

Curriculum Vitae

Name: Roya Ghods

E-mail: ghods.ro@iums.ac.ir, rghods77@yahoo.com

Work addresses:

1- Department of Molecular Medicine, Faculty of Advanced Technologies in Medicine, Iran University of Medical Sciences, IUMS, Tehran, Iran.

2- Oncopathology Research Center, Iran University of Medical Sciences, IUMS, Tehran, Iran.

Educational Background:

B.Sc. Cellular and Molecular Biology, Tehran University, Tehran, Iran.

M.Sc. Clinical Biochemistry, Tehran university of Medical Sciences, Tehran, Iran.

Ph.D. Molecular Medicine. Tehran university of Medical Sciences, Tehran, Iran.

Occupational Background:

1997	Instructor, Biochemistry course (theory and lab work), Fatemieh Medical School, Qom, Iran.
1999-2001	Research assistant, Department of Immunology, School of public Health, Tehran University of Medical Sciences. Tehran, Iran.
2001-2009	Head of Immunochemistry Lab, Monoclonal Antibody Research Center, Avicenna Research Institute, Tehran, Iran.
2008-2009	Head of Immunochemistry Department, Monoclonal Antibody Research Center, Avicenna Research Institute, Tehran, Iran.
2009-2015	Ph.D. Student of Molecular Medicine, Tehran University of Medical Sciences, Tehran, Iran.
2016-Present	Assistant Professor, Department of Molecular Medicine, Faculty of Advanced Technologies in Medicine, Iran University of Medical Sciences, IUMS, Tehran, Iran.

List of Publications:

1. Sabooryaraghi A.A, **Ghods R**, Shokri F. Production and characterization of a murine monoclonal antibody recognizing a conformational epitope on hCG. Medical Journal of Reproduction and Infertility 2000; 4: 44-54.

2. Hadji-Ghasemi F, Gharagozlou S, **Ghods R**, Roohi A, Khoshnoodi J, Shokri F. Generation and characterization of a Mouse Monoclonal Antibody with specificity similar to staphylococcal protein(SPA). *Hybridoma and Hybridomics* 2003; 22(1): 33-9.
3. Gharagozlou S, **Ghods R**, Samadi Bahrami Z, Jeddi-Tehrani M, Conti-Fine B.M, Sharifian R.A, Rabbani H, Shokri F. Characterization of human hybridoma clones isolated from hemophilia patients with specificity for different domains of coagulating factor VIII. *Human Antibodies* 2003; 12: 67-76.
4. Saboor-Yaraghi A.A, **Ghods R**, Gharagozlou S, Roohi A, Khoshnoodi J, Towfighi F, Jeddi – Tehrani M, Shokri F. Identification of cross – reactive and restricted eptitopes localized on human chronic gonadotropin beta-subunit by monoclonal antibodies. *Hybridoma and Hybridomics* 2004; 23(2): 101-107.
5. Mahmoudi S.A.R, **Ghods R**, Zarnani A.H, Heidari M, Bayat A.A, Torkabadi E, Akhondi M.M, Parivar K, Jeddi-Tehrani M, Sadeghi M.R. Characterization of a human spermatozoa surface antigen recognized by HS56 monoclonal antibody. *Medical Journal of Reproduction and Infertility* 2004; 5 (4): 290-298.
6. Behjati Ardakani R, Sadeghi M.R, **Ghods R**, Bayat A.A, Jeddi-Tehrani M. Extraction and purification of ferritin from liver tissue. *Journal of Babol University of Medical Sciences* 2005; 7(1): 14-21.
7. Hajjighasemi F, Gharagozlou S, Moheghi N, **Ghods R**, Khoshnoodi J, Shokri F. Production and Characterization of Murine Monoclonal Antibodies Recognizing Conformational and Linear Epitopes Localized on Human IgA2 Molecules. *Iranian Journal of Immunology* 2005; 2(3): 125-133.
8. Akhoundi M.M , TorkAbadi E, Bayat A.A , Heidari M , **Ghods R** , Sadeghi M.R , Dizeji A , Shokri F , jeddi – Tehrani M. Monoclonal Antibody Production Against Human Spermatozoal Surface Antigens. *Journal of Shaheed Sadoughi University of Medical Services & Health Service* 2005; 13(4) 36-50.
9. Hodjat M, Talebian A, **Ghods R**, Shabani A, Akhoundi MM, Sadeghi MR. Purification of ubiquitin and production of specific antibody directed against it. *Iranian Journal of Biology (IJB) (Scientific Research)* 2005; 18(2) 251 – 263.
10. Hajjighasemi F, Gharagozlou S, **Ghods R**, Khoshnoodi J, Shokri F. Private idiotypes located on light and heavy chains of human myeloma proteins characterized by monoclonal antibodies. *Hybridoma (larchmt)* 2006; 25(6) 329 – 335.
11. Zarnani A.H, Moazzeni S.M, Shokri F, Salehnia M, Dokoohaki P, **Ghods R**, Mahmoodi A.R, Jeddi-Tehrani M. Microenvironment of the feto-maternal interface protect semiallogenic fetus though is immunomodulatory activity on dendritic cells. *Fertility and Sterility*, 2008; 90(3) 781-8.
12. Sadeghi M.R, Hodjat M, Naseri N, Jeddi-Tehrani M, Mosaffa N, Akhondi M.M, **Ghods R**, Bayat A.A. Purification of inhibin from human follicular fluid using monoclonal antibody. *Feyz-Journal of Kashan University of Medical Sciences* 2007; 11(3) 24-30.

