**SUPPLEMENTARY MATERIAL**

**Table S1. Old World plant crude extracts, fractions and essential oils that reveal antileishmanial activity (2008-2018).**

| Plant | | | | Plant origin | | Crude Extract, fraction or essential oil | | | *Leishmania* | | Reference |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Family / Species | | | | Continent | Country | Plant part | Solvent/Oil | IC50 (µg/mL) | Species | Form\* |
| Acanthaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Asystasia gangetica* | | Africa | South Africa | L | DCM:MeOH | 12.4 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Ballochia atrovirgata* | | Asia | Yemen (Soqotra) | L, S | MeOH | 6.0 | *L. infantum* | IA | Mothana et al., 2012 |
|  | |  | |  |  |  | MeOH | 6.0 |  |  |  |
|  | | *Barleria trispinosa* | | Asia | Saudi Arabia | n.r. | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Hypoestes forsskaolii* | | Asia | Saudi Arabia | n.r. | MeOH | <0.25 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  | Yemen/Saudi Arabia | L | MeOH | 8.1 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Hypoestes pubescens* | | Asia | Yemen (Soqotra) | L | MeOH | 7.5 | *L. infantum* | IA | Mothana et al., 2012 |
| Agavaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Dracaena cinnabari* | | Asia | Yemen (Soqotra) | RS | MeOH | 8.1 | *L. infantum* | IA | Mothana et al., 2012 |
| Aizoaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Mesembryanthemum crystallinum* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
| Amaranthaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Achyranthes aspera v. aspera* | | Asia | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Amaranthus polygamus* | | Asia | Yemen/Saudi Arabia | L | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Amaranthus viridis* | | Asia | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Amarusthus rutroflena* | | Asia | Iran | n.r. | EtOH | 275.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Arthrocnemum macrostachyum* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Halopeplis amplexicaulis* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Salicornia ramosissima* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Salsola* sp. | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Salsola vermiculata* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Salsola versicolor* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Sarcocornia perennis* subsp. *alpini* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Sarcocornia perennis* subsp. *Perennis* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
| Anacardiaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Mangifera indica* | | Africa | Ghana | L, SB | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Ozoroa sphaerocarpa* | | Africa | South Africa | W | DCM | 5.8 | *L. donovani* | P | Mokoka et al., 2013 |
|  | | *Pistacia atlantica* | | Asia | Israel | n.r. | MeOH | 185.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Pistacia khinjuk* | | Asia | Iran | F | EtOH | 37.3 | *L. tropica* | IA | Ezatpour et al., 2015 |
|  | | *Pistacia lentiscus* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Rhus retinorrhaea* | | Asia | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | |  | |  | Yemen/Saudi Arabia | L | MeOH | 64.0 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Rhus thyrsiflora* | | Asia | Yemen (Soqotra) | F, L | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Schinus molle* | | Asia | Saudi Arabia | L | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  | F | MeOH | 64.0 |  |  |  |
|  | | *Spondias mombin* | | Africa | Ghana | L | EtOH | 81.5 | *L. donovani* | P | Ohashi et al., 2018 |
| Annonaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Annickia kummeriae* | | Africa | Tanzania | L | MeOH | 9.3 | *L. donovani* | P | Malebo et al., 2009 |
|  | |  | |  |  | SB | PET | 9.7 |  |  |  |
|  | |  | |  |  | RB | DCM | 9.8 |  |  |  |
|  | | *Annona senegalensis* | | Africa | Ghana | L | EtOH | 27.8 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | SC |  | >1000 |  |  |  |
|  | | *Artabotrys monteiroae* | | Africa | South Africa | L | DCM:MeOH | 16.6 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Cleistopholis patens* | | Africa | Ghana | L | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | SB |  | 60.2 |  |  |  |
|  | | *Isolona hexaloba* | | Africa | Dem. Rep. Congo | L, R, SB | H2O | 2.0 | *L. infantum* | P | Muganza et al., 2015 |
|  | |  | |  |  | L, R, SB | MeOH | 6.4 |  |  |  |
|  | |  | |  |  | L, R, SB | EtOH | 7.0 |  |  |  |
|  | | *Uvaria grandiflora* | | Asia | Malaysia | L | CF | 40.5 | *L. donovani* | P | Nor Azman et al., 2018 |
| Apiaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Alepidea amatymbica* | | Africa | South Africa | W | DCM:MeOH | 12.1 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Bupleurum nodiflorum* | | Asia | Lebanon | L, S | MeOH | 50.0 | *Leishmania sp* | IA | Di Giorgio et al., 2008 |
|  | | *Carum copticum* | | Asia | Iran | n.r. | EtOH | 15.6 | *L. major* | P | Manjili et al., 2012 |
|  | |  | |  | Pakistan | W | EtOH | 60 | *L. donovani* | P | Mansoor et al., 2011 |
|  | |  | |  |  | W | HEX | 90 |  |  |  |
|  | |  | |  |  | W | HEX/EtAC | 30 |  |  |  |
|  | |  | |  |  | W | EtAC | 50 |  |  |  |
|  | |  | |  |  | W | EtAC/ACE | 50 |  |  |  |
|  | | *Eryngium foetidum* | | Asia | Malaysia | L | CF | 93.2 | *L. donovani* | P | Nor Azman et al., 2018 |
|  | | *Lagoecia cuminoides* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania sp* | IA | Di Giorgio et al., 2008 |
|  | | *Pituranthos triradiatus* | | Asia | Israel | n.r. | MeOH | 200.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Smyrnium olusatrum* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
| Apocynaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Alstonia boonei* | | Africa | Ghana | L, SB | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Chilocarpus costatus* | | Asia | Malaysia | S | CF | 17.3 | *L. donovani* | P | Nor Azman et al., 2018 |
|  | | *Holarrhena antidysenterica* | | Asia | India | SB | MeOH | >100 | *L. donovani* | IA | Sharma et al., 2009 |
|  | | *Leuconotis eugenifolius* | | Asia | Malaysia | L | CF | 21.7 | *L. donovani* | P | Nor Azman et al., 2018 |
|  | | *Picralima nitida* | | Africa | Ghana | L | EtOH | 631.0 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | SB | EtOH | >1000 |  |  |  |
|  | | *Piliostigma thonningii* | | Africa | Ghana | L, SB | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Rauvolfia caffra* | | Africa | South Africa | R | DCM | 15.5 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Tabernaemontana crassa* | | Africa | Ghana | L, R | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Tabernaemontana peduncularis* | | Asia | Malaysia | S | CF | 27.3 | *L. donovani* | P | Nor Azman et al., 2018 |
|  | | *Tylophora hirsuta* | | Asia | Pakistan | L | MeOH | <40 | *L. major* | P | Bashir et al., 2009 |
|  | |  | |  |  |  | HEX | <40 |  |  |  |
|  | |  | |  |  |  | CF | <100 |  |  |  |
|  | |  | |  |  |  | EtAC | <90 |  |  |  |
|  | |  | |  |  |  | BuOH | <60 |  |  |  |
|  | |  | |  |  |  | H2O | <70 |  |  |  |
|  | | *Vincetoxicum stocksii* | | Asia | Pakistan | W | EtOH | 70 | *L. donovani* | P | Mansoor et al., 2011 |
|  | |  | |  |  |  | HEX | 51 |  |  |  |
|  | |  | |  |  |  | EtAC | >40 |  |  |  |
|  | |  | |  |  |  | BuOH | >40 |  |  |  |
| Araliaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Schefflera umbellifera* | | Africa | South Africa | R | DCM | 5.0 | *L. donovani* | P | Mokoka et al., 2011 |
|  | |  | |  |  |  | DCM:MeOH | 14.1 |  |  |  |
| Arecaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Phoenix dactylifera* | | Asia | Saudi Arabia | SD | MeOH | 32.5 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
|  | |  | |  | Israel | n.r. | MeOH | 110.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Artemisia afra* | | Africa | South Africa | L | DCM:MeOH | 8.8 | *L. donovani* | P | Mokoka et al., 2011 |
|  | |  | |  |  |  | DCM | 5.7 | *L. donovani* | P | Mokoka et al., 2011 |
|  | |  | |  |  |  | MeOH | 15.1 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Artemisia vulgari* | | Asia | Iran | n.r. | EtOH | 625.0 | *L. major* | P | Manjili et al., 2012 |
| Asclepiadaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Calotropis procera* | | Africa | Ghana | L | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Caralluma penicillata* | | Asia | Yemen/Saudi Arabia | L | MeOH | 34.6 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Caralluma quadrangula* | | Asia | Yemen/Saudi Arabia | L | MeOH | 64.0 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Caralluma sinaica* | | Asia | Saudi Arabia | L | MeOH | 8.1 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
|  | | *Gomphocarpus fruticosus* | | Asia | Yemen/Saudi Arabia | L | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Kanahia laniflora* | | Asia | Yemen/Saudi Arabia | L, F | MeOH | 64.0 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Mondia whitei* | | Africa | Ghana | R | EtOH | 31.0 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Periploca aphylla* | | Asia | Saudi Arabia | F, SB | MeOH | 6.0 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
| Asparagaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Eucomis autumnalis* | | Africa | South Africa | FL | DCM | 7.6 | *L. donovani* | P | Mokoka et al., 2011 |
| Asteraceae | | | |  |  |  |  |  |  |  |  |
|  | | *Acanthospermum hispidum* | | Africa | Ghana | W | EtOH | 32.1 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Achillea biebersteinii* | | Asia | Saudi Arabia | n.r. | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Anthemis tinctoria* | | Asia | Lebanon | L, S | DCM | 8.4 | *Leishmania sp* | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | H2O | 14.7 |  |  |  |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | | *Artemisia absintin* | | Asia | Iran | n.r. | EtOH | 280.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Artemisia abyssinica* | | Africa | Ethiopia | L | Essential oil | 12.44 | *L. aethiopica* | AA | Tariku et al., 2010 |
|  | |  | |  |  |  | Essential oil | 131.0 | *L. donovani* | AA |  |
|  | | *Artemisia annua* | | Africa | Tanzania | L | HEX | 6.4 | *L. donovani* | P | Malebo et al., 2009 |
