

## Abstract

Leishmaniasis is one of the world's neglected tropical diseases which is caused by protozoan parasites of the genus *Leishmania*. Proven vectors belong to two species of dipteran insect – *Phlebotomus* in the Old World and *Lutzomyia* in the New World. Over one billion people are at risk in endemic areas. Currently the mean to treat and control leishmaniasis is by vector control and drug treatment, mainly chemotherapeutic, which is linked to severe side effects and has poor efficiency. No prophylactic human vaccine is currently available but several dog vaccines are. However, plenty of vaccines have been intensively tested for human use. Some of them have achieved good results in clinical trials and are promising vaccine candidates. In this bachelor thesis I overview the newest research on vaccines against leishmaniasis and report on several vaccine approaches.

**key words:** leishmaniasis, vaccine, *Leishmania*, clinical trials, live attenuated vaccine, DNA vaccine, recombinant vaccine, salivary proteins