

# Curriculum Vitae



## Vahid Khalaj

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### Work Experience:

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| <i>Feb 2005-March 2015</i> | Associate Professor<br>Head of Medical Biotechnology Department, Pasteur<br>Institute of Iran, Tehran, Iran |
| <i>Aug 2002- Feb 2005</i>  | Senior Scientist<br>f2g Ltd., Manchester, UK  |
| <i>Jun 1993- Sep 1997</i>  | Scientist<br>Pasteur Institute of Iran, Tehran, Iran  |

### Education:

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| <i>Sep 1997-Dec 2001</i> | University of Manchester, Manchester, UK<br><i>Molecular Biotechnology, Doctorate (Ph.D.)</i>                       |
| <i>Sep 1987-Jul 1993</i> | Tehran University of Medical Sciences, Tehran, Iran<br><i>Medical Laboratory Sciences, Doctorate, (first honor)</i> |

### Field of research:

- Fungal biotechnology and functional genomics of fungi with focus on *Aspergillus fumigatus*
- Antifungal drug discovery
- Recombinant pharmaceuticals

### Publications:

1: Zarei N, Vaziri B, Shokrgozar MA, Mahdian R, Fazel R, **Khalaj V**. High efficient expression of a functional humanized single-chain variable fragment (scFv) antibody against CD22 in *Pichia pastoris*. *Appl Microbiol Biotechnol*. **2014** Dec;98(24):10023-39. doi: 10.1007/s00253-014-6071-2. Epub 2014 Sep 21. PubMed PMID: 25239038.

- 2: Fazel R, Zarei N, Ghaemi N, Namvaran MM, Enayati S, Mirabzadeh Ardakani E, Azizi M, **Khalaj V**. Cloning and expression of *Aspergillus flavus* urate oxidase in *Pichia pastoris*. Springerplus. 2014 Jul 30;3:395. doi: 10.1186/2193-1801-3-395. eCollection **2014**. PubMed PMID: 25105091; PubMed Central PMCID: PMC4124111.
- 3: Kazemali M, Majidzadeh-A K, Sardari S, Saadatirad AH, **Khalaj V**, Zarei N, Barkhordari F, Adeli A, Mahboudi F. Design of a novel chimeric tissue plasminogen activator with favorable Vampire bat plasminogen activator properties. *Enzyme Microb Technol*. 2014 Dec;67:82-6. doi: 10.1016/j.enzmictec.**2014**.09.005. Epub 2014 Sep 22. PubMed PMID: 25442953.
- 4: Shargh SA, Sakizli M, **Khalaj V**, Movafagh A, Yazdi H, Hagigatjou E, Sayad A, Mansouri N, Mortazavi-Tabatabaei SA, Khorram Khorshid HR. Downregulation of E-cadherin expression in breast cancer by promoter hypermethylation and its relation with progression and prognosis of tumor. *Med Oncol*. **2014** Nov;31(11):250. doi: 10.1007/s12032-014-0250-y. Epub 2014 Sep 27. PubMed PMID: 25260805.
- 5: Katirae F, **Khalaj V**, Khosravi AR, Hajiabdolbaghi M. Sequences type analysis of *Candida albicans* isolates from Iranian human immunodeficiency virus infected patients with oral candidiasis. *Acta Med Iran*. **2014**;52(3):187-91. PubMed PMID: 24901719.
- 6: Yahyaraeyat R, Khosravi AR, Shahbazzadeh D, **Khalaj V**. The potential effects of *Zataria multiflora* Boiss essential oil on growth, aflatoxin production and transcription of aflatoxin biosynthesis pathway genes of toxigenic *Aspergillus parasiticus*. *Braz J Microbiol*. **2013** Oct 30;44(2):643-9. doi: 10.1590/S1517-83822013000200045. eCollection 2013. PubMed PMID: 24294264; PubMed Central PMCID: PMC3833170.
- 7: Farahtaj F, Zandi F, **Khalaj V**, Biglari P, Fayaz A, Vaziri B. Proteomics analysis of human brain tissue infected by street rabies virus. *Mol Biol Rep*. **2013** Nov;40(11):6443-50. doi: 10.1007/s11033-013-2759-0. Epub 2013 Sep 24. PubMed PMID: 24057270.
- 8: Nematollahi L, Mahboudi F, Rahimpour A, Jahandar H, **Khalaj V**. [A novel human bone morphogenetic protein-7 variant with an enriched heparin-binding site]. *Mol Biol (Mosk)*. **2013** May-Jun;47(3):453-60. Russian. PubMed PMID: 23888776.
- 9: Moradi S, Azerang P, **Khalaj V**, Sardari S. Antifungal indole and pyrrolidine-2,4-Dione derivative peptidomimetic lead design based on in silico study of bioactive Peptide families. *Avicenna J Med Biotechnol*. **2013** Jan;5(1):42-53. PubMed PMID: 23626876; PubMed Central PMCID: PMC3572706.
- 10: Azizi M, Yakhchali B, Ghamarian A, Enayati S, Khodabandeh M, **Khalaj V**. Cloning and Expression of Gumboro VP2 Antigen in *Aspergillus niger*. *Avicenna J Med Biotechnol*. **2013** Jan;5(1):35-41. PubMed PMID: 23626875; PubMed Central PMCID: PMC3572705.

