

Ghasem Hosseini Salekdeh, Ph.D.

Agricultural Biotechnology Research Institute of Iran,

www.abrii.ac.ir

Seed & Plant Improvement Campus,
Mahdasht Road, Karaj, Iran.

P. O. Box: 31535-1897

Tel: +98 261 2709485 - 2708282

Fax: +98 261 2704539

E-mail: h_salekdeh@abrii.ac.ir
hsalekdeh@yahoo.com



and

Royan Institute (www.royaninstitute.org)

Banihashem Sq., Resalat avenue, Tehran, Iran

Tel: +98 (21) 26300025

Fax: +98 (21) 22310406

Email: Salekdeh@royaninstitute.org

Positions (National and International)

- President of Iranian Proteomics Society (www.proteomics.ir)
- Council member Asian and Oceania Human Proteome Organization (AOHUPO) (aohupo.org)
- Chair of AOHUPO Human Embryonic Stem Cell Membrane Proteome Initiative
- Chair of Human Y Chromosome Proteome Project
- Member of Human Proteome Organization (HUPO) educational committee

On-going projects (National)

- Proteomics approach to discovering genes involved in plant tolerance to abiotic stresses
- Identification of genes involved in Embryonic Stem Cell proliferation and Differentiation
- Human Y Chromosome Proteome Project

On-going projects (International)

- Human Embryonic Stem Cell Membrane Proteome Initiative, an official project of Asia Oceania HUPO
- An integrated proteomics and genomics approach to discover salt tolerance genes, a Generation Challenge Program Project

Other activities:

- Eitorial board member of **Proteomics** journal
- Eitorial board member of **World Journal of Stem Cell**
- Eitorial board member of **The Cell Journal**
- Editor of Asia Oceana Human Proteome Organization Newsletter (AOHUPO)

Awards

- National Biotechnology award (2007)
- Best researcher award from Ministry of Agriculture (2008)
- Razi Medical Science award for advance technologies (2009)
- Dr. Hadavi award from Iranian Academy of Medical Sciences (2010)
- Khwarizmi International Award for fundamental research (2010)

International referee journal Publications

1. Bazargani MM, Sarhadi E, Bushehri A-AS, Matros A, Mock H-P, Naghavi M-R, et al. A proteomics view on the role of drought-induced senescence and oxidative stress defense in enhanced stem reserves remobilization in wheat. 2011. Journal of Proteomics. In Press
2. Legrain P, Aebersold R, Archakov A, Bairoch A, Bala K, Beretta L, Bergeron J, Borchers C, Corthals GL, Costello CE, Deutsch EW, Domon B, Hancock W, He F, Hochstrasser D, Marko-Varga G, Salekdeh GH, Sechi S, Snyder M, Srivastava S, Uhlen M, Hu CH, Yamamoto T, Paik YK, Omenn GS. 2011 The human proteome project: Current state and future direction. Mol Cell Proteomics. 2011 Apr 29.
3. Bandehagh A, Salekdeh GH, Toorchi M, Mohammadi A, Komatsu S. Comparative proteomic analysis of canola leaves under salinity stress. Proteomics. 2011 May;11(10):1965-75.
4. Zamharir MG, Mardi M, Alavi SM, Hasanzadeh N, Nekouei MK, Zamanizadeh HR, Alizadeh A, Salekdeh GH. 2011. Identification of genes differentially expressed during interaction of Mexican lime tree infected with "Candidatus Phytoplasma aurantifolia". BMC Microbiol. 2011 Jan 1;11:1.
5. Reiland S, Salekdeh GH, Krijgsveld J. 2011. Defining pluripotent stem cells through quantitative proteomic analysis. Expert Rev Proteomics. Feb;8(1):29-42.
6. Larijani MR, Seifinejad A, Pournasr B, Hajihoseini V, Hassani SN, Totonchi M, Yousefi M, Shamsi F, Salekdeh GH, Baharvand H. 2011. Long-Term Maintenance of Undifferentiated Human Embryonic and Induced Pluripotent Stem Cells in Suspension. Stem Cells Dev. 2011 Feb 24. PubMed PMID: 21198400.
7. Sarhadi E, Mahfoozi S, Hosseini SA, Salekdeh GH. 2010. Cold acclimation proteome analysis reveals close link between the up-regulation of low-temperature associated proteins and vernalization fulfillment. *J Proteome Res.* 9:5658-67.
8. Ghodsizadeh A, Taei A, Totonchi M, Seifinejad A, Gourabi H, Pournasr B, Aghdami N, Malekzadeh R, Almadani N, Salekdeh GH, Baharvand H. 2010. Generation of Liver Disease-Specific Induced Pluripotent Stem Cells Along with Efficient Differentiation to Functional Hepatocyte-Like Cells. *Stem Cell Rev.* 6:622-32.
9. Peng L, Kapp EA, Fenyö D, Kwon MS, Jiang P, Wu S, Jiang Y, Aguilar MI, Ahmed

