

Curriculum Vitae

Mahmoud Reza Jaafari (Pharm.D, Ph.D.)

Date of Birth: January 22, 1964

Professor of Pharmaceutics and Pharmaceutical Nanotechnology,

School of Pharmacy,

Head of Nanotechnology Research Center,

Director, Nanobiotechnology Lab

Mashhad University of Medical Sciences,

Mashhad-Iran

P.O.Box 91775-1365

Phone: +98 511 8823255 (Office), +98 511 7683239 (Home)

Fax: +98 511 8823251

E-mail: jafarimr@mums.ac.ir or jaafari42@yahoo.com

Education:

Pharm.D.: School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran, 1983-1988

Ph.D. in Pharmaceutics (Nanoliposomal drug and protein delivery): College of Graduate Studies and Research, Division of Pharmaceutical Sciences, University of Saskatchewan, Saskatoon, Canada, 1993-1998

Ph.D. Theses Title: Targeted drug delivery based on adhesion domains of immunoglobulin superfamily: P₀ protein as a model

Visiting Associate Professor: Department of Biopharmaceutical Sciences and Pharmaceutical Chemistry; School of Pharmacy, University of California at San Francisco (UCSF), 2006-2007 (**Pharmaceutical Nanotechnology**).

Research Interests: Targeted drug delivery, nanomedicine, liposomal drug delivery, topical liposomes, liposome based vaccination, vaccine development against leishmaniasis, liposome based gene delivery, peptide and protein formulation.

Professional Experience:

1988-1993: Instructor of Pharmaceutics, School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran

- 1999-2004: Assistant Professor of Pharmaceutics, School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran
- 2004-2009: Associate Professor of Pharmaceutics, School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran
- 2009-: Professor of Pharmaceutics, School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran
- 2003-2004: Dean of Pharmaceutical Research Center, Mashhad University of Medical Sciences, Mashhad, Iran
- 2004-2006: Dean of Biotechnology Research Center, Mashhad University of Medical Sciences, Mashhad, Iran
- 2008-2010: Director of Nanotechnology Council, Mashhad University of Medical Sciences, Mashhad, Iran
- 2010-: Dean of Nanotechnology Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

Teaching Responsibilities:

Various topics in pharmaceutics: Targeted drug delivery, Liposomal drug delivery, Gene Delivery, Peptide and protein formulation and delivery.

Patent disclosure:

Francis C Szoka, Zhaohua Huang, Mahmoud R Jaafari, Antifungal lipid formulations prepared from sterol phospholipids containing amphotericin B, 2007.

International Publications:

- 1) Foldvari M., Jaafari M.R., Mezei C., and Mezei M. (1998) Targeting of liposomes through immunoglobulin superfamily domains: P₀ protein as a model. *Drug Delivery*, 5: 183-195.
- 2) Jaafari M.R. and Foldvari M. (1999) P₀ protein mediated targeting of liposomes to melanoma cells with high level of ICAM-1 expression. *J. Drug Targeting*, 7: 101-112.
- 3) Jaafari M.R. and Foldvari M. (2002) Targeting of liposomes to human keratinocytes through adhesive peptides from immunoglobulin domains in the presence of IFN-gamma. *Drug Delivery*, 9: 1-9.
- 4) Jaafari M.R. and Foldvari M. (2002) Targeting of liposomes to melanoma cells with high level of ICAM-1 expression through adhesive peptides from immunoglobulin domains. *J. Pharm.Sci.* 91: 396-404.
- 5) Tafaghodi M., Sajadi Tabassi S.A., Jaafari M.R., (2004), Evaluation of the clearance characteristics of various microspheres in the human nose by gamma-scintigraphy. *Int. J. Pharmaceutics*, 280: 125-135.

