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Laboratory of Systems Biology
and Bioinformatics



University Of Tehran

Ali Masoudi-Nejad, Resume

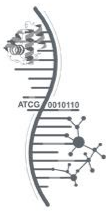
Ali Masoudi-Nejad earned his Ph.D. in genomics under the supervision of Prof. Takashi Endo at Kyoto University (京都大学) in Japan. He then completed post-doctoral work in computational genomics at the James Hutton Institute in Dundee, Scotland and MRC-LMB in Cambridge, UK. He returned to Kyoto University for two consecutive post-docs in bioinformatics and systems biology with Prof. Minoru Kanehisa (金久實), co-founder of The GenBank at NCBI and founder of the KEGG Database. In 2006, he returned to Iran and established the Laboratory of Systems Biology and Bioinformatics (LBB) at the University of Tehran, where he is currently a full professor. He established the first Ph.D. curriculum in bioinformatics at the University of Tehran in 2006, and to date, it has produced over 100 graduates, many of whom have become successful junior researchers abroad or successfully integrated into the international research community.

Professor Masoudi-Nejad has served as an editor and guest editor for several journals, including Seminar in Cancer Biology, Scientific Reports, and Seminars in Cell and Developmental Biology. His primary research interests include:

- Computational systems biology
- Cancer systems biology
- The use of artificial intelligence in medicine
- Computational pathology and omics (pathomics)
- The role of the microbiome in disease
- Multi-omics interaction networks and network biology
- Biomarker development based on networks
- Bioinformatics and algorithm development
- Drug repurposing and analysis of drug-target networks
- Genome-scale analysis of non-coding RNA

Languages	Persian, Kurdish, English, Japanese
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Laboratory of Systems Biology and Bioinformatics (LBB), Institute of Biochemistry and Biophysics
University of Tehran, Tehran, Iran. Mobile: (+98)-912-585-1148 <http://LBB.UT.AC.IR>
E-mail: amasoudin@ut.ac.ir & amasoudin@hotmail.com



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Academic Degrees/Education

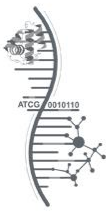
2002	PhD	Kyoto University, Japan	Genomics
2002-2003	Post-Doctorate (1st)	MRC-LMB Cambridge and James Hutton Institute, UK	Genome Dynamics
2003-2004	Post-Doctorate (2nd)	Bioinformatics Center, Kyoto University, Japan	Bioinformatics
2004-2005	Post-Doctorate (3rd)	Bioinformatics Center, Institute for Chemical Research, Kyoto University, Japan	Systems Biology

Employment History

2020 - Present	Professor	Laboratory of Systems Biology and Bioinformatics (LBB), University of Tehran, Iran
2012 - 2020	Associate Professor	Laboratory of Systems Biology and Bioinformatics (LBB), University of Tehran, Iran
2006 – 2012	Assistant Professor	Laboratory of Systems Biology and Bioinformatics (LBB), University of Tehran, Iran
2005 - 2006	Associate Researcher	Bioinformatics Center, Kyoto University, Japan

Administrative Activities

- 1- Founder and Head of the Bioinformatics Department at the Institute of Biochemistry and Biophysics at the University of Tehran (2008-2016)



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- 2- Founder and Head of the Bioinformatics Department at the KISH International Campus, University of Tehran (2014-2019)
- 3- Director of the Ph.D. Program in Bioinformatics Curriculum Development at the Institute of Biochemistry and Biophysics at the University of Tehran.

Distinctions

- 1- Notable Professor for overall performance in research and teaching at the university of Tehran (2023). Ten Notable Professors for overall performance were selected at the University of Tehran in 2023 out of a pool of 2600 professors.
- 2- Selected as a member of the "UT-100-Club-Professors," a group of 100 professors chosen from a pool of 2600 professors at the University of Tehran in 2022.

Honors and Awards

1. Japanese Monbugakosho Ph.D. scholarship award (1999-2002)
2. James Hutton Institute & Leverhulme Foundation Post-Doctoral award (2002-2003)
3. Japanese JSPS Post-Doctoral award (2003-2005)
4. Kyoto University, Bioinformatics Center COE 21th century award (2005-2006)
5. German DAAD Visiting Professorship award (2010)
6. German DAAD Visiting Professorship award (2012)



Teaching

- 1 Computational Genomics (Ph.D. Course)
- 2 Introduction to Bioinformatics (M.Sc. and Ph.D. Course)
- 3 Advanced Bioinformatics & Systems Biology (Ph.D. Course)
- 4 Genome Structure and Function (Ph.D. Course)
- 5 Biological Databases (Ph.D. Course)
- 6 Computational Molecular Biology (M.Sc. and Ph.D. Course)
- 7 Seminar in Bioinformatics (Ph.D. Course)
- 8 Seminar in Systems Biology (Ph.D. Course)

Collaborators (past & present)

