



Dr. Seyed Isaac Hashemy

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Educational Qualifications	Academic Employment	Non Academic Appointments	Association/ Memberships
<b>Scientific Publications</b> <ul style="list-style-type: none"><li>➤ Books</li><li>➤ Papers in English</li><li>➤ Papers in Persian<ul style="list-style-type: none"><li>✓Original Article</li><li>✓Case Report</li></ul></li><li>➤ Published Abstracts in International Seminars</li><li>➤ Thesis</li></ul>			
<b>Research Interests</b>	<b>Research Projects (Scientific Projects/ Clinical Trials)</b> <ul style="list-style-type: none"><li>➤ Completed</li><li>➤ Projects in process</li></ul>		
<b>Presentations</b>	<b>Honors &amp; Awards</b>	<b>Additional Skills</b>	<b>Interests, Hobbies, Family</b>

## Educational Qualifications

### Postgraduate

**2008**      **PhD in Clinical Biochemistry**  
Department of Medical Biochemistry and Biophysics, Karolinska Institutet  
Stockholm, Sweden

Dissertation: “**Regulation of human thioredoxin and glutaredoxin systems by oxidation and s-nitrosylation**”

### Undergraduate

**1998**      **Doctor of Medicine (GP)**  
Faculty of Medicine  
Mashhad University of Medical Sciences  
Mashhad, Iran

Dissertation: **The analysis of the results of exercise test in 1000 cases with chest pain and comparison of results with respect to age, sex, and the kind of chest pain (typical or atypical)**

### Diploma

**1991**      **Diploma in Mathematics and Physics**, Mashhad, Iran

## Academic Employment

**2009 – Present**      **Adjunct Assistant Professor of Medical Biotechnology**,  
Department of New Sciences and Technologies  
Mashhad University of Medical Sciences  
Mashhad, Iran

**2008 – Present**      **Assistant Professor of Clinical Biochemistry**,  
Mashhad University of Medical Sciences  
Mashhad, Iran

## Memberships

**2011**      **Both Executive and Scientific Committees of 12<sup>th</sup> Iranian Congress of Biochemistry & 4<sup>th</sup> International Congress of Biochemistry & Molecular Biology**  
  
Mashhad, Iran

**2011**      **Scientific Committee of 11<sup>th</sup> Congress of Iranian Society of Toxicology**  
  
Mashhad, Iran

**2011**      **Scientific Committee of 12<sup>th</sup> National Conference on Medical Education**  
  
Mashhad, Iran

2011 – Present	<b>Board of Reviewers of <i>Ofogh -e Tose'eye Amouzesesh -e Pezeshki</i></b>
2011 – Present	<b>Professionalism Committee</b> Educational Development Center - Mashhad University of Medical Sciences Mashhad, Iran
2011 – Present	<b>Clinical Governance Committee</b> Mashhad University of Medical Sciences Mashhad, Iran
2010 – Present	<b>Committee for Empowering the scientific staff of MUMS</b> Educational Development Center - Mashhad University of Medical Sciences Mashhad, Iran
2010 – Present	<b>Curriculum Committee</b> Educational Development Center - Mashhad University of Medical Sciences Mashhad, Iran
2010 – Present	<b>Committee on Development of New Medical Specialties and Subspecialties</b> Educational Development Center - Mashhad University of Medical Sciences Mashhad, Iran
2010 – Present	<b>EDC(Educational Development Center),</b> Mashhad University of Medical Sciences Mashhad, Iran
2010 - Present	<b>Surgical Oncology Research Center,</b> Faculty of Medicine Mashhad University of Medical Sciences Mashhad, Iran
2010 - Present	<b>Biochemistry and Nutrition Research Center,</b> Faculty of Medicine Mashhad University of Medical Sciences Mashhad, Iran
2008 – Present	<b>EDU(Educational Development Unit),</b> Faculty of Medicine Mashhad University of Medical Sciences Mashhad, Iran
1998 - Present	<b>Medical Council, I. R. IRAN</b>

## Scientific Publications

### Books in English

- Hashemy, S.I., **Regulation of human thioredoxin and glutaredoxin systems by oxidation and s-nitrosylation**, 2008.  
ISBN: 978-91-7357-563-8  
Karolinska Institute, Stockholm, Sweden

