



CURRICULUM VITAE

Niknam Lakpour

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Position

- Research Associate, Embryology and Andrology Department, Reproductive Biotechnology Research Center, Avicenna Research Institute, Tehran, Iran.
- Supervisor for the andrology lab since 2007 until now in Avicenna Research Institute, Tehran, Iran.

Advisor: Dr. Mohammad Reza Sadeghi (E- mail: Sadeghi@avicenna.ac.ir)

Education

- M.Sc. in Clinical Biochemistry, Faculty of Medicine, Kermanshah University of Medical Sciences, Kermanshah, Iran, 2003-2007.
- Bachelor in Laboratory Sciences, Faculty of Medicine, Isfahan university of Medical Sciences, Isfahan, Iran, 2001-2003.
- Associate of Laboratory Sciences, Mazandaran university of Medical Sciences, Sari, Iran, 1999-2001.

Awards

Top student in the reproductive medicine student festival, 2007, Yazd, Iran.

Major administrative responsibilities

- Executive secretary of Proteomics and genomics workshop held in Avicenna Research Institute, 2009.
- Member of research gate scientific network
- Member of Iranian Society for Embryology and Reproductive biology

Trainings and Qualifications

- Workshop of "Scientific writing", Avicenna Research Institute
- Workshop of "Endnote software", Avicenna Research Institute
- Workshop of "controversies in ART failure", Avicenna Research Institute
- Workshop of "proteomics", Royan Institute
- Workshop of "Sperm Preparation Methods", Avicenna Infertility Clinic
- Workshop of "Preliminary Research Methods", Kermanshah University of Medical Sciences, Kermanshah, Iran
- Special trainer at workshop of "Sperm function tests", Avicenna Research Institute (Several courses)
- Teaching clinical biochemistry in Ghalamchi institute, Kermanshah, Iran
- Clinical Activities in Diagnostic Laboratories (Imam Khomeini hospital and Central Laboratory Unit, Sari; Alzahra and Omid hospitals, Isfahan; Central Laboratory unit, Kermanshah, Iran)
- As referee for some books written in University of applied science and technology, Iran

- As reviewer for Journal of Reproduction and infertility, Avicenna Research Institute, Tehran, Iran

Publications

- Papers

Lakpour N, Mirfeizollahi A, Farivar S, Akhondi MM, Hashemi SB, Amirjannati N, Heidari-Vala H, Sadeghi MR. The association of seminal plasma antioxidant levels and sperm chromatin status with genetic variants of GSTM1 and GSTP1 (Ile105Val and Ala114Val) in infertile men with oligoasthenoteratozoospermia. *Dis Markers*. 2013; 34(3):205-210.

Jafarian A, Sadeghi MR, Pejhan N, Salehkhous S, **Lakpour N**, Akhondi MM. Regeneration of spermatogenesis in a mouse model of azoospermia by follicle-stimulating hormone and oestradiol, *Andrologia*, 2013, published online.

Darvishnia H, **Lakpour N**, Lahijani MS, Heidari-Vala H, Akhondi MA, Zeraati H, Sadeghi MR. Effects of very rapid versus vapor phase freezing on human sperm parameters. *Cell Tissue Bank*. 2013 Dec; 14(4):679-85.

Javad Jamshidi, Farkhondeh Pouresmaeili, Hossein Darvish, Mir Davood Omrani, Eznollah Azargashb, Mohammad Reza Sadeghi, **Niknam Lakpour**. FABP9 Mutations are not detected in Cases of Infertility due to Sperm Morphological Defects in Iranian Men. *International Journal of fertility and Sterility*, 2013, published Online.

Abtahi H, Shabani M, Jameie SB, Zarnani AH, Talebi S, **Lakpour N**, Heidari-Vala H, Edalatkhah H, Akhondi MA, Amiri M, Mahmoudi AR, Sadeghi MR. Regulation of luteinizing hormone receptor in hippocampal neurons following different long-lasting treatments of castrated adult rats. *Indian Journal of Experimental Biology (IJEB)*. 2013; 51(03): 218-227.

