
Yadollah Bahrami

1/56 Cashel Street
St Marys SA 5042
yadollah.bahrami@kums.ac.ir
yadollah.bahrami@flinders.edu.au

Language: English and Persian

Profile

Dynamic Early Career Researcher with experience in both commercial and higher education settings. Track record of over 10 publications and have presented at international and national conferences.

- Resourceful and knowledge able in designing and carrying out experiments and in statistical analysis of data.
- Proven ability to manage and complete projects to a high standard.
- Able to conduct high quality independent and innovative research.
- Culturally sensitive and internationally travelled.
- Excellent decision making abilities.
- Dedicated, self-motivated and hard-working.
- Able to use own initiative and work as a member of a team to achieve challenging deadlines.
- High level of interpersonal skills, able to work collaboratively with colleagues.
- Well-developed written and verbal communication skills.
- Demonstrated creativity, productivity and high level of initiative.

Key Areas of Research Expertise

Research areas include biotechnology (pharmaceutical, medical and agriculture), microbiology, protein chemistry, cancer, drug discovery, and natural products chemistry.

My research particularly focuses on two principal areas (1) drugs discovery and vaccine development using different marine and terrestrial resources, and (2) the isolation of novel actinobacteria from marine organisms, algae, plants and application of actinobacteria to discover new bioactive compounds.

Demonstrated competencies in research, teaching, demonstrating and writing in the cancer and molecular biology, biochemistry, biotechnology and microbiology disciplines. The ability to provide valuable support to research teams based on a combination of research, teaching and tutoring experience at Flinders University. Knowledge and expertise in drug discovery: isolation, purification and characterisation of natural compounds including proteins and secondary metabolites. Knowledge in extraction of DNA from microorganisms, PCR of 16S rRNA genes, and preparing samples for sequencing, and identifying microorganisms. Expertise in culturing and Maintenance of bacterial and fungal cultures and cell lines.

Professional Memberships

2016	Australia New Zealand Marine Biotechnology Society Symposium Committees
2014-Current	Committee member of Australia-New Zealand Marine Biotechnology Society (ANZMBS)
2013-2014	Australian Marine Sciences Association (AMSA)
2012-Current	The BioProcessing Networking (BPN)
2012-2014	Australia-New Zealand Marine Biotechnology Network
2012-Current	Flinders Centre for Marine Bioproducts Development (CMBD)
1999-2012	The Iranian Biology Society

Awards:

2013	Outstanding student presentation - 10 th International Marine Biotechnology Conference (IMBC), Brisbane.
2013	Academic internship Program for Doctoral Students, Flinders University.
2013	Conference travel grant, Flinders University.
2012	Best student presentation - Bio Processing Network (BPN) conference, Melbourne.
2010	Stipend Scholarship - Australian Sea Food CRC.
2008	PhD Scholarship - Iranian Ministry of Health and Medical Education.

Education:

Tertiary

2010-2015

PhD in Medical and pharmaceutical Biotechnology, Flinders University, SA, Australia

Supervisors: Prof Chris Franco, Prof Wei Zhang and Dr. Tim Chataway

Thesis title: *Discovery of novel saponins as potential future drugs from sea cucumber viscera*

Project focus and achievements

- This is the first study to investigate bioactive compound (saponins) from viscera of 16 sea cucumber species.
- Identified over 200 novel triterpene glycosides.
- Applied integrated HPLC and mass spectrometry for structure elucidation of compounds.
- Isolated sea cucumbers associated bacteria and employed PCR and sequencing technology to identify them.
- Extracted DNA from microorganisms, and PCR of 16S rRNA genes.
- Assessed the biological activity of triterpene glycosides.
- Highlighted in the public media including InDaily newspaper, ABC news and Flinders website

2013

Academic internship Program for Doctoral Students, Flinders University.

2008-2010

PhD candidate, Biotechnology and Biochemistry, The University of Adelaide, SA, Australia.

