

Elham Bidram

Ph.D

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EDUCATION

2019 to present **Isfahan University of Medical Sciences**

Assist. Prof at faculty of Advanced Sciences & Technologies

2017 to 2019 **University of Esfahan, Iran**

*Post-Doc research fellow at faculty of Advanced Sciences & Technologies,
Supervisor: Associate Prof. Ali Zarrabi <a.zarrabi@ast.ui.ac.ir>*

***Advice and guidance of two master students*

2012-2016 **University of Melbourne, Australia**

Ph.D. Chemical and Biomolecular Engineering

Supervisors: Prof. David Dunstan <davided@unimelb.edu.au>, Prof. Alastair Stewart <astew@unimelb.edu.au>

Dissertation: 'Study of cancer treatment using over expressed receptors blockage'

In collaboration with Bio-medical department, Pharmacology and Therapeutics group

2006 – 2009 **Tarbiat Moddares University, Iran (GPA: 18.15/20)**

M.S Clinical biochemistry

Supervisors: Prof.Abbas Sahebghadam Lotfi, lotfi-ab@nigeb.ac.ir, Dr Mehdi Shamsara, shamsa@nigeb.ac.ir

Dissertation: "partial over Expression of α 1- antitrypsin in Pichia pastoris and its nanoencapsulation"

Courses: Clinical & General Biochemistry, Biochemistry of Hormones, Advanced CellularMolecular Biology, Enzymology, Professional laboratory Techniques, The brief of Physiology,

Computer (Statistical calculations), Tissue biochemistry, Advanced Biochemistry

2001 - 2005 **University of Esfahan, Iran (GPA: 17/20)**

B.S. Cellular & Molecular Biology (Microbiology)

Courses: Basic Principles and Calculations in Biology (Computer), Cellular-molecular Biology, Bacteriology, Industrial Microbiology, Food Microbiology, Virology, protozoology, Culturing Techniques, Immunology, laboratory Techniques, Organic chemistry, Mathematics in Biology, Physics.

RESEARCH INTERESTS

- Biomaterial/Nanomaterial and their application in biology,

- Blood factors , drugs and their transport to affected tissue (drug delivery),
- Interaction of NPs with different cell lines

RESEARCH EXPERIENCE

- 2017- Present **“Investigation of the modified GO bio-distribution”**
University of Isfahan, Advanced Sciences & Technologies
 Supervisor: Assist. Prof Ali Zarrabi
- Literature review on novel treatments and graphene oxide as a theranostic agent
 - Modification and characterization of Graphene oxide (GO)
 - Study of the fluorescence property of designed polymeric networks in various biological fluids,
 - Study of the bio-interaction of produced system with BBB and other barriers using the its fluorescence,
 - Study the effect of modification and targeting agents in the observed optical properties
- 2012-2016 **“Study of cancer treatment using over expressed receptors blockage’**
University of Melbourne, Australia
 Supervisors: Prof. David Dunstan, Prof. Alastair Stewart
- Literature review on cancer treatment and graphene oxide as a polymeric carrier
 - Separation, fractionation, functionalization and characterization of Graphene oxide (GO)
 - Study of the toxicity effect of designed polymeric networks regarding the size and ligand
 - Study of the bio-interaction of produced system with cell membrane using the designed system as a imaging and tracking carrier,
 - Study the effect of RGD polymeric networks in Integrin immigration’s inhibition
- 2007-2009 **“Partial over Expression of α 1- antitrypsin in Pichia pastoris and its nanoencapsulation”**
Tarbiat Moddares University, Iran
 Supervisors: Prof. Abbas Sahebghadam Lotfi, Dr Mehdi Shamsara
- Over expression Of α 1- antitrypsin in E.coli and Pichia pastoris as a drug
 - Synthesis of PLGA nano particles,
 - Nano-encapsulation of expressed Protein in PLGA particles
 - Study of the pattern of drug release in physiological media
- 2007-present **Other Projects and related Workshops**
- Launch and immunization of the biotechnology lab
 - Research Assistant in National Institute for Genetic Engineering and Biotechnology (NIGEB), Iran

- “Continues educated programs for Proteins & Carbohydrates”, Technical workshop
- “Recent enzyme's bioreactors and their applications”, research project, under supervision of Prof. Abbas Lotfi.
- “alpha1- antitrypsin polymorphism detection” workshop’s organizer.
- “Required Courses for teaching at university”, course subject
- “working with laboratory animals” workshop
- Essay writing workshop and critique scientific workshop
- CXS Frontiers of Light Microscopy Symposium
- “Proteins for structural and biological studies” 14th and 15th Protein Expression Workshop
- BOMP Annual Symposium
- Super-Resolution Microscopy Workshop

HONORS AND AWARDS

2015	Melbourne Abroad travelling Scholarship
2012	International Postgraduate Research Scholarship (IPRS), funded by the Australian Government
2012	Melbourne International Fee Remission Scholarship (MIRS & MIFRS), founded by University of Melbourne
2011	Research Scholarship, Ministry of Science, Research and Technology of Islamic Republic of Iran
2006	Ranked 8th out of 9945 in Clinical biochemistry M.Sc Nation-Wide University Entrance Exam