- N, Baker MS, Cai Z, Chen YJ, Van Chi P, Chung MC, He F, Len AC, Liao PC, Nakamura K, Ngai SM, Paik YK, Pan TL, Poon TC, Hosseini Salekdeh G, Simpson RJ, Sirdeshmukh R, Srisomsap C, Svasti J, Tyan YC, Dreyer FS, McLauchlan D, Rawson P, Jordan TW. 2010. The asia oecania human proteome organisation membrane proteomics initiative. preparation and characterization of the carbonate-washed membranestandard. *Proteomics* 10:4142-8.
10. Azimi MR, Alizadeh H, Salekdeh GH, Naghavi MR., 2010. Association of yield and flag leaf photosynthesis among wheat RILs under drought condition. *Int. J. Food, Agri. Env.* 8, 409-411.
 11. Asgari S, Pournasr B, Salekdeh GH, Ghodsizadeh A, Ott M, Baharvand H. 2010. Induced pluripotent stem cells: a new era for hepatology. *J Hepatol.* 2010 53:738-51.
 12. Fazeli AS, Nasrabadi D, Sanati MH, Pouya A, Ibrahim SM, Baharvand H, Salekdeh GH. 2010. Proteome analysis of brain in murine experimental autoimmune encephalomyelitis. *Proteomics* 10:2822-32.
 13. Seifinejad A, Tabebordbar M, Baharvand H, Boyer LA, Salekdeh GH. Progress and Promise Towards Safe Induced Pluripotent Stem Cells for Therapy. *Stem Cell Rev.* 6:297-306.
 14. Shahhoseini, M., Taei, A., Mehrjardi, N.Z., Salekdeh, GH, Baharvand, H. 2010. Epigenetic analysis of human embryonic carcinoma cells during retinoic acid-induced neural differentiation. *Biochem Cell Biol.* 88:527-38.
 15. Baharvand, H., Salekdeh, G.H., Taei, A., Mollamohammadi, S. 2010. An Efficient and Easy-to-Use Cryopreservation Protocol for Human ES and iPS Cells. *Nature Protocols*; 5: 588-94.
 16. Nasrabadi, D., Rezaei, M., Fathi, A., Gourabi, H., Vosough Dizaji, A., Baharvand, H., Salekdeh, G.H., 2010. Nuclear proteome analysis of monkey embryonic stem cells during differentiation. *Stem Cell Rev.* 6: 50-60.
 17. Seifinejad A, Taei A, Totonchi M, Vazirinasab H, Hasani SN, Aghdami N, Shahbazi E, Salekdeh GH, Baharvand H. 2010. Generation of Human Induced Pluripotent Stem Cells from a Bombay Individual: Moving Towards "Universal-Donor" Red Blood Cells. *Biochem Biophys Res Commun.* 391: 329–334.
 18. Mehdi Totonchi, Adeleh Taei, Ali Seifinejad, Mohammadsharif Tabebordbar, Hassan Rassouli, Ali Farrokhi, Hamid Gourabi, Nasser Aghdami, Ghasem Hosseini Salekdeh, Hossein Baharvand. 2009. Feeder- and Serum-Free Establishment and Expansion of Human Induced Pluripotent Stem Cells. *Int J Dev Biol* 2009, 54:877-86.
 19. Salekdeh, Gh., Reynolds, M., Bennett, J., Boyer., J. 2009. Conceptual framework for drought phenotyping during molecular breeding. *Trends in Plant Science* 14:488-496.
 20. Fathi, A., Pakzad, M., Taei, A., Brink, T.C., Pirhaji, L., Ruiz, G., Tabe Bordbar, M., Gourabi, H., Adjaye, J., Baharvand, H., Salekdeh, GH. 2009. Comparative Proteome and Transcriptome Analyses of Embryonic Stem Cells during Embryoid Body-based Differentiation. *Proteomics*: 9:4859-70
 21. Kabiri, M., Amoozegar, M., Tabebordbar, M., Gilai, K., Salekdeh, G.H., 2009. Effects of selenite and tellurite on growth, physiology and proteome of a moderately halophilic bacterium. *Journal of Proteome Research*, 8:3098-108.
 22. Nasrabadi, D., Rezaei, M., Pirhaji, L., Gourabi, H., Shahverdi, A., Baharvand, H., Salekdeh, GH., 2009. Proteomic analysis of monkey embryonic stem cell during differentiation., *Journal of Proteome Research*, 8: 1527–1539.