<u>Prof. Minoru Kanehisa</u>	Kyoto University, Japan
<u>Prof. Dr. Falk Schreiber</u>	Universität Konstanz, Germany
<u>Prof. Dr. Ina Koch</u>	University of Frankfurt, Germany
Prof. Antti Poso	University of Eastern Finland, Kuopio 80100, Finland
Dr. Mahdi Jalili	University of RMIT, Australia
Dr. <u>Neda Jahanshad</u>	Keck School of Medicine of USC, USA
Prof. Paul M. Thompson	University of Southern California, USA
<u>Prof. Susumu Goto</u>	Kyoto University, Japan
<u>Prof. Takashi R. Endo</u>	Kyoto University, Japan
<u>Dr. Ruy Jáuregui</u>	Helmholtz Zentrum für Infektionsforschung, Germany
Prof. Yasir Rahmatallah	University of Arkansas for Medical Sciences, USA
Prof. B. Jayaram	Indian Institute of Technology, Delhi, India
Prof. Jean Baptiste Cazier	University of Birmingham, UK
Prof. Ceesvan Leeuwen	University of Leuven (KU Leuven), Belgium
Dr. Isar Nassriri	University of Oxford
Prof. Holger Fröhlich	University of Bonn, Bonn, Germany













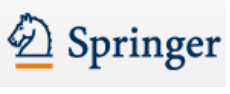
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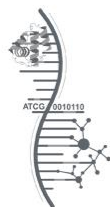
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Editorial Activity

Editor , Scientific Reports (IF = 4.37)	 nature publishing group  Scientific Reports
Guest Editor , Seminar in Cancer Biology (IF = 15.09)	 ELSEVIER
Guest Editor , Seminars in Cell and Developmental Biology (IF = 7.69)	 ELSEVIER
Editor , Frontiers in Bioinformatics and Computational Biology (IF = 4.01)	
Editor , Information in Medicines Unlocked	 ELSEVIER
Editor , Computing Science Journal (CSJ)	
Editor , Current Genomics (IF = 2.63)	
Editor , Genes and Genetic Systems (IF = 1.5)	
Associate Editor , Current Bioinformatics (IF = 3.5)	
Editor , Biomedical Engineering and Computational Biology	
Editor , <i>InSilico</i> Pharmacology 2011-2020	



Research Supervision

(Only students whom I was their supervisor or first co-supervisor have been listed)

Master Students

	Role	Student Name	Student Background	Current Position
1	Supervisor	Ehsan Habibi	Biophysics	Postdoc at Broad Institute of MIT and Harvard, USA
2	Co-supervisor	Nima Aghaeepour	Computer Science	Associate Professor, Stanford University, USA
3	Co-supervisor	Hesam Dashti	Computer Science	Senior Computational Scientist, The Broad Institute of MIT, USA
4	Co-supervisor	Meysam Bastani	Computer Science	Ph.D. Student at University of Alberta, Canada
5	Supervisor	Hamed Ahmadi	Software Engineering	Founder at Blue Boat Data, British Columbia, Canada
6	Supervisor	Mitra Ansariola	Computer Science	Senior Scientist, Bristol-Meyer Squibb, USA
7	Co-supervisor	Mehran Aflakparast	Mathematics & Statistics	Post-Doctoral Fellow, Vrije Universiteit Amsterdam, Netherland
8	Supervisor	Sahand Khakabi Mamaghani	Bioinformatics	ML/AI Senior Data Scientist at Conexiom, Canada
9	Co-supervisor	Sedighe Mahdavi	Mathematics	Post-Doctoral Fellow, York University, Canada
10	Supervisor	Hadi Jorjani	Algorithm and Computation	Data Analyst, Syngenta, Switzerland
11	Project Mentor	Amir Mizbani	Biotechnology	Novartis Oncology, Basel
12	Project Mentor	Sobhan NaderiParizi	Biotechnology	Senior Software Engineer - Google
13	Project Mentor	Amjad Askary	Biotechnology	Assistant professor, UCLA Brain Research Institute (BRI), USA
14	Supervisor	Hamid Ravaee	Algorithm and Computation	Faculty, Head of IT Department at Institute of Science of Sepahan. Iran



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15	Supervisor	Saeed Omid	Algorithm and Computation	Senior Data Scientist at EA/ Founder at Eliya GmbH. Switzerland
16	Co-supervisor	Sepideh Pashami	Computer Science	Senior Researcher at RISE Research Institutes, Sweden
17	Co-supervisor	Niloofer Aghaieabiane	Algorithm and Computation	PhD Candidate in Computing Science. New Jersey, USA
18	Co-supervisor	Sara Movahedi	Computer Science	Senior Bioinformatics Researcher at Tropic Biosciences. UK
19	Co-supervisor	Shirin Nasr	Computer Science	Postdoc at Nevada university. USA
20	Co-supervisor	Aida Shakouri	Biomaterials	Medical Science Liaison (Oncology), Bayer. Australia
21	Co-supervisor	Mostafa Hadian	Computer Science	Senior Software Engineering Manager at Karhoo, UK
22	Co-supervisor	Iman Sharafaldin	Software Engineering	Application Security (AppSec) Lead at Forward Security Inc. Canada
23	Co-supervisor	Mahdieh Ghasemi	Software Engineering	Ph.D Student at University of Tehran, Iran
24	Co-supervisor	Mohamad Elmi	Software Engineering	Ph.D Student at University of Tehran, Iran
25	Co-supervisor	Mehdi Rahimi	Algorithm and Computation	no information available
26	Co-supervisor	Borna Makaremi	Bioinformatics	CIO at CorPa Trust. Liechtenstein
27	Supervisor	Esmael Azadian	Biotechnology	Ph.D. student, Walter and Eliza Hall Institute of Medical Research. Australia
28	Co-supervisor	Azita Taheri	Algorithm and Computation	Ph.D. student, Tehran University, Iran
29	Co-supervisor	Masoumeh NikRavesh	Biotechnology	no information available
30	Co-supervisor	Maryam Darabi	Plant Genetics	no information available