|  | | *Artemisia dracunculus* | | Asia | Iran | n.r. | EtOH | 625.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Artemisia herba-alba* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Aster tripolium* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Bidens pilosa* | | Africa | Ghana | W | EtOH | 28.9 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Centaurothamus maximus* | | Asia | Yemen/Saudi Arabia | L | MeOH | 32.5 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Centaurea pseudosinaica* | | Asia | Yemen/Saudi Arabia | L, FL | MeOH | 32.5 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Cichorium intybus* | | Asia | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Conyza albida* | | Africa | South Africa | W | DCM:MeOH | 16.2 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Conyza podocephala* | | Africa | South Africa | W | DCM:MeOH | 15.8 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Conyza scabrida* | | Africa | South Africa | L | DCM:MeOH | 6.7 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Conyza stricta* | | Asia | Saudi Arabia | n.r. | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Dichrocephala integrifolia* | | Asia | Yemen/Saudi Arabia | L, S | MeOH | 20.3 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Euryops arabicus* | | Asia | Saudi Arabia | n.r. | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Gundelia tournefortii* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Helichrysum nudifolium* | | Africa | South Africa | W | DCM:MeOH | 15.3 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Helichrysum pedunculatum* | | Africa | South Africa | W | DCM:MeOH | 13.5 | *L. donovani* | P | Mokoka et al., 2013 |
|  | | *Inula crithmoides* | | Europe | Portugal | S, L | ACE | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | |  | |  |  | S, L | DCM | <125 |  |  |  |
|  | | *Jurinea dolomiaea* | | Asia | Pakistan | n.r. | MeOH:EtAC | 5.3 | *L. tropica* | P | Shah et al., 2014 |
|  | |  | |  |  |  | MeOH:H2O | 6.0 |  |  |  |
|  | |  | |  |  |  | MeOH:HEX | 7.2 |  |  |  |
|  | |  | |  |  |  | MeOH | 10.9 |  |  |  |
|  | | *Kleinia odora* | | Asia | Saudi Arabia | n.r. | MeOH | 1.5 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  | n.r. | PET | 6.8 | *L. infantum* | IA | Al-Musayeib et al., 2013 |
|  | |  | |  |  |  | CF | 8.1 |  |  |  |
|  | | *Kleinia pendula* | | Asia | Yemen/Saudi Arabia | R, RZ | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Lactuca* sp. | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Lactuca serriola* | | Asia | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Oedera genistifolia* | | Africa | South Africa | W | DCM:MeOH | 1.7 | *L. donovani* | P | Mokoka et al., 2013 |
|  | | *Osteospermum vaillantii* | | Asia | Saudi Arabia | n.r. | MeOH | 5.1 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | | *Pentzia globosa* | | Africa | South Africa | R | DCM | 14.4 | *L. donovani* | P | Mokoka et al., 2011 |
|  | |  | |  |  |  | DCM:MeOH | 17.5 |  |  |  |
|  | |  | |  |  | SB | DCM | 22.0 | *L. donovani* | P |  |
|  | |  | |  |  |  | DCM:MeOH | 49.5 |  |  |  |
|  | | *Phagnalon rupestre* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Psiadia punctulata* | | Asia | Saudi Arabia | n.r. | MeOH | 2.0 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | | *Pulicaria crispa* | | Asia | Israel | n.r. | MeOH | 60.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Pulicaria guestii* | | Asia | Saudi Arabia | n.r. | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Pulicaria inuloides* | | Asia | Yemen/Saudi Arabia | L, FL | MeOH | 45.3 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Schkuhria pinnata* | | Africa | South Africa | W | DCM:MeOH | 10.8 | *L. donovani* | P | Mokoka et al., 2013 |
|  | | *Tagetes minuta* | | Asia | Yemen/Saudi Arabia | L, SD | MeOH | 30.1 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Taraxacum officinale* | | Asia | Yemen/Saudi Arabia | L | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Tarconanthus camphoratus* | | Asia | Yemen/Saudi Arabia | L, F | MeOH | 64.0 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | |  | | Africa | South Africa | R | DCM:MeOH | 16.3 | *L. donovani* | P | Mokoka et al., 2011 |
|  | |  | |  |  | W | DCM:MeOH | 4.9 | *L. donovani* | P |  |
|  | | *Tridax procumbens* | | Africa | Ghana | W | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Verbesina encelioides* | | Asia | Saudi Arabia | n.r. | MeOH | 0.4 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  |  | MeOH:PET | 0.7 | *L. infantum* | IA |  |
|  | |  | |  |  |  | MeOH:EtAC | 1.0 | *L. infantum* | IA |  |
|  | |  | |  |  |  | MeOH:CF | 9.7 | *L. infantum* | IA |  |
|  | | *Vernonia hirsuta* | | Africa | South Africa | W | DCM:MeOH | 16.2 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Vernonia leopoldii* | | Asia | Yemen/Saudi Arabia | L, FL | MeOH | 27.3 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Vernonia natalensis* | | Africa | South Africa | W | DCM:MeOH | 17.2 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Vernonia mespilifolia* | | Africa | South Africa | L | DCM:MeOH | 2.5 | *L. donovani* | P | Mokoka et al., 2013 |
|  | | *Vernonia oligocephala* | | Africa | South Africa | L | DCM | 16.1 | *L. donovani* | P | Mokoka et al., 2011 |
|  | |  | |  |  |  | DCM:MeOH | 19.9 |  |  |  |
|  | | *Vernonia schimperi* | | Asia | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
| Balanophoraceae | | | |  |  |  |  |  |  |  |  |
|  | | | *Thonningia sanguinea* | Africa | Ghana | W | EtOH | 18.6 | *L. donovani* | P | Ohashi et al., 2018 |
| Berberidaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Berberis baluchistanica* | | Asia | Pakistan | R | MeOH | 67.7 | *L. major* | P | Baloch et al., 2013b |
|  | |  | |  |  |  | CF | 36.8 |  |  |  |
|  | |  | |  |  |  | HEX | >100 |  |  |  |
|  | |  | |  |  |  | ACE | >100 |  |  |  |
|  | | *Berberis lycium* | | Asia | India | R | MeOH | >100 | *L. donovani* | IA | Sharma et al., 2009 |
|  | | *Berberis trispinosa* | | Asia | Yemen/Saudi Arabia | L, SB | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Berberis vulgaris* | | Asia | Iran | F | EtOH | 24.0 | *L. tropica* | IA | Mahmoudvand et al., 2014 |
| Bignoniaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Newbouldia laevis* | | Africa | Ghana | L, SB | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Tecoma stans* | | Asia | Yemen/Saudi Arabia | L, S | MeOH | 38.1 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | | |  |  |  |  |  |  |  |  |
|  | | | *Ceiba pentandra* | Africa | Ghana | SB | EtOH | 31.1 | *L. donovani* | P | Ohashi et al., 2018 |
| Boraginaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Cordia sinensis* | | Asia | Saudi Arabia | F, SB | MeOH | 64.0 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
|  | | *Echium arenarium* | | Africa | Tunisia | L | EtOH:EtAC | 22.5 | *L. major* | IA | Kefi et al., 2018 |
|  | |  | |  |  |  |  | 18.6 | *L. infantum* | IA |  |
|  | | *Heliotropium arbainense* | | Asia | Saudi Arabia |  | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Heliotropium curassavicum* | | Asia | Saudi Arabia | n.r. | MeOH:EtAC | 0.8 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  |  | MeOH:CF | 3.6 |  |  |  |
|  | |  | |  |  |  | MeOH:PET | 12.0 |  |  |  |
|  | |  | |  |  |  | MeOH:H2O | >1.0 |  |  |  |
|  | | *Heliotropium indicum* | | Africa | Ghana | W | EtOH | 119.4 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Heliotropium longiflorum* | | Asia | Saudi Arabia | n.r. | MeOH | 32.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Heliotropium ramosissimum* | | Asia | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Mattiastrum lithospermifolium* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania sp* | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | |  | |  |  |  | DCM | 50.0 |  |  |  |
|  | | *Onosma aucheriana* | | Asia | Lebanon | L, S | H2O | 5.1 | *Leishmania sp* | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | |  | |  |  |  | DCM | 50.0 |  |  |  |
|  | | *Onosma griffithii* | | Asia | Pakistan | L | MeOH | 31.03 | *L. major* | P | Ahmad et al., 2009 |
|  | |  | |  |  |  | HEX | 31.36 |  |  |  |
|  | |  | |  |  |  | CF | 42.6 |  |  |  |
|  | |  | |  |  |  | EtAC | 38.39 |  |  |  |
|  | |  | |  |  |  | BuOH | 41.87 |  |  |  |
|  | |  | |  |  |  | H2O | 60.35 |  |  |  |
|  | | *Rhazya stricta* | | Asia | Saudi Arabia | n.r. | MeOH | 32.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | |  | |  | Pakistan | L | MeOH | 14.93 | *L. major* | P | Khan et al., 2012 |
|  | |  | |  |  |  | HEX | 82.81 |  |  |  |
|  | |  | |  |  |  | CF | 16.53 |  |  |  |
|  | |  | |  |  |  | ACE | 72.9 |  |  |  |
|  | |  | |  |  |  | H2O | >100 |  |  |  |
|  | | *Trichodesma trichodesmoides v. Tomentosum* | | Asia | Saudi Arabia | n.r. | MeOH | 43.1 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
| Brassicaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Alyssum condensatum* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania sp* | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | |  | |  |  |  | DCM | 50.0 |  |  |  |
|  | | *Fibigia clypeata* | | Asia | Lebanon | L, S | H2O | 8.4 | *Leishmania sp* | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | DCM | 21.4 |  |  |  |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
| Burseraceae | | | |  |  |  |  |  |  |  |  |
|  | | *Boswellia socotrana* | | Asia | Yemen (Soqotra) | Bark | MeOH | 50.8 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Commiphora parvifolia* | | Asia | Yemen (Soqotra) | Bark | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2012 |
| Cannabaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Celtis africana* | | Asia | Saudi Arabia | F, SB | MeOH | 64.0 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
| Capparaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Cadaba farinose* | | Asia | Saudi Arabia | F, SB | MeOH | 64.0 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
|  | | *Cadaba glandulosa* | | Asia | Saudi Arabia | F, SB | MeOH | 64.0 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
|  | | *Capparis spinosa* | | Asia | Saudi Arabia | n.r. | MeOH | 8.1 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  |  | MeOH:PET | 9.7 | *L. infantum* | IA |  |
|  | |  | |  |  |  | MeOH:CF | 9.7 |  |  |  |
|  | |  | |  |  |  | MeOH:EtAC | 30.0 | *L. infantum* | AA |  |
|  | |  | |  |  |  | MeOH:H2O | 30.0 |  |  |  |
|  | |  | |  | Iran | n.r. | EtOH | 375.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Maerua angolensis* | | Asia | Yemen (Soqotra) | L | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Maerua crassifolia* | | Asia | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
| Caricaceae | | | |  |  |  |  |  |  |  |  |
|  | | | *Carica papaya* | Africa | Ghana | W | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
| Caryophyllaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Spergularia marina* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania sp* | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | MeOH | 50.0 | *Leishmania sp* | IA |  |
|  | |  | |  |  |  | DCM | 50.0 | *Leishmania sp* | IA |  |
|  | |  | | Europe | Portugal | S, L | ACE | >125 | *L. infantum* |  | *Spergularia rubra* |
|  | |  | |  |  | S, L | DCM | <125 |  |  |  |
|  | | *Stellaria media* | | Asia | Pakistan | n.r. | MeOH:H2O | 5.6 | *L. tropica* | P | Shah et al., 2014 |
| Celastraceae | | | |  |  |  |  |  |  |  |  |
|  | | *Catha edulis* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | |  | | Africa | South Africa | R | DCM | 7.7 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Maytenus undata* | | Africa | South Africa | n.r. | DCM | 5.6 | *L. donovani* | p | Mokoka et al., 2011 |
| Chenopodiaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Aellenia hierochuntia* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania sp* | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | |  | |  |  |  | DCM | 50.0 |  |  |  |
|  | | *Atriplex leucoclada v. mandavillea* | | Asia | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
| Cistaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Cistus ladanifer* | | Europe | Portugal | L, S | EtOH | 32.5 | *L. infantum* | IA | Falcão et al., 2013 |
|  | | *Fumana thymifolia* | | Asia | Israel | n.r. | MeOH | 240.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Helianthemum vesicarium* | | Asia | Israel | n.r. | MeOH | 200.0 | *L. major* | IA | El-on et al., 2009 |
| Clusiaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Garcinia atroviridis* | | Asia | Malaysia | F | CF | >100 | *L. donovani* | P | Nor Azman et al., 2018 |
|  | | *Garcinia Kola* | | Africa | Ghana | L | EtOH | 673.1 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | SB | EtOH | 159.4 | *L. donovani* | P | Ohashi et al., 2018 |
| Combretaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Anogeissus leiocarpus* | | Africa | not specified | SB | MeOH | 62.5 | *L. aethiopica* | P | Shuaibu et al., 2008 |
|  | |  | |  |  |  | BuOH | 112.5 |  |  |  |
|  | |  | |  |  |  | H2O | 112.5 |  |  |  |
|  | |  | |  |  |  | MeOH | 150.0 |  |  |  |
|  | |  | |  |  |  | EtAc | 250.0 |  |  |  |
|  | |  | |  |  |  | BuOH | 275.0 |  |  |  |
|  | |  | |  |  |  | H2O | 275.0 |  |  |  |
|  | |  | |  |  |  | EtAc | >400 |  |  |  |
|  | | *Anogeissus schimperi* | | Africa | Ghana | L, SB, R | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Conocarpus lancifolius* | | Asia | Saudi Arabia | F | MeOH | 64.0 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
|  | | *Terminalia avicennoides* | | Africa | n.r. | SB | H2O | 100.0 | *L. aethiopica* | P | Shuaibu et al., 2008 |
|  | |  | |  |  |  | BuOH | 125.0 |  |  |  |
|  | |  | |  |  |  | MeOH | 125.0 | *L. donovani* | P |  |
|  | |  | |  |  |  | H2O | 162.5 |  |  |  |
|  | |  | |  |  |  | MeOH | 175.0 | *L. aethiopica* | P |  |
|  | |  | |  |  |  | EtAc | 175.0 |  |  |  |
|  | |  | |  |  |  | EtAc | ≤300 | *L. donovani* | P |  |
|  | |  | |  |  |  | BuOH | ≤400 |  |  |  |
|  | | *Terminalia ivorensis* | | Africa | Ghana | L | EtOH | 24.9 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | SB |  | 23.2 |  |  |  |
| Convolvulaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Calystegia soldanela* | | Europe | Portugal | S, L | ACE | <125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | |  | |  |  | S, L | DCM | >125 |  |  |  |
|  | | *Ipomoea aquatica* | | Asia | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
| Cucurbitaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Citrullus colocynthis* | | Asia | Pakistan | F | MeOH | 12.0 | *L. major* | P | Baloch et al., 2013d |
|  | |  | |  |  |  | CF | 18.6 |  |  |  |
|  | |  | |  |  |  | ACE | 29.25 |  |  |  |
|  | |  | |  |  |  | H2O | <100 |  |  |  |
|  | | *Coccinia grandis* | | Asia | Yemen/Saudi Arabia | F | MeOH | 43.1 | *L. infantum* | IA | Mothana et al., 2014 |
|  | |  | |  |  | L | MeOH | 64.0 |  |  |  |
|  | | *Cucumis prophetarum* | | Asia | Saudi Arabia | n.r. | MeOH:PET | 9.7 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  |  | MeOH:CF | 9.7 |  |  |  |
|  | |  | |  |  |  | MeOH:EtAC | 9.7 |  |  |  |
|  | |  | |  |  |  | MeOH:H2O | 30.0 |  |  |  |
|  | | *Cucumis vulgaris* | | Asia | Saudi Arabia | n.r. | MeOH | 24.1 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Dendrosicyos socotrana* | | Asia | Yemen (Soqotra) | L, SB | MeOH | <0.25 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Eureiandra balfourii* | | Asia | Yemen (Soqotra) | L | MeOH | 6.0 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Kedrostis foetidissima* | | Asia | Yemen/Saudi Arabia | L, S | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
| Cupressaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Cupressus sempervirens* | | Asia | Yemen/Saudi Arabia | L | MeOH | 2.0 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Juniperus excelsa* | | Asia | Pakistan | F | MeOH | >100 | *L. major* | P | Nabi et al., 2012 |
|  | |  | |  |  |  | CF | 14.4 |  |  |  |
|  | |  | |  |  |  | DEE | 60.9 |  |  |  |
| Cyperaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Claudium mariscus* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al.2018 |
| Dilleniaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Tetracera alnifolia* | | Africa | Guinea | L | MeOH | 8.1 | *L. infantum* | P | Traore et al., 2014 |
| Ebenaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Arbutus andrachne* | | Asia | Israel | n.r. | MeOH | 220.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Diospyros canaliculata* | | Africa | Cameroon | SB | DCM | 3.0 | *L. donovani* | AA | Lenta et al., 2015 |
|  | | *Euclea divinorum* | | Asia | Yemen (Soqotra) | R, RZ | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Euclea natalensis* | | Africa | South Africa | R | DCM:MeOH | 14.8 | *L. donovani* | P | Mokoka et al., 2011 |
| Euphorbiaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Acalypha ciliata* | | Asia | Yemen/Saudi Arabia | L | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Acalypha fruticosa* | | Asia | Yemen/Saudi Arabia | L | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Alchornea cordifolia* | | Africa | Ghana | L | EtOH | 443.2 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Bridelia ferruginea* | | Africa | Ghana | L | EtOH | 16.5 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Chrozophora oblongifolia* | | Asia | Yemen/Saudi Arabia | L, SD | MeOH | 27.3 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | |  | |  | Saudi Arabia | n.r. | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Clutia myricoides* | | Asia | Saudi Arabia | n.r. | MeOH | 10.8 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | | *Croton menyhartii* | | Africa | South Africa | L | DCM:MeOH | 15.8 | *L. donovani* | P | Mokoka et al., 2011 |
|  | |  | |  |  | S | DCM:MeOH | 15.9 | *L. donovani* | P |  |
|  | |  | |  |  | W | DCM:MeOH | 16.3 | *L. donovani* | P |  |
|  | | *Croton socotranus* | | Asia | Yemen (Soqotra) | L, F | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Euphorbia ammak* | | Asia | Saudi Arabia | n.r. | MeOH | 24.1 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Euphorbia helioscopia* | | Asia | Saudi Arabia | L, S | MeOH | 27.3 | *L. infantum* | IA | Awadh Ali et al., 2016 |
|  | |  | |  |  |  |  |  |  |  | al., |
|  | | *Euphorbia paralias* | | Asia | Lebanon | L, S | DCM | 10.2 | *Leishmania* sp. | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | H2O | 17.8 |  |  |  |
|  | |  | |  |  |  | MeOH | 33.4 |  |  |  |
|  | | *Euphorbia peplus* | | Africa | Egypt | L | HEX | 20.24 | *L. donovani* | P | Amin et al., 2017 |
|  | | *Euphorbia schimperiana* | | Asia | Saudi Arabia | n.r. | MeOH | <0.25 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | | *Euphorbia socotrana* | | Asia | Yemen (Soqotra) | L | MeOH | 7.5 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Ricinus communis* | | Africa | Kenya | n.r. | MeOH | 11.5 | *L. major* | IA | Jumba et al., 2015 |
|  | |  | | Asia | Saudi Arabia | n.r. | MeOH | 0.5 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | |  | |  | Pakistan | L | MeOH | 184.0 | *L. donovani* | P | Zahir et al., 2012 |
|  | |  | |  |  | L | ACE | 414.0 | *L. donovani* | P | Zahir et al., 2012 |
|  | |  | |  |  | SD | MeOH | 500.0 | *L. donovani* | P | Zahir et al., 2012 |
|  | |  | |  |  |  | ACE | 500.0 |  |  |  |
| Fabaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Abrus precatorius* | | Africa | South Africa | W | DCM:MeOH | 8.8 | *L. donovani* | P | Mokoka et al., 2013 |
|  | | *Acacia faresiana* | | Asia | Iran | n.r. | EtOH | 625.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Acacia gerrardii subsp. Negevensis* | | Asia | Israel | n.r. | MeOH | 150.0 | *L. major* | IA | El-on et al., 2009 |
|  | |  | |  |  |  | MeOH | 250.0 |  |  |  |
|  | | *Acacia nilotica* | | Africa | Ghana | SB | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Acacia pennivenia* | | Asia | Yemen (Soqotra) | L | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Acacia raddiana* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Albizia bracteosa* | | Asia | Saudi Arabia | F, SB | MeOH | 50.8 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
|  | | *Afzelia africana* | | Africa | Ghana | SB | EtOH | 34.4 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Caesalpinia gilliesii* | | Asia | Iran | n.r. | EtOH | 9.8 | *L. major* | P | Manjili et al., 2012 |
|  | | *Cassia alata* | | Africa | Ghana | L | EtOH | 10.1 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Cassia occidentalis* | | Africa | Ghana | L, SD, W | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Cassia podocarpa* | | Africa | Ghana | L | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Cassia siamea* | | Africa | Ghana | SB | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Cassia siberiana* | | Africa | Ghana | R | EtOH | 142.6 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | L | EtOH | 62.9 |  |  |  |
|  | | *Ceratonia siliqua* | | Asia | Israel | n.r. | MeOH | 78.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Crotalaria emarginella* | | Asia | Saudi Arabia | n.r. | MeOH | 32.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Neurautanenia mitis* | | Africa | Tanzania | T | EtOH | 8.8 | *L. donovani* | P | Malebo et al., 2009 |
|  | | *Parkia clappertoniana* | | Africa | Ghana | L | EtOH | 17.3 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | SB | EtOH | 17.6 |  |  |  |
|  | | *Prosopis juliflora* | | Asia | Saudi Arabia | F | MeOH | 35.3 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