23. Torabi, S., Wissuwa, M., Heidari, M., Naghavi, MR., Gilany, K., Hajirezaei, MR., Omid, M., Yazdi-Samadi, B., Ismail, AM., Salekdeh GH., 2009. A comparative proteome approach to decipher the mechanism of rice adaptation to phosphorous deficiency. *Proteomics*, 9:159-70.
24. Baharvand, H., Fathi, A., Gourbai, H., Mollamohammadi, S., Salekdeh Gh. 2008. Identification of mouse embryonic stem cell-associated proteins. *Journal of Proteome Research* , 7: 412-423.
25. Eivazi, AR., Naghavi, MR., Hajheidari, M., Pirseyedi, SM., Ghaffari, MR., Mohammadi, SA., Majidi, I., Salekdeh, GH., Mardi, M., 2008. Assessing wheat (*Triticum aestivum* L.) genetic diversity using quality traits, amplified fragment length polymorphisms, simple sequence repeats and proteome analysis. *Annals of Applied Biology*, 152 : 81-91.
26. Bananej, K., Keshavarz, T., Vahdat, A., Salekdeh. G.H., Glasa, M., 2008. Biological and Molecular Variability of Zucchini yellow mosaic virus in Iran. *J. Phytopathology*, 156, 654 – 659
27. Bandeh-Hagh, A., Toorchi, M., Mohammadi, A., Chaparzadeh, N., Salekdeh, GH., Kazemnia, H., 2008. Growth and osmotic adjustment of canola genotypes in response to salinity. *J. Food. Agri. Envi.* 6 : 201-208.
28. Norouzi, M., Toorchi, M., Salekdeh, GH., Mohammadi, SA., Neyshabouri, MR., Aharizad, S., 2008. Effect of water deficit on growth, grain yield and osmotic adjustment in rapeseed. *J. Food. Agri. Envi.* 6: 312-318.
29. Nohzadeh Malekshah, S., Habibi Rezaei, M., Heidari, M., Salekdeh, GH., 2007. Proteomics reveals new salt responsive proteins associated to rice plasma. *Biosci., Biotechno. Biochem.* 71: 2144-2154.
30. Baharvand H, Heidari, M., Ebrahimi, M., Valadbeigi, T., Salekdeh, GH., 2007. Proteomic analysis of epithelium-denuded human amniotic membrane as limbal stem cell niche. *Molecular Vision*, 13:1711-1721.
31. Salekdeh, GH., Komatsu, S., 2007. Crop proteomics: aim at sustainable agriculture of tomorrow. *Proteomics*, 7: 2976-2996.
32. Baharvand, H., Fathi, A., van Hoof, D., Salekdeh GH. 2007. Trends in Stem Cell Proteomics. *Stem Cells*. 25:1888-1903
33. Babaie, G., Khatabi, B., Bayat, H., Rastgou, M., Hosseini, A., Salekdeh, GH. 2007. Detection and Characterization of Phytoplasmas Infecting Ornamental and Weed Plants in Iran. *J. Phytopathology* 155: 368–372
34. Hajheidari, M., Eivazi, A., Buchanan, BB., Wong, JH., Majidi, I., Salekdeh, GH., 2007, Proteomics uncovers a role for redox in drought tolerance in wheat. *Journal of Proteome Research* , 6: 1451-1460.
35. Gazanchian, A., Hajheidari, M., Khosh kholgh Sima, NA., Salekdeh, GH., 2007. Proteome response of *Elymus elongatum* to severe water stress and recovery. *Journal of Experimental Botany*. 58: 291-300.
36. Dadashi, A., Askari, H., Mayer-Posner, JM., Ziaei, A., Salekdeh, G.H, 2006 Proteome profiling of rice young panicle response to salinity. *Proteomics*, 6, 6498-507.
37. Rastgar-Jazii, F., Najafi, Z., Malekzadeh, R., Conrads, T.P., Ziaee, A.A., Abnet, C., Yazdznbod, M., Karkhane, A.A., Salekdeh, G.H., 2006. Identifi cation of squamous cell carcinoma associated

