

2015

Mahdi HabibiAnbouhi

Pharm.D, PhD

Assistant Professor of Pharmaceutical Biotechnology

Pasteur Institute of Iran

2012 – Present (3 years)Iran

Antigen-Antibody Lab., National cell Bank of Iran

Consultant

Kawsar Biotech Co.

2010 – Present (5 years)Iran

Biopharmaceuticals [R&D and Production]

Researcher

VrijeUniversiteit Brussel

2011 – 2012 (1 year)Belgium

Nanobody, Phage display

PhD student

Pasteur Institute of Iran

2006 – 2012 (6 years) Iran

Pharmaceutical Biotechnology

Regulatory affairs and authorized Pharmacist

BorhanDarou Co.

2003 – 2006 (3 years)Iran



Mahdi HabibiAnbouhi

National Cell Bank, PasteurInstitute of Iran, Farvardin St.

Pasteur Ave., Tehran, Iran

Tel: (+98)66492595

Email:habibi.mha@gmail.com

habibi_m@pasteur.ac.ir



Nationality: Iranian

Date of birth: 21th March 1978

Marital status: Married

Native Language: Persian

Foreign language: English

Present Position: Assistant Professor at Pasteur Institute of Iran

Education:

2006-2012: PhD of Pharmaceutical biotechnology in Pasteur Institute of Iran, Title of thesis: *In silico prediction of linear B-cell epitopes of extra-membrane loop of human CD20 antigen by immunoinformatics tools and construction of murine-human chimeric coding sequences of a monoclonal antibody against it.*

1996-2001: Doctorate in pharmaceutical science (PharmD) from Kerman University of Medical Sciences, Faculty of Pharmacy, (Average score of 80 from 100).



Title of thesis: *Formulation of sustained release Ferrous Sulfate Pellets by Pan Coating method and evaluation of drug release through it.*

Accomplishments and Experiences:

Academic activities:

- 1- Promoter of MSc project entitled “*Cloning and expression of human CD22 antigen in Escherichia coli host cells*” (in progress)
- 2- Promoter of MSc project entitled “*Bioconjugation of anti pET32a vector Nanobody to the magnetic nanoparticles in order to use in purification of expressed recombinant proteins in pET32a vector.*”(in progress)
- 3- Promoter of MSc project entitled “*Cloning, transformation and expression of Etanercept gene construct in tobacco plant (Nicotiana tabacum).*”(in progress)
- 4- Promoter of MSc project entitled “*Evaluation of changing in the surface adhesion strength of cancer cells after treatment with biochemical agents.*” (2013-2014)
- 5- Promoter of MSc project entitled “*Toxic effect of a monoclonal antibody against human CD45Ra as a specific leukemic blast cell surface marker in Acute Myeloid Leukemia (AML).*”(2013-2014)
- 6- Promoter of MSc project entitled “*Construction and cloning of anti VEGFR2 Nanobody-Fc fusion coding sequence and evaluation of its expression in NS0 cell line.*”(2013-2014)
- 7- Promoter of MSc project entitled “*Toxic effects of anti-CD123 as specific leukemic blast cell surface markers in Acute Lymphoid Leukemia (ALL).*”(2013-2014)
- 8- Promoter of MSc project entitled “*Cloning and expression of human CD90 antigen, a liver & lung cancer stem cell biomarker, in Escherichia coli host cell.*”(2013-2015)
- 9- Advisor of PhD project entitled “*Generation of a recombinant single chain variable fragment antibody (sCFv and (sCFv)₂) against CD123 antigen to target Leukemic Cancer Stem (LCS) cells.*” (in progress)
- 10- Advisor of PhD project entitled “*Production of Anti- CD123 Antibody Conjugated with Cytotoxic Drug Monomethylauristatin E (MMAE.)*” (in progress)

- 11- Advisor of PhD project entitled “*Generation and Selection of Single domain Monoclonal Antibody(Nanobody) against Vascular Endothelial Growth Factor (VEGF) by Phage Display and Functional Evaluation.*”(2012-2014)
- 12- Advisor of PhD project entitled “*Cloning and expression of engineered TGF β protein and evaluation of its effect on differentiation of mesenchymal stem cells to chondrocytes in a poly carbolacton-sulfate alginate-collagen scaffold.*”(in progress)
- 13- Full-time volunteer researcher in Laboratory of Cellular and Molecular Immunology, VrijeUniversiteitBrussle (VUB) (10 months).
- 14- Establishment and setting up of “Antibody-Antigen Engineering Lab” in Cell Bank of Pasteur Institute of Iran.
- 15- Supervision and Cooperation in “*Expression of native, mutated and truncated human CD20 antigen in E.coli*” project in National Cell Bank of Pasteur Institute of Iran.
- 16- Development of new murine antibodies against human CD20 antigen through immunization by*in-Silico* predicted B cell epitopes.