## Books in Persian

- بیوشیمی برای پرستاران، با ضمیمه های بالینی – حافظ حیدری زرنق، سید اسحاق هاشمی، امیر آدینه داغیان؛ زیر نظر سید اسحاق هاشمی – چاپ اول؛ ۱۳۸۹ – شابک: ۹۷۸-۶۰۰-۱۰۱-۰۵۹-۰ – نشر جامعه نگر

## Papers in English

- Hashemy, S.I.  
The Human Thioredoxin System: Modifications and Clinical Applications  
Iranian Journal of Basic Medical Sciences. 2011 May-June; 14(3):191-204.
- Hashemy, S.I., Holmgren, A.  
Regulation of the Catalytic Activity and Structure of Human Thioredoxin 1 via Oxidation and S-Nitrosylation of Cysteine Residues.  
J Biol Chem. 2008 Aug 8; 283(32):21890-8.
- Carvalho, C.M., Chew, E.H., Hashemy, S.I., Lu, J., Holmgren, A.  
Inhibition of human thioredoxin system: A molecular mechanism of mercury toxicity.  
J Biol Chem. 2008 May 2; 283(18):11913-23.
- Hashemy, S.I., Johansson, C., Berndt, C., Lillig, C.H., Holmgren, A.  
Oxidation and S-nitrosylation of cysteines in human cytosolic and mitochondrial glutaredoxins: effects on structure and activity.  
J Biol Chem. 2007 May 11; 282(19):14428-36.
- Hashemy, S.I., Ungerstedt, J.S., Zahedi Avval, F., Holmgren, A.  
Motexafin gadolinium, a tumor-selective drug targeting thioredoxin reductase and ribonucleotide reductase.  
J Biol Chem. 2006 Apr 21; 281(16):10691-7.

## Published Abstracts in International Seminars

- Glutathione changes in consequence of burn injury  
Author(s): Hashemy, SI; Askarian, R; Safarian, M; Beiraghi Toosi, A  
Conference Information: **12th Iranian Congress of Biochemistry and 4th International Congress of Biochemistry and Molecular Biology**, Date: **Sep 6-9, 2011 Mashhad, Iran**  
Source: **Clinical Biochemistry** Volume: **44**, No. **13S** Page: **S1** Published: **2011**
- Study of liver function tests in HIV-infected patients, with or without co-infection of HBV or HCV  
Author(s): Hashemy, SI; Mansouri, S; Omidian Rad, R; Riazi, Z; Sadeghian, MH  
Conference Information: **12th Iranian Congress of Biochemistry and 4th International Congress of Biochemistry and Molecular Biology**, Date: **Sep 6-9, 2011 Mashhad, Iran**  
Source: **Clinical Biochemistry** Volume: **44**, No. **13S** Page: **S126** Published: **2011**
- Thioredoxin and glutaredoxin systems in cellular thiol redox homeostasis  
Author(s): Hashemy, SI; Holmgren, A  
Conference Information: **European Meeting of the Society-for-Free-Radical-Research-Europe (SFRR-Europe)**, Date: **OCT 10-13, 2007 Vilamoura PORTUGAL**  
Source: **FREE RADICAL RESEARCH** Volume: **41** Page: **S7** Published: **2007**
- Iron-cofactors in members of the Thioredoxin-family of proteins  
Author(s): Berndt, C; Hashemy, SI; Hudemann, C, et al.  
Conference Information: **13th Biennial Meeting of the Society-for-Free-Radical-Research-International**, Date: **AUG 15-19, 2006 Davos SWITZERLAND**

### Supervised Thesis

- 2011 - Master thesis – Roya Askarian  
**Evaluation of oxidative stress and its relationship with the prognosis of burn injuries.**

### Research Interests

- Redox Signaling and Oxidative stress
- Enzymology
- Cancers

### Research projects (Scientific Projects/ Clinical Trials):

#### Projects in process

- **Evaluation of oxidative stress and its relationship with the prognosis of burn injuries.**  
Research Project No: 88482 (finished)
- **Study of Rhus coriaria effect on serum uric acid levels in oxonate-induced hyperuricemic mice and the in vitro and in vivo xanthin oxidase activity.**  
Research Project No: 88447
- **Evaluation of serum level of Prooxidant-Antioxidant Balance and CRP in patients with gastrointestinal cancers and control groups.**  
Research Project No: 88312
- **Evaluation of oxidative stress in burn blister fluids and its relationship with oxidative stress in plasma.**  
Research Project No: 88534
- **Evaluation of neutrophil hypersegmentation in iron deficient young women.**  
Research Project No: 88400
- **Comparison of hsCRP and oxidative stress factors in patients with oral lichen planus, before and one-month after treatment.**  
Research Project No: 89265
- **Evaluation of serum isoprostane in patients with oral lichen planus.**  
Research Project No: 89336
- **Effects of arginine and citrulline supplementation on prognosis of critically ill patients in intensive care unit receiving enteral nutrition**  
Research Project No: 89479
- **Comparison of serum level of oxidative stress factors, before and after using dental bleaching agents**  
Research Project No: 89550