Ph.D. Students

	Role	Student Name	Ph.D. Degree Offered	Current Position
1	Supervisor	Gholamreza Bidkhor	Bioinformatics	VP System Biology, AI VIVO Co., Cambridge, UK
2	Supervisor	Isar Nassiri	Bioinformatics	Senior Post-Doctoral Fellow, University of Oxford, UK
3	Supervisor	Yazdan Asgary	Bioinformatics	Postdoctoral Fellow, Gustave Roussy Institute, France
4	Supervisor	Ali Najafi	Bioinformatics	Associate Professor, Baghiyatallah University of Medical Science
5	Co-supervisor	Ali Salehzadeh	Biophysics	Post-Doctoral Fellow, University of Rostock, Germany
6	Supervisor	Zeynab Mousavian	Bioinformatics	Post-Doctoral Fellow, Karolinska Institutet, Sweden
7	Supervisor	Morteza Kouhsar	Bioinformatics	Postdoctoral Fellow, University of Exeter, UK
8	Supervisor	Yosef Masoudi-Sobhanzadeh	Bioinformatics	Postdoctoral Fellow, Queen University, Canada
9	Supervisor	Vahid Ghafarpour	Bioinformatics	CEO of a startup company, British Columbia, Canada
10	Supervisor	Javad Zahiri	Bioinformatics	Postdoctoral Fellow, University of California San Diego, USA
11	Supervisor	Samaneh Khoshbakht	Bioinformatics	Postdoctoral Fellow, Université Laval, Canada
12	Co-supervisor	Naghme Poorinmohammad	Microbiology	Postdoctoral Research Fellow at Chalmers University, Sweden
13	Co-supervisor	Zahra Razaghi	Bioinformatics	Postdoctoral Research Fellow Max Planck Institute, Germany
14	Supervisor	Zahra Narimani	Bioinformatics	Assistant Professor, University of Zanjan, Iran
15	Supervisor	Sadegh Sulaeimani	Bioinformatics	Assistant Professor, University of Kurdistan, Iran
16	Supervisor	Hossein Seidkhani	Bioinformatics	Assistant Professor, University of Medical Science, Ilam, Iran



17	Supervisor	Nazanin Hoseinkhan	Bioinformatics	Assistant Professor, Iran University of Medical Sciences
18	Supervisor	Marziye Dehghan	Biophysics	Assistant Professor, University of Zanjan, Iran
19	Supervisor	Reza Mohamadi	Bioinformatics	Assistant Professor, University of MalekAshtar, Iran
20	Supervisor	Ehsan Poornour	Bioinformatics	Assistant Professor, Ghazaeiye Research Center, Iran
21	Supervisor	Mahsa Afshar	Bioinformatics	Assistant Professor, Nisantasi University, Istanbul, Turkey
22	Supervisor	Faeze Mottaghitalab	Bioinformatics	Postdoctoral – Gilan University, Iran
23	Supervisor	Mazaher Maghsoudloo	Bioinformatics	Assistant Professor, Kar Research Center, Iran
24	Supervisor	Habib Mottieghader	Bioinformatics	Assistant Professor, University of Tabriz, Iran
25	Supervisor	Hosein Seidkhani	Bioinformatics	Assistant Professor, Ilam University of Medical Science, Iran
26	Supervisor	Aghil Hooshmand	Bioinformatics	CEO of a Company
27	Supervisor	Niloofer Haghjoo	Bioinformatics	Senior Data Science Manager, Irancell co.
28	Supervisor	Shervin Alaei	Bioinformatics	Senior Data Scientist, Iran Stock Center
29	Supervisor	Alireza Meshkin	Bioinformatics	Assistant Professor, University of Damavand, Iran
30	Supervisor	Dariush Salimi	Bioinformatics	Assistant Professor, University of Zanjan, Iran
31	Supervisor	Zahra Mortezaei	Bioinformatics	Assistant Professor, University of Baghiyatallah, Iran
32	Supervisor	Nadia Barjasteh	Bioinformatics	Assistant Professor, Bonyad Mostazafan Research Center, Iran
33	Supervisor	Karim Abbassi	Bioinformatics	Postdoctoral Research Fellow at Sharif University of Technology, Iran
34	Supervisor	Ali Ebrahimi	Bioinformatics	Postdoctoral Fellow at IPM, Iran
35	Supervisor	Ali Khaosravi	Bioinformatics	CEO of a Drug Company, Iran
36	Supervisor	Hossein Lanjanian	Bioinformatics	Postdoctoral Fellow, Beheshti University of Medical Science, Iran