- 6) Balali Mood M., Hefazi M., Mahmoudi M., Jalali I., Attaran D., Maleki M., Etezad Razavi M.R., Zare G., Jaafari M.R., Tabatabaee A., (2005) Evaluation of delayed toxic effects of sulfur mustard poisoning in severely intoxicated Iranian veterans: A cross sectional study. *Journal of Medical Chemical, Boiological and Radiological Defense*, 3: 1-32.
- 7) Sohrabi Y., Jaafari M.R., Miramin Mohammadi A., Eskandari S.E., Khamesipour A., (2004), Induction of cell mediated immunity against leishmaniasis using mannan coated liposomes encapsulated with autoclaved *Leishmania major* (ALM), *International Proceeding Immunology*, 125-128.
- 8) Foldvari M., Jaafari M.R., Radhi J., Segal D., (2005) Efficacy of the anti-adhesin, 2-*O*-propyl-octyl -Gal NAc (1-4) -Gal (Fimbrin-P), in a rat oral candidiasis model. *Antimicrob. Agents Chemother.* 49: 2887-2894.
- 9) Balali-Mood M, Hefazi M, Mahmoudi M, Jalali E, Attaran D, Maleki M, Razavi ME, Zare G, Tabatabaee A, Jaafari MR. (2005) Long-term complications of sulphur mustard poisoning in severely intoxicated Iranian veterans. *Fundam Clin Pharmacol.* 19 (6): 713-21.
- 10) Tafaghodi M., Sajadi Tabassi S.A., Jaafari M.R., (2006), Formulation, characterization and release studies of alginate microsphere encapsulated with tetanus toxoid. *J. Biomater. Sci. Polymer Edn*, 17 (8): 909-924.
- 11) Malaekheh-Nikouei B., Sajadi Tabassi S. A., Jaafari M. R. (2006) The Effect of Different Grades of PLGA on Characteristics of Microspheres Encapsulated with Cyclosporine A., *Curr Drug Deliv.* 2006 Oct; 3(4):343-9.
- 12) Jaafari M.R., Attieh Ghafarian A., Farrokhi-Gisour A., Samiei A., Tavassoti Kheiri M., Mahboudi F., Barkhordari F., Khamesipour A., McMaster W.R. (2006) Immune response and protection assay of recombinant major surface glycoprotein of *Leishmania* (rgp63) reconstituted with liposomes in BALB/c mice, *Vaccine*, 24: 5708-5717.
- 13) Tafaghodi M., Sajadi Tabassi S.A., Jaafari M.R., (2006), Induction of systemic and mucosal immune responses by intranasal administration of alginate microspheres encapsulated with tetanus toxoid and CpG-ODN. *Int. J. Pharm.* 319: 37-43.
- 14) Malaekheh-Nikouei B., Sajadi Tabassi S. A., Jaafari, M. R., Davies N. M., The effect of complexation on characteristics and drug release of PLGA microspheres loaded by cyclosporine-cyclodextrin complex, *Journal of Drug Delivery Science and Technology*, September/November 2006, 16 (5): 345-350.
- 15) Tafaghodi M., Jaafari M.R., Sajadi Tabassi S.A., (2006), Nasal immunization studies using liposomes loaded with tetanus toxoid and CpG-ODN. *Eur. J. Pharm. Biopharm* 64: 138-145.
- 16) Tabbakhian M., Tavakoli N., Jaafari M.R., Daneshamouz S., (2006) Enhancement of Follicular Delivery of Finasteride by Liposomes and Niosomes: 1. *In Vitro* Permeation and *In Vivo* Deposition Studies Using Hamster Flank and Ear Models, *Int. J. Pharm.* 323: 1-10.