13. Moravvej A, Zarnani AH, Jeddi-Tehrani M, Salek-moghaddam AR, Shekarabi M, **Ghods R**, Shahbazi M, Kazemi-Sefat G, Ghasemi J, Akhondi MA. Evaluation of thyroglobulin gene expression in endometrium of Balb/c female mice during estrous cycle. *Tehran University Medical Journal* 2008; 65(3) 42-48.
14. Daneshmanesh AH, Mikaelsson E, Jeddi-Tehrani M, Bayat AA, **Ghods R**, Ostadkarampour M, Akhondi M, Lagercrantz S, Larsson C, Osterborg A, Shokri F, Mellstedt H, Rabbani H. Ror1, a cell surface receptor tyrosine kinase is expressed in chronic lymphocytic leukemia and may serve as a putative target for therapy. *International Journal of Cancer*, 2008; 123 (5)1190-5.
15. Tabatabaei-Panah A.S, Zarnani AH, Montaser-Kouhsari Sh, Chamankhah M, **Ghods R**, Bayat A.A, Kazemi-Sefat G.E, Mahmoudi S.A.R, Ostadkarampour M., Shojaeian S., Jeddi-Tehrani M. Production and characterization of anti-Her2 monoclonal antibody. *Yakhteh Medical Journal* 2008; 10(2)109-120.
16. Shamsipour F, Zarnani AH, **Ghods R**, Chamankhah M, Forouzesh F, Vafaei S, Bayat AA, Akhondi MM, Oghabian A, Jeddi-Tehrani M. Conjugation of monoclonal antibodies to super paramagnetic iron dioxide nanoparticles for detection of her2/neu antigen on breast cancer cell line. *Avicenna Journal of Medical Biotechnology*, 2009 April-June; 1(1):27-31.
17. Shojaeian J, Zarnani AH, Dokouhaki P, Mahmoudi SAR, **Ghods R**, Bayat AA, Akhondi MM, Ostadkarampour M, Jeddi- Tehrani M. Mutual helper effect in co-pulsing of dendritic cells with two antigens: A novel approach for improvement of dendritic-based vaccine efficacy against tumors and infectious diseases simultaneously. *Journal of Immunotherapy*, 2009 May; 32 (4):325-32.
18. Shojaeian S, Allameh AA, Zarnani AH, **Ghods R**, Bayat AA, Kazemi-sefat GE, Tabatabaei Panah A, Jeddi-Tehrani M. Production and characterization of monoclonal Antibodies against the extracellular Domain of CA 125. *Immunological Investigation*. 2010 Jan; 39 (2):114-31.
19. Mahmoudian S, Jeddi-Tehrani M, Rabbani H, Mahmoudi AR, Akhondi MM, Zarnani AH, Balaei Goli L, Babaei M, **Ghods R**. Conjugation of R-Phycoerythrin to a Polyclonal Antibody and F(ab')₂ Fragment of a Polyclonal Antibody by Two Different Methods. *Avicenna Journal of Medical Biotechnology*. 2010 April- June; 2(2):87-91.
20. Mahmoudian M, Hadavi R, Jeddi-Tehrani M, Mahmoudi AR, Bayat AA, Shaban E, Vafakhah M, Darzi M, Tarahomi M, **Ghods R**. Comparison of the Photobleaching and Photostability Traits of Alexa Fluor 568- and Fluorescein Isothiocyanate- conjugated Antibody. *CELL JOURNAL (Yakhteh)*. 2011; 13(3):169-172.
21. Akhavan AA , **Ghods R**, Jeddi-Tehrani M, Yaghoobi- Ershadi MR, Khamesipour A, Mahmoudi AR. Production and Purification of Anti-Rhombomys opimus Immunoglobulins. *Iranian Journal of Arthropod-Borne Diseases*. 2011; 5(2):69-76. (AA Akhavan and R Ghods contributed equally to this work).