- 11: Hamed H, Misaghi A, Modarressi MH, Salehi TZ, Khorasanizadeh D, **Khalaj V**. Generation of a Uracil Auxotroph Strain of the Probiotic Yeast *Saccharomyces boulardii* as a Host for the Recombinant Protein Production. *Avicenna J Med Biotechnol.* **2013** Jan;5(1):29-34. PubMed PMID: 23626874; PubMed Central PMCID: PMC3572704.
- 12: Nematollahi L, **Khalaj V**, Babazadeh SM, Rahimpour A, Jahandar H, Davami F, Mahboudi F. Periplasmic Expression of a Novel Human Bone Morphogenetic Protein-7 Mutant in *Escherichia coli*. *Avicenna J Med Biotechnol.* **2012** Oct;4(4):178-85. PubMed PMID: 23407680; PubMed Central PMCID: PMC3558220.
- 13: Zandi F, Eslami N, Torkashvand F, Fayaz A, **Khalaj V**, Vaziri B. Expression changes of cytoskeletal associated proteins in proteomic profiling of neuroblastoma cells infected with different strains of rabies virus. *J Med Virol.* 2013 Feb;85(2):336-47. doi: 10.1002/jmv.23458. Epub **2012** Nov 20. PubMed PMID: 23168799.
- 14: Mahmoudzadeh-Niknam H, Abrishami F, Doroudian M, Moradi M, Alimohammadian M, Parvizi P, Hatam G, Mohebbi M, **Khalaj V**. The Problem of Mixing up of *Leishmania* Isolates in the Laboratory: Suggestion of ITS1 Gene Sequencing for Verification of Species. *Iran J Parasitol.* **2011** Mar;6(1):41-8. PubMed PMID: 22347273; PubMed Central PMCID: PMC3279869.
- 15: **Khalaj V**, Azizi M, Enayati S, Khorasanizadeh D, Ardakani EM. NCE102 homologue in *Aspergillus fumigatus* is required for normal sporulation, not hyphal growth or pathogenesis. *FEMS Microbiol Lett.* **2012** Apr;329(2):138-45. doi: 10.1111/j.1574-6968.2012.02513.x. Epub 2012 Feb 13. PubMed PMID: 22289033.
- 16: **Khalaj V**, Azarian B, Enayati S, Vaziri B. Annexin C4 in *A. fumigatus*: a proteomics approach to understand the function. *J Proteomics.* 2011 Sep 6;74(10):1950-8. doi: 10.1016/j.jprot.2011.05.018. Epub **2011** May 27. PubMed PMID: 21640208.
- 17: Majidzadeh-A K, Mahboudi F, Hemayatkar M, Davami F, Barkhordary F, Adeli A, Soleimani M, Davoudi N, **Khalaj V**. Human Tissue Plasminogen Activator Expression in *Escherichia coli* using Cytoplasmic and Periplasmic Cumulative Power. *Avicenna J Med Biotechnol.* **2010** Jul;2(3):131-6. PubMed PMID: 23408156; PubMed Central PMCID: PMC3558155.
- 18: Majidzadeh-A K, **Khalaj V**, Fatemeh D, Mahdi H, Farzaneh B, Ahmad A, Mahboudi F. Cloning and expression of functional full-length human tissue plasminogen activator in *Pichia pastoris*. *Appl Biochem Biotechnol.* **2010** Nov;162(7):2037-48. doi: 10.1007/s12010-010-8979-z. Epub 2010 May 9. PubMed PMID: 20455033.
- 19: **Khalaj V**, Eslami H, Azizi M, Rovira-Graells N, Bromley M. Efficient downregulation of *alb1* gene using an AMA1-based episomal expression of RNAi construct in *Aspergillus fumigatus*. *FEMS Microbiol Lett.* 2007 May;270(2):250-4. Epub **2007** Mar 2. PubMed PMID: 17343676.

- 20: **Khalaj V**, Hey P, Smith L, Robson GD, Brookman J. The *Aspergillus niger* annexin, anxC3.1 is constitutively expressed and is not essential for protein secretion. FEMS Microbiol Lett. **2004** Oct 1;239(1):163-9. PubMed PMID: 15451115.
- 21: **Khalaj V**, Smith L, Brookman J, Tuckwell D. Identification of a novel class of annexin genes. FEBS Lett. **2004** Mar 26;562(1-3):79-86. PubMed PMID: 15044005.
- 22: **Khalaj V**, Brookman JL, Robson GD. A study of the protein secretory pathway of *Aspergillus niger* using a glucoamylase-GFP fusion protein. Fungal Genet Biol. **2001** Feb;32(1):55-65. PubMed PMID: 11277626.
- 23: Gordon CL, **Khalaj V**, Ram AF, Archer DB, Brookman JL, Trinci AP, Jeenes DJ, Doonan JH, Wells B, Punt PJ, van den Hondel CA, Robson GD. Glucoamylase::green fluorescent protein fusions to monitor protein secretion in *Aspergillus niger*. Microbiology. **2000** Feb;146 ( Pt 2):415-26. PubMed PMID: 10708380.