- 17) M. R. Jaafari, J. Behravan, J. Abde-Emami, F. Saghafi-Khadem, M. Ramezani, (2006), Evaluation of leishmanicidal effect of *Euphorbia bunjei* extract by *in vitro* leishmanicidal assay using promastigote of *Leishmania major*, *Int. J. Pharmacology* 2 (5): 571-575.
- 18) Badiie A, Jaafari MR, Khamesipour A. (2007) *Leishmania major*: Immune response in BALB/c mice immunized with stress-inducible protein 1 encapsulated in liposomes. *Exp. Parasitol.* 115(2): 127-134.
- 19) Iranshahi M, Arfa P, Ramezani M, Jaafari MR, Sadeghian H, Bassarello C, Piacente S, Pizza C. (2007) Sesquiterpene coumarins from *Ferula szowitsiana* and *in vitro* antileishmanial activity of 7-prenyloxycoumarins against promastigotes. *Phytochemistry*. 2007 Feb; 68 (4): 554-61.
- 20) Jaafari M.R., Badiie A., Khamesipour A., Samiei A., Soroush D., Tavassoti Kheiri MT., Barkhordari F., McMaster W.R., Mahboudi F. (2007) The role of CpG ODN in enhancement of immune response and protection in BALB/c mice immunized with recombinant major surface glycoprotein of *Leishmania* (rgp63) encapsulated in cationic liposome, *Vaccine* 25: 6107-6117 (2007).
- 21) Jaafari M.R., Hooshmand S., Samiei A., Hossainzadeh H., (2007), Evaluation of leishmanicidal effect of *Perovskia abrotanoides Karel* root extract by *in vitro* leishmanicidal assay using promastigotes of *Leishmania major*, *Pharmacologyonline* 1: 299-303.
- 22) Monajjemi M., Afsharnezhad S., Jaafari M.R., Abdolahi T., Nikosade A., Monajemi H., (2007), NMR shielding and a thermodynamic study of the effect of environmental exposure to petrochemical solvent on DPPC, an important component of lung surfactant, *Russian Journal of Physical Chemistry A*, 81(12): 1956-1963.
- 23) Malaekheh-Nikouei B., Jaafari M. R., Sajadi Tabassi S. A., (2007) Preparation, characterization and mucoadhesive evaluation of chitosan coated liposomes containing cyclosporine A. *Saudi Pharmaceutical Journal*, 15 (3-4): 176-182.
- 24) Vahdati-Mashhadian N., Jaafari M.R., Nosrati A., (2007), Differential toxicity of rifampin on HEPG2 and HEP2 cells using MTT test and electron microscope. *Pharmacologyonline* 3: 405-413.
- 25) Monajjemi M., Afsharnezhad S., Jaafari M.R., Mirdamadi S, Mollaamin F., Monajemi H., (2008), Investigation of energy and NMR isotropic shift on the internal rotation barrier of O4 dihedral angle of the DLPC: A GIAO study, *Chemistry* 17 (1): 55-69.
- 26) Monajjemi M., Afsharnezhad S., Jaafari M.R., Mirdamadi S., Monajemi H., Mollaamin F., (2008), Theoretical study of solvent effects and NMR shielding tensors of DLPC, *Indonesian Journal of Chemistry* 8 (1): 58-64.
- 27) Badiie A, Jaafari MR, Samiei A, Soroush D, Khamesipour A. Coencapsulation of CpG oligodeoxynucleotides with recombinant *Leishmania*

major stress-inducible protein 1 in liposome enhances immune response and protection against leishmaniasis in immunized BALB/c mice. *Clin Vaccine Immunol.* 2008 Apr;15(4):668-74.

28) Tafaghodi M., Jaafari M.R., Sajadi Tabassi S.A., (2008) Nasal immunization studies by cationic, fusogenic and cationic-fusogenic liposomes encapsulated with tetanous toxoid, *Curr Drug Deliv.* 5(2); 108-113.

29) Malaekheh-Nikouei B, Sajadi Tabassi SA, Jaafari MR. (2008 May) Preparation, characterization, and mucoadhesive properties of chitosan-coated microspheres encapsulated with cyclosporine a. *Drug Dev Ind Pharm.* 34 (5): 492-8.

30) Sajadi Tabassi S.A., Tafaghodi M., Jaafari M.R., (2008) Induction of high antitoxin titers against tetanous toxoid in rabbits by intranasal immunization with dextran microspheres, *Int. J. Pharm.* 2008 Aug 6;360(1-2):12-7.

31) Golmohammadzadeh S., Jaafari M.R., Khalili N., (2008) Evaluation of liposomal and conventional formulations on the human percutaneous absorption of octyl methoxycinnamate using stripping method. *Journal of Cosmetic Science* 59 (5): 385-398.

32) Malaekheh-Nikouei B., Jaafari M. R., Sajadi Tabassi S. A., Samiei A., (2008) The Enhancement of Immunosuppressive Effects of Cyclosporine A on Human T-Cells Using Fusogenic Liposomes, *Colloids and Surface B: biointerfaces*, 67: 238-244.