22. Mahmoudi AR, Shaban E, **Ghods R**, Jeddi-Tehrani M, Emami Sh, Rabbani H, Zarnani AH, Mahmoudian J. Comparison of Photostability and Photobleaching Properties of FITC- and Dylight488- Conjugated Herceptin. *International Journal of Green Nanotechnology, Biomedicine*. 2011; 3:264–270.
23. Daneshmanesh AH, Hojjat-Farsangi M, Khan AS, Jeddi-Tehrani M, Akhondi MM, Bayat AA, **Ghods R**, Mahmoudi AR, Hadavi R, Sterborg A O, Shokri F, Rabbani H and Mellstedt H. Monoclonal antibodies against ROR1 induce apoptosis of chronic lymphocytic leukemia (CLL) cells. *Leukemia*; 2012;26(6):1348-55.
24. Tabatabaei-Panah AS, Jeddi-Tehrani M, **Ghods R**, Akhondi MM, Mojtavavi N, Mahmoudi AR, Mirzadegan E, Shojaeian S, Zarnani AH. Accurate Sensitivity of Quantum Dots for Detection of HER2 Expression in Breast Cancer Cells and Tissues. *Journal of Fluorescence*; 2013;23(2):293-302.
25. **Ghods R**, Ghahremani MH, Darzi M, Mahmoudi AR, Yeganeh O, Bayat AA, Pasalar P, Jeddi-Tehrani M, Zarnani AH. Immunohistochemical characterization of novel murine monoclonal antibodies against human placenta-specific 1. *Biotechnology and Applied Biochemistry*; 2014 May-Jun; 61 (3):363-9.
26. Bayat AA, Yeganeh O, **Ghods R**, Zarnani AH, Ardekani RB, Mahmoudi AR, Mahmoudian J, Haghghat-Noutash F, Jeddi-Tehrani M. Production and characterization of a murine monoclonal antibody against human ferritin. *Avicenna Journal of Medical Biotechnology*; 2013; 5(4):212-9.
27. Tabatabaei M, Mosaffa N, Nikoo S, Bozorgmehr M, **Ghods R**, Kazemnejad S, Rezaia S, Keshavarzi B, Arefi S, Ramezani-Tehrani F, Mirzadegan E, Zarnani AH. Isolation and partial characterization of human amniotic epithelial cells: the effect of trypsin. *Avicenna Journal of Medical Biotechnology*; 2014; 6(1):10-20.
28. **Ghods R**, Ghahremani MH, Madjd Z, Asgari M, Abolhasani M, Tavasoli S, Mahmoudi AR, Darzi M, Pasalar P, Jeddi-Tehrani M, Zarnani AH. High placenta-specific1/low prostate-specific antigen expression pattern in high-grade prostate adenocarcinoma. *Cancer Immunology, Immunotherapy*. 2014 Dec;63(12):1319-27
29. Bayat AA, **Ghods R**, Shabani M, Mahmoudi AR, Yeganeh O, Hassannia H, Sadeghitabar A, Balay-Goli L, Noutash-Haghghat F, Sarrafzadeh AR, Jeddi-Tehrani M. Production and Characterization of Monoclonal Antibodies against Human Prostate Specific Antigen. *Avicenna Journal of Medical Biotechnology*, 2015 Jan-Mar;7(1):2-7.
30. Rasoulzadeh Z, **Ghods R**, Kazemi T, Mirzadegan E, Ghaffari-Tabrizi-Wizsy N, Rezaia S, Kazemnejad S, Arefi S, Ghasemi J, Vafaei S, Mahmoudi AR, Zarnani AH. Placental Kisspeptins Differentially Modulate Vital Parameters of Estrogen Receptor-Positive and -Negative Breast Cancer Cells. *PLoS One*. 2016 Apr 21;11(4):e0153684.
31. Nazari M, Zarnani AH, **Ghods R**, Emamzadeh R, Najafzadeh S, Minai-Tehrani A, Mahmoudiani J, Yousefi M, Vafaei S, Massahi S, Nejadmoghaddam MR. Optimized protocol for soluble prokaryotic

