

## CURRICULUM VITAE



Mohammad Babashamsi

### Personal Information:

**Name:** Mohammad Babashamsi

**Marital status:** Married

**Children:** 2

**Nationality:** Iranian

**Date of birth:** 1958

**Place of birth:** Damavand, Iran

**Address:** Avicenna Research Institute (ARI), Shahid Beheshti University, Tehran IRAN.

Tel: 22432020 E-Mail: [babashams@avicenna.ac.ir](mailto:babashams@avicenna.ac.ir) [babashamsi@acecr.ac.ir](mailto:babashamsi@acecr.ac.ir)

### University Education:

Level	Description	University	Years
PhD	Biochemistry	Banaras Hindu University, India	1988-92
MSc	Bio-organic chemistry	Kanpur University, India	1985-87
BSc	Chemistry	Bangalore University, India	1980-84

### Major professional services:

Title	Place	Duration
Researcher in biochemistry	Jahad- Shahid Beheshti University of Medical Sciences (J-SBUM).	1994-2006
	Jahad- Avicenna Research Institute (ARI).	Since 2006
Lecturer of biochemistry	Dep of biochemistry, Banaras Hindu University, India.	1993
	Dep of biology, science and research unit, Islamic Azad university, Tehran.	2003-2005
	Dep of medicinal chemistry, Faculty of pharmacy, Shahid Beheshti University of Medical Sciences, Tehran.	2005
Supervision of various MSc and PhD thesis	Alzahra university Khatam university. Shahid Beheshti University of Medical Sciences.	Islamic Azad university. Payamenoor University.
		Since 2001

Conducting short courses and workshops in biotechnology	J-SBUM & ARI	Since 1997
Publishing Research Articles in journals. Presentation of papers in conferences and delivering scientific speeches in journal clubs	Local and international journals and conferences.	Since 1989

#### Administrative responsibilities:

Title	Place	Duration
Head - Medical diagnostic reagents & Biological products Research group(MBR)	J-SBUM	1994-2010
Head – Department of Immunochemistry	ARI	Since 2009

#### Memberships:

Title	Place	Duration
Member of medical committee scientific council	Jahad daneshgahi(Iranian Academic Center for Education, Culture and Research( ACECR).	Since 2001
Member of scientific council of MBR	J-SBUM	1999-2010
Member of scientific council of ARI	ARI	Since 2007
Member of antigen & antibody engineering Research group	ARI	Since 2006
Member of project management council	ACECR	2001-2005
Member of Iranian society of Biotechnology	Tehran- IRAN	Since 1999
Member of Iranian society of Biochemistry	Tehran- IRAN	Since 2001
Member of Iranian society of Genetic	Tehran- IRAN	Since 2003
Member of Iranian society of Proteomics	Tehran- IRAN	Since 2009

#### Honors and distinctions:

Title	Reference	Year
Golden core award of Ministry of science, research and technology for ranking the <b>selected national researcher of the year 2003</b> .	Iranian Ministry of science, research and technology, Bulletin of the Research week, page 40.	2003
Certificate of appreciation for practical biochemical techniques taught.	Annals of MBR, page 14.	2003
Certificate of appreciation for varification of Research projects in medical committee scientific council.	ACECR, Research and technology deputy.	2002
Certificate of appreciation from Applied medical sciences Research Center.	Annual report, J-SBUM.	1997

**Scientific Experiences:**

Subject	Place	Year
Solid phase bio-organic synthesis	Dep of chemistry, Kanpur university	1987
Enzyme purification, and immobilization	Dep of biochemistry, Banaras Hindu University	1989
Neurotransmitter and drug residue analysis by HPLC, GC and Bioassay	Dep of biochemistry, Banaras Hindu University	1991
A six months training of gene cloning and expression	Pasture institute of Iran	1994
Development of liquid and dry chemistry rapid diagnostic tests.	J-SBUM	1994-2000
Production, purification and conjugation of antibody and development of ELISA & PCR-ELISA tests.	J-SBUM and ARI	2001-2003
Production of recombinant proteins (streptokinase, VEGF ...)	ARI	Since 2004
Mutation detection by PCR-RFLP & DHPLC methods.	ARI	2008
Human plasma proteome analysis	ARI	