|  | |  | |  | Iran | n.r. | EtOH | 312.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Psoralea pinnata* | | Africa | South Africa | L | DCM | 5.1 | *L. donovani* | P | Mokoka et al., 2013 |
|  | |  | |  |  |  | DCM:MeOH | 6.7 |  |  |  |
|  | | *Sesamum indium* | | Asia | Iran | n.r. | EtOH | 245.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Tamarindus indica* | | Africa | Ghana | L | EtOH | 58.12 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | SB | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Trifolium clypeatum* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Frankenia pulverulenta* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Frankenia laevis* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
| Gentianaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Centaurium erythaea* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Enicostemma verticillare* | | Asia | Yemen/Saudi Arabia | L | MeOH | 64.0 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Erodium gruinum* | | Asia | Israel | n.r. | MeOH | 227.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Erodium malacoides* | | Asia | Israel | n.r. | MeOH | 150.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Gentiana olivierii* | | Asia | Pakistan | W | EtOH | >100 | *L. donovani* | P | Mansoor et al., 2011 |
|  | | *Geranium molle* | | Asia | Israel | n.r. | MeOH | 180.0 | *L. major* | IA | El-on et al., 2009 |
| Gramineae | | | |  |  |  |  |  |  |  |  |
|  | | *Hyparrhenia hirta* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
| Grossulariaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Ribes nigrum* | | Asia | Saudi Arabia | F | MeOH | 64.0 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
| Hypericaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Hypericum aethiopicum* | | Africa | South Africa | L | DCM:MeOH | 4.7 | *L. donovani* | P | Mokoka et al., 2011 |
| Iridaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Iris albicans* | | Asia | Yemen/Saudi Arabia | R, RZ | MeOH | 64.0 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Iris germanica* | | Asia | Saudi Arabia | R, RZ | MeOH | 32.2 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
| Lamiaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Ajuga bracteosa* | | Asia | Yemen/Saudi Arabia | L, FL | MeOH | 64.0 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Anisomeles malabarica* | | Asia | Pakistan | L | MeOH | 126.0 | *L. donovani* | P | Zahir et al., 2012 |
|  | |  | |  |  |  | ACE | 301.3 |  |  |  |
|  | | *Ballota antilibanotica* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | DCM | 50.0 |  |  |  |
|  | | *Ballota undulata* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | |  | |  |  |  | DCM | 50.0 |  |  |  |
|  | | *Foeniculum vulgare* | | Asia | Saudi Arabia | n.r. | MeOH | 24.1 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Lavandula dentata* | | Asia | Yemen/Saudi Arabia | L, FL | MeOH | 20.3 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | |  | |  | Saudi Arabia | n.r. | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  | L, S | MeOH | 20.3 | *L. infantum* | IA | Awadh Ali et al., 2016 |
|  | | *Leonotis leonurus* | | Africa | South Africa | L | DCM:MeOH | 4.7 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Leonotis ocymifolia var. ocymifolia* | | Africa | South Africa | L | DCM | 18.5 | *L. donovani* | P | Mokoka et al., 2011 |
|  | |  | |  |  |  | DCM:MeOH | 13.3 |  |  |  |
|  | | *Leucas inflata* | | Asia | Yemen/Saudi Arabia | L, FL | MeOH | 64.0 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Leucas vulgaris* | | Asia | Yemen/Saudi Arabia | F, L | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Majorana syriaca* | | Asia | Israel | n.r. | MeOH | 180.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Marrubium astracanicum* subsp. *Macrodon* | | Asia | Turkey | L, S | CF | 7.2 | *L. donovani* | P | Kirmizibekmez et al., 2011 |
|  | |  | |  |  |  | HEX | 9.4 |  |  |  |
|  | |  | |  |  |  | MeOH | 15.8 |  |  |  |
|  | | *Mentha piperita* | | Africa | Ghana | L | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Marrubium vulgare* | | Asia | Saudi Arabia | n.r. | MeOH | 2.0 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | | *Nepeta nuda ssp. nuda* | | Asia | Turkey | L, S | CF | 4.1 | *L. donovani* | P | Kirmizibekmez et al., 2011 |
|  | |  | |  |  |  | HEX | 7.7 |  |  |  |
|  | |  | |  |  |  | MeOH | 15.3 |  |  |  |
|  | | *Nepeta praetervisa* | | Asia | Pakistan | L | MeOH | 49.1 | *L. major* | P | Baloch et al., 2013a |
|  | |  | |  |  |  | CF | 97.2 |  |  |  |
|  | |  | |  |  |  | ACE | 24.4 |  |  |  |
|  | |  | |  |  |  | H2O | <100 |  |  |  |
|  | | *Ocimum americanum* | | Asia | Malaysia | L | CF | 92.4 | *L. donovani* | P | Nor Azman et al., 2018 |
|  | | *Ocimum basilicum* | | Asia | Pakistan | L | MeOH | 21.7 | *L. tropica* | P | Khan et al., 2015 |
|  | |  | |  |  |  | MeOH | 69.0 | *L. donovani* | P | Zahir et al., 2012 |
|  | |  | |  |  |  | ACE | 111.8 |  |  |  |
|  | | *Ocium gratissimum* | | Africa | Ghana | W | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Otostegia fruticosa* | | Asia | Yemen/Saudi Arabia | L, FL | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Phlomis syriaca* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | |  | |  |  |  | DCM | 50.0 |  |  |  |
|  | | *Plectranthus barbatus* | | Asia | Yemen/Saudi Arabia | L, SD | MeOH | 24.1 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Rosmarinus officinalis* | | Asia | Yemen/Saudi Arabia | L, S | MeOH | 32.5 | *L. infantum* | IA | Mothana et al., 2014 |
|  | |  | |  | Israel | n.r. | MeOH | 220.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Salvia bucharica* | | Asia | Pakistan | L | MeOH | 72.3 | *L. major* | P | Khan et al., 2013 |
|  | |  | |  |  |  | CF | 50.5 |  |  |  |
|  | |  | |  |  |  | ACE | >100 |  |  |  |
|  | |  | |  |  |  | H2O | 30.5 |  |  |  |
|  | | *Salvia dichroantha* | | Asia | Turkey | L, S | CF | 2.3 | *L. donovani* | P | Kirmizibekmez et al., 2011 |
|  | |  | |  |  |  | HEX | 3.5 |  |  |  |
|  | |  | |  |  |  | MeOH | 4.9 |  |  |  |
|  | | *Salvia fruticosa* | | Asia | Israel | n.r. | MeOH | 185.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Salvia multicaulis v. simplifolia* | | Asia | Lebanon | L, S | H2O | 12.4 | *Leishmania* sp. | IA | Di Giorgio et al.2008 |
|  | |  | |  |  |  | DCM | 15.2 |  |  |  |
|  | |  | |  |  |  | MeOH | 17.9 |  |  |  |
|  | | *Salvia repens* | | Africa | South Africa | W | DCM:MeOH | 5.4 | *L. donovani* | p | Mokoka et al., 2011 |
|  | | *Salvia sclarea* | | Asia | Turkey | L, S | HEX | 5.3 | *L. donovani* | P | Kirmizibekmez et al., 2011 |
|  | |  | |  |  |  | CF | 8.3 |  |  |  |
|  | |  | |  |  |  | MeOH | 13.0 |  |  |  |
|  | | *Salvia tomentosa* | | Asia | Turkey | L, S | CF | 1.8 | *L. donovani* | P | Kirmizibekmez et al., 2011 |
|  | |  | |  |  |  | HEX | 2.5 |  |  |  |
|  | |  | |  |  |  | MeOH | 14.9 |  |  |  |
|  | | *Satureja hortensis* | | Asia | Iran | n.r. | EtOH | 15.6 | *L. major* | P | Manjili et al., 2012 |
|  | | *Satureja punctata* | | Africa | Ethiopia | L | Essential oil | 4.06 | *L. aethiopica* | AA | Tariku et al., 2010 |
|  | |  | |  |  |  | Essential oil | 8.70 | *L. donovani* |  |  |
|  | | *Stachys nivea* | | Asia | Lebanon | L, S | DCM | 15.7 | *Leishmania* sp. | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | H2O | 50.0 |  |  |  |
|  | | *Stachys palaestina* | | Asia | Lebanon | L, S | DCM | 8.6 | *Leishmania* sp. | IA | Di Giorgio et al., 2008 |
|  | |  | |  | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | |  | |  | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | | *Teucrium polium* | | Asia | Saudi Arabia | n.r. | MeOH | 64.0 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | | *Teucrium yemense* | | Asia | Saudi Arabia | n.r. | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | |  | |  | Yemen/Saudi Arabia | L, FL | MeOH | 32.5 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Teucrium sokotranum* | | Asia | Yemen (Soqotra) | L, FL | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Thymbra spicata* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Thymus capitellatus* | | Europe | Portugal | L, S | Essential oil | 35.0 | *L. tropica* | P | Machado et al., 2014 |
|  | |  | |  |  |  | Essential oil | 37.0 | *L. infantum* | P |  |
|  | |  | |  |  |  | Essential oil | 62.0 | *L. major* | P |  |
|  | | *Thymus hirtus* | | Africa | Tunisia | n.r. | Essential oil | 0.25 | *L. infantum* | P | Ahmed et al., 2011 |
|  | |  | |  |  |  | Essential oil | 0.43 | *L. major* | P |  |
|  | | *Thymus migricus* | | Asia | Iran | n.r. | EtOH | 31.3 | *L. major* | P | Manjili et al., 2012 |
|  | | *Zataria multiflora* | | Asia | Iran | n.r. | Essential oil | 8.3 | *L. tropica* | AA | Dezaki et al., 2015 |
|  | |  | |  |  |  | MeOH | 9.8 | *L. tropica* | P |  |
|  | |  | |  |  |  | MeOH | 34.6 | *L. tropica* | AA |  |
| Lauraceae | | | |  |  |  |  |  |  |  |  |
|  | | | *Cinnamomum zeylanicum* | Africa | Ghana | L, SB | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
| Lecythidaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Napoleona vogelii* | | Africa | Dem. Rep. Congo | SB | H2O | 0.5 | *L. infantum* | AA | Muganza et al., 2012 |
| Leguminosae | | | |  |  |  |  |  |  |  |  |
|  | | *Astragalus cedreti* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | |  | |  |  |  | DCM | 50.0 |  |  |  |
|  | | *Astragalus lepidanthus* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA |  |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | |  | |  |  |  | DCM | 50.0 |  |  |  |
|  | | *Astragalus macrocarpus* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA |  |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | | *Astragalus zachlensis* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA |  |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | |  | |  |  |  | DCM | 50.0 |  |  |  |
|  | | *Cytisus syriacus* | | Asia | Lebanon | L, S | MeOH | 5.8 | *Leishmania* sp. | IA |  |
|  | |  | |  |  |  | H2O | 50.0 |  |  |  |
|  | | *Fumaria rutifolia* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA |  |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | | *Onobrychis hemicycle* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA |  |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
| Liliaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Allium sativum* | | Asia | India | BL | MeOH | 13.5 | *L. donovani* | IA | Sharma et al., 2009 |
|  | |  | |  |  |  | MeOH | 67.0 |  |  |  |
|  | | *Aloe perryi* | | Asia | Yemen (Soqotra) | R, RZ | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Aloe vera* | | Asia | Pakistan | L | MeOH | 75 | *L. tropica* | P | Iqbal et al., 2012 |