- expression, purification and structural analysis of human placenta specific-1(PLAC1). *Protein Expression and Purification*. 2017 Mar 16;133:139-151
32. Nejadmoghaddam MR, Zarnani AH, Ghahremanzadeh R, **Ghods R**, Mahmoudian J, Yousefi M, Nazari M, Ghahremani MH, Abolhasani M, Anissian A, Mahmoudi M, Dinarvand R. Placenta-specific1 (PLAC1) is a potential target for antibody-drug conjugate-based prostate cancer immunotherapy. *Scientific Report*. 2017; 17:7(1):13373.
 33. Tabatabaei M, Mosaffa N, **Ghods R**, Nikoo S, Kazemnejad S, Khanmohammadi M, Mirzadeghan E, Mahmoudi AR, Bolouri MR, Falak R, Keshavarzi B, Ramezani M, Zarnani AH. Vaccinations with human amniotic epithelial cells confer effective protection in a murine model of Colon adenocarcinoma. *International Journal of Cancer*. 2018 Apr 1; 142(7):1453-1466.
 34. Gheytnchi E, Madjd Z, Janani L, Rasti A, **Ghods R**, Atyabi F, Asadi-Lari MH, Babashah S. Exosomal microRNAs as potential circulating biomarkers in gastrointestinal tract cancers: a systematic review protocol. *Systematic Review*. 2017; Nov 17:6(1):228.
 35. Shahmohammadi-Farid S, **Ghods R**, Jeddi-Tehrani M, Bayat AA, Mojtavavi N, Razavi A, Zarnani AH. Generation and Characterization of Siglec-F-Specific Monoclonal Antibodies. *Iran Journal of Allergy, Asthma and Immunology*. 2017; Dec 16(6):460-470.
 36. Shojaeian S, Allameh A, Jeddi-Tehrani M, **Ghods R**, Shojaeian J, Tabatabaei-Panah A, Zarnani AH. Quantum Dot-labeled Tags Improve Minimal Detection Limit of CA125 in Ovarian Cancer Cells and Tissues. *Iran Journal of Allergy, Asthma and Immunology*. 2018; August 17(4):326-335.
 37. Mahmoudian J, **Ghods R**, Nazari M, Jeddi-Tehrani M, Ghahremani MH, Ostad SN, Zarnani AH. Expression profiling of plac1 in murine cancer cell lines. *Experimental Oncology*. 2019; Mar; 41(1):7-13.
 38. Mahmoudian J, **Ghods R**, Nazari M, Jeddi-Tehrani M, Ghahremani MH, Ghaffari-Tabrizi-Wizsy N, Ostad SN, Zarnani AH. PLAC1: biology and potential application in cancer immunotherapy. *Cancer Immunology and Immunotherapy*. 2019; Jul; 68(7):1039-1058.
 39. Eini L, Naseri M, Karimi-Busheri F, Bozorgmehr M. **Ghods R***, Madjd Z. Primary colonospheres maintain stem cell-like key features after cryopreservation. *Journal of Cellular Physiology*. 2020 Mar; 235 (3):2452-2463. Epub 2019 Oct 2.
 40. Mahmoudian J, Nazari M, **Ghods R**, Jeddi-Tehrani M, Ghahremani MH, Amiri MM, Ostad SN, Zarnani AH. Expression of Human Placenta-specific 1 (PLAC1) in CHOK1 cells. 2019, *Avicenna Journal of Medical Biotechnology*, Jan-Mar 2020;12 (1):24-31.