Industrial activities:

- 1- R&D manager and production consultant of Kawsar Biotech Company (KBC), a biopharmaceutical startup company.
- 2- Production of cell culture media and other routine reagents for cell culture lab. (Kawsar Biotech Company, in market)
- 3- Production of anti-human CD90 polyclonal antibody. (Pasteur Institute of Iran)
- 4- Production of anti-human CD3, CD4 and CD8 monoclonal antibodies. (Pasteur Institute of Iran, in progress)
- 5- Joining to BorhanDarou (Temad Mashhad) Company, an activepharmaceutical ingredient producer (2004-2006):
 - Quality Assurance Manager (18 months)
 - Responsible Pharmacist and Regulatory Affairs (31 months)
 - Manager of Acetaminophen Direct Compression (DC) project, from design to production in large scale within 8 months.
 - Manager of ISO 9001 quality system project, as representative of manager within 10 months.

Some of the activities are:

- Establishment of a Good Manufacturing Practice (GMP) workshop for managers and personnel whose activities could affect the quality of products.
 - Providing the Drug Master File (DMF) and Site Master File (SMF) of Acetaminophen and Ciprofloxacin HCl active substances.
 - Supervision of Ciprofloxacin and Enrofloxacin HCl projects.
 - GMP auditing
 - Assistance in R&D projects
- 6- Accepted project of the large scale production of Ferropellet® (Ferrous Sulfate Pellets), based on my PharmD thesis, at Khorasan Science and Technology Park.
- 7- Colleague in compilation of Medicine Encyclopedia, Herbal and Chemical Drugs, provided on a CD in Persian Language (2006).
- 8- Consultant for design of the solid dosage forms plant of Sajjad Darou Shargh Company based on the GMP requirements (2006).
- 9- Responsible pharmacist of Daroshafa Emam pharmacy (military service).



Teaching:

- 1- Nanobiotechnology; diagnostic and therapeutic applications (Semnan University of Medical Sciences)
- 2- Standardization (GMP) (Pasteur Institute of Iran)
- 3- Growth Factors in tissue engineering (Iran University of Science & Technology)
- 4- Therapeutic Cytokines: Interferons, Interleukins & Tumor necrosis factors (Pasteur Institute of Iran)
- 5- Cancer Stem Cells (Pasteur Institute of Iran)
- 6- Antibody Engineering (Pasteur Institute of Iran)
- 7- Industrial production of pharmaceutical monoclonal Antibodies (Pasteur Institute of Iran)
- 8- Antibody production by Hybridoma Technology (Pasteur Institute of Iran)
- 9- Antibody production by Phage Display Technology (Pasteur Institute of Iran)

- 10- Good Manufacturing Practice (GMP) courses (Royan Institute AND pharmacy faculty of Zanjan Medicine University AND Borhan Darou Co.)
- 11- Cloning, expression and purification of recombinant proteins (Pasture Institute of Iran)
- 12- Monoclonal antibodies (Pasture Institute of Iran)

Publications:

