PP-178 **LACK and TSA gene of *Leishmania major* cloned in eukaryotic expression vector could increase survival time in BALB/c mice significantly**

F. Ghaffarifar[1]*, O. Jorjani[1,2], F. Tabatabaie[1,3], Z. Sharifi[4], H.D. Asl[1], Z. Hassan[1], F. Khoshzaban[5], S. Ghasemi[1]. [1]*Tarbiat Modares University,* [2]*Gorgan University of Medical Sciences,* [3]*Tehra University of Medical Sciences,* [4]*Iranian Organization of Blood Transfusion,* [5]*Shahed University, Iran*

Background: LACK and TSA (thiol-specific-antioxidant antigen) are the immuno-dominant antigen of *Leishmania major* considered as the most promising molecules for a recombinant or DNA vaccine candidate against leishmaniasis.
Methods: In the present study, we evaluated LACK and TSA-encoded DNA vaccine against *L. major* in BALB/c mice, then followed by injection 2×10^6 *L. major* promastigotes.
Result: We observed that the immunized mice with pc-LACK and pc-TSA presented a considerable reduction in diameter of lesion in compare with the control groups ($p < 0.05$). The survival time of the immunized mice with pc-TSA and pc-LACK groups was significantly higher than the control groups ($p < 0.05$) after the challenge with *Leishmania major*.
Conclusion: The findings of this study indicated that the LACK and TSA-encoded DNA vaccine increased the survival time and induced protection against infection with *Leishmania major* in the mice. The LACK and TSA-encoded DNA vaccine may be an excellent candidate for future vaccine developments against Leishmania.

PP-179 **First molecular based detection of *Leishmania major* within naturally infected *Phlebotomus salehi* (Diptera; Psychodidae) in Fars province, southern Iran**

M. Davami[1]*, M. Motazedian[2], M. Kalantari[2], A. Badzohre[2]. [1]*Jahrom Medical School,* [2]*Shiraz Medical School, Iran*

Background: Zoonotic Cutaneous Leishmaniasis (ZCL) is endemic in several parts of Iran. Jahrom district is one of the most important endemic foci of leishmaniasis located in Fars province, southern Iran. Identification of the vectors of *Leishmania spp.* in this area was the aim of this study.
Methods: A total of 349 sand flies were collected during May to August 2009. They were caught from outdoors in five regions of Jahrom district including villages of Mousavieh, Ghotb-abad, Heydar-abad, Fath-abad and Jahrom County. To determine the sand flies naturally infected by *Leishmania spp.*, forty six out of 122 (37.7%) female sand flies were dissected and evaluated microscopically using giemsa-stained slides.
Results: Eleven species of Phlebotomine (three *Phlebotomus spp.* and eight *Sergentomyia spp.*) were detected. Natural infection of two out of thirty eight (5.26%) *Ph. papatasi* and one out of eight (12.5) *Ph. salehi* to *Leishmania major* were confirmed in the region. Nested PCR-based detection of leishmania was carried out to confirm the microscopic findings. Five (13.16%) *Ph. Papatasi* and two (25%) *Ph. Salehi* were positive in nested PCR assay.
Conclusion: To the base of our knowledge this is the first molecular detection of *L. major* within naturally infected *Ph. salehi* in this region in southern Iran.

PP-180 **Anti leishmanial effect of *Plantago psyllium(ovata)* and white vinegar on *Leishmania major* lesions in BALB/c mice**

A. Moshfe[1]*, M. Bahmani[1], M. Naghmachi[1], S. Askarian[1], A. Rezaei[1], R. Zare[1]. [1]*Medical Plants Research Center, Yasouj University of Medical Sciences, Yasouj, Iran*

Background: *Leishmania major* causes rural leishmaniasis in some parts of Iran and For treatment the currently used drug is meglumine antimoniate (Glucantime) by injection on the site of the ulcers. The aim of this study was to evaluate the anti leishmanial effects of topical *Plantago psyllium(ovata*) and with vinegar in *Leishmania major*-infected BALB/c mice.
Methods: In this study 30 infected BALB/c mice divided in 5 groups. All mice had leishmanial ulcers that confirmed by microscopic examination. Group 1 (10 mice): treated with the combination of *Plantago psyllium(ovata*) powder and white vinegar. Group 2 (5 mice): treated with glucantime. Group 3 (5 mice): treated with white vinegar. Group 4 (5 mice): treated with the combination of *Plantago psyllium(ovata*) powder and water. Group 5 (5 mice): without any treatment (control). All groups treated for 28 days. Ulesion sizes measured weekly and final smears prepared in the last day for microscopic examination.
Result: In group 1, six mice healed and in groups 2 and 3, four mice treated and in group 4, three mice healed and in control group all mice not healed. The results showed a significantly ($P < 0.001$) smaller lesion size in the mice in the treated groups specially in glucantime and vinegar groups than in the mice in the control group. Anti leishmanial effect of vinegar is the same as glucantime and *Plantago psyllium(ovata*) effect is less than theirs.
Conclusion: The combination of *Plantago psyllium(ovata*) powder and white vinegar is used to treat leishmanial lesions traditionally in Iran. It seems the most anti leishmanial effect is related to vinegar and supported by *Plantago.* However, the route of treatment with this combination is very simple and painless in comparison with injection. So by additional study scientists could design the effective and more easily using drugs.

PP-182 **T*oxoplasma gondii* seroprevalence in epileptic patients in Iran**

M. Zibaei[1]*, Z. Zamani[1], A. Chahichi[1], K. Anbari[2], M.R. Nazer[3]. [1]*Dept. of Parasitology and Mycology, School of Medicine, Lorestan University of Medical Sciences, Khorram Abad, Iran,* [2]*Dept. of Social Medicine, School of Medicine, Lorestan University of Medical Sciences, Khorram Abad, Iran,* [3]*Dept. of Infectious Disease, School of Medicine, Lorestan University of Medical Sciences, Khorram Abad, Iran*

Background: Toxoplasmosis, which is caused by *Toxoplasma gondii*, is widespread in the tissues of animals and birds, and infection occurs through eating cooked meat. After same time, cats, which are the definitive hosts, pass the oocysts in their feces and contaminate the soil, so that humans may be infected. This study aimed at determining *Toxoplasma gondii* infection in epileptic patients.
Methods: Eighty five cryptogenic epileptic patients and 85 healthy people participated in this study. Presence of *Toxoplasma gondii* infection was examined by using specific anti-*Toxoplasma* IgG ELISA kit. Patients were matched with controls according to gender, age, education and residence location (rural or urban area). Data were analyzed using Mantel-Haenszel χ^2 test.
Results: Seropositivity for *Toxoplasma gondii* was detected in 12 (14.1%) of 85 patients and 4 (4.7%) of control subject the difference was statistically significant ($\chi^2 = 4.416$,