37	Supervisor	Amirhosein Fathinovin	Bioinformatics	Assistant Professor, University of Bahar, Iran
38	Co-supervisor	Balal Sadeghi	Animal Genetics	Assistant Professor, University of Kerman, Iran
39	Co-supervisor	Atefeh Seyed Dokht	Animal Genetics	Assistant Professor, Iranian Agricultural Research Center, Iran
40	Co-supervisor	Reza Shamsaei	Artificial Intelligent	Assistant Professor, Sajjad University, Mashad, Iran
41	Co-supervisor	Samin Seddigh	Insect Science	Assistant Professor, Varamin University, Iran
42	Co-supervisor	Mojgan Mohtashami	Systematics	no information available
43	Supervisor	Sajjad Moravveji	Bioinformatics	CEO of Health Electronic Co. Iran
Ongoing Ph.D. student				
44	Supervisor	Hamid Taherkhani	Bioinformatics	Finish in April-2023
45	Supervisor	Azadeh KavianFar	Bioinformatics	Finish in April-2023
46	Supervisor	Siamak Salimi	Bioinformatics	Finish in April-2023
47	Supervisor	Maryam Mehrbani	Bioinformatics	Ongoing Ph.D. student
48	Supervisor	Behnaz Hosseini	Bioinformatics	Ongoing Ph.D. student
49	Supervisor	Iman Samiei	Bioinformatics	Ongoing Ph.D. student
50	Supervisor	Alireza Shariatmada	Bioinformatics	Finish in April-2023
51	Supervisor	Arezou Yazdani	Bioinformatics	Ongoing Ph.D. student
52	Supervisor	Mahdiye Ghorbani	Bioinformatics	Ongoing Ph.D. student
53	Supervisor	Mehdi Naghizadeh	Bioinformatics	Finish in May-2023
54	Supervisor	Nasim Afhami	Bioinformatics	Ongoing Ph.D. student
55	Supervisor	Fatemeh Rafiei	Biostatistics	Finish in June-2023
56	Supervisor	Ardeshir Motamedi	Plant Genetics	Ongoing Ph.D. student

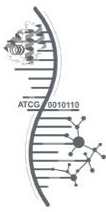


Developed Open-Source Bioinformatics Software and Databases

- 1- **Masoudi-Nejad, A.**, Susumu Goto, Ruy Jauregui, Masumi Ito, Shuichi Kawashima, Yuki Moriya, Takashi R. Endo and **Minoru Kanehisa** (2007) **EGENES**: Transcriptome-based plant database of genes with metabolic pathway information and EST indices in KEGG. *Plant Physiology*. 144: 857-866
- 2- **Masoudi-Nejad, A.**, Koichiro Tonomura, Shuichi Kawashima, Masumi Itoh, **Minoru Kanehisa**, Takashi Endo and Susumu Goto (2006) **EGassembler**: online bioinformatics service for large-scale processing, clustering and assembling ESTs and genomic DNA fragments. *Nucleic Acids Research*. 34: W459-W462.
- 3- Razaghi, A., Ahrabian, H., Abbas Nowzari, **Masoudi-Nejad, Ali** (2009) **Kavosh**: A New Algorithm for Finding Network Motifs. *BMC Bioinformatics*. 4:10:318.
- 4- Yosef Masoudi-Sobhanzadeh, Habib Motieghader, **Ali Masoudi-Nejad** (2019) **FeatureSelect**: A software for feature selection based on machine learning approaches. *BMC Bioinformatics*. DOI: 10.1186/s12859-019-2754-0
- 5- Yosef Masoudi-Sobhanzadeh, Yadollah Omid, Massoud Amanlou, **Ali Masoudi-Nejad** (2019) **Trader** as a new optimization algorithm predicts drug-target interactions efficiently. *Scientific Reports*. DOI: 10.1038/s41598-019-45814-8.
- 6- Yosef Masoudi-Sobhanzadeh, Yadollah Omid, Massoud Amanlou, **Ali Masoudi-Nejad** (2019) **DrugR+**: A comprehensive relational database for drug repurposing, combination therapy and replacement therapy. *Computers in Biology and Medicine*. DOI: 10.1016/j.combiomed.2019.05.006.



- 7- Ehsan Pournoor, NaserElmi, **Ali Masoudi-Nejad** (2019) CatbNet: A Multi Network Analyzer for Comparing and Analyzing the Topology of Biological Networks. *Current Genomics*. DOI: 10.2174/1389202919666181213101540
- 8- **Ali Masoudi-Nejad**, Mitra Anasariola, Ali Salehzadeh-Yazdi, Sahand Khakabi (2012) CytoKavosh: a Cytoscape Plug-in for Finding Network Motifs in Large Biological Networks. *PLOS ONE*. 7(8): e43287
- 9- Sahand Khakabimamaghani, Iman Sharafuddin, Norbert Dichter, Ina Koch and **Ali Masoudi-Nejad** (2013) QuateXelero: an accelerated exact network motif detection algorithm. *PLOS ONE*. 18;8(7):e68073
- 10- Mahdieh Sadat Ghasemi, Gholamreza Bidkhori, Maseud Rahgozar, **Ali Masoudi-Nejad** (2013) C-element: a New Clustering Algorithm to Find High Quality Functional Modules in PPI Networks. *PLOS ONE*. 8(9):e72366
- 11- Hamed Ahmadi, Ali Ahmadi, Sadegh Azimzadeh-Jamalkandi, Mahdi Aliyari Shoorehdeli, Ali Salehzadeh-Yazdi, Gholamreza Bidkhori, **Ali Masoudi-Nejad** (2012) HomoTarget: a New Algorithm for Prediction of MicroRNA Targets in Homo sapiens. *Genomics*. 101(2):94–100
- 12- Javad Zahiri, Morteza Mohammad-Noori, Reza Ebrahimpour, **Ali Masoudi-Nejad** (2014) LocFuse: Human Protein-Protein Interaction Prediction via Classifier Fusion Using Localization Information. *Genomics*. DOI:10.1016/j.ygeno.2014.10.006
- 13- YazdanAsgari, Zahra Zabihinpour, **Ali Masoudi-Nejad** (2018) SCAN-Toolbox: Structural COBRA Add-on (SCAN) for Metabolic Networks. *Current Bioinformatics*. 2018, 13, 100-107