1999-2002

Master of Science in Microbiology, Tehran University, Tehran, Iran

Supervisors: Prof Ali Mostafaie and Prof. Reza Malekzadeh

Thesis Title: *Investigation of protein expression in Helicobacter pylori isolated from gastric patients by two-dimensional gel electrophoresis*

Key subject areas:

- Collected and Cultured the biopsies on media and isolated *H. pylori*.
- Compared protein profiles of *H. pylori* from different gastric patients.
- Protein chemistry.
- Chromatography.
- Cell culture.

1992-1996

Bachelor of Science in Biology (Molecular and animal sciences), Department of Biology, Razi University, Kermanshah, Iran

Professional Development

2018

Working with laboratory animals workshop (2 days)-10-11 October, KUMS, Kermanshah

2015

Bioinformatics workshop- 21-28 September, Flinders University, Bedford Park, Adelaide.

2014

Career Development & Leadership Intensive Workshop - 24-25 June, Flinders University, Adelaide

2013

Annual Leadership Program (2 days) - 9-10 December, Flinders University

2013

Academic Internship Program for Doctoral Students, Flinders University. A one year competitive entry program enhancing teaching and academic skills.

2013

Australia, New Zealand and China Forum on Marine Biotechnology - 11-15 November, Brisbane.

2012

The BioInfoSummer Workshop - 3-7 December, Adelaide University, Adelaide

2012

Business Plan, Seafood CRC, Cairns, Queensland.

2012

"Research to Outcome workshop" - 4 May, Flinders Partners, Adelaide.

2011

"Research to Outcome workshop" –October, Flinders Partners, Adelaide.

2011

Participant's Forum and Science Day – 11 July, Seafood CRC, Adelaide.

2011

Sea Food CRC retreat and training, Gold Coast

2011

Animal Welfare Day- 25 February, Flinders University.

2010

Sea Food CRC retreat and training, Sydney, November

2010

Work Health and Safety Inductions and Training, School of Medicine, Flinders University.

2004

Advanced Bioinformatics, "Molecular Medicine Network" in collaboration with "European Bioinformatics Institute, EBI" - October, Tehran, Iran.

2003

Theoretical and Practical Workshop of Bioinformatics – December, Pasteur Institute of Iran, Tehran, Iran.

Technical Skills

Biochemistry:

- Proteomics, Two-dimensional Gel Electrophoresis, SDS-PAGE, IEF, HPLC, HPCPC, Affinity chromatography, Ion Exchange chromatography, Gel filtration, Silica gels, Protein purification, Protein assay, natural products purification.
- Establishment of Two-dimensional Gel Electrophoresis by rehydration IEF and IPG methods in Kermanshah University of Medical Sciences.

Analytical chemistry and Mass spectrometry:

- MALDI, ESI-MS, MS/MS and different chromatography techniques as above.

Microbiology & Molecular Biology:

- Cell culture, Bacteria and Fungi culture, and DNA/RNA extraction, PCR, T-RFLP, isolation of Actinobacteria.
- Setting up of Helicobacter culture for the first time in Kermanshah University of Medical Sciences (KUMS), Kermanshah, Iran.

Immunology:

- Immunoproteomics, Immunoblotting, Antibody purification, Affinity Chromatography, ELISA, Immunochemistry.

Software

ChemDraw, ChemSketch, ChemSpider, SciFinder, PDQuest; 2D gel analysis, EndNote, Introduction to NVivo, R, Microsoft office; Word, Adobe Acrobat, Excel, Outlook and PowerPoint.