**Teaching Experiences:**

Subject	Place	Year
Advanced Biochemical Methods to M-Sc students of Iran Medical university	ARI	2001-2005
Biotechnology to M-Sc students of Khatam university	ARI	2002
Biochemistry	Islamic Azad University	2003-2005
Advanced Biochemistry to PhD students	Faculty of pharmacy, Shahid Beheshti medical sciences university.	2005

**Research projects:**

Subject	Granted by	Duration
A study of acetylcholine and related enzymes in cases of certain neurological disorders.	Banaras Hindu University	1989-1992
Purification of Bam H1 and cloning the CAT gene in PUC 19.	J-SBUM & office of scientific and industrial studies of presidency	1994
Isolation and purification of human C-reactive protein	J-SBUM	1995
Development of a diagnostic kit for determination of phosphorus in biological fluids.	J-SBUM	1996
Development of a diagnostic kit for determination of chloride in biological fluids.	J-SBUM	1996
Development of a diagnostic kit for determination of creatinin in biological fluids. (Kinetic & End point)	J-SBUM	1997
Synthesis of stannous fluoride for fluoride gel formulation.	J-SBUM	1998

<b>National project</b> (Synthesis, extraction & purification of streptokinase and pancreatin.	Iranian management and planning organization	2001-2004
Development of a simple method for purification of human C-reactive protein & production of a diagnostic kit for CRP.	ACECR-Deputy of research & technology	2001-2003
Immobilization of streptokinase and determination of its antibody in thrombolytic therapy	ACECR-Deputy of research & technology	2004
Isolation of streptokinase gene, cloning, expression and purification of recombinant protein	ACECR-Deputy of research & technology	2005-2007
Development of ELISA method for determination of CRP in serum and foecular fluid of patients under treatment by ICSI & IVF.	ARI	2006-2007
Efficiency assessment of DHPLC and PCR_RFLP methods in detection of C677T mutation in MTHFR gene.	ACECR-Deputy of research & technology	2008-2010
Evaluation of the efficiency of high pressure immuno-affinity chromatography method for high abundant serum proteins depletion.	ACECR-Deputy of research & technology	2011-2012
Production of recombinant vascular endothelial growth factor in E.Coli	Vice presidency of sciense and technology	2013-2016
Low molecular weight human plasma proteome analysis in endometriosis by LC-MS/MS utilizing an immunoaffinity protein depletion.	ARI	On progress
Production of antibody against Carcinoembryonic antigen (CEA) and development of a new ELISA method for quantitation.	ACECR-Deputy of research & technology	On progress

#### Publications:

#### Papers & Short communications

Authors	Title	Year	Journal	Issue No.	Pages
<b>M.Babashamsi</b> , H.P.Pandey and R.H.Singh	A biological age rating scale.	1989	Biome	4(2)	117-24
M.Babashamsi	Immobilization of plasminogen in agarose for rapid detection of streptokinase.	2000	Iranian biomedical journal	4(4)	170
M.H.Razavian, <b>M.Babashamsi</b> and M.R.Nejadmoghaddam	A Single step Purification of Plasminogen from human Plasma.	2003	Proc 3 <sup>rd</sup> Nation cong Biotech of Iran	3	241-244
<b>M.Babashamsi</b>	Large scale Hybridoma cell culture.	2003	Bulletin of Monoclonal aintibody	1(6)	2-5
<b>M.Babashamsi</b>	Single domain and single chain antibody	2004	Bulletin of Monoclonal antibody.	2(12)	3
M.R.Nejadmoghaddam, <b>M.Babashamsi</b> , and M.H.Modarresi	Streptokinase gene, isolation, cloning and overexpression of recombinant protein.	2006	Pejouhesh Quarterly research Journal.	30(3)	245-252
M.R.Nejadmoghaddam, M.H.Modarresi, <b>M.Babashamsi</b> , and M.Chamankhah	cloning and overexpression of active recombinant fusion streptokinase, a new approach to facilitate purification	2007	Pakistan Journal of Biological Sciences	10(13)	2146-2151