- 14-** Javad Zahiri, Morteza Mohammad-Nouri, Reza Ebrahimpour, and **Ali Masoudi-Nejad** (2013) *PPIevo*: Protein-Protein Interaction Prediction from Evolutionary Information. *Genomics*.S0888-7543(13)00121-3
- 15-** Omidi, S., Schreiber, F., **Masoudi-Nejad, Ali** (2009) MODA: An Efficient Algorithm for Network Motif Discovery in Biological Networks. *Genes and Genetic Systems*. 84:385-395
- 16-** Balal Sadeghi, Hamed Ahmadi, Mohammadreza Nassiri, **Ali Masoudi-Nejad** (2014) BosFinder: a Novel Pre-MicroRNA Gene Prediction algorithm in *Bostaurus*. *AnimalGenetics*.45(4):479-84
- 17-** Mahsa Torkamanian-Afshar, Hossein Lanjanian, Sajjad Nematzadeh, Maryam Tabarzad, Ali Najafi, Farzad Kiani, **Ali Masoudi-Nejad** (2020) *RPINBASE*: An Online Toolbox to Extract Features for Predicting RNA-Protein Interactions. *Genomics*.
DOI:10.1016/j.ygeno.2020.02.013.
- 18-** Askary, A., **Masoudi-Nejad, A.**, Mizbani, A., Naderi-Parizi, S., Purmasjedi, M (2009) N4: A Precise and Highly Sensitive Promoter Predictor Using Neural Network fed by Nearest Neighbors. *Genes and Genetic Systems*. 84: 425-430
- 19-** Morteza Kouhsar, Zahra Razaghi-MoghadamKashani, ZaynabMousavian, **Ali Masoudi-Nejad** (2016) CeFunMO: a centrality based method for discovering functional motifs with application in biological networks. *Computers in Biology and Medicine*. 76:154-9

Startup Activities:



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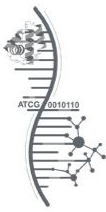
University Of Tehran

- 1- I served as the founder and CEO of a startup company called Kavoshgaran Raz E Danesh from 2017-2019. Our company focused on the development of a diagnosis and prognosis gene panel for gastric cancer. We created several panels, including Panel-GS for gastric stages, Panel-GST for gastric sub-types, Panel-GM for gastric metastasis, and Panel-GSU for gastric survival. The panels were developed and validated computationally, but we were unable to obtain permission from the Ministry of Health of Iran to conduct clinical trials. The startup had 5 employees, including 4 Ph.D. students and myself. I sold my 50% share of the company to my co-founder for \$30,000, but retained the right to re-develop the panels in the future. I retain all scientific and business rights for these 4 products, including the platform.
- 2- Additionally, I also served as Director of Basir Eye Health Research Center (BEHRC), a private research center that focuses on eye health and is a part of GAM holding, which operates 4 large eye clinics in different cities in Iran.

Grants:

The grant systems in Iran are distinct from those in other countries. There are five main systems in place:

- 1- The Ministry of Health system, which oversees all universities of medical sciences. The grant system in this ministry is similar to other grant systems around the world. Professors typically write grants for their graduate students. The amount of grant is not large, but it is sufficient for conducting research.
- 2- The Ministry of Science, Research and Technology, which oversees all regular universities.



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Unfortunately, there is no grant system in place like those in other countries. Professors who attain positions in this university receive a startup grant, which was \$10,000 in 2006. The amount of grant for the next year is determined by the number of manuscripts published, with \$3,000 awarded for each article in 2006.

- 3- The grant system under the Vice-President for Research of I.R. Iran. This grant is only available to scientists working on government! projects and they must have political connections within the government to be able to receive these grants, which are quite large (the typical amount in 2006 was \$300,000-\$500,000 per grant).
- 4- Iran's INSF organization, which typically awards \$10,000. I received this grant twice, in 2007 and 2009, and used it to build a Linux cluster for our computational jobs, however there is limitation for reapply.
- 5- The NIMAD organization, which typically awards between \$10,000 and \$50,000 for researchers at medical universities.