Higher Education Employment

Research

2016-Current	Head, Dept. of Medical Biotechnology, Faculty of Medicine, KUMS, Kermanshah, Iran.
2016-Current	Academic staff (Supervising and training undergraduate and postgraduate students), Dept. of Pharmaceutical Biotechnology, Faculty of Pharmacy, KUMS.
2016-current	Deputy of Global Strategies and International Affairs (GSIA), KUMS.
2015-2016	Research Associate (Post Doc) at the Department of Medical Biotechnology, Flinders University.
2011-2016	Research Assistant at the Department of Medical Biotechnology, Flinders University. Demonstrated adaptability and flexibility when working on different projects, for example: chemical structure analysis of bioactive compounds in order to elucidate the structure of compounds, culture and maintain microorganisms; bacteria and fungi for drug discovery. Evaluate the bioactivity of compounds.
2002-2008	Research Assistant and Instructor, Medical Biology Research Centre, KUMS, Kermanshah, Iran. Key research areas: <ul style="list-style-type: none">• Isolation and purification of proteins from different sources: Bacteria, plants and human tissues using different chromatography and electrophoresis techniques.• Evaluate the biological activity of compounds.• Teaching and supervising research and medical students
2002-2003	Instructor and Research Assistant, School of Medicine, KUMS, Kermanshah, Iran.

Private Sector Employment

2003-2010	Manager of Biomedical product and equipment and supplier, TakanPuoya Co, Kermanshah, Iran (part-time). I've improved my knowledge and information in terms of analysing and processing clinical and biomedical data and research. Please refer to the attached certificate letter from the employer for details.
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Teaching

2016-Current	Head, Dept. of Medical Biotechnology, Faculty of Medicine, KUMS, Kermanshah, Iran.
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2016-Current	Academic staff (Supervising and training undergraduate and postgraduate students), Dept. of Pharmaceutical Biotechnology, Faculty of Pharmacy, KUMS.
2015-2016	Supervising and training undergraduate and postgraduate students, Dept. of Medical Biotechnology, School of Medicine, Flinders University.
2014-2016	Teaching, Tutor, Biochemistry of Proteins and protein Biotechnology, and medical Biotechnology, Dept. of Medical Biotechnology, School of Medicine, Flinders University.
2010-2016	Tutor, Biochemistry of Human Disease, Dept. of Medical Biochemistry, Flinders University. Topics including cancer, metabolism of alcohol, cholesterol, diabetes, CF, PKU etc.
2002-2008	Instructor and tutor, School of Medicine, KUMS, Kermanshah, Iran.

Science Sector Engagement

2018	Organising committee of the 3 rd Congress on Stem Cells & Regenerative Medicine, 21-22 February, Kermanshah, Iran.
2016	Organising committee of the 1 st Australia New Zealand Marine Biotechnology Society Symposium 14-15 April, Adelaide, SA.
2014	Volunteer Coordinator at the International World Aquaculture Conference and Exhibition - 7-11 June, Adelaide.
2014	Volunteer member for organising Marine Biotechnology Seminar – 31 March, Centre for Marine Bioproducts Development, Flinders University, Adelaide.
2013	Volunteer member for organising Marine Biotechnology Seminar – 22 February, Centre for Marine Bioproducts Development, Flinders University, Adelaide.
2013	State Marine Biotechnology Seminar -, Flinders University, Adelaide.
2012	Volunteer coordinator for organising 8 th Asia-Pacific Conference on Algal Biotechnology and 1 st International Conference on Coastal Biotechnology 9 -12 July, Adelaide
2011	Volunteer for the National Biodiscovery Forum - Flinders University, Adelaide (held in collaboration with the Commonwealth government).
2000	Member of the organising Committee for the 9 th Iranian Biology conference - 15-17 August, Tehran, Iran.
1999	Member of the organising Committee for the 8 th Iranian Biology conference, Kermanshah, Iran.

Research Projects and Grant Applications

Collaborations on the following projects:

1. Application of sea cucumber saponins as adjuvants vaccine; South Australia Government. Bahrami Y, Petrovsky N, Franco C.
2. Development of functional ingredients from south Australian sea cucumbers; South Australia Government. Bahrami Y, Zhang W.
3. Proteome analysis of *H. pylori* and identification of potential diagnostic and vaccine candidates using immunoblotting and cellular blotting. Mostafaie A, Bahrami Y, Salimi G, Hassan Z, Kamali E.
4. Protein pattern of *H. pylori* isolated from different gastric patients by SDS-PAGE. Mostafaie A, Bahrami Y, Navabi J.
5. Isolation and purification of the Actinidin from Kiwifruit using chromatography and 2DE. Mostafaie A, Chalabi M, Bahrami Y.
6. Preparation and characterization of glutathione-responsive nanoparticles as a promising platform for targeted delivery of anticancer drugs. Bahrami Y, Rezaei S, Kashanian S.