M. Soheili, M.R. Nejadmoghaddam, <b>M. Babashamsi</b> , J. Ghasemi and M. Jeddi Tehran.	Detection of Legionella pneumophilla by PCR-ELISA Method in Industrial Cooling Tower Water.	2007	Pakistan Journal of Biological Sciences	10(22)	4015-4021
Arefi. S., <b>Babashamsi M</b> , Shariatpanahi. P, Savadi Shirazi	The effect of induction of ovulation and ovarian puncture on CRP levels in patients undergoing IVF/ICSI	2009	Medical Journal of Reproduction & Infertility	10(1)	25- 31
<b>M. Babashamsi</b> , M.H. Razavian and M.R. Nejadmoghaddam	Production and purification of streptokinase by protected affinity chromatography	2009	Avicenna Journal of Medical Biotechnology	1(1)	47-51
Nejadmoqaddam, M.R; Hadavi, R; <b>Babashamsi, M</b> ; Niakan, M	A rapid and efficient method for transformation of Escherichia coli.	2009	Daneshvar Bimonthly research Journal.	16(80)	71 - 76
M.R. Nejadmoghaddam, M.H. Razavian and <b>M. Babashamsi</b>	Evaluation of Streptokinase Production Potential by Group C Streptococcal Strain H46A in Batch Culture and Bactericidal Effect of Hexyl Resorcinol	2009	Journal of Babol University of Medical Sciences « Quarterly Research Journal »	11(4)	13-18
Arefi. S., <b>Babashamsi. M</b> , Shariatpanahi. P, Asgharipour, p. Zeraati. H	C-reactive protein level and pregnancy rate in patients undergoing IVF/ICSI	2010	Iranian Journal of Reproductive Medicine	8(4)	197-202
Karimi. Z, <b>Babashamsi. M</b> , Asgarani. E, Niakan. M and Salimi. A	Fermentation, Fractionation and Purification of Streptokinase by Chemical Reduction Method.	2011	Iranian Journal of Microbiology	3(1)	42-46
Karimi. Z, <b>Babashamsi. M</b> , Asgarani. E and Salimi. A	Development of an immunoaffinity method for purification of streptokinase	2012	Avicenna Journal of Medical Biotechnology	4(3)	142-147
S. Sahraian, <b>M. Babashamsi</b> , P. Reza-Soltani, H. Najmabadi, K. Kahrizi, S. Hemmati Gorgani,	Serotonin Transporter Polymorphism (5-HTTLPR) and Citalopram Effectiveness in Iranian Patients with Major Depressive Disorder	2013	Iranian Journal of Psychiatry	8(2)	86-91
A. Salimi and <b>M. Babashamsi</b>	Cloning and optimization of soluble vascular endothelial growth factor 165 expression in Escherichia coli	2016	Avicenna Journal of Medical Biotechnology	8(1)	23-28
M.M. Babashamsi, S. Halalkhor, H. M. Firouzjah, H. Parsian, S.F. Jalali, and <b>M. Babashamsi</b>	Association of ATP-Binding Cassette Transporter A1 (ABCA1)-565 C/T Gene Polymorphism with Hypoalphalipoproteinemia and Serum Lipids, IL-6 and CRP Levels	2017	Avicenna Journal of Medical Biotechnology	9(1)	38-43

#### Abstracts:

Authors	Title	Year	Journal/Proceeding	Issue No.	Page
M. Babashamsi, A. Ram and H.P. Pandey	Acetylcholine response in wound healing rats.	1989	Proceed 14 <sup>th</sup> Indian symp biophys	March 11	77
M. Babashamsi and H.P. Pandey	Pharmacological and biochemical studies of Acetylcholine and cholinesterase in certain stress disorders.	1991	Proceed 10 <sup>th</sup> Iranian cong physiol pharmacol	Dec 9	315
M. Babashamsi, H.P. Pandey and R.H. Singh	A study of acetylcholine and cholinesterase changes in epilepsy.	1993	Proceed 80 <sup>th</sup> Indian science cong	3	22