Scientific Networks

GoogleScholar:	http://scholar.google.com/citations?user=KsYyCLAAAAAJ
PubMed:	http://www.ncbi.nlm.nih.gov/pubmed?term=masoudi-nejad
Scopus:	https://www.scopus.com/authid/detail.uri?authorId=55911393500
WOS (ABH-2078-2021)	https://publons.com/researcher/4882707/ali-masoudi-nejad/
ResearcherID:	http://www.researcherid.com/rid/E-7922-2010
LinkedIN:	http://ir.linkedin.com/pub/ali-masoudi-nejad-ph-d/39/994/910
ORCID:	http://orcid.org/0000-0003-0659-5183



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Reviewer for International Journals

- 1 Bioinformatics
- 2 Scientific Reports
- 3 Cancer Cell International
- 4 Seminar in Cancer Biology
- 5 Seminars in Cell and Developmental Biology
- 6 BMC Systems Biology
- 7 Nucleic Acids Research
- 8 Briefing in Bioinformatics
- 9 BMC Genomics
- 10 IEEE/ACM Transactions on Computational Biology and Bioinformatics
- 11 PLOS ONE
- 12 Molecular Informatics
- 13 Physica A
- 14 BMC Bioinformatics
- 15 OMICS: Journal of Integrative Biology
- 16 DNA Research
- 17 Molecular Genetics and Genomics
- 18 Molecular Biology Reports
- 19 Genes and Genetic Systems
- 20 Digital Signal Processing
- 21 Frontiers in Bioinformatics and Computational Biology
- 22 Computer Methods and Programs in Biomedicine
- 23 Information Systems
- 24 Evolutionary Bioinformatics
- 25 Cancer Informatics
- 26 Computational and Structural Biotechnology
- 27 Journal of Proteomics & Bioinformatics
- 28 International Journal of Data Mining and Bioinformatics
- 29 Journal of Genetics and Genomics
- 30 Computational and Mathematical Methods in Medicine
- 31 International Journal of Genomics
- 32 Journal of Computational and Graphical Statistics
- 33 Future Medicinal Chemistry
- 34 Journal of Cellular Biochemistry
- 35 Cancer Biomarkers



Publications

Compiled Books:

<p>1. Ali Masoudi-Nejad, Zahra Narimani, Nazanin Hosseinkhan. (Editors). Next Generation Sequencing and Sequence Assembly: methodologies and algorithms. SpringerBriefs in Systems Biology. 2013</p>		
<p>2. Ali Masoudi-Nejad, Gholamreza Bidkhorji, Saman Hosseini Ashtiani, Ali Najafi. (Editors). Microscopic Scale of the Cancer Systems Biology. SpringerBriefs in Systems Biology. 2014</p>		

Contributed Chapters:

1. **Ali Masoudi-Nejad**, Ali Salehzadeh, Shiva Akbari, Yazdan Asgari. Integration of Metabolic Knowledge for Genome-scale Metabolic Reconstruction. **Invited chapter** in book "Biological Knowledge Discovery Handbook: Preprocessing, Mining and Post processing of Biological Data ". ISBN: 978-1-1181-3273-9. **John Wiley** 2014.
2. **Ali Masoudi-Nejad**, Susumu Goto, Takashi Endo and Minoru Kanehisa. **KEGG/EGENES** resource for plant bioinformatics in post-sequence era. **Invited chapter** in book "Plant Bioinformatics". **Humana Press.** 2014.
3. Bahman Yari, Daryanaz Dargahi, Nima Aghaeepour and **Ali Masoudi-Nejad**. Support Vector Clustering: From Local Constraint to Global Stability. **Invited chapter** in book "Foundations of Computational Intelligence. Volume 6: Data Mining ". **Springer** 2009.
4. Saeed Omid and **Ali Masoudi-Nejad**. Network Evolution: Theory and Mechanisms. **Invited chapter** in book "Computational Network Analysis". **Springer** 2009



Published/Accepted/Revised/etc.

2023

- 1- Siamak Salimy, Karim Abbasi, Hossein Lanjanian, Ali Najafi, Mahdieh Salimi, **Ali Masoudi-Nejad** (2022) Survival Associated Groups Prediction of Colon Cancer by Integrating Multi-omics and Clinical Data Using Deep Learning. *Computer Methods and Programs in Biomedicine*. Accepted.
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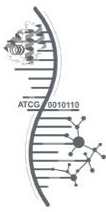
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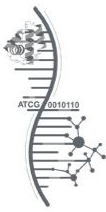
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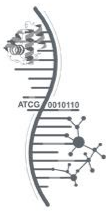
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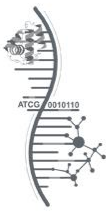
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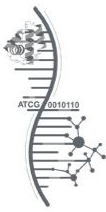
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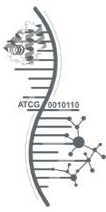
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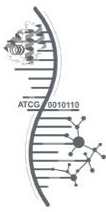
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- 22 GEM'09 - The 2009 International Conference on Genetic and Evolutionary Methods.
<http://www.world-academy-of-science.org/worldcomp09/ws/conferences/gem09/committee>



23 ICAI'09 -The 2009 International Conference on Artificial Intelligence.

<http://www.world-academy-of-science.org/worldcomp09/ws/conferences/icai09/committee>

24 The 10th Asian Bioethics Conference & 4th UNESCO Asia- Pacific School of Ethics Roundtable. Tehran - 26-29 April 2009.

