

## CURRICULUM VITAE



Mohammad Babashamsi

### Personal Information:

**Name:** Mohammad Babashamsi.

**Date and place of birth:** 1958, Damavand, Iran.

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

Tel: 22432020 E-Mail: [babashams@ari.ir](mailto:babashams@ari.ir) [mbshams3@gmail.com](mailto:mbshams3@gmail.com)

### 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).<br>Jahad- Avicenna Research Institute (ARI).   | 1994-2006<br>Since 2006   |
| Lecturer of biochemistry  | Dep of biochemistry, Banaras Hindu University, India.<br>Dep of biology, science and research unit, Islamic Azad university, Tehran.<br>Dep of medicinal chemistry, Faculty of pharmacy, Shahid Beheshti University of Medical Sciences, Tehran. | 1993<br>2003-2005<br>2005 |
| Supervision of various MSc and PhD thesis   | Shahid Beheshti University of Medical Sciences.<br>Babol University of Medical Sciences.<br>Tarbiat Modares University.<br>Alzahra university.<br>Islamic Azad university.<br>Khatam university.<br>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 – Department of Medical diagnostics & Biological products (MBP) | J-SBUM | 1994-2010  |
| Deputy of Research   | J-SBUM | 2006       |
| Head – Department of Immunochemistry & Recombinant products.         | ARI    | Since 2009 |

**Memberships:**

| Title   | Place   | Duration   |
|---|---|------------|
| Member of medical committee scientific council          | Jahad daneshgahi(Iranian Academic Center for Education, Culture and Research( ACECR). | 2001-2017  |
| Member of scientific council of MBP                     | J-SBUM  | 1999-2010  |
| Member of scientific council of ARI                     | ARI   | Since 2007 |
| Member of antigen & antibody engineering Research group | ARI   | Since2006  |
| Member of project management council                    | ACECR   | 2001-2005  |
| Member of Iranian society of Biotechnology              | Tehran- IRAN  | Since1999  |
| 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 verification 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 |

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|--|---|------------|
| 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       |
| Cross-linking techniques (Development of optical fiber biosensor for SARS-CoV-2, IgG, etc....)   | ARI   | 2022       |

### 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 |

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|---|---|-----------|
| 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 science and technology | 2013-2016 |
| Low molecular weight human plasma proteome analysis in endometriosis by LC-MS/MS utilizing an immunoaffinity protein depletion.   | ARI                                       | 2014-2018 |
| Production of antibody against Carcinoembryonic antigen (CEA) and development of a new ELISA method for quantitation.   | ACECR-Deputy of research & technology     | 2018-2020 |
| Design and Production of a fusion immunotoxin consisting of VEGF receptor peptide aptamer and pseudomonas exotoxin and investigating its inhibitory effect on angiogenesis. | ARI                                       | 2019-2021 |
| Design and fabrication of sensor based on Mach-Zehnder interferometer with MMF-SMF-MMF structure for biomolecule detection  | Tarbiat Modares University                | 2021      |
|   |   |           |

## Publications:

### Papers & Short communications

| Authors  | Title   | Year | Journal  | Issue No. | Pages   |
|--|---|------|--|-----------|---------|
| <b>M.Babashamsi</b> ,<br>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,<br><b>M.Babashamsi</b> and<br>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 antibody                  | 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<br><b>M.Babashamsi</b> and<br>M.H.Modarresi | Streptokinase gene, isolation, cloning and overexpression of recombinant protein. | 2006 | Pejouhesh Quarterly research Journal.            | 30(3)     | 245-252 |

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|--|--|------|--|--------|-----------|
| 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     |
| Nejadmoghaddam, 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     |
| M.M.Babashamsi, S. Zamani Koukhaloo, S. Halalkhor, A. Salimi <b>M. Babashamsi</b>                  | ABCA1 and metabolic syndrome; a review of the ABCA1 role in HDL-VLDL production, insulin-glucose homeostasis, inflammation and obesity                   | 2019 | Diabetes & Metabolic Syndrome: Clinical Research & Reviews                     | 13     | 1529-534  |
| F. Momeni,Z. Ahmadi, V. Ahmadi and <b>M.Babashamsi</b>   | Two <b>articles</b> and one <b>patent</b> on the subject of SARS-CoV-2 and IgG biosensors development are under review.                                  | 2023 |  |        |           |

#### 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 hominis 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      |
| M-Babashamsi                                       | 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     |
| M.Babashamsi, 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     |

|   |   |      |   |                  |        |
|---|---|------|---|------------------|--------|
| M.Babashamsi,<br>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<br>M.Babashamsi, and<br>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    |
| Nejadmoqaddam M.R.,<br>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.,<br>Nejadmoghadam MR.<br>Modaresi MH.   | Production, purification and assay of native and recombinant streptokinase  | 2006 | Iranian journal of pharmaceutical sciences  | 2(3)             | 282    |
| Shariatpanahi P.<br>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.,<br>Nejadmoghadam MR.<br>Modaresi MH.<br>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.<br>Shariatpanahi P,<br>Tochmechi R, Sadeghpour<br>Tabaei A, Ebadi P. | CRP Level and pregnancy rate in patients undergoing IVF/ICSI  | 2008 | Iranian Journal of Reproductive Medicine  | 6-<br>Suppl      | 1      |
| Solaimani M, Babashamsi M,<br>Yaghmaei B, Sadeghi MR,<br>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,<br>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,<br>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.<br>Salimi   | Evaluation of the efficiency of multiple affinity removal system for high abundant plasma proteins depletion.               | 2013 | Iranian journal of Biotechnology  | Vol 42,<br>No 11 | 24     |
| M. M.Babashamsi, S.<br>Halalkhor, M.<br>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.<br>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.<br>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  |
| M Babashamsi, M Nazari,<br>B Tavangar, M Moheb,   | Production of a fusion apta-toxin against VEGFR and   | 2020 | Proceed 16 <sup>th</sup> National Cong Biochem and  |                  |        |

|                                  |   |      |   |  |  |
|----------------------------------|---|------|---|--|--|
| M. M Babashamsi                  | investigating its inhibitory effect on angiogenesis.                  |      | 7th <b>International Cong</b> of Biochem and <b>Mol Biology</b> |  |  |
| M Babashamsi and M. M Babashamsi | In silico design of an affirmer specific for carcinoembryonic antigen | 2021 | Proceed 4th International and 12th National Biotech Congress    |  |  |

### 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 |



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| 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 molecular 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 |
| Production of a fusion apta-toxin against VEGFR and investigating its inhibitory effect on angiogenesis.                     | 7 <sup>th</sup> International Cong of Biochem and Mol Biology, Tehran, Iran.   | 2020 |
| In silico design of an affimer specific for carcinoembryonic antigen   | 4 <sup>th</sup> International and 12 <sup>th</sup> National Biotech Congress, Yazd, Iran.  | 2021 |

| Books:Authors                     | Title   | Year | Publisher  | ISBN              |
|-----------------------------------|---|------|------------|-------------------|
| M.Babashamsi.                     | Laboratory manual of advanced biochemical methods | 1998 | J-SBUM     |                   |
| M.M Babashamsi and M. Babashamsi. | Biochemistry of metabolism                        | 2023 | Amin negar | 978-622-6835-58-9 |

**Research Interests:**

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.