M.Babashamsi	Activity of acetylcholine system in epilepsy.	1993	Proceed 4 <sup>th</sup> semin Iranian students in India	Feb 10	5
M.Babashamsi and M.Moradi	Simple method for isolation of human C-reactive protein	2000	Proceed 1 <sup>st</sup> nati cong biotech	1	433-437
M.Babashamsi, M.Niakan and E.Yeganeh	Determination of histamine and histidine in preserved fish by HPLC	2001	Proceed 6 <sup>TH</sup> cong biochem	Oct 22	67
M.Niakan,F.Torkestani,N.Fallah, and M.Babashamsi	Relevance of mycoplasma homonis and ureaplasma in infertile females of Tehran infertility clinics	2003	Abstract book, Middle East Fertility Society, 10 <sup>th</sup> annual meeting	Dec 10	
F.Salehzadeh. M.Niakan and M.Babashamsi	Determination of antibiotic residues in meat by HPLC	2002	Abstract book, The 10 <sup>th</sup> cong infec disease & tropical medicine	Jan 5	274
M.Babashamsi	Role of free Acetylcholine in convulsion	2002	Iranian Journal of Neurology	2(5)	63
<u>M-Babashamsi</u>	Synthesis and analysis of GnRH agonists.	2003	Bulletin of Reproduction and Infertility.	5(59)	2
M.Niakan,T.Zahraei,M.Mahzorie and M.Babashamsi	Preparation of antisera against group D of salmonella	2003	Clin chem Lab med	41	398
<u>M.Babashamsi</u> , M.H.Razavian and M.R.Nejadmoghaddam	Purification of streptokinase by protected affinity chromatography	2003	Proc 3 <sup>rd</sup> Nation cong Biotech of Iran	4	89-92
M.Babashamsi, M.H.Modarresi and M.R.Nejadmoghaddam	Isolation and cloning of streptokinase gene in E.Coli	2004	Proceed 7 <sup>th</sup> Iranian cong biochemistry	1	113
M.Babashamsi, M.H.Razavian and M.R.Nejadmoghaddam	Optimization of streptokinase secretion and its rapid purification	2004	Proceed 7 <sup>th</sup> Iranian cong biochemistry	1	112
M.H.Razavian M.Babashamsi, and M.R.Nejadmoghaddam	Optimization of plasminogen purification by affinity chromatography, utilizing a new method for EACA measurement	2004	Proceed 7 <sup>th</sup> Iranian cong biochemistry	1	134
M.R.Nejadmoghaddam M.Babashamsi, and M.H.Razavian	Optimization of streptococcus C batch culture and elevation of its potency for production of streptokinase	2004	Proceed 6 <sup>th</sup> Iranian cong microbiology	Mar 5	92
M.Babashamsi and N Lotfi gheslaghi.	Purification of ascetic fluid CRP and developing a reagent for its measurement in serum.	2005	Proc 4 <sup>th</sup> Nation cong Biotech of Iran	1	338
<u>M.Babashamsi</u> , H.P.Pandey and R.H.Singh	Evaluation of biochemical changes of cholinergic system in epileptic patients.	2005	Iranian journal of Biochemistry& Molecular biology	1(1)	131
M.R.Nejadmoghaddam <u>M.Babashamsi</u> , and M.H.Modarresi	Extraction, cloning, sequencing and expression of H46A streptokinase gene.	2005	Iranian journal of Biochemistry& Molecular biology	1(1)	95
Babashamsi M.and Maleki M.	Development of ELISA and colorimetric assay of antibody in patients under treatment with streptokinase.	2006	Iranian journal of pharmaceutical sciences	2(3)	158
Nejadmoghaddam M.R.,Babashamsi M.,Modaresi M.H.	Production of recombinant fusion streptokinase and its purification in a single step	2006	Iranian journal of pharmaceutical sciences	2(3)	155