<http://abc10iran.tums.ac.ir/english/content/?contentID=76>

25 BIOCOMP'08 - The 2008 International Conference on Bioinformatics & Computational Biology. <http://www.world-academy-of-science.org/worldcomp08/ws/conferences/biocomp08/committee>

Coordinating Workshop /Training Course

1. **Winter Course** on Biophysics & Biochemistry Simulation, 2008, joint with *Barcelona National Computing Center*& Institute of Biochemistry and Biophysics, University of Tehran, 12 Feb.-12 March. Iran
2. Application of Electrophoresis in Plant Science, 1998, Univeristy of Zahedan, 31 March to 10 April. Zahedan, Iran
3. Advanced Bioinformatics, 2011, Research Center of Biotechnology, Zanzan University, **Fe**

Congress/Symposium

Keynote Speech

1. Lahijan systems Microbiology
2. **Ali Masoudi-Nejad**, 2013. Systems Biology: Making sense of the Biological systems by Integration of Post-Genomics High-Throughput Data. International Symposium on Programming and Systems (ISPS 2013) Algeria, 22- 24 April. Algeria
3. **Ali Masoudi-Nejad**, Cognitive Systems Biology (2012) Cognitive Science; application in high stress condition. 16 May 2012 (17 Ordibehesht). ShahidBeheshti University of Medical Science, Tehran, Iran
4. **Ali Masoudi-Nejad**, Systems Biology and Health: Toward Systems Medicine. First National Conference of Application of Basic Sciences in Medicine. Tehran, Beheshti, 10-12 March 2011 (18-19 Esfand 1389).



5. **Ali Masoudi-Nejad**, Systems Biology and Diabetes. Symposium on Biophysics and Bioinformatics of Diabetes: Amyloid Frontier. Departments of Biological Sciences and Condensed Matter Physics, IASBS, Zanjan. 17 January 2011.
6. **Ali Masoudi-Nejad**, From Complexity of Biological Systems to Systems Biology and Systems Medicine. 11th Iranian Congress of Genetics, 22 - 24 May 2010 (1 - 3 Khordad, 1389), Tehran, Iran.
7. **Ali Masoudi-Nejad**, Genes, Genetics Systems, Systems Biology and Synthetic Biology; It is all about making sense of biological systems. 2th Iranian Congress of Bioinformatics, 9-10 Oct., 2008, (9-1 Mehr 1387) Tehran, Iran
8. **Ali Masoudi-Nejad**, Bioinformatics in the post-genomics era: Towards Biology of the Systems. 5th Iranian Congress of Biotechnology, 10-15 Nov., 2008, (1-3 Aban 1386) Tehran, Iran.
9. **Ali Masoudi-Nejad**, Genes to post-genomics era: From Biological Systems to Systems Biology. 10th Iranian Congress of Genetics, 21-23 May 2008 (1-3 Khordad, 1387), Tehran, Iran.
10. **Ali Masoudi-Nejad**, Wheat storage protein: past, present and the future. The joint meeting of the 5th Japanese Society of Molecular Biology of Triticeae and the 27th Japanese Genetics Symposium, October 7-9, 2000, Japan.

Regular Presentation

- 1 Hamid Beiki, Ardeshir N Javaremi, Abbas Pakdel, **Ali Masoudi-Nejad**, Zhi-Liang Hu, James M Reecy. 2016. Large-scale gene co-expression network as a source of functional annotation for bovine genes. 35th International Society for Animal Genetics Conference. 23-27 July, Salt Lake City, Utah, USA
- 2 Ali Masoudi-Nejad, Reza Shamsaee, Mahmoud Fathy, 2014. LuCaSim: a computational framework for lung cancer modeling and simulation. 5th Conference on Systems Biology of Mammalian Cells (www.sbmc2014.de). May 12th–14th. Berlin. Germany.
- 3 Ali Masoudi-Nejad, Javad Zahiri, et al. 2014. Human Protein-Protein Interaction Prediction via Classifier Fusion Using Proteins Localization Information. 5th Conference



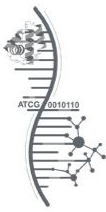
- on Systems Biology of Mammalian Cells (www.sbm2014.de). May 12th–14th. Berlin.Germany.
- 4 Ali Masoudi-Nejad, nazaninHosseinkhan, et al. , 2014.Comparative Analysis of genome-scale expression network in resident microorganisms in lung .5th Conference on Systems Biology of Mammalian Cells (www.sbm2014.de). May 12th–14th. Berlin.Germany.
 - 5 Ali Masoudi-Nejad, Alirezameshkin , 2014.Agent-Based Approaches to Cancer Modeling: rationale, classification and successes.5th Conference on Systems Biology of Mammalian Cells (www.sbm2014.de). May 12th–14th. Berlin.Germany.
 - 6 Ali Masoudi-Nejad, Ali najafi, et al. 2014.Computational modeling of core regulatory elements controlling airway remodeling pathway in chronic lung diseases.5th Conference on Systems Biology of Mammalian Cells (www.sbm2014.de). May 12th–14th. Berlin.Germany.
 - 7 Ali Masoudi-Nejad, IsarNassiri, et al. 2014.Sensitivity Analysis of the Brain's Signalling Network Flow.5th Conference on Systems Biology of Mammalian Cells (www.sbm2014.de). May 12th–14th. Berlin.Germany.
 - 8 MahdiehGhasemi, MaseudRahgozar, GholamrezaBidkhorri and **Ali Masoudi-Nejad** (2013) Finding High Quality Functional Modules in *Homo sapiens* Tissue Specific PPI Networks. 12th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2013). Toki Messe. June 16-20, 2013. Niigata, Japan
 - 9 MahdiehGhasemi, MaseudRahgozar, GholamrezaBidkhorri and **Ali Masoudi-Nejad** (2013) A New Clustering Algorithm to Find Functional Modules in Protein-Protein Interaction Networks. Tenth International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics (CIBB 2013). 20-22 june. Valrose Castle, Nice, France
 - 10 ImanSharafuddin, MehrdadMirzaei, MasoudRahgozar and **Ali Masoudi-Nejad**, 2013. Protein-Protein Interaction Network Clustering Using Particle Swarm Optimization. International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO 2013). 18-20 March, 2013. Granada, Spain
 - 11 RezvanZendehtdel, **Ali Masoudi-Nejad**, FarshadH. Shirazi, 2013. Predicting Biomarker