33) Hosseinzadeh H, Jaafari MR, Shamsara J. Selective inhibitory effect of adenosine A1 receptor agonists on the Selective inhibitory effect of adenosine A1 receptor agonists on the proliferation of human tumor cell lines. *Iran Biomed J.* 2008 Oct; 12(4):203-8.

34) Badiee A., Jaafari M.R., Khamesipour A., Samiei A., Soroush D., Tavassoti Kheiri M., Barkhordari F., McMaster W.R., Mahboudi F. (April 2009) The role of liposome charge on immune response generated in BALB/c mice immunized with recombinant major surface glycoprotein of *Leishmania* (rgp63), *Exp. Parasitol.* 121 (4): 362-9.

35) Razzazan A, Saberi MR, Jaafari MR. (2008) Insights from the analysis of a predicted model of gp63 in *Leishmania donovani*. *Bioinformation.* 3 (3): 114-8.

36) Jaafari M.R., Bavarsad N, Fazly Bazzaz B.S., Samiei A., Dina Soroush, Ghorbani S., Lotfi Heravi M.M., Khamesipour A. (June 2009) The Effect of Topical Liposomes Containing Paromomycin Sulfate (PM) in the Course of

Leishmania major Infection in Susceptible BALB/c Mice. Antimicrob. Agents Chemother. 53 (6): 2259-2265.

37) Abrishami M, Ganavati SZ, Soroush D, Rouhbakhsh M, Jaafari MR, Malaekheh-Nikouei B. Preparation, characterization, and in vivo evaluation of nanoliposomes-encapsulated bevacizumab (avastin) for intravitreal administration. Retina. 2009 May;29(5):699-703

38) Huang Z, Jaafari MR, Szoka FC Jr. 2009, Disterolphospholipids: Nonexchangeable Lipids and Their Application to Liposomal Drug Delivery. Angew Chem Int Ed 48: 4146-4149.

39) Badiee A, Jaafari MR, Khamesipour A, Samiei A, Soroush D, Kheiri MT, Barkhordari F, McMaster WR, Mahboudi F. (2009) Enhancement of immune response and protection in BALB/c mice immunized with liposomal recombinant major surface glycoprotein of Leishmania (rgp63): The role of bilayer composition. Colloids Surf B Biointerfaces. 74: 37-44.

40) Hadizadeh F, Moallem SA, Jaafari MR, Shahab M, Alahyari M, Rameshrad M, Samiei A. (2009) Synthesis and immunomodulation of human lymphocyte proliferation and cytokine (interferon-gamma) production of four novel malonitrimides. Chem Biol Drug Des. 73(6):668-73.

41) Amin M, Jaafari MR, Tafaghodi M. (2009) Impact of chitosan coating of anionic liposomes on clearance rate, mucosal and systemic immune responses following nasal administration in rabbits. Colloids Surf B Biointerfaces. 74: 225-229.

42) Ebrahimnejad P, Dinarvand R, Sajadi SA, Atyabi F, Ramezani F, Jaafari MR, 2009, Preparation and Characterization of Poly Lactide-co-glycolide Nanoparticles of SN-38. PDA J. Pharm. Sci. Technol. 63: 512-520.

43) Ebrahimnejad P, Dinarvand R, Sajadi SA, Jaafari MR, Movaghari F, Atyabi F, 2009, Development and Validation of an Ion-pair HPLC Chromatography for Simultaneous Determination of Lactone and Carboxylate Forms of SN-38 in Nanoparticles. Journal of Food and Drug Analysis, 17 (4): 246-256.

44) Raji AR, Jaafari MR, 2009, Transmission electron microscopy study of the alveolar septum in adult camel, Indian Veterinary Journal, 86 (7): 719-721.

45) Hejazi H, Tasbihi M, Jaafari MR, Badiee A, Pestechian N, A Javadi A, Khamesipour A, 2010, The Role of Liposomal CpG ODN on the Course of *L. major* Infection in BALB/C Mice, Iranian J. Parasitol. 5 (1): 47-54.