|  | | *Asparagus gracilis* | | Asia | Pakistan | n.r. | MeOH:H2O | 12.6 | *L. tropica* | P | Shah et al., 2014 |
|  | |  | |  |  |  | MeOH:EtAC | 13.5 |  |  |  |
|  | |  | |  |  |  | MeOH:BuOH | 18.9 |  |  |  |
|  | | *Asphodelus ramosus* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Fritillaria persica* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Gloriosa superba* | | Asia | Pakistan | FL, SD | ACE | 500.0 | *L. donovani* | P | Zahir et al., 2012 |
|  | | *Gloriosa vulgaris* | | Asia | Pakistan | FL, SD | MeOH | 500.0 | *L. donovani* | P | Zahir et al., 2012 |
|  | | *Kniphofia sumarae* | | Asia | Yemen/Saudi Arabia | R, RZ | MeOH | 32.5 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Ornithogalum narbonense* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
| Loganiaceae | | | |  |  |  |  |  |  |  |  |
|  | *Anthocleita nobilis* | | | Africa | Ghana | L | EtOH | 41.5 | *L. donovani* | P | Ohashi et al., 2018 |
|  |  | | |  |  | SB | EtOH | 843.7 |  |  |  |
|  |  | | |  |  | R | EtOH | 79.0 |  |  |  |
| Loranthaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Loranthus regularis* | | Asia | Yemen/Saudi Arabia | R, RZ | MeOH | 32.5 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Lythrum salicaria* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
| Malpighiaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Acridocarpus chloropterus* | | Africa | Tanzania | L | DCM | 11.7 | *L. donovani* | P | Malebo et al., 2009 |
|  | | *Acridocarpus socotranus* | | Asia | Yemen (Soqotra) | L, SB | MeOH | 32.5 | *L. infantum* | IA | Mothana et al., 2012 |
| Malvaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Cola acuminate* | | Africa | Ghana | SB | EtOH | 47.8 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Cola cordifolia* | | Africa | Ghana | SB | EtOH | 25.1 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | L | EtOH | 730.3 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Gossypipium arboreum* | | Africa | Ghana | L | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Hibiscus noli-tangere* | | Asia | Yemen (Soqotra) | L, R, RZ | MeOH | 32.5 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Sida cordata* | | Asia | Pakistan | n.r. | MeOH:HEX | 9.2 | *L. tropica* | P | Shah et al., 2014 |
|  | | *Sterculia villosa* | | Asia | India | SB | MEOH | 17.5 | *L. donovani* | P | Das et al. 2017 |
|  | | *Theobroma cacao* | | Africa | Ghana | L, SB, R | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
| Meliaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Azadirachta indica* | | Africa | Kenya | n.r. | MeOH | 16.5 | *L. major* | IA | Jumba et al., 2015 |
|  | |  | | Asia | India | L, SB | MeOH | >100 | *L. donovani* | IA | Sharma et al., 2009 |
|  | | *Carapa procera* | | Africa | Ghana | SB | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Drypetes gerrardii* | | Africa | South Africa | S | DCM:MeOH | 7.3 | *L. donovani* | P | Mokoka et al., 2013 |
|  | | *Ekebergia capensis* | | Africa | South Africa | F | DCM:MeOH | 4.8 | *L. donovani* | P | Mokoka et al., 2011 |
|  | |  | |  |  | S | DCM:MeOH | 15.9 |  |  |  |
|  | |  | |  |  | R | DCM:MeOH | 6.4 |  |  |  |
|  | | *Kaya grandifolia* | | Africa | Ghana | SB | EtOH | 43.2 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Kaya senegalensis* | | Africa | Ghana | SB | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Pseudocedrela kotschyi* | | Africa | Ghana | SB, R | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Turraea floribunda* | | Africa | South Africa | R | DCM:MeOH | 13.1 | *L. donovani* | P | Mokoka et al., 2013 |
| Moraceae | | | |  |  |  |  |  |  |  |  |
|  | | *Dorstenia barnimiana* | | Asia | Yemen/Saudi Arabia | L, SD | MeOH | 64.0 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Dorstenia gigas* | | Asia | Yemen (Soqotra) | L, SB | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Ficus bengalensis* | | Asia | Iran | n.r. | EtOH | 200.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Ficus capensis* | | Africa | Ghana | SB | EtOH | 37 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | | Africa | Ghana | L | EtOH | 88.9 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Ficus cordata ssp. Salicifolia* | | Asia | Yemen/Saudi Arabia | L, SD | MeOH | 45.3 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Ficus ingens* | | Asia | Yemen/Saudi Arabia | L, SD | MeOH | 32.5 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Ficus palmata* | | Asia | Yemen/Saudi Arabia | L, SD | MeOH | 64.0 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Treculia Africana* | | Africa | Ghana | SB | EtOH | 44.8 | *L. donovani* | P | Ohashi et al., 2018 |
| Moringaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Moringa oleifera* | | Africa | Ghana | L | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
| Myristicaceae | | | |  |  |  |  |  |  |  |  |
|  | | | *Pycnanthus angolensis* | Africa | Ghana | L | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | |  |  |  | SB | EtOH | 150 | *L. donovani* | P | Ohashi et al., 2018 |
| Myrtaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Eugenia sp.* | | Africa | Ghana | SD | EtOH | 26.6 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Myrtus communis* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Psidium guajava* | | Africa | Ghana | L | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
| Nyctaginaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Commicarpus grandiflorus* | | Asia | Saudi Arabia | n.r. | MeOH:EtAC | 0.9 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  |  | MeOH:CF | 2.4 |  |  |  |
|  | |  | |  |  |  | MeOH | 8.1 |  |  |  |
|  | |  | |  |  |  | MeOH:PET | 8.9 |  |  |  |
|  | |  | |  |  |  | MeOH:EtAC | >1.0 |  |  |  |
|  | | *Commicarpus plumbagineus* | | Asia | Saudi Arabia | n.r. | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
| Nymphaeaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Nuphar lutea* | | Asia | Israel | n.r. | MeOH | 0.7 | *L. major* | IA | El-on et al., 2009 |
|  | |  | |  | n.r. | L | Alkaloid fraction | 0.1 | *L. major* | IA | Ozer et al., 2010 |
| Oleaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Olea europaea* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Olea sylvestris v. Chemlali* | | Africa | Tunisia | L | MeOH | 6.2 | *L. donovani* | P | Sifaoui et al., 2014 |
|  | | *Olea sylvestris v. Limouni* | | Africa | Tunisia | L | MeOH | 2.1 | *L. donovani* | P | Sifaoui et al., 2014 |
|  | |  | |  |  |  | MeOH | 14.6 | *L. major* | P |  |
|  | |  | |  |  |  | MeOH | 17.7 | *L. tropica* | P |  |
| Ochnaceae | | | |  |  |  |  |  |  |  |  |
|  | | | *Lophira lanceolata* | Africa | Ghana | SB | EtOH | 68.6 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | |  |  |  | R | EtOH | 66.0 |  |  |  |
| Olacaceae | | | |  |  |  |  |  |  |  |  |
|  | | | *Ximenia americana* | Africa | Ghana | SB | EtOH | 36.1 | *L. donovani* | P | Ohashi et al., 2018 |
| Oxalidaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Oxalis corniculata* | | Asia | Yemen/Saudi Arabia | L, FL | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
| Papaveraceae | | | |  |  |  |  |  |  |  |  |
|  | | *Argemone ochroleuca* | | Asia | Saudi Arabia | n.r. | MeOH:PET | 9.7 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  |  | MeOH:CF | 9.7 | *L. infantum* | IA |  |
|  | |  | |  |  |  | MeOH:EtAC | 9.7 |  |  |  |
|  | |  | |  |  |  | MeOH:H2O | 30.0 | *L. infantum* | AA |  |
|  | |  | |  |  |  | MeOH | 64.0 |  |  |  |
| Piperaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Piper guineense* | | Africa | Ghana | L, SD | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Piper longum* | | Asia | Malaysia | F | CF | >100 | *L. donovani* | P | Nor Azman et al., 2018 |
| Plumbaginaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Limonastrum monopetalum* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Plumbago indica* | | Asia | India | R | MeOH | >100 | *L. donovani* | IA | Sharma et al., 2009 |
|  | | *Plumbago zeylanica* | | Africa | South Africa | L | DCM:MeOH | 17.8 | *L. donovani* | P | Mokoka et al., 2011 |
| Poaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Cymbopogon citratus* | | Africa | Ghana | W | EtOH | 162.2 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Cymbopogon validus* | | Africa | South Africa | W | DCM:MeOH | 17.9 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Panicum repens* | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Perotis hordeiformis* | | Asia | Pakistan | L | MeOH | 29.7 | *L. major* | P | Baloch et al., 2013c |
|  | |  | |  |  |  | HEX | <100 |  |  |  |
|  | |  | |  |  |  | CF | <100 |  |  |  |
|  | |  | |  |  |  | ACE | 46.5 |  |  |  |
|  | |  | |  |  |  | H2O | <100 |  |  |  |
|  | | *Puccinelia* sp. | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
|  | | *Setaria megaphylla* | | Africa | South Africa | W | DCM:MeOH | 16.9 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Sorghum bicolor* | | Africa | Ghana | W | EtOH | 162.2 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Sporobolus* sp. | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
| Polygalaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Securidaca longepedunculata* | | Africa | Ghana | L | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
| Polygonaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Polygonum equisetiforme* | | Asia | Israel | n.r. | MeOH | 180.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Rumex nervosus* | | Asia | Saudi Arabia | L. | MeOH | >64 | *L. infantum* | IA | Awadh Ali et al., 2016 |
|  | |  | |  |  | n.r. | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
| Portulacaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Portulaca oleracea* | | Asia | Iran | L,S | EtOH | 360 | *L. major* | P | Eskandari et al., 2016 |
| Primulaceae | | | |  |  |  |  |  |  |  |  |
|  | | | *Embelia ribes* | Asia | Malaysia | S | CF | 96.0 | *L. donovani* | P | Nor Azman et al., 2018 |
| *Pteridaceae* | | | |  |  |  |  |  |  |  |  |
|  | | *Quassia vittata* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
| Punicaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Punica granatum* | | Asia | Saudi Arabia | F | MeOH | 64.0 | *L. infantum* | IA | Al Musayeib et al., 2013 |
|  | | *Punica protopunica* | | Asia | Yemen (Soqotra) | F | MeOH | 30.1 | *L. infantum* | IA | Mothana et al., 2012 |
| Ranunculaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Anemone blonda* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | |  | |  |  |  | DCM | 50.1 |  |  |  |
|  | | *Consolida rigida* | | Asia | Lebanon | L, S | MeOH | 8.1 | *Leishmania* sp*.* | IA | Di Giorgio et al., 2008 |