Publications:

1. **Bahrami, Y.**; Zhang, W. and Franco, C. (2018). Distribution of Saponins in the Sea Cucumber *Holothuria lessona*; the Body Wall Versus the Viscera, and Their Biological Activities. *Marine Drugs*, 16 (11), 423.
2. **Bahrami, Y.** and Franco, C. (2018). Structural diversity of sea cucumber saponins and their biological activity and pharmaceutical applications. *Biotechnology advances*, under revision.
3. **Bahrami, Y.** and Franco, C. (2016). Acetylated triterpene glycosides and their biological activity from *Holothuroidea* reported in the six past decades. *Marine Drugs*, 14 (8), 147, 1-38.
4. **Bahrami, Y.** and Franco, C. (2015). Structure Elucidation of New Acetylated Saponins, Lessoniosides A, B, C, D, and E, and Non-Acetylated Saponins, Lessoniosides F and G, from the Viscera of the Sea Cucumber *Holothuria lessona*. *Marine Drugs*, 13 (1), 597-617.
5. **Bahrami, Y.**, Zhang, W., Chataway, T. and Franco, C. (2014). Structural Elucidation of Novel Saponins in the Sea Cucumber *Holothuria lessona*. *Marine Drugs*, 12(8), 4439-4473.

6. Bahrami, Y.; Zhang, W. and Franco, C. (2014). Discovery of Novel Saponins from the Viscera of the Sea Cucumber *Holothuria lessoni*. *Marine. Drugs*, 12 (5), 2633-2667.
7. Meshkani R., Taghikhani M., Larijani B., Bahrami Y., Khatami S, Khoshbin E, Ghaemi A, Sadeghi S, Mirkhani F, Molapour A and Adeli K. (2007). The Pro12Ala polymorphism of the PPAR-gamma is associated with insulin resistance and type 2 diabetes in an Iranian population. *ClinChem Lab Med*, Vol. 45 (4), 477-482.
8. Mostafaie A., Abdolalizadeh J., Nomanpour B, Karimi R, Bahrami Y. (2005). Immunogens of *Brucella abortus* S19 identified by two-dimensional gel-electrophoresis and immunoblotting. *Iranian journal of Medical Science*, Vol. 30, NO 1.
9. Karimi R , Mostafaie A, Tabaraie B, Bahrami Y, Abdolalizadeh J. (2005). Reaction of native and denatured *Brucella abortus* (S19) proteins with antibody using affinity chromatography and immunoblotting. *Scientific Journal of Hamadan University of Medical Science & Health Service*, Vol.11, NO.4. (In Farsi).
10. Chalabi M., Bahrami Y., Mostafaie A. (2004). Study of Kiwifruit Actinidin using SDS-PAGE, Isoelectric focusing and Two-dimensional gel electrophoresis. *Iranian Journal of Biology* Vol 17, No 3.
11. Khorsand A, Bahrami Y. (2001). Green plastics, *Biological Education*, No.51, (in Farsi).
12. Bahrami Y, Kohanbash M. (2001). Communication of Bacteria, part 2. *Biological Education*, No.50, (in Farsi).
13. Khorsand A, Bahrami Y. (2000). Diapedesis. *Biological Education*, No.48, (in Farsi).
14. Kohanbash M, Bahrami Y. (2000). Communication of Bacteria, part 1. *Biological Education* No.49, (in Farsi).