Raygani M, Yaghmae B, Amir Jannati N, **Lakpour N**, Akhondi MM, Zeraati H, Hosein Ali M, Sadeghi MR. The micronutrient supplements, zinc sulphate and folic acid, did not ameliorate sperm functional parameters in oligoasthenoteratozoospermic men. *Andrologia* .Published online: 23 Oct 2013.

Lakpour N, Mahfouz RZ, Akhondi MM, Agarwal A, Kharrazi H, Zeraati H, Amirjannati N, Sadeghi MR. Relationship of seminal plasma antioxidants and serum male hormones with sperm chromatin status in male factor infertility. *Systems Biology in Reproductive Medicine*. 2012;58(5):236-244.

Zand Emami M, Ghoojagh D, Akhondi MM, Kamali K, Raygani M, **Lakpour N**, Savadi Shirazi E, Sadeghi MR. Correlation of CMA3 Staining with Sperm Quality and Protamine Deficiency. *Lab Medicine* 2012; 43(6):262-267.

Gilani K, **Lakpour N**, Vafakhah M, Sadeghi MR. The profile of human sperm proteome; A minireview. *Journal of Reproduction and Infertility*. 2011; 12(3): 193-199

Ardekani AM, Maghsudi N, Meyfour A, Ghasemi R, **Lakpour N**, Nooshinfar E, Ghaempanah Z. Stress-induced proteomic changes in the hippocampus of pregnant wistar rats. *Avicenna J Med Biotechnol*. 2011 Oct; 3(4):157-66.

Sadeghi MR, **Lakpour N**, Heidari-Vala H, Hodjat M, Amir Jannati N, Hosseini Jadda H, Binafar S, Akhondi MA. Relationship between sperm chromatin status and ICSI outcome in men with obstructive azoospermia and unexplained infertile normozoospermia. *Romanian Journal of Morphology and Embryology*. 2011, 52(2):645–651.

Aslani F, Modarresi MH, Soltan Ghorae H, Akhondi MA, Shabani A, **Lakpour N**, Sadeghi MR. Seminal molecular markers as a non-invasive diagnostic tool for the evaluation of spermatogenesis in non-obstructive azoospermia. *Systems Biology in Reproductive Medicine*. 2011; 57(4):190-196.

Sabetian S., Ardekani A., Hodjat M., Akhondi M.A., Soltanghorae H., Amirjannati N., **Lakpour N.**, Sadeghi M.R. Comparing seminal plasma biomarkers between normospermic and azoospermic Men. *Journal of Reproduction & Infertility*. 2010; 11(1):39-46.

Hekmatdoost A., **Lakpour N.**, Sadeghi M.R. Sperm chromatin integrity: Etiologies and mechanisms of abnormality, assays, clinical importance, preventing and repairing damage. *Avicenna Journal of Medical Biotechnology (AJMB)*. 2009; 1(3): 147-160.

Mohamad Reza Sadeghi, Mahshid Hodjat, **Niknam Lakpour**, Soheila Arefi, Naser Amirjannati, Tahereh Modarresi, Hossain Hossaini Jadda, and Mohammad Mehdi Akhondi. Effects of Sperm Chromatin Integrity on Fertilization Rate and Embryo Quality Following Intracytoplasmic Sperm Injection. *Avicenna Journal of Medical Biotechnology (AJMB)*. 2009; 1(3): 173-180.

Jabbari S, Sadeghi MR, Akhondi MM, Ebrahimi Habibi A, Amirjanati N, **Lakpour N**, et al. Tyrosine Phosphorylation Pattern in Sperm Proteins Isolated from Normospermic and Teratospermic Men. *J Reprod Infertil*. 2009; 10(3):185-91.