- 46) Ebrahimnejad P, Dinarvand R, Sajadi A, Jaafari MR, Nomani AR, Azizi E, Rad-Malekshahi M, Atyabi F. (2010 June), Preparation and in vitro evaluation of actively targetable nanoparticles for SN-38 delivery against HT29 cell lines. *Nanomedicine*. 6 (3): 478-85.
- 47) Tafaghodi M., Khamesipour A., Jaafari M.R. (Dec. 2010), Immunization against leishmaniasis by PLGA nanospheres loaded with an experimental Autoclaved *Leishmania major* (ALM) and *Quillaja* saponins, *Tropical Biomedicine* 27(3): 639–650.
- 48) Tafaghodi M., Khamesipour A., Jaafari M.R., (2011 May), Immunization against leishmaniasis by PLGA nanospheres encapsulated with autoclaved *Leishmania major* (ALM) and CpG-ODN, *Parasitol Res.* 108(5):1265-1273.
- 49) F. Vahedi, M.R. Jaafari, M.R. Mahmoudi, M. (Dec. 2010) The Effect of Using Cationic Liposomes Encapsulating pcDNA3.1+PA Plasmids on Humoral Immune Response in Mice, *Iranian Journal of Immunology* 7 (4): 210-216.
- 50) Iman M, Huang Z, Szoka FC, Jaafari MR, (2011 April 15), Characterization of the Colloidal Properties, In vitro Antifungal Activity, Antileishmanial Activity and Toxicity in Mice of a Distigmasterylhemisuccinoyl-glycero-phosphocholine Liposome-Intercalated Amphotericin B. *Int J Pharm.* 408(1-2):163-72.
- 51) Ebrahimnejad P, Dinarvand R, Jaafari MR, Sajadi SA, Atyabi F. (2011 Mar 15), Characterization, blood profile and biodistribution properties of surface modified PLGA nanoparticles of SN-38. *Int J Pharm.* 406 (1-2): 122-7.

National Publications:

- 1) Jaafari M.R., Sadri K., Arefee A., Amani M., and Mahboudi F. (2003) Protection of BALB/c Mice Against Cutaneous Leishmaniasis by Using Liposomes Incorporated with Recombinant Major Surface Glycoprotein of *Leishmania* (rGP63) prepared with detergent solubilization method. *Iranian J. Basic Med. Sc.* 6 (1): 25-37 (Persian).
- 2) Sajadi Tabassi S.A., Jaafari M.R., Tafaghodi M. (2003) Increasing the immune responses by co-delivery of CpG-ODN and tetanus toxoid encapsulated in PLGA microspheres. *Iranian J. Basic Med. Sc.* 6 (3): 221-236 (Persian).
- 3) Hosseinzadeh H., Khoei A.R., Jaafari M.R., Ghasami J. (2002) Antihypoxic, anti-ischemic and acute toxicity effect of *Salvia Leriifolia* Benth root in mice and rats. *J. Medicinal Plants*, 1:1-11 (Persian).