proteins by proteomics and loss of beta tropomyosin expression in esophageal cancer. *World J Gastroenterology* 12: 7104-7112

38. Baharvand H, Hajheidari M, Zonouzi R, Ashtiani SK, Hosseinkhani S, Salekdeh GH. 2006. Comparative proteomic analysis of mouse embryonic stem cells and neonatal-derived cardiomyocytes. *Biochem Biophys Res Commun.* 349: 1041-1049.
39. Baharvand, H., Hajheidari, M., Kazemi-Ashtiani S., Salekdeh G.H, 2006. Proteomic Signature of Human Embryonic Stem Cells. *Proteomics* , 6: 3544-9.
40. Siopongco, J. D. L. C., A. Yamauchi, H. Salekdeh J. Bennett and L. J. Wade., 2006. Root Growth and Water Extraction Response of Double-Haploid Rice Lines to Drought and Rewatering During the Vegetative Stage. *Plant Production Science* 9: 141-151.
41. Askari, H., Edqvist, J., Hajheidari, M., Kafi, M., Hosseini Salekdeh, Gh., 2006. Effects of Salinity Levels on proteome of Suaeda aegyptiaca leaves. *Proteomics* 6: 2542-54.
42. Siopongco, J. D. L. C., A. Yamauchi, H. salekdeh , J. Bennett and L. J. Wade. 2005. Growth and Water Use Response of Doubled-Haploid Rice Lines to Drought and Rewatering During the Vegetative Stage. *Plant Production Science* 8: 497-508
43. Hajheidari, M., Abdollahian-Noghabi, Askari, H., Sadeghian, S.Y., Ober, E. Hosseini Salekdeh, Gh., 2005. Proteome Analysis of Sugar Beet Leaves under Drought Stress. *Proteomics*, 5, 95-960.
44. Alavi, V., Khatabi, B., Hosseini Salekdeh, Gh., 2005. Comparison of biologically distinct isolates of Citrus tristeza virus from Iran using major coat protein. *Australasian Plant Pathology* 34, 577-582.
45. Rangan, L., Salekdeh, Gh. H., Bennett, J. Swaminathan. 2004. Molecular analysis of a stress-induced cDNA encoding the translation initiation factor eIF1 from salt-tolerant wild relative of rice, *Porteresia coarctata*. *Functional Plant Biology* 31: 1035-1042.
46. Bananej, K., Kheyr-Pour, A., Salekdeh, Gh. H., Ahoonmanesh, A., 2004. Complete nucleotide sequence of Iranian Tomato yellow leaf curl virus isolate: further evidence for natural recombination amongst begomoviruses. *Archives of Virology* 149:1435-43.
47. Shahrokh Safarian, Ali Akbar Moosavi-Movahedi, Saman Hosseinkhani, ZhiCheng Xia,4 Mehran Habibi-Rezaei, Ghasem Hosseini Salekdeh, Christine Sorenson, and Nader Sheibani. 2003. The Structural and Functional Studies of His119 and His12 in RNase A via Chemical Modification. *Journal of Protein Chemistry.* 22: 643-654.

Book

Naghavi, M., Ghareyazie, B., Hosseini Salekdeh, Gh. 2005. Molecular Markers. Tehran University Press. P. 320.

International conferences (Oral and poster presentations):

Invited speakers in more than 30 international conferences.