Lakpour N., Kharrazi H., Akhondi M.M., Raygani A.V., Modaresi M.H., Jafarian A., Savadi Shirazi E., Hodjat M., Sadeghi M.R. The relationship between oxidative stress and sperm DNA damage in normozoospermic men and with abnormal sperm parameters. *Tehran University Medical Journal*, 2008, 65 (3): 11-19.

Ardekani AM, Aslani F, **Lakpour N.** Application of genomics and proteomics technologies to early diagnosis of reproductive organ cancers. *J Reprod Infertil.* 2007; 8(3):288.

Lakpour N., Modaresi M.H., Kharazi H., Akhondi M.M., Veisi Raygani A., Ghasemi J., Hodjat M., Sadeghi M.R. Polymorphism in Phospholipid Hydroperoxide Glutathione Peroxidase (PHGPx) gene in Iranian infertile men. *Medical Journal of Reproduction & Infertility.* 2006; 7(3): 198-208.

- Abstracts (Journals & Conference)

International presentations

Torabi F, Heidari Vala H, Akhondi MM, **Lakpour N,** Zarnani AH, Mahmoudian J, Mahmoudi AR, Sadeghi MR. Fibronectin on the Surface of Human Spermatozoa: A New Marker of Sperm Quality. 7TH European Congress of Andrology (ECA). 28 November-1 December 2012. Berlin, Germany, (Poster).

Torabi F, Safarpour E, **Lakpour N,** Akhondi MA, Amini N, Zarnani AH, Heidari-Vala H, Sadeghi MR. Production and characterization of polyclonal antibody against fibronectin for its detection on the surface of human spermatozoa. *Molecular Immunology & Immunogenetics congress (MIMIC2012),* 27-29 April 2012. Antalya, Turkey. (Oral)

Meyfour A, **Lakpour N,** Akhondi MM, Sedeghi MR. Proteomic Analysis of Seminal Plasma from Normozoospermic and Nano-obstructive Azoospermic (NOA) Men to Discover New Markers. 7TH European Congress of Andrology (ECA). 28 November-1 December 2012. Berlin, Germany.(poster).

Lakpour N., Sadeghi M.R., Kharrazi H., Hodjat M., Akhondi M.A., Amirjannati N. Evaluating effective causes in sperm DNA damage: abnormal packing due to underprotamination as a key reason. The proceedings of the Third Asia-Pacific Forum on Andrology (3APFA). Shanghai, China, 10-13 October, 2009.

Lakpour N., Kharrazi H., Jafarian A., Hodjat M., Savadi Shirazi E., Akhondi M.M., Modaresi M.H., Sadeghi M.R. Relationship between oxidative stress and sperm DNA damage in men of normozoospermia and abnormal sperm parameters. 14th Annual Meeting of MEFS. Antalya, Turkey, 31 Oct 3Nov, 2007.

M. Ardekani A., Jabbari S., Sadeghi M.R., Amir Janati N., E. Habibi A., **Lakpour N.,** Hodjat M., Akhondi M.A. Induction of protein tyrosine phosphorylation during capacitation in the spermatozoa of normozoospermic men. 10th Iranian Congress of Biochemistry & 3rd International Congress of Biochemistry and Molecular Biology. 16-19 November, 2009.

Jabbari S., M. Ardekani A., Sadeghi M.R., Amir Janati N., E. Habibi A., **Lakpour N.**, Hodjat M., Akhondi M.A. Tyrosine phosphorylation pattern in sperm proteins isolated from normozoospermic and infertile teratozoospermic men. 10th Iranian Congress of Biochemistry & 3rd International Congress of Biochemistry and Molecular Biology. 16-19 November, 2009.

Raygani M., Sadeghi M.R., Akhondi M.A., Amirjannati N., **Lakpour N.** Comparison single nucleotide polymorphisms of C677T in MTHFR gene and A66G in MTRR gene between oligoasthenoteratozoospermic and normozoospermic men. 8th International Congress on Obstetrics and Gynecology, 5-9 November 2009, Tehran, Iran.