Babashamsi M., Nejadmoghammad MR. Modaresi MH.	Production, purification and assay of native and recombinant streptokinase	2006	Iranian journal of pharmaceutical sciences	2(3)	282
Shariatpanahi P. Babashamsi M. Arefi.S	Development of ELISA method for determination of CRP in serum and foecular fluid of patients under treatment by ICSI & IVF.	2006	Proceed 13 <sup>th</sup> national and 2 <sup>nd</sup> International conference of biology	1	316
Araghi S, Babashamsi M., Nejadmoghammad MR. Modaresi MH. Amirmozaffari N.	Extraction and cloning of mutant streptokinase in order to reduce its immunogenicity.	2006	Proceed 13 <sup>th</sup> national and 2 <sup>nd</sup> International conference of biolog	1	393
Arefi S, Babashamsi M. Shariatpanahi P, Tochmechi R, Sadeghpour Tabaei A, Ebadi P.	CRP Level and pregnancy rate in patients undergoing IVF/ICSI	2008	Iranian Journal of Reproductive Medicine	6-Suppl	1
Solaimani M, Babashamsi M, Yaghmaei B, Sadeghi MR, Rayegani M, Karimi Z.	Efficiency assessment of DHPLC and PCR_RFLP methods in detection of C677T mutation in MTHFR gene.	2010	Proceed 16 <sup>th</sup> national and 4 <sup>th</sup> International conference of biolog		206
Karimi Z, Babashamsi M, Asgarani E, Salimi A.	Construction of an immunoaffinity column based on protein A-anti SK(IgG) for purification of streptokinase.	2010	Proceed 16 <sup>th</sup> national and 4 <sup>th</sup> International conference of biolog		123
Babashamsi M, Karimi Z, Salimi A.	Production of a fusion recombinant streptokinase and purification by affinity and immunoaffinity methods.	2011	Proceed 7 <sup>th</sup> National Biotech cong of Iran		
M.Babashamsi and A. Salimi	Evaluation of the efficiency of multiple affinity removal system for high abundant plasma proteins depletion.	2013	Iranian journal of Biotechnology	Vol 42, No 11	24
M. M.Babashamsi, S. Halalkhor, M. Babashamsi, S. F Jalali	Association of 565 C/T polymorphism in ABCA1 gene with serum C-Reactive Protein levels and incidence of atherosclerosis	2015	Proceed 3 <sup>rd</sup> National Cong On Cellular And Molecular News in Non-Contagious Diseases		200
M.Babashamsi and A. Salimi	Efficient expression of recombinant Streptokinase: cloning, expression and purification	2015	Proceed 1 <sup>st</sup> International and 9 <sup>th</sup> National Biotech Congress		P-1107
M.Babashamsi and A. Salimi	Production, optimized refolding and purification of insoluble recombinant human VEGF-165	2015	Proceed 1 <sup>st</sup> International and 9 <sup>th</sup> National Biotech Congress		P-925

#### Conference Presentations:

Subject	Place	Year
Acetylcholine response in wound healing rats.	14 <sup>th</sup> Indian symposium of biophysics, Varansi, India	1989
Pharmacological and biochemical studies of Acetylcholine and cholinesterase in certain stress disorders	10 <sup>th</sup> Iranian cong physiol pharmacol Ahwaz, Iran.	1991
Activity of Acetylcholine system in epilepsy.	4 <sup>th</sup> semin Iranian students in India. Poona, India.	1993
A study of acetylcholine and cholinesterase changes in epilepsy.	Proceed 80 <sup>th</sup> Indian science cong. Goa, India	1993
Stability of proteins	2 <sup>nd</sup> seminar of the applied medical sciences research center. Tehran, Iran.	1998
Synthesis of small peptide hormones	7 <sup>th</sup> seminar of the applied medical sciences research center. Tehran, Iran.	1999