PUBLICATIONS

1. Arjmand S., **Bidram E.**, Lotfi A. S., Shamsara M., Ghaedi M. "*Study the effect of different media on cell growth and recombinant protein expression in Pichia pastoris*". Journal of the Iranian Chemical Society. Vol. 6, November 2009.
2. Sareh Arjmand*, **Elham Bidram***, Abbas Sahebghadam Lotfi, Hamid Mahdavi. "*Evaluation of Poly (D, L-lactide-co-glycolide) for Nanoencapsulation of Alpha 1-antitrypsin and In Vitro Release Study*". IJBBB 2011 Vol.1 (1): 68-72.
3. **Bidram E.**, Arjmand S., Lotfi A.S., Shamsara M., and Mowla S.J. "*Expression of Functionally Active Recombinant Human Alpha 1-antitrypsin in ethylo-trophic Yeast Pichia Pastori*". Accepted as oral presentation at Paris, May 2011 WASET.
4. Iranian Patent of AAT loaded PLGA Nanopaeticles (2009).
5. H. Atri, **Elham Bidram**, D. E. Dunstan. "Reconstituted Keratin Biomaterial with Enhanced Ductility". Materials .2015, 8(11), 7472-74851
6. **E Bidram**, A Sulistio, A Amini, Q Fu, GG Qiao, A Stewart and D. E. Dunstan., Fractionation of Graphene Oxide Single Nano-Sheets in Water-Glycerol Solutions using Gradient Centrifugation. Carbon 2016 (103), 363-371.
7. **E Bidram**, A Stewart and D. E. Dunstan., Graphene Oxide as a photoluminated carrier. Materials .Today: Proceedings 2016 (3) 240-244

8. **E Bidram**, Adrian Sulistio, Hyun-Jung Cho, Trudi Harris, Greg Qiao, Alastair Stewart. Targeted Graphene Oxide Networks: Cytotoxicity and Synergy with Anticancer Agents. ACS Applied Materials & Interfaces 2018 (10).
9. **E Bidram**, H Ranji-Burachaloo, Y Esmaeeli, N Al-Zaubai, A Zarrabi, A Stewart, D. E. Dunstan. A concise review on cancer treatment methods and delivery systems. Advanced Healthcare Materials 2019 (under revision).
10. Sadegh Khorrani; Arezoo Khosravi; **Elham Bidram**; Zahra Abdellahi; Ghazaleh Eshaghi, Ali Zarrabi. An Improved Method for Fabrication of Ag-GO Nanocomposite with Controlled Anti-Cancer and Anti-bacterial Behavior; A Comparative Study. Scientific reports 2019 (9).
11. Jafar Kolahi, Saber Khazaei , **Elham Bidram**, Roya Kelishadi. Altmetric Analysis of Contemporary Iranian Medical Journals. International Journal of Preventive Medicine 2019 (10).
12. Jafar Kolahi, David G. Dunning, Edward F. Rossomando, **Elham Bidram**, Saber Khazaei . Preprints in Dental Science: DentRxiv as a Strategy to Bring Dental Research into the Information Age. Dental Hypotheses 2019 (10)

Conference Proceedings

1. *Expression of Functionally Active Recombinant Human Alpha 1-antitrypsin in ethylo-trophic Yeast Pichia Pastori.* Accepted as oral presentation, May 2011 WASET, French-Paris.
2. *In vitro Sustained Release of Alpha 1-Antitrypsin from Poly (D,L-Lactide-co-Glycolide) Nanoparticles.* Accepted as oral presentation at International Conference on Bioscience, Biochemistry and Bioinformatics - ICBBB 2011, Singapore.
3. *AAT loaded in PLGA Nanoparticles.* Accepted as a poster for 9th Iranian Student Conference on Nanotechnology, 2011, Iran-Tehran.
4. *AAT nanoencapsulation.* Accepted as a poster for 3rd international conference on Nanostructures, Accepted as oral presentation 2010, Iran-Kish.
5. *Graphene Oxide as a Photoluminated Carrier.* Accepted as oral presentation for Advances in Functional Materials (Conference 2015), Jul. 2015, USA -Stony Brook.
6. *Graphene Oxide networks as the traceable components.* Accepted as a poster for 24th Australian Conference on Microscopy and Microanalysis Feb. 2016, Australia-Melbourne.
7. *Targeted graphene oxide networks as a novel cancer treatment,* Accepted as oral presentation for Cancer Therapy Meeting 2018 Nov., Australia-Melbourne.

SKILLS

Computer	MS Office Package, Adobe (Image, Photoshop), Reference Manager, Imaging analyziz softwares (Imaris, Fiji), Origin, Prism
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Laboratory

- Cloning, PCR
- Transformation methods: Calcium-Chloride, Electroporation
- Cellular Assays: Affinity Chromatography, Gel Filtration, HPLC, FTIR, NMR, SDS-PAGE, Western-Blotting, Elisa
- Toxicity assays: MTT, MTS, WST assays
- Immobilization Method: Nanoencapsulation (oil-in-oil emulsification solvent evaporation method).
- Light Microscopy, Fluorescence Microscopy, Confocal Microscopy, Dynamic Light Scattering
- Cell culture

Language

English, Persian

References

Prof. Dave Dunstan
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University of Melbourne
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Prof. Alastair Stewart
Department of Pharmacology and Therapeutics
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