### Presentations

Date	Location	Title
● 6-9 September, 2011	The 12th Iranian Congress of Biochemistry and 4th International Congress of Biochemistry and Molecular Biology, Mashhad, Iran	Glutathione changes in consequence of burn injury
● 6-9 September,	The 12th Iranian Congress of	Study of liver function tests in HIV-

2011	Biochemistry and International Congress of Biochemistry and Molecular Biology, Mashhad, Iran	4th infected patients, with or without co-infection of HBV or HCV
● 20-23 April, 2011	The 4 <sup>th</sup> international National Congress on Quality Improvement in Clinical Laboratories, Tehran, Iran	& 9 <sup>th</sup> Analysis of the Role of Diabetes Screening in Identifying Diabetics Conducted in Biochemical Laboratory of Imam Reza Hospital, Mashhad, in Nov.2010
● 29 October – 1 November, 2007	The 9 <sup>th</sup> Iranian Congress of Biochemistry & the 2 <sup>nd</sup> International Congress of Biochemistry and Molecular Biology, Shiraz, Iran	Oxidation and S-nitrosylation of human cytosolic thioredoxin: a possible role in cell signaling
● 10-13 October, 2007	The Society for Free Radical Research (SFRR) Europe 2007 Meeting, Vilamoura, Algarve, Portugal	Thioredoxin and glutaredoxin systems in cellular thiol redox homeostasis
● 27-28 April, 2006	MBB-Conference 2006, Nynäshamn, Sweden	Iron-cofactors in members of the Thioredoxin-family of proteins
● 9-11 November, 2005	International Redox Network (IRN Kyoto 2005), Kyoto, Japan	The first member of the thioredoxin family of proteins containing an [FeS]-cluster: human Glutaredoxin 2
● 9-11 November, 2005	International Redox Network (IRN Kyoto 2005), Kyoto, Japan	Motexafin gadolinium: A tumor selective drug targeting thioredoxin reductase and ribonucleotide reductases

## Teaching Contributions

Date	University / Students	Title
● 2003-2008	Karolinska Institute, Sweden / Medical and Biomedical Students	Physiology and Biochemistry of Digestive tract  Hemoglobin Lab.  Microsoft Office
● Since 2008 (all of teachings are not included)	MUMS, Iran / Faculty of Medicine; Residents of Pathology	Clinical and Lab-oriented Biochemistry
	MUMS, Iran / Faculty of Medicine; MSc Students of Biochemistry	General Biochemistry  Clinical Biochemistry  Enzymology  Tissue Biochemistry
	MUMS, Iran / Faculty of Medicine; MSc Students of Physiology & Immunology	General Biochemistry
	MUMS, Iran / Faculty of Medicine; PhD Students of Microbiology	Applied Biochemistry
	MUMS, Iran / Faculty of	General Biochemistry

Pharmacy; Doctorate Students of Pharmacy	Clinical Biochemistry
MUMS, Iran / Faculty of Nursing; Bachelor Students of Nursing	General Biochemistry
MUMS, Iran / Faculty of Paramedicine; Bachelor Students of Laboratory Sciences	Clinical Biochemistry Medical Biochemistry Endocrinology

## Honors & Awards

<b>2003</b>	A full Scholarship (51 months) from the Iranian Ministry of Health and Medical Education to get my PhD from Karolinska Institute - Sweden
<b>2007</b>	Travel grant from Karolinska Institutet (1500 \$) to attend in the "9th Iranian Congress of Biochemistry and the 2nd International Congress of Biochemistry and Molecular Biology", Shiraz, Iran.

## Additional Skills

### Computer:

Word	Advanced
PowerPoint	Advanced
Excel	Advanced

### Languages:

Persian	Native
English	Fluent
Arabic	Intermediate

## Interests, Hobbies, Family

Working with computer, Learning new softwares, and Surfing on the web

Married, 2 daughters