|  | | *Nigella sativa* | | Asia | Iran | SD | CF | 30.2 | *L. tropica* | IA | Mahmoudvand et al., 2014 |
|  | |  | |  | Saudi Arabia | SD | MeOH | 64.0 | *L. infantum* | IA | Al Musayeib et al., 2013 |
|  | | *Ranunculus asiaticus* | | Asia | Israel | n.r. | MeOH | 160.0 | *L. major* | IA | El-on et al., 2009 |
| Resedaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Ochradenus baccatus* | | Asia | Saudi Arabia | n.r. | MeOH | 32.5 | *L. infantum* | AA | Abdel-Sattar et al., 2010 |
|  | |  | |  | Yemen/Saudi Arabia | L, FL | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
| Rhamnaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Paliurus spina-christi* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | |  | |  |  |  | EtOH | 625.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Ranunculuspersica* | | Asia | Iran | n.r. | EtOH | 75.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Zizphus spina-christi* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
| Rosaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Crataegus aronia* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Sarcopoterium spinosum* | | Asia | Israel | n.r. | MeOH | 200.0 | *L. major* | IA | El-on et al., 2009 |
| Rubiaceae | | | |  |  |  |  |  |  |  |  |
|  | | Mitragyba inermis | | Africa | Ghana | L | EtOH | 21.9 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | SB | EtOH | 28 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | Morinda lucida | | Africa | Ghana | L, R, SB | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | Nauclea latifolium | | Africa | Ghana | SB | EtOH | 784 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | R | EtOH | 138.9 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | L | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Pavetta crassipes* | | Africa | West Africa | L | Alkaloid fraction | 2.0 | *L. infantum* | IA | Balde et al., 2010 |
| Rutaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Agathosma apiculata* | | Africa | South Africa | W | DCM:MeOH | 16.0 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Agathosma puberulaa* | | Africa | South Africa | R | DCM | 15.1 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Citrus aurantifolia* | | Africa | Ghana | L | EtOH | 542.9 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | F | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Citrus limon* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | | *Clausena anisata* | | Africa | South Africa | R | DCM:MeOH | 11.5 | *L. donovani* | P | Mokoka et al., 2013 |
|  | |  | | Africa | Ghana | R | EtOH | 12.1 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Ptaeroxylon obliquum* | | Africa | South Africa | L | DCM | 17.2 | *L. donovani* | P | Mokoka et al., 2011 |
|  | | *Ruta chalepensis* | | Africa | Tunisia | n.r. | Essential oil | 1.13 | *L. infantum* | p | Ahmed et al., 2011 |
|  | |  | | Asia | Saudi Arabia | L | MeOH | 32.0 | *L. infantum* | IA | Awadh Ali et al., 2016 |
|  | | *Zanthoxylum zanthoxyloides* | | Africa | Ghana | R | EtOH | 13.5 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | SB | EtOH | 45.2 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | L | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
| Salicaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Populus x Canadensis* | | Europe | Portugal | L, S | EtOH | 8.1 | *L. infantum* | IA | Falcão et al., 2013 |
| Salvadoraceae | | | |  |  |  |  |  |  |  |  |
|  | | *Paulinia pinnata* | | Africa | Ghana | R | EtOH | 130.1 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Salvadora persica* | | Asia | Saudi Arabia | F, SB | MeOH | 64.0 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
| Sapindaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Dodonaea vulgaris* | | Asia | Yemen/Saudi Arabia | L, SD | MeOH | 45.3 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
| Scrophulariaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Verbascum bottae* | | Asia | Yemen/Saudi Arabia | L, FL | MeOH | 3.2 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Verbascum thapsus* | | Asia | Iran |  | EtOH | 452.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Veronica libanotica* | | Asia | Lebanon | L, S | H2O | 50.0 | *Leishmania* sp. | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | MeOH | 50.0 |  |  |  |
|  | | *Veronica polifolia* | | Asia | Lebanon | L, S | DCM | 2.4 | *Leishmania* sp. | IA | Di Giorgio et al., 2008 |
|  | |  | |  |  |  | H2O | 50.0 |  |  |  |
| Simaroubaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Quassia africana* | | Africa | Dem. Rep. Congo | RB | H2O | 1.3 | *L. infantum* | AA | Muganza et al., 2012 |
| Solanaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Lycium sokotranum* | | Asia | Yemen (Soqotra) | L, SB | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2012 |
|  | | *Solanum glabratum* | | Asia | Yemen/Saudi Arabia | L, F | MeOH | 8.1 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Solanum villosum* | | Asia | Saudi Arabia | n.r. | MeOH | 0.5 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  |  | MeOH:PET | 0.7 |  |  |  |
|  | |  | |  |  |  | MeOH:EtAC | 1.0 |  |  |  |
|  | | *Solanum torvum* | | Africa | Ghana | L | EtOH | 137.0 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | SB | EtOH | 601.4 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Withania somnifera* | | Asia | Israel | n.r. | MeOH | 3.6 | *L. major* | IA | El-on et al., 2009 |
|  | |  | |  | India | R | MeOH | 63.0 | *L. donovani* | IA | Sharma et al., 2009 |
|  | |  | |  | Saudi Arabia | F | MeOH | 2.0 | *L. infantum* | IA | Awadh Ali et al., 2016 |
|  | |  | |  |  | n.r. | MeOH | 8.0 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  |  | MeOH:CF | 1.0 |  |  |  |
|  | |  | |  |  |  | MeOH:EtAC | 1.0 |  |  |  |
|  | |  | |  |  |  | MeOH:PET | 9.7 |  |  |  |
| Tamaricaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Tamarix aphylla* | | Asia | Pakistan | SB | MeOH | >75 | *L. tropica* | P | Iqbal et al., 2012 |
| Typhaceae | | | |  |  |  |  |  |  |  |  |
|  | | Typha domingensis | | Europe | Portugal | S, L | ACE, DCM | >125 | *L. infantum* | P | Oliveira et al., 2018 |
| Thymelaeaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Thymelaea hirsuta* | | Asia | Israel | n.r. | MeOH | 250.0 | *L. major* | IA | El-on et al., 2009 |
|  | |  | |  |  |  | MeOH | 250.0 |  |  |  |
| Tiliaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Glyphaea brevis* | | Africa | Ghana | L | EtOH | 43.4 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Grewia erythraea* | | Asia | Yemen/Saudi Arabia | L, SD | MeOH | 24.1 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
| Urticaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Forsskaolea tenacissima* | | Asia | Yemen/Saudi Arabia | L, S | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
| Valerianaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Valeriana jatamansi* | | Asia | India | RZ | CF | 0.8 | *L. major* | IA | Ghosh et al., 2011 |
|  | | *syn*. *Valeriana wallichii* | |  |  |  | CF | 9.9 |  |  |  |
|  | |  | |  |  |  | MeOH | 4.1 |  |  |  |
| Verbenaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Lantana camara* | | Africa | Ghana | W | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Lantana vulgaris* | | Africa | Burkina Faso | L, S | MeOH | 6.9 | *L. donovani* | P | Sawadogo et al., 2011 |
|  | | *Lippia multiflora* | | Africa | Ghana | L, R | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Vitex fosteri* | | Africa | Ghana | SB | EtOH | 49.8 | *L. donovani* | P | Ohashi et al., 2018 |
|  | |  | |  |  | L | EtOH | 72.4 | *L. donovani* | P | Ohashi et al., 2018 |
| Vitaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Cissus rotundifolia* | | Asia | Yemen/Saudi Arabia | L | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Vitis vinifera* | | Africa | Tunisia | n.r. | EtOH | 108.0 | *L. infantum* | P | Monsour et al., 2013 |
| Zingiberaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Aframomum melegueta* | | Africa | Ghana | SD | EtOH | >1000 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Costusvulgaris* | | Asia | Yemen/Saudi Arabia | R, RZ | MeOH | 27.3 | *L. infantum* | AA | Al-Musayeib et al., 2012b |
|  | | *Curcuma aromatica* | | Asia | India | RZ | MeOH | >100 | *L. donovani* | IA | Sharma et al., 2009 |
|  | | *Zingiber officinale* | | Asia | Saudi Arabia | R, RZ | MeOH | 64.0 | *L. infantum* | IA | Al-Musayeib et al., 2012a |
| Zygophyllaceae | | | |  |  |  |  |  |  |  |  |
|  | | *Amomum subulatum* | | Asia | Malaysia | F | CF | 98.5 | *L. donovani* | P | Nor Azman. et al., 2018 |
|  | | *Balanites aegyptiaca* | | Africa | Ghana | SB | EtOH | 173.6 | *L. donovani* | P | Ohashi et al., 2018 |
|  | | *Curcuma aeruginosa* | | Asia | Malaysia | F | CF | 91.0 | *L. donovani* | P | Nor Azman et al., 2018 |
|  | | *Fagonia indica* | | Asia | Yemen/Saudi Arabia | F, L | MeOH | 64.0 | *L. infantum* | IA | Mothana et al., 2014 |
|  | | *Peganum harmala* | | Asia | Saudi Arabia | n.r. | MeOH:CF | 1.0 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  |  | MeOH:PET | 9.7 |  |  |  |
|  | |  | |  |  |  | MeOH:EtAC | 9.7 |  |  |  |
|  | |  | |  |  |  | MeOH | 20.3 |  |  |  |
|  | | *Tribulus macropterus* | | Asia | Saudi Arabia | n.r. | MeOH:PET | 9.7 | *L. infantum* | IA | Abdel-Sattar et al., 2010 |
|  | |  | |  |  |  | MeOH:CF | 9.7 |  |  |  |
|  | |  | |  |  |  | MeOH:EtAC | 9.7 |  |  |  |
|  | |  | |  |  |  | MeOH:H2O | 9.7 |  |  |  |
|  | |  | |  |  |  | MeOH | <0.25 |  |  |  |
|  | | *Tribulus terresttis* | | Asia | Iran | n.r. | EtOH | 625.0 | *L. major* | P | Manjili et al., 2012 |
|  | | *Zygophyllum fabago* | | Asia | Pakistan | W | EtOH | >100 | *L. donovani* | P | Mansoor et al., 2011 |
| IC50: half maximal inhibitory concentration (μg/ml) - IC50 values <15 μg/ml are signed in bold; BL: bulb; F: fruits; FL: flowers; L: leaves; S: stems; SB: stem barks; SC: stem cutting; SD: seeds; R: roots; RB: root bark; RS: resin; RZ: rhizomes; T: tuber; W: whole plant; n.r.: not refereed in the reference; ACE: acetone; BuOH: butanol; CF: clorophorm; DCM: dichloromethane; DEE: di-ethyl ether; EtAC: ethyl acetate; H2O: water; HEX: hexane; MeOH: metanol; PET: petroleum ether; AA: axenic amastigotes; IA: intracellular amastigotes; P: promastigotes; \*: IA were tested by microscopic observation on Giemsa stained slides, P and AA were tested by colorimetric methods; L.: *Leishmania.* Classification of the families/species was gauged by the systematic Flora Europeae (Tutin et al., 2010)/Flora Iberica (Castroviejo et al., 1986-2012). | | | | | | | | | | | |