Conferences/ Presentations and Published Abstracts/ Conference proceedings

- 2018 Mirzaeia, A.; Bahrami*, Y.; Franco, C. Purification and structure elucidation of novel saponins from the sea cucumber *Actinopyga spinea* viscera using HPCPC and mass spectrometry. 1st international congress on pharmacy updates, Tehran, Iran, 7-8th February
- 2016 Bahrami, Y.; Zhang, W. and Franco, C. Purification and structure elucidation of novel saponins from the sea cucumber *Holothuria fuscogilva* viscera. 1st Australia New Zealand Marine Biotechnology Society Symposium, Adelaide, South Australia, 14-15th April.
- 2015 Zhang, W.; Battershill, C.; Baker, J.; Nichols, P.; Sorokin, S.; Bahrami, Y. Surfing it together - the new wave of Marine Biotechnology. Australian Marine Sciences Association (AMSA), Deakin University, Geelong, Australia, 6-9th July.
- 2014 Bahrami, Y.; Zhang, W. and Franco, C. Isolation, purification and structure elucidation of novel saponins from viscera of sea cucumber *Stichopus vastus* using HPCPC and mass spectrometry. Metabolomics conference, Tsuruoka, Japan, 23-26th June.
- 2014 Bahrami, Y.; Zhang, W. and Franco, C. Isolation, purification and structure elucidation of novel saponins from the viscera of the sea cucumber *Stichopus sp.* using HPCPC and mass spectrometry. 10th Asia-Pacific Marine Biotechnology Conference (APMBC), Taipei, Taiwan, 4-8th May.
- 2013 Bahrami, Y.; Zhang, W. and Franco, C. Isolation and structure elucidation of novel saponins from the sea cucumber *Stichopus hermanni* viscera using HPCPC and mass spectrometry, 10th International Marine Biotechnology Conference (IMBC) Brisbane 11-15th November.
- 2013 Bahrami, Y.; Zhang, W. and Franco, C. Discovery of novel saponins from viscera of sea cucumber *Thelenotaanax* by HPCPC and Mass Spectrometry. Bioprocessing Network, Gold Coast, 22nd -24th October.
- 2012 Bahrami, Y.; Zhang, W. and Franco, C. Discovery of novel saponins from viscera of sea cucumber *Holothuria lessoni*. Bioprocessing Network, Melbourne, 16- 18th October.
- 2011 2nd Iranian Ph.D students in Australia and New Zealand Conference, Melbourne, April.
- 2010 1st Iranian Ph.D students in Australia and New Zealand Conference, Sydney, April.
- 2009 Bahrami Y., Ricciardelli C., Oehler M., Hoffmann P. Proteomics approaches for identification of tumour associated biomarkers in ovarian cancer. International Student Research Forum, Griffith University, Australia, 22 -26th November.
- 2005 Bahrami, Y, Khorsand, A, Mostafaie, A, Karimi, R, Salimi, Gh. Proteome analysis of Spiral and Coccoidal forms of *Helicobacter pylori*. The 8th Iranian Congress of Biochemistry and the first International Congress of Biochemistry & Molecular Biology, September 11-15th, Tehran, Iran. Published in the *Iranian journal of Biochemistry and Molecular Biology*, Vol.1, No.1.
- 2005 Chalabi, M, Bahrami, Y, Mostafaie, A. Electrophoresis behaviour of Kiwifruit Actinidin using isoelectric focusing, SDS-PAGE and two-dimensional gel electrophoresis. The 8th Iranian Congress of Biochemistry and the First International Congress of Biochemistry & Molecular Biology, Sep 11-15th, Tehran, Iran. Published in the *Iranian journal of Biochemistry and Molecular Biology*, Vol.1, No.1.
- 2004 Bahrami Y, Mostafaie A , Khorsand A, Karimi R. Investigation of protein expression in *Helicobacter pylori* isolated from gastric patients by 2-DE. XVIIth International Workshop Gastrointestinal Pathology and Helicobacter, European Helicobacter Study Group, September 22nd -24th, Vienna, Austria. Published in *Helicobacter* vol.9, N.5, p.501.
- 2004 Karimi R, Mostafaie A, Bahrami Y, Khorsand A. Reaction of native and denatured *Helicobacter pylori* proteins with antibody using affinity chromatography and Immunoblotting. XVIIth International Workshop