- 4) Jaafari M.R., Arefee A., Sadri K., Amani M., and Mahboudi F. (2004) Vaccination of BALB/c Mice Against Cutaneous Leishmaniasis by Using Liposomes Incorporated with Recombinant Major Surface Glycoprotein of Leishmania (rGP63). *Pharmaceutical Sciences, Journal of Tabriz Faculty of Pharmacy*, 2: 41-60 (Persian).
- 5) Tafaghodi M., Jaafari M.R., Sajadi Tabassi S.A. (2004) Utilization of particulate and immuno-modulating adjuvants for enhancement of immune response against tumor antigenic markers. *Iranian J. Basic Med. Sc.* 6 (4): 336-345 (English).
- 6) Sajadi Tabassi S.A., Tafaghodi M., Jaafari M.R., (2004) Dextran microspheres containing tetanus toxoid as a potential delivery system for nasal immunization: in vitro and in vivo characterization, *Iranian J. Basic Med. Sc.* 7 (2): 88-98 (Persian).
- 7) Varasteh A.R., Hashemi M., Jaafari M.R., Moghadassi Risseh M. (2004) Formulation of Anti-Rh (D) Immunoglobulin Preparation. *Iranian J. Basic Med. Sc.* 7 (3): 182-187 (English).
- 8) Malaekheh-Nikouie B., Sajadi Tabassi S.A., Jaafari M.R., (2005) Preparation of biodegradable microspheres encapsulated with Cyclosporine A and evaluation of some factors affecting microsphere properties. *Iranian J. Basic Med. Sc.* 7 (4): 240-249 (Persian).
- 9) Golmohammadzadeh S., Jaafari M.R., Khalili N. (2005) Evaluation of in vitro methods for the determination of sun protection factor of the homosalate standard sunscreen lotion. *Iranian J. Basic Med. Sc.* 8 (2): 107-112 (Persian).
- 10) Jaafari M.R., Tafaghodi M., Sajadi Tabassi S.A., (2005), Evaluation of the clearance characteristics of liposomes in the human nose by gamma-scintigraphy. *Iranian J. Pharm. Res.*, 4 (1): 3-11 (English).
- 11) Malaekheh-Nikouie B., Jaafari M.R., Sajadi Tabassi S.A., Samiei A., (2005) Preparation of fusogenic liposomes encapsulated with cyclosporine A and evaluation of its immunosuppressive effects on human T-cells. *Pharmaceutical Sciences, Journal of Tabriz Faculty of Pharmacy*, 4: 1-10 (Persian).
- 12) Jaafari M.R., Malaekheh-Nikouie B., Nasirli H., Hosseinzadeh H. (2005) Formulation of topical liposomes encapsulated with triamcinolone and comparison of their anti-inflammatory effects with available conventional topical ointment in mice. *Iranian J. Basic Med. Sc.* 8 (2): 195-200 (English).
- 13) Daneshamouz S., Tabbakhian M., Tavakoli N., Jaafari M.R. (2005) Influence of liposomes and niosomes on the in vitro permeation and skin retention of Finasteride. *Iranian Journal of Pharmaceutical Sciences*, 1(3) 119-130 (English).
- 14) Badiie A., Jaafari M.R., Samiei A., D. Soroush D., Khamesipour A. (2006) Immune response evaluation against leishmaniasis using liposomes containing rLmSTII in murine model. *Iranian J. Basic Med. Sc.* 8 (4): 215-225 (Persian).
- 15) M. R. Jaafari, J. Behravan, A. Bodagh Abadi, M. Ramezani (2006), Evaluation of leishmanicidal effect of *Euphorbia myrsinites* extract by *in vitro*

antileishmanial assay using promastigote of *Leishmania. Major*. Iranian J. Basic Med. Sc. 8 (4): 295-298 (English).

16) Sohrabi Y., Jaafari M.R., Khamesipour A. (2006) Immune response evaluation against autoclaved *Leishmani major* encapsulated in liposome with different Tm in murine model. Iranian J. Basic Med. Sc. 9 (1): 7-18 (Persian).

17) Hosseinzadeh H, Jaafari M.R., Khoei A.R., Rahmani M., (2006), Evaluation of the clearance characteristics of liposomes in the human nose by gamma-scintigraphy. Iranian J. Pharm. Res., 5 (1): 53-58 (English).

18) Malaek-Nikouei B., Sajadi Tabassi S. A., Jaafari M. R., Davies N. M., (2005), Preparation and characterization of PLGA microspheres loaded by cyclosporine-cyclodextrin complex, Iranian Journal of Pharmaceutical Sciences, 1 (4): 195-201(English).

19) Movaffagh J., Jaafari M.R., Amouzegar M.H., Tabatabaee A.A. (2006) Isolation and in vitro cultivation of human skin keratinocytes and preparation of epidermal sheet, Iranian Journal of Dermatology 9 (1): 2-16 (Persian).

20) Monajjemi M., Afsharnezhad S., Yousefi J., Jaafari M.R., Honarparvar B., Mirsadraiee M., Abdolahi T., Ghadri S., Nikosade A., Badiieyan S.A., (fall 2006), The effect of environmental exposure to some chemical solvents on DPPC as important component of lung surfactant: an ab initio study, Journal of Physical and Theoretical Chemistry 3(3): 159-166 (English).