Abdel-Sattar E, Maes L, Salama MM. 2010. *In vitro* activities of plant extracts from Saudi Arabia against malaria, leishmaniasis, sleeping sickness and Chagas disease. *Phytother Res.* 24(9):1322-1328.

Ahmad B, Ali N, Bashir S, Choudhary MI, Azam S, Khan, IA. 2009. Parasiticidal, antifungal and antibacterial activities of *Onosma griffithii* Vatke. *African J Biotechnol.* 8(19):5084-5087.

Ahmed SB, Sghaier RM, Guesmi F, Kaabi B, Mejri M, Attia H, Laouini D, Smaali I. 2011. Evaluation of antileishmanial, cytotoxic and antioxidant activities of essential oils extracted from plants issued from the leishmaniasis-endemic region of Sned (Tunisia). *Nat Prod Res.* 25(12):1195-1201.

Al-Musayeib NM, Mothana RA, Al-Massarani S, Matheeussen A, Cos P, Maes L. 2012a. Study of the *in vitro* antiplasmodial, antileishmanial and antitrypanosomal activities of medicinal plants from Saudi Arabia. *Molecules*. 17(10):11379-11390.

Al-Musayeib NM, Mothana RA, Matheeussen A, Cos P, Maes L. 2012b. *In vitro* antiplasmodial, antileishmanial and antitrypanosomal activities of selected medicinal plants used in the traditional Arabian Peninsular region. *BMC Complement Altern Med*. 12:49.

Al-Musayeib NM, Mothana RA, Gamal AA, *et al.* 2013. *In vitro* antiprotozoal activity of triterpenoid constituents of *Kleinia odora* growing in Saudi Arabia. *Molecules*. 18(8):9207-9218.

Al-Sokari SS, Awadh Ali NA, Monzote L, Al-Fatimi MA. 2015. Evaluation of Antileishmanial Activity of Albaha Medicinal Plants against Leishmania amazonensis. BioMed Res Int. 938747:1-6.

Amin E, Moawad A, Hassan H. 2017. Biologically-guided isolation of leishmanicidal secondary metabolites from *Euphorbia peplus* L. *Saudi Pharm J.* 25:236-240.

Awadh Ali N, Al-Sokari SS, Mothana R, Hamed M, Wagih M, Cos P, Maes L. 2016. *In vitro* antiprotozoal activity of five plant extracts from Albaha region. *World J Pharm Res.* 5(3):338-46.

Balde ES, Megalizzi V, Traore MS, Cos P, Maes L, Decaestecker C, Pieters L, Baldé AM. 2010. *In vitro* antiprotozoal, antimicrobial and antitumor activity of *Pavetta crassipes* K. Schum leaf extracts. *J Ethnopharmacol.* 130(3):529-535.

Baloch N, Nabi S, Bashir S, Al-Kahraman YM. 2013a. *In vitro* antileishmanial, cytotoxic activity and phytochemical analysis of *Nepeta praetervisa* leaves extract and its fractions. *Int J Pharm Pharm* Sci 5:4.

Baloch N, Nabi S, Al-Kahraman YM. 2013b. *In vitro* antileishmanial, cytotoxic, antioxidant activities and phytochemical analysis of *Berberis baluchistanica* roots extracts and its fractions. *Int J Phytopharmacol.* 4(4):282-287.

Baloch N, Nabi S, Al-Kahraman YM. 2013c. *In vitro* antileishmanial, cytotoxic, antioxidant activities and their phytochemical analysis on methanolic extract and it is fractions of *Perotis hordeiformis* leaves. *Int J Pharm Sci Rev Res*. 22(2):191-195.

Baloch N, nabi S, kakar am, wajid z, Al-kahraman YM. 2013d. *In vitro* antileishmanial, antitumor, cytotoxic activities and phytochemical analysis of *Citrullus colocynthis* fruit extract and its fractions. *Int J Med Arom Plants.* 3(1):78-84.

Bashir A, Ali N, Bashir S, Choudhary MI. 2009. Biological activities of aerial parts of *Tylophora hirsuta* Wall. African J Biotechnol 8(18):4627-4631.

Castroviejo, S., *et al*.1986-2012. Flora iberica 1-8, 10-15, 17-18, 21. Real Jardín Botánico, CSIC, Madrid.

Das A, Das MC, Das N, Bhattacharjee S. 2017. Evaluation of the antileishmanial potency, toxicity and phytochemical constituents of methanol bark extract of Sterculia villosa. *Pharm Biol.* 55:1, 998-1009.

Dezaki SE, Mahmoudvand H, Sharififar F, Fallahi S, Monzote L, Ezatkhah F. 2015. Chemical composition along with anti-leishmanial and cytotoxic activity of *Zataria multiflora*. *Pharm Biol.* 54(5):752-758.

Di Giorgio C, Delmas F, Tueni M, et al, 2008. Alternative and complementary antileishmanial treatments: assessment of the antileishmanial activity of 27 Lebanese plants, including 11 endemic species. *J Altern Complement Med.* 14(2):157-162.

El-On J, Ozer L, Gopas J, Sneir R, Enav H, Luft N, Davidov G, Golan-Goldhirsh A. 2008. Antileishmanial activity in Israeli plants. *Ann Trop Med Parasitol.* 103(4):297-306.

El-On J, Ozer L, Gopas J, Sneir R, Golan-Goldhirsh A. 2009. *Nuphar lutea*: In vitro anti-leishmanial activity against *Leishmania major* promastigotes and amastigotes. *Phytomedicine.* 16:788-792

Eskandari E, Doudi M, Abedi S. 2016. An in vitro study of antileishmanial effect of *Portulaca oleracea* extract. *J Vector Borne Dis.* 53:362–369.

Ezatpour B, Dezaki E, Mahmoudvand H, Azadpour M, Ezzatkhah F. 2015. *In vitro* and *in vivo* antileishmanial effects of *Pistacia khinjuk* against *Leishmania tropica* and *Leishmania major*. *Evid Based Complement Alternat Med.* 2015:149707.

Falcão SI, Vale N, Cos P, Gomes P, Freire C, Maes L, Vilas-Boas M. 2013. *In vitro* evaluation of Portuguese propolis and floral sources for antiprotozoal, antibacterial and antifungal activity. *Phytother Res.* 28(3):437-443.