- Gastrointestinal Pathology and Helicobacter, European Helicobacter Study Group, September 22nd -24th, Vienna, Austria. Published in *Helicobacter* vol.9, N.5, p.501.
- 2004 Karimi R, Mostafaie A, Bahrami Y, Khorsand A. Reaction of native and denatured *Brucellaabortus* (S19) proteins with antibody using affinity chromatography and Immunoblotting. The 7th Iranian Congress of Biochemistry, Jan 26-29th, Ahwaz, Iran.
- 2004 Karimzadeh K., Mostafaie A., Bahrami Y. Induction of Rat Cytochrome P4501A using Beta- naphthoflavon. The 7th Iranian Congress of Biochemistry Jan 26-29th, Ahwaz, Iran.
- 2003 Abdolalizadeh J, Bahrami Y. Immunogens of *Brucellaabortus* S19 Identified by Two-Dimensional Gel-Electrophoresis and Immunoblotting. The 3rd Iranian Students Congress of Biology and Biotechnology, May 28-30th, Kermanshah.
- 2002 Bahrami Y., Bacteriocins and their Application, Tehran University, Tehran, Iran.

University Service and Contribution

- 2014 Member of Equal Opportunity & Diversity Committee at Flinders University
- 2014-Current Vice president of FUPS (Flinders University Postgraduate Society)
- 2014 International officer at FUSA (Flinders University Students Association) - elected by students for 1January 2014-31December 2014.

Student Support Volunteering and Employment

- 2013-2014 Casual Arrival Team Members International Student Services Unit (ISSU), Flinders University
- 2010-2016 Volunteer member for Open Day, Flinders University
- 2011-2016 Member of the Islamic Association of Iranian Students in Australia and New Zealand.
- 2011-2013 Committee member of the Islamic Association of Iranian Students in Australia and New Zealand.
- 2010-2011 Volunteer member for the Science Alive days.
- 2010-2011 Member of Rotary Club at Flinders University
- Raise money for the Club and encourage public donations
 - Promote the Club to new students
 - Perform Club duties and explain to new students
- 2008-2014 Representative of the Iranian Students Association in Adelaide, South Australia
- Communicating between the Scientific counsellor of the Iranian Embassy in Canberra and the Iranian students in Adelaide
 - Communicating with different organisations such as MRC (Migration Resources Centre), Red Cross, Uniting Care Wesley Bowden
 - Organising and holding the Iranian School Exams
 - Communicating between the Iranian students in Adelaide and the Iranian Embassy in Canberra
- 2008-2009 Volunteer member for Open Day, Adelaide University

Interests

Playing soccer with friends, outdoor recreation, photography, hiking, social work/programs.

Referees

Prof Chris Franco

Position: Head of Biotechnology Department, School of Medicine, Flinders University of South Australia

Address: Faculty of Health Sciences, L4, Health Sciences Building, Registry Rd, Bedford Park SA 5042

Email: chris.franco@flinders.edu.au

Phone Number: +61 8 7221 8554

Prof Chris Franco was my principal supervisor during my PhD study. He is my employer now.

Prof Ali Mostafaie

Position: Head of Medical Biology Research Centre, Kermanshah University of Medical Sciences

Address: Sorkhalizheh, Kermanshah, Iran.

Email: amostafaie@kums.ac.ir

Phone Number: +98-918 830 20 44 and/ or +98-83-3427 9923

Prof Ali Mostafaie was my principal supervisor during my Master study. He was also my boss at KUMS.

Prof Wei Zhang

Position: Director, Centre for Marine Bioproducts Development, Flinders University of South Australia

Address: Faculty of Health Sciences, L4, Health Sciences Building, Registry Rd, Bedford Park SA 5042

Email: wei.zhang@flinders.edu.au

Phone Number: +61 8 7221 8557

Prof Wei Zhang was my co-supervisor during my PhD study.