41. Razmi M, Hashemi F, Gheytauchi E, Dehghan Manshadi M, **Ghods R***, Madjd Z. Immunomodulatory-based therapy as a potential promising treatment strategy against severe COVID-19 patients: A systematic review. *International Immunopharmacology*, 2020 Nov; 88:106942. Epub 2020 Aug 29.
42. Mahmoudi AR, **Ghods R***, Rakhshan A, Madjd Z, Bolouri MR, Mahmoudian J, Rahdan S, Shokri MR, Shekarabi M and Zarnani AH. Discovery of a potential biomarker for immunotherapy of melanoma: PLAC1 as an emerging target. *Immunopharmacology and Immunotoxicology*. 2020 Dec; 42(6):604-613. Epub 2020 Oct 26.
43. Sajed R, Saeednejad Zanjani L, Rahimi M, Mansoori M, Zarnani AH, Madjd Z, **Ghods R***. Overexpression and Translocation of Dynamin 2 Promotes Tumor Aggressiveness in Breast Carcinomas. *EXCLI Journal*, 2020, Oct 29; 19:1423-1435.
44. Gheytauchi E, Naseri M, Karimi-Busheri F, Atyabi F, Mirsharif ES, Bozorgmehr M, **Ghods R***, Madjd Z. Morphological and molecular characteristics of spheroid formation in HT-29 and Caco-2 colorectal cancer cell lines. *Cancer Cell International*, 2021 Apr 13;21(1):204.
45. Razmi M, **Ghods R**, Vafaei S, Sahlolbei M, Saeednejad Zanjani L, Madjd Z. Clinical and prognostic significances of cancer stem cell markers in gastric cancer patients: a systematic review and meta-analysis. *Cancer Cell Int*. 2021 Feb 27;21 (1):139.
46. Naseri M, Zöller M, Hadjati J, **Ghods R**, Ranaei Pirmardan E, Kiani J, Eini L, Bozorgmehr M, Madjd Z. Dendritic cells loaded with exosomes derived from cancer stem cell-enriched spheroids as a potential immunotherapeutic option. *J Cell Mol Med*. 2021 Apr;25 (7):3312-3326.
47. Gheytauchi E, Saeednejad Zanjani L, **Ghods R***, Abolhasani M, Shahin M, Vafaei S, Naseri M, Fattahi F, Madjd Z. High expression of tumor susceptibility gene 101(TSG101) is associated with more aggressive behavior in colorectal carcinoma. *Journal of Cancer Research and Clinical Oncology*. 2021 Jun;147 (6):1631-1646.
48. Lakpour N, Saliminejad K, **Ghods R***, Reza Sadeghi M, Pilatz A, Khosravi F, Madjd Z. Potential biomarkers for testicular germ cell tumour: Risk assessment, diagnostic, prognostic and monitoring of recurrence. *Andrologia*. 2021 May;53 (4):e13998.

Patents:

- 1- Islamic Republic of Iran Patent # 89/الف/015943, Preparation of Protein A Chromatography Column.
- 2- Islamic Republic of Iran Patent , # 89/الف/026544, Production of a novel anti-RTL1 antibody with the specificity to human granulocytes and tissue macrophages.

Book Chapter:

Zarebkohan A, Sheervalilou R, **Ghods R**, Kundu SC, Gholipourmalekabadi M. (2020). 3D scaffold materials for skin cancer modeling. Biomaterials for 3D Tumor Modeling, ELSEVIER 2020, ISBN: 978-0-12-818128-7.