21) Hashemi M., Jaafari M.R., Baranzadeh N., Varasteh A.R., (2007) Formulation of Anti-Rh (D) Immunoglobulin Preparation. Iranian J. Basic Med. Sc. 10 (1): 66-74 (Persian).

22) Tafaghodi M., Sajadi Tabassi S. A., Jaafari M.R., (2007), Nasal immunization by (PLGA) nanosphers encapsulated with tetanus toxoid and CpG-ODN. Iranian J. Pharm. Res., 6 (3): 151-158 (English).

23) Golmohammadzadeh S., Jaafari M.R., Khalili N., Greenoak G., Determination of SPF and moisturizing effects of liposomal and conventional formulation of octyl methoxycinnamate as a sunscreen. Iranian Journal of Basic Medical Sciences. 10 (2): 99-110 (2007) (English).

24) Varasteh A.R., Hashemi M., Baranzadeh N., Jaafari M.R., (2008) Optimization of Anti-Rh D Immunoglobulin Stability in the Lyophilization Processes. Iranian J. Basic Med. Sc. 11 (1): 55-61 (English).

25) Hadizadeh F, Jaafari MR, Samiei A, Mostafavirad A and Mohammadian E, (2009) Synthesis and In Vitro Leishmanicidal Effects of Conformationally Restricted Analogues of Pentamidine, Iranian J. Pharm. Res. 2009: 8 (4): 257-262(English).

26) Golmohammadzadeh S, Jaafari MR, Hosseinzadeh H, (2010), Does Saffron Have Antisolar and Moisturizing Effects?, Iranian J. Pharm. Res., 9 (2): 1331-40 (English).

PhD Theses Students:

- 1) Mohsen Tafaghodi: Nasal immunization using biodegradable microspheres and liposomes: tetanus toxoid as a model, 1998-2003
- 2) Saeid Daneshamouz: Liposome mediated targeting of finasteride to the hair follicle, 1998-2005.
- 3) Jabraeel Movaphagh: Isolation and cultivation of human epidermal keratinocyte and treatment of extensive burn wounds with cultured epithelial autologous sheets, 1998-2006.
- 4) Ali Badiee: Formualtion, Characterization and evaluation of immune response of liposomes co-encapsulated with rLmSTII and/or rgp63 antigens and CpG ODN adjuvant against leishmaniasis in murine model, 2000-2006.
- 5) Bizhan Malaekheh Nikouei: Formulation and characterization of biodegradable liposomes and microsphere encapsulated with Cyclosporine A for oral administration, 2000-2006.
- 6) Shiva Golmohammadzadeh: Formulation and characterization of liposomes containing octyl methoxycinnamate as a sunscreen, 2000-2006.
- 7) Sima Afsharnezhad: Simulation of a liposome-protein system with DPPC and other phospholipids and evaluation of solvents with different dielectric constant on the liposome structure using ab initio, molecular mechanic and Monte Carlo methods, 2004-2008.
- 8) Neda Bavarsad: Formulation, characterization and in-vivo evaluation of topical liposomal and transferosomal paromomycin for the treatment of cutaneous leishmaniasis caused by *L. major* in Murine Model, 2004- 2009.
- 9) Pedram Ibrahimnezhad: Formulation, characterization and evaluation of polymer nanoparticles containing SN-38 (active metabolite of irinotecan) for the treatment of colon cancer as in vitro and in vivo in animal tumor model.2005-2009.
- 10) Maryam Iman: Formulation and Characterization of Nanolipoparticles containing Amphotericine B using Distigmasterol Phosphatidyl Choline and Evaluation of their Antifungal and Antileishmniaal Properties, 2007- .
- 11) Hamid Mohammadpanah: Formulation and stability studies of parentral liquid dosage form of recombinant human growth hormone, 2007- .
- 12) Seyed Amir Jalali: Preparation of LPD nanoparticles containing Her2 peptides as vaccine against breast cancer, 2008-