Iqbal H, Khattak B, Ayaz S, Rehman A, Ishfaq M, Naseer Abbas M, Rehman H, Waheed S, Wahab A. 2012. Comparative efficacy of *Aloe vera* and *Tamarix aphylla* against cutaneous leishmaniasis. *Int J Basic Med Sci Pharm.* 2:42-45.

Jumba BN, Anjili CO, Makwali J, Ingonga J, Nyamao R, Marango S, Choge JK, Khayeka-Wandabwa C. 2015. Evaluation of leishmanicidal activity and cytotoxicity of *Ricinus communis* and *Azadirachta indica* extracts from western Kenya: *in vitro* and *in vivo* assays. *BMC Res Notes*. 8:650.

Khan A, Khan MJ. 2013. *In vitro* antileishmanial, cytotoxic and antioxidant activities of *Salvia bucharica* leaves extract and its fractions. *Int J Basic Appl Sci.* 13:74–8.

Khan MJ, Baloch NU, Nabi S, Ahmed N, Bazai Z, Yasinzai M, Al-Kahraman YMSA. 2012. Antileishmanial, cytotoxic, antioxidant activities and phytochemical analysis of *Rhazya stricta* Decne leaves extracts and its fractions. *Asian J Plant Sci Res.* 2(5):593-598.

Khan I, Ahmad K, Khalil A T, Khan J, Khan YA, Saqib MS, Umar MN, Ahmad H. 2015. Evaluation of antileishmanial, antibacterial and brine shrimp cytotoxic potential of crude methanolic extract of Herb *Ocimum basilicum* (Lamiacea). *J Tradit Chin Med.* 35(3):316-322.

Kirmizibekmez H, Atay I, Kaiser M, Yesilada E, Tasdemir D. 2011. *In vitro* antiprotozoal activity of extracts of five Turkish Lamiaceae species. *Nat Prod Commun* 6(11):1697-1700.

Lenta BN, Ngamgwe RF, KamdemL M, Ngatchou J, Tantangmo F, Antheaume C, Kaiser M, Ngouela S, Tsamo E, Sewald N. 2015. Compounds from *Diospyros canaliculata* (Ebenaceae) and their antiparasitic activities. *Int Res J Pure Appl Chem.* 6(2):56-65.

Machado M, Dinis AM, Santos-Rosa M, Alves V, Salgueiro L, Cavaleiro C, Sousa MC. 2014. Activity of *Thymus capitellatus* volatile extract, 1,8-cineole and borneol against *Leishmania* species. *Vet Parasitol.* 200(1-2):39-49.

Mahmoudvand H, Sharififar F, Rahmat MS, Tavakoli R, Dezaki ES, Jahanbakhsh S, Sharifi I. 2014. Evaluation of antileishmanial activity and cytotoxicity of the extracts of *Berberis vulgaris* and *Nigella sativa* against *Leishmania* *tropica*. *J Vector Borne Dis.* 51(4):294-299.

Malebo HM, Tanja W, Cal M, Swaleh SA, Omolo MO, Hassanali A, Séquin U, Hamburger M, Brun R, Ndiege IO. 2009. Antiplasmodial, anti-trypanosomal, anti-leishmanial and cytotoxicity activity of selected Tanzanian medicinal plants. *Tanzan J Health Res.* 11(4):226-234.

Manjili KH, Jafari H, Ramazani A, Davoudi N. 2012. Anti-leishmanial and toxicity activities of some selected Iranian medicinal plants. *Parasitol Res.* 111(5):2115-2121.

Mansoor A, Ibrahim MA, Zaidi MA, Ahmed M. 2011. Antiprotozoal activities of *Vincetoxicum stocksii* and *Carum copticum*. *Bangladesh J Pharmacol.* 6:51-54.

Mokoka TA, Xolani PK, Zimmermann S, Hata Y, Adams M, Kaiser M, Moodley N, Maharaj V, Koorbanally NA, Hamburger M, Brun R, Fouche G. 2013. Antiprotozoal screening of 60 South African plants, and the identification of the antitrypanosomal germacranolides schkuhrin I and II. *Planta Med.* 79(14):1380-1384.

Mokoka TA, Zimmermann S, Julianti T, Hata Y, Moodley N, Cal M, Adams M, Kaiser M, Brun R, Koorbanally N, Hamburger M. 2011. *In vitro* screening of traditional South African malaria remedies against *Trypanosoma brucei* *rhodesiense*, *Trypanosoma cruzi*, *Leishmania* *donovani*, and *Plasmodium falciparum*. *Planta Med.* 77(14):1663-1667.

Mothana RA, Al-Musayeib NM, Al-Ajmi MF, Al-Ajmi MF, Cos P, Maes L 2014. Evaluation of the *in vitro* antiplasmodial, antileishmanial, and antitrypanosomal activity of medicinal plants used in saudi and yemeni traditional medicine. *Evid Based Complement Alternat Med.* 2014:905639.

Mothana RA, Al-Musayeib NM, Matheeussen A, Cos P, Maes L. 2012. Assessment of the *In vitro* antiprotozoal and cytotoxic potential of 20 selected medicinal plants from the island of Soqotra. *Molecules.* 17(12):14349-14360.

Muganza MD, Fruth BI, Nzunzu Lami J, Mesia GK, Kambu OK, Tona GL, Cimanga Kanyanga R, Cos P, Maes L, Apers S, Pieters L. 2012. *In vitro* antiprotozoal and cytotoxic activity of 33 ethonopharmacologically selected medicinal plants from Democratic Republic of Congo. *J Ethnopharmacol*. 141(1):301-308.

Muganza MD, Fruth BI, Nzunzu Lami J, Cos P, Cimanga Kanyanga R, Maes L, Pieters L 2015. *In vitro* antiprotozoal activity and cytotoxicity of extracts and fractions from the leaves, root bark and stem bark of *Isolona hexaloba*. *J Ethnopharmacol.* 174:187-194.

Nabi S, Ahmed N, Khan MJ, Bazai Z, Yasinzai M, Al-Kahraman YMSA. 2012. *In vitro* antileishmanial, antitumor activities and phytochemical studies of methanolic extract and its fractions of J*uniperus Excelsa* berries. W. *Appl Sci J.* 19(10):1495-1500.

Nor Azman NS, Hossan MS, Nissapatorn V, Uthaipibull C, Prommana P, Jin KT, Rahmatullah M, Mahboob T, Raju CS, Jindal HM, Hazra B, Mohd Abd Razak MR, Prajapati VK, Pandey RK, Aminudin N, Shaari K, Ismail NH, Butler MS, Zarubaev VV, Wiart C. 2018. Anti-infective activities of 11 plants species used in traditional medicine in Malaysia. *Exp Parasitol.* 194:67-78.

Ohashi M, Amoa-Bosompem M, Kwofie KD, Agyapong J, Adegle R, Sakyiamah MM, Ayertey F, Owusu KB, Tuffour I, Atchoglo P, Tung NH, Uto T, Aboagye F, Appiah AA, Appiah-Opong R, Nyarko AK, Anyan WK, Ayi I, Boakye DA, Koram KA, Edoh D, Yamaoka S, Shoyama Y, Ohta N3. 2018. *In vitro* antiprotozoan activity and mechanisms of action of selected Ghanaian medicinal plants against *Trypanosoma*, *Leishmania*, and *Plasmodium* parasites. *Phytother Res.* 32(8):1617-1630.

Oliveira M, Rodrigues MJ, Pereira C, Neto RLDM, Junior PAS, Neng NDR, Nogueira JMF, Varela J, Barreira L, Custódio L. 2018. First report of the in vitro antileishmanial properties of extremophile plants from the Algarve Coast. Nat Prod Res. 32(5):600-604.

Östan I, Saglam H, Limoncu ME, Ertabaklar H, Özensoy Toz S, Özbel Y, Özbilgin A. 2007. *In vitro* and *in vivo* activities of *Haplophyllum myrtifolium* against *Leishmania tropica*. *New Microbiol.* 30(4):439-445.

Ozer L, El-On J, Golan-Goldhirsh A, Gopas J. 2010. *Leishmania* major: anti-leishmanial activity of *Nuphar lutea* extract mediated by the activation of transcription factor NF-kappa B. *Exp Parasitol.* 126(4):510-516.

Shah NA, Khan MR, Nadhman A. 2014. Antileishmanial, toxicity, and phytochemical evaluation of medicinal plants collected from Pakistan. *Biomed Res Int.* 2014:384204.

Sharma U, Velpandian T, Sharma P, Singh S. 2009. Evaluation of anti-leishmanial activity of selected Indian plants known to have antimicrobial properties. *Parasitol Res.* 105(5):1287-1293.

Shuaibu MN, Pandey K, Wuyep PA, Yanagi T, Hirayama K, Ichinose A, Tanaka T, Kouno I. 2008. Castalagin from *Anogeissus leiocarpus* mediates the killing of *Leishmania in vitro*. *Parasitol Res.* 103:1333–1338.

Sifaoui I, Lopez-Arencibia A, Martin-Navarro CM, Chammem N, Reyes-Batlle M, Mejri M, Lorenzo-Morales J, Abderabba M, Piñero JE. 2014. Activity of olive leaf extracts against the promastigote stage of *Leishmania* species and their correlation with the antioxidant activity. *Exp Parasitol.* 141:106-111.

Tariku Y, Hymete A, Hailu A, Rohloff J. 2010. Essential-oil composition, antileishmanial, and toxicity study of *Artemisia abyssinica* and *Satureja punctata* ssp. *punctata* from Ethiopia. *Chem Biodivers.* 7(4):1009-1018.

Traore MS, Diane S, Diallo MS, Balde ES, Balde MA, Camara A, Diallo A, Keita A, Cos P, Maes L, Pieters L, Balde AM. 2014. *In vitro* antiprotozoal and cytotoxic activity of ethnopharmacologically selected guinean plants. *Planta Med.* 80(15):1340-1344.

Tutin TG, Burges NA,Chater AO, Edmondson JR, Heywood VH, Moore DM, Valentine DH, Walters SM, Webb DA. 2010. Flora Europaea. 2nd ed. Cambridge University Press, United Kingdom.

Zahir AA, Rahuman AA, Pakrashi S, Ghosh D, Bagavan A, Kamaraj C, Elango G, Chatterjee M. 2012. Evaluation of antileishmanial activity of South Indian medicinal plants against *Leishmania donovani*. *Exp Parasitol.* 132:180–184.