- 1- Inducible VEGF expression by human embryonic stem cell-derived mesenchymal stromal cells reduces the minimal islet mass required to reverse diabetes (Scientific Reports, 2015)
- 2- Development and characterization of a new anti-peptide monoclonal antibody directed to human CD20 antigen (Cancer Biotherapy and Radiopharmaceuticals, 2015, accepted)
- 3- Antigenic assessment of a recombinant human CD90 protein expressed in prokaryotic expression system (Protein Expression and Purification, 2015, accepted)
- 4- A camelid antibody candidate for development of a therapeutic agent against Hemiscorpius lepturus envenomation (The FASEB Journal, 2014)
- 5- Expression and purification of functional human vascular endothelial growth factor-A121; the Most Important Angiogenesis Factor (Advanced Pharmaceutical Bulletin, 2014)
- 6- Cancer stem cells: therapeutic targets (International Journal of Pediatrics, 2014)
- 7- Development of VEGFR2-specific Nanobody Pseudomonas exotoxin A conjugated to provide efficient inhibition of tumor cell growth. (New Biotechnology, 2013)
- 8- Immunological evaluation of predicted linear B-cell epitopes of human CD20 antigen. (Biotechnology and Applied Biochemistry, 2012)
- 9- Functional recombinant extra membrane loop of human CD20, an alternative of the full length CD20 antigen. (Iranian Biomedical Journal, 2012)
- 10- Expression, purification, and characterization of a diabody against the most important angiogenesis cell receptor: Vascular endothelial growth factor receptor 2. (Advanced Biomedical Research, 2012)
- 11- Generation and characterization of a functional Nanobody against the vascular endothelial growth factor receptor-2, angiogenesis cell receptor. (Molecular Immunology, 2011)
- 12- Efficiency of Plasmocin™ on various mammalian cell lines infected by mollicutes in comparison with commonly used antibiotics in cell culture: a local experience. (Cytotechnology, 2011)
- 13- Development of VEGFR2-specific Nanobody Pseudomonas exotoxin A conjugated to provide efficient inhibition of tumor cell growth. (New Biotechnology, 2012)
- 14- Synthesis of phosphorescence CdSe/ZnS nanocrystals (quantum dots) as a new colorant for cancer diagnosis. (4th International color and coating congress, 2011)

- 15- In silico linear B-cell epitopes prediction of extra membrane motif of the human B lymphocyte CD20 antigen and preparation of murine monoclonal antibody against them. (Poster, Tehran University, 2007)
- 16- Formulation of sustained release Ferrous Sulfate Pellets by Pan Coating method and evaluation of drug release through it. (Poster, 1st Pharmacy in Industry and Therapy student's seminar, Ahvaz faculty of pharmacy, 2001)

Training Courses and visits:

- 1- Contribute in *Developing a Biosimilar Monoclonal Antibody in the EU-CMC Considerations Workshop*, Germany, 2012
- 2- Contribute in *A Validation Master Class for the Pharmaceutical Industry Workshop*, Turkey, 2012
- 3- Contribute in *FPLC and its applications in bioscience Workshop*, was presented by Biotechnology Research Institute of Baghiyatollah Medical University, Tehran-Iran - 2011
- 4- Contribute in *ImmunoInformatics Workshop*, was presented by Avicenna Research Institute, Tehran-Iran – 2010
- 5- Contribute in *Bioconjugation Workshop*, was presented by Avicenna Research Institute, Tehran-Iran - 2009
- 6- Contribute in *production of monoclonal antibody Workshop*, was presented by Avicenna Research Institute, Tehran-Iran– 2008
- 7- Contribute in *GMP Workshop*, was presented by Academy of Applied Pharmaceutical Science of Canada, Tehran-Iran - 2005.
- 8- Contribute in Pharma plan & Toda symposium for "*Pharmaceutical Engineering and GMP Requirements for Pharmaceutical Installation and Facilities*", Tehran-Iran – 2006.
- 9- Contribute in Quality Management System Training Course; has been presented by MeyarGostarToos Company, Mashhad-Iran - 2005 for:
 - "*Concepts and Requirements of ISO 9001-2000*"
 - "*Documentation in accordance with ISO 9001-2000*"
 - "*Internal Audit in accordance with ISO 9001-2000*"
- 10- *Training Visits* from UGA Co. (Germany), Cinagen Co., AryoGen Biopharma Co., Daroupakhsh Factories, Temad Co., Abidi Co., Zahravi Co., Zakaria Co., Samisaz Co., Pasteur Institute of Iran (Karaj branch) and Razakani Co., Iran, 2004-2009

General and Academic skills:

Expert in cell culture techniques, Hybridoma development, ELISA experiments, routine genetic engineering procedures and gene expression in *E.coli*; And very good in Phage display technique, Nanobody development, B-cell epitope prediction, Bioconjugation (FITC, KLH, BSA and magnetic beads conjugation to antibody), handling of small animals (mice and rabbits), using bioinformatics and scientific resources such as databases of NCBI, Protein Data Bank, B-cell epitope prediction webservers, Gene Runner, MEGA 5, CLC Main Workbench 5.5, Accelrys Discovery Studio visualizer 2, ENDNote, USP, BP, EP, and etc.

Good Computer Skills, scientific and official software and searching on World Wide Web.