13) Mohammad Reza Amin: Formulation, preparation and characterization of nanoliposomal doxorubicin prepared with distearylphospholipids and targeted with RGD peptides, and evaluation of their anti tumor effects, invitro and invivo in mice bearing C26 colon carcinoma tumor, 2008-

14) Seyedeh Alia Mousavian: Formulation and characterization of nanoliposomal doxorubicin targeted with anti- Her-2/neu aptamer and evaluation of their anti tumor effects in vitro and in vivo in mice bearing Her-2/neu expressing breast cancer, 2010-

15) Mahnaz Nourbakhsh: Evaluation of effects of nanoliposomes containing MDR1 siRNA on drug resistance in doxorubicin resistant breast cancer cells (MCF-7/Adr), 2009-

16) AmirHossain Sahebkar: Formulation and characterization of nanoliposomes targeted with apo B100 antibodies and evaluation of their lipid lowering effects *in vitro* and *in vivo*.

International Conference Presentations

1) Foldvari, M. and Jaafari, M.R. 1994. Effect of synthetic P₀-oligopeptides on the cell adhesion properties of P₀ protein reconstituted into liposomes. *Pharmaceutical Research*, 11(10) S-328 (Congress of American Association of Pharmaceutical Sciences, SanDiego, USA, November 6-10, 1994).

2) Jaafari, M.R. and Foldvari, M. 1997. Adhesive properties of P₀ protein reconstituted into liposomes with different human melanoma cell lines. *Pharmaceutical Research*, 14(11) S-157 (Congress of American Association of Pharmaceutical Sciences, Boston, USA, November 2-6, 1997).

3) Jaafari, M.R. and Foldvari, M. 1997. Inhibition of adherence of jurkat T cells to keratinocytes by LFA-1 derived and RGD peptides. *Pharmaceutical Research*, 14(11) S-312 (Congress of American Association of Pharmaceutical Sciences, Boston, USA, November 2-6, 1997).

4) Jaafari, M.R. and Foldvari, M. 1998. Liposome targeting to melanoma cells through adhesive peptides from immunoglobulin (Ig) domains. *Pharmaceutical Research*, 15(11) Supplement (Congress of American Association of Pharmaceutical Sciences, San Francisco, USA, November 15-19, 1998).

5) Foldvari, M. and Jaafari, M.R. 1997. Studies of adhesive properties of myelin P₀ protein derived peptides. In: Juurlink, B.H.J., Devon, R.M., Doucette, J.R., Nazarali, A.J *Cell Biology and Pathology of Myelin : Evolving Biological Concepts and Therapeutic Approaches* (Altschul Symposia Series: Cell Biology and Pathology of Myelin : Evolving Biological Concepts and Therapeutic Approaches, Saskatoon, Canada June 27-29, 1996).

6) Jaafari M.R., Khamesipour A., Hemedivafa F., koushkbaghy M. 2001, Inducing cell- mediated immunity in BALB/C mice using liposomes encapsulated

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HONOURS AND AWARDS

Scholarship award for higher education by the Ministry of Health and Medical Education of Iran, 1993-1996.

The Parke-Davis Centennial Pharmacy Research Award, 1996-1997 and 1997-1998.

The 13th Razi Research Festival on Medical Sciences, Second Rank in Modern Technology (Nanotechnology and Biotechnology), www.razi.hbi.ir, December 2007.

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- 1) Mariana Foldvari, D. Pharm. Sci., PhD; Professor of Pharmaceutical Sciences; School of Pharmacy, University of Waterloo, 200 University Avenue West, Waterloo, Ont., Canada N2L 3G1; Tel: 519-888-7910; e-mail: foldvari@uwaterloo.ca
- 2) Francis C. Szoka, Ph.D.; Professor of Biopharmaceutical Sciences and Pharmaceutical Chemistry; University of California, San Francisco; 513 Parnassus Ave.; San Francisco, CA 94143-0446 USA; Tel: 415-476-3895; e-mail: szoka@cgl.ucsf.edu
- 3) Hossain Hossainzadeh, Pharm D., PhD; Professor of Pharmacology, Dean of School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran, P.O.Box 91775-1365; Tel: 0098-511-8823252; e-mail: hossainzadehh@mums.ac.ir