Simple method for isolation of human C-reactive protein	Proceed 1 <sup>st</sup> nati cong biotech. Tehran, Iran.	2000
Immobilization of plasminogen in agarose for rapid detection of streptokinase.	1 <sup>st</sup> Iranian cong biochem biophys Tehran, Iran	2000
Streptokinase and infertility.	40 <sup>th</sup> scientific seminar of the Avesina Research Center. Tehran, Iran.	2000
Determination of histamine and histidine in preserved fish by HPLC	6 <sup>TH</sup> cong biochem. Tehran, Iran.	2001
Determination of antibiotic residues in meat by HPLC	10 <sup>th</sup> cong infec disease & tropical medicine Tehran, Iran	2002
Role of free Acetylcholine in convulsion	9 <sup>th</sup> Iranian cong neurology & clin physiol Tehran, Iran	2002
Preparation of antisera against group D of salmonella	Euromedlab 2003, Barcelona, Spain.	2003
Synthesis and analysis of GnRH agonists.	90 <sup>th</sup> scientific seminar of the Avesina Research Center. Tehran, Iran.	2003
Isolation and cloning of streptokinase gene in E.Coli	7 <sup>th</sup> Iranian cong biochemistry. Ahwaz, Iran	2004
Optimization of streptokinase secretion and its rapid purification	7 <sup>th</sup> Iranian cong biochemistry. Ahwaz, Iran	2004
Optimization of plasminogen purification by affinity chromatography, utilizing a new method for EACA measurement	7 <sup>th</sup> Iranian cong biochemistry. Ahwaz, Iran	2004
Optimization of streptococcus C batch culture and elevation of its potency for production of streptokinase	6 <sup>th</sup> Iranian cong microbiology. Tehran, Iran	2004
Peoduction and Purification of streptokinase by protected affinity chromatography	Saudi Bio – 2004 International Conference. Jeddah , Saudi Arabia.	2004
Production and Optimized Purification of C-Reactive Protein(CRP) and its Antibody & Development of a sensitive ELISA Test for CRP	Saudi Bio – 2004 International Conference. Jeddah , Saudi Arabia.	2004
Purification of ascetic fluid CRP and developing a reagent for its measurement in serum.	4 <sup>th</sup> Nation cong Biotech of Iran. Kerman. Iran	2005
Evaluation of biochemical changes of cholinergic system in epileptic patients.	8 <sup>th</sup> Iranian congress of biochemistry and first international congress of biochemistry & molecular biology. Tehran, Iran	2005
Development of ELISA and colorimetric assay of antibody in patients under treatment with streptokinase.	10 <sup>th</sup> Iranian pharmaceutical sciences conference(TPSC 2006). Tehran, Iran	2006
Production of recombinant fusion streptokinase and its purification in a single step	10 <sup>th</sup> Iranian pharmaceutical sciences conference(TPSC 2006). Tehran, Iran	2006
Production, purification and assay of native and recombinant streptokinase	10 <sup>th</sup> Iranian pharmaceutical sciences conference(TPSC 2006). Tehran, Iran	2006
Development of ELISA method for determination of CRP in serum and folecular fluid of patients under treatment by ICSI & IVF.	13 <sup>th</sup> national and 2 <sup>nd</sup> International conference of biolog. Tehran, Iran	2006
Extraction and cloning of mutant streptokinase in order to reduce its immunogenicity.	13 <sup>th</sup> national and 2 <sup>nd</sup> International conference of biolog. Tehran, Iran	2006
	1 <sup>st</sup> Iranian cong of Endometriosis	2008
	2 <sup>nd</sup> international congress of Proteomics	2009
Efficiency assessment of DHPLC and PCR_RFLP methods in detection of C677T mutation in MTHFR gene.	16 <sup>th</sup> national and 4 <sup>th</sup> International conference of biolog. Mashhad, Iran	2010
Construction of an immunoaffinity column based on protein A-anti SK(IgG) for purification of streptokinase.	16 <sup>th</sup> national and 4 <sup>th</sup> International conference of biolog. Mashhad, Iran	2010
Production of a fusion recombinant streptokinase and purification by affinity and immunoaffinity methods.	7 <sup>th</sup> National Biotech cong of Iran, Tehran, Iran.	2011
Evaluation of the efficiency of multiple affinity removal system for high abundant plasma proteins depletion.	13 <sup>th</sup> Iranian congress of biochemistry and 5 <sup>th</sup> international congress of biochemistry & molecular biology. Tehran, Iran	2013



Association of 565 C/T polymorphism in ABCA1 gene with serum C-Reactive Protein levels and incidence of atherosclerosis	3 <sup>rd</sup> National Cong On Cellular And Molecular News in Non-Contagious Diseases, Babol, Iran.	2015		
Efficient expression of recombinant Streptokinase: cloning, expression and purification	1 <sup>st</sup> International and 9 <sup>th</sup> National Biotech Congress, Tehran, Iran.	2015		
Production, optimized refolding and purification of insoluble recombinant human VEGF-165	1 <sup>st</sup> International and 9 <sup>th</sup> National Biotech Congress, Tehran, Iran.	2015		
<b>Books:Authors</b>				
<b>Title</b>				
<b>Year</b>				
<b>Publisher</b>				
<b>ISBN</b>				
M.Babashamsi.	Laboratory manual of advanced biochemical methods	1998	J-SBUM	
<b>Research Interests:</b>				
Research on developing sensitive and rapid medical diagnostics & identification of new biomarkers.				
Epitope mapping, peptide design and antibody formation.				
Recombinant proteins( Diagnostic & pharmaceutical), their modification, engineering and purification.				
Nano-tag combination to biomolecules.				