 publications were specific for OWCL, 5 publications discussed wound care in both OWCL, and New World Cutaneous Leishmaniasis, and 58 publications were review articles. Study characteristics including number of participants, wound care strategy/ intervention (debridement and removal of crusts, occlusive dressings, cream/ointment containing silver, washing, topical antimicrobials), outcomes (cure, time to reepithelilization, induration reduction, scar formation-quality and cosmesis, safety/tolereability, costs, feasibility/accessibility), study location, and species identification, will be extracted from all eligible studies and analyzed. We will systematically map the literature and synthesize the current state of knowledge and topical wound-oriented management practices in OWCL in order to inform optimal adjunctive clinical approaches and guidelines. We will also identify knowledge gaps and potential prospective research questions to fill them.

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A SYSTEMATIC REVIEW OF WOUND CARE IN THE MANAGEMENT OF NEW WORLD CUTANEOUS LEISHMANIASIS

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New world cutaneous leishmaniasis (NWCL) typically presents as one or several chronic, infiltrative lesions on exposed parts of the body, and is treated pharmacologically to accelerate cure, reduce scarring, and to prevent parasite dissemination or relapse. Limited data support the role of local wound care for the management of NWCL, though the scope of such benefit and to which patient populations wound care should be applied remains undetermined due to the absence of synthesized data on the subject. We aim to synthesize the literature around the role of wound care in the management of NWCL to inform treatment guidelines and evidence-based therapeutic strategies. Medline (Ovid), Embase (Ovid), and PubMed (NCBI) were searched from inception to February 2019 without language restriction using combinations of the search terms "leishmania*" and "wound care". The GRADE approach will be used to assess quality of studies reporting specific wound care interventions. 626 articles were identified with the initial search. After screening titles and abstracts, 226 articles were selected for final review. 113 publications were specific for NWCL, 5 publications discussed wound care in both NWCL and Old World Cutaneous Leishmaniasis, and 58 publications were review articles. Study characteristics including number of participants, wound care strategy/ intervention (debridement and removal of crusts, occlusive dressings, cream/ointment containing silver, washing, topical antimicrobials), outcomes (cure, time to reepithelilization, induration reduction, scar formation-quality and cosmesis, safety/tolereability, costs, feasibility/accessibility), study location, and species identification, will be extracted from all eligible studies and analyzed. We will systematically map the literature and synthesize the current state of knowledge and topical wound-oriented management practices in NWCL in order to inform optimal adjunctive clinical approaches and guidelines. We will also identify knowledge gaps and potential prospective research questions to fill them.

1846

PHENOTYPIC CHARACTERIZATION OF TRYPANOSOMES CELLS TREATED WITH TETRACYCLIC IRIDOID, ML F52 SUPPRESSION OF *FLAGELLA* ATTACHMENT PROTEINS

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Despite the recent advances in drug research, finding a safe, effective, and easy to use chemotherapy for Human African Trypanosomiasis (HAT) remains a challenging task. This condition underlines the urgent necessity for the development of new drugs for the treatment of HAT. We previously identified the anti-trypanosome activities of three novel tetracyclic iridoids; ML-2-3, Molucidin and ML-F52, isolated from *Morinda lucida* with IC_{50} values of 3.75μM, 1.27μM and 0.43μM, respectively. Immunohistochemistry (IHC) study showed that the compounds significantly suppressed the expression of PFR-2, which proceeded to the events of cell cycle alteration and apoptosis induction. Scanning Electron Microscopy revealed the severe phenotype of the flagella detached from the body of the parasite. Here we present a phenotypic characterization of ML-F52 treated trypanosomes in detail with analyzing the expression levels of Flagellum Attachment Zone (FAZ) filament proteins, Coiled-coil 2-domain containing protein (CC2D) and Flagella Attachment Zone protein 1 (FAZ-1) by IHC and Western blot assays. Immunohistochemistry study showed that ML-F52 significantly suppressed the expression of CC2D after 12 hours of post treatment whilst FAZ-1 did not show any significant suppression. After 24 hours of post treatment, cell length and FAZ length decreased with the emergence of cell containing detached flagella as compared to the control. Also, ML-F52 caused multinucleated phenotype and an increase in number of cells with only one or no visible kinetoplast. Western blot assay showed that CC2D expression was reduced more than approximately 60% by 12 hours post treatment and approximately 80% by 24 hours post treatment. Our findings suggested that ML-F52 might significantly inhibit the development and function of the flagellum.

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VISCERAL LEISHMANIASIS ELISA TESTING: EVALUATION OF SERIAL SERUM SAMPLES REVEALS AN UNANTICIPATED FINDING

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Serologic testing for visceral leishmaniasis (VL) includes ELISA and immunochromatographic testing (ICT) methods. Generally antibody responses are reported to wane with time. 200 Iraq-deployed, healthy US servicemembers were enrolled in an asymptomatic VL surveillance study 2015-17 and ELISA testing of current, pre and post deployment sera was conducted. Their prior banked samples were requested from the Department of Defense Serum Repository; timepoints included entry to military service (accession), before deployment and upon return from Iraq. Serologic testing included a soluble *Leishmania* antigen-based ELISA using 1:400 sera dilution with positive ELISA results confirmed using a *Leishmania* Western Blot (WB, LDBios, France). Additionally, post Iraq and enrollment sera were tested with rk39 ICT (Kalazar Detect, Inbios WA). Enrollment sera from seven subjects tested positive on ELISA (3.5%) with one WB confirmed; there were no reactive rK39 serologies. Post-deployment sera tested ELISA positive in 55 subjects (27.5%), 48%