Sabetian S., Sadeghi M.R., Akhondi M.A., Amirjannati N., Hodjat M., **Lakpour N.** Comparing seminal plasma markers in normospermic and azospermic men. The proceedings of the Third Asia-Pacific Forum on Andrology (3APFA). Shanghai, China, 10-13 October, 2009.

Raigani M., Sadeghi M.R., Yaghmaei B., Rabbani H., Akhondi M.A., **Lakpour N.**, Hodjat M., Rezaie G. Frequency of single nucleotide polymorphism of methylenetetrahydrofolate reductase (MTHFR) gene in oligoasthenoteratozoospermic (OAT) and normozoospermic men. The proceedings of the Third Asia-Pacific Forum on Andrology (3APFA). Shanghai, China, 10-13 October, 2009.

M. Ardekani A. Jabbari S., Sadeghi M.R., Amirjanati N., Habibi A.E., **Lakpour N.**, Hodjat M., Akhondi M.M. Phosphoproteomic pattern in normozoospermic and infertile teratozoospermic men. HUPO 2009 World Congress. Toronto, Canada. 26-30 September, 2009.

National presentations

Jafarbeik Iravani, Sadeghi MR, Safarian Sh, **Lakpour N.** Antioxidant's supplementation in thawing extenders improves human sperm quality. 2013, Iranian Journal of Reproductive Medicine; AprSupp, p43.

Lakpour N., Sadeghi M.R., Kharrazi H., Akhondi M.M., Motevallizadeh-Ardekani A., Hodjat M. Relationship between reproductive hormones and oxidative stress with sperm DNA integrity. Fertility and infertility congress, Tehran, Iran, 18-20 Feb. 2009.

Raigani M., Sadeghi M.R., Yaghmaei B., Akhondi M.A., **Lakpour N.**, Hodjat M., Rezaei Farmani A. Comparison of C677T polymorphism of the methylenetetrahydrofolate reductase (MTHFR) gene in oligo-asthenoterato-zoospermic (OAT) and normozoospermic Iranian men, Fertility and infertility congress, Tehran, Iran 18-20 Feb. 2009.

Lakpour N., Kharrazi H., Sadeghi M.R., Vaisi Raygani A., Akhondi M.M. Phospholipid hydroperoxide glutathione peroxidase gene polymorphism in Iranian infertile men. 9th Iranian Congress of Biochemistry & the 2nd International Congress of Biochemistry and Molecular Biology, 29 October-1 November 2007, Shiraz, Iran.

Lakpour N., Kharrazi H., Jafarian A., Hodjat M., Savadi Shirazi E., Akhondi M.M., Modaresi M.H., Sadeghi M.R. Relationship between oxidative stress and sperm DNA damage in men with normozoospermia and abnormal sperm parameters. 9th Iranian Congress of Biochemistry & the 2nd International Congress of Biochemistry and Molecular Biology, 29 October-1 November 2007, Shiraz, Iran.

Lakpour N., Modarresi S.M.H., Kharazi H., Akhondi M.M., Veisi Raygani A., Sadeghi M.R., Ghasemi J., Hojat M. polymorphism in phospholipid hydroperoxid Glutathione peroxidase (PHGPx) in Iranian infertile Men. 2th yazd internation student award in Reproductive medicine, yazd, Iran, 11-13 May, 2007.

Lakpour N., Modarresi S.M.H., Kharazi H., Akhondi M.M., Veisi Raygani A., Sadeghi M.R., Ghasemi J., Hojat M. polymorphism in phospholipid hydroperoxid Glutathione peroxidase (PHGPx) in Iranian infertile Men. 13th International Congress of Fertility and Infertility, Tehran, Iran, 21-23 February, 2007.

Research interests

- Oxidative stress and male infertility
- Sperm selection based on molecular markers
- Spermatogenesis