- for Cytotoxicity Using Partial Least Square-Fourier Transform Infrared Spectroscopy (PLS FTIR). Progress in Electromagnetics Research Symposium (PIERS 2013), March 25-28, Taipei, Taiwan.
- 12 **Ali Masoudi-Nejad**, G. Bidkhorji (2012) Modeling of tumor progression in non-small-cell lung cancer (NSCLC). 4th Conference on Systems Biology of Mammalian Cells. 9–11 July 2012 in Leipzig, Germany.
 - 13 J. Zahiri, M. H. Karimi-Jafari, R. Ebrahimpour, **Ali Masoudi-Nejad**, A. Emamjomeh, O. Yaghoubi (2012) Using GO annotation clustering to improve protein-protein interaction prediction. 4th Conference on Systems Biology of Mammalian Cells. 9–11 July 2012 in Leipzig, Germany.
 - 14 G. Bidkhorji, Z. Narimani, **Ali Masoudi-Nejad** (2012) Reconstruction of CNV-related co-expression network in non small cell lung cancer (NSCLC) .4th Conference on Systems Biology of Mammalian Cells. 9–11 July 2012 in Leipzig, Germany.
 - 15 J. zahiri, R. Ebrahimpour, M.H. Karimi-Jafari, **Ali Masoudi-Nejad**, A. Emamjomeh (2012) A novel ensemble learning method for proteinprotein interaction prediction .4th Conference on Systems Biology of Mammalian Cells. 9–11 July 2012 in Leipzig, Germany.
 - 16 Ali Salehzadeh-Yazdi, **Ali Masoudi-Nejad**, Ali Akbar Saboury, Shiva Akbari-Birgani (2012) Hubs and Non-Hubs in Protein-Protein Interaction Networks: A Biophysical Interpretation. BIOKDD '12 as part of 23rd International Conference on Database and Expert Systems Applications - DEXA 2012. Vienna (Austria) September 3 - 6, 2012
 - 17 Hamid ravaee, **Ali Masoudi-Nejad** (2011) Finding Protein Complexes via Fuzzy Learning Vector Quantization Algorithm. The Third International Conference on Bioinformatics, Biocomputational Systems and Biotechnologies BIOTECHNO May 22-27, Venice/Mestre, Italy
 - 18 **Ali Masoudi-Nejad**, SadeghAzimzadehjamalkandi. Small RNA Based Silencing in Caenorhabditiselegans Development: a Fully-Integrated Pathway. The 4th Annual Congress of Molecular Diagnostic, September 22-24 Beijing, China
 - 19 Hamid Ravaee, **Ali Masoudi-Nejad**, Saeed Omid, Ali Moini (2010) Improved Immune



- Genetic Algorithm for Clustering Protein-Protein Interaction Network. **IEEE International Conference on Bioinformatics and Bioengineering (BIBE2010)**. 31 May-3 June, Philadelphia, PA, USA. *Oral Presentation*
- 20 **Ali Masoudi-Nejad** (2010) Biological Network and Network Motifs. 4th World Congress of Gene, 1-4 December, China
- 21 **Ali Masoudi-Nejad**, Ali Salehzadeh Yazdi, Ehsan Habibi, Yazdan Asgari, Fatemeh Miri Disfani, Ali Akbar Sabouri and Samad Jahandideh (2010) Biophysical Interpretation of Hubs in Protein-Protein Interaction Networks. EMBO Meeting 2010. Barcelona, Spain.
- 22 Sara Movahedi, **Ali Masoudi-Nejad**, Ruy Jauregui (2008) Genome Scale Analysis of Curvature, CpG Island and Repeats in Arabidopsis and Rice. XX International Congress of Genetics. 12 – 17 July, Berlin, Germany.
- 23 Hesam T. Dashti, **Ali Masoudi-Nejad**, Nasim Jamali (2008) Using Support Vector Machines in Biological Sequences Assembly. 5th International Symposium on Integrative Bioinformatics. 20-22 August, Wittenberg, Germany.
- 24 Shirin Nasr Isfahani, **Ali Masoudi-Nejad** (2008) A New Approach for Touching Cells Segmentation. International Conference on BioMedical Engineering and Informatics (BMEI2008), 27-30 May, Sanya, Hainan, China
- 25 **Ali Masoudi-Nejad**, Ruy Jauregui, Shuichi Kawashima, Susumu Goto, Minoru Kanehisa and Takashi R. Endo (2004) The kingdom of Plantae EST Indices: a resource for plant genomics community. Genome Informatics 2004. PP-102. The 15th International Conference on Genome Informatics December 16-18, 2004, Yokohama Pacifico, Japan.
- 26 Cheniany, Monireh., Ebrahimzade, Hasan., Vahdati, Kourosh., **Masoudi-Nejad, Ali**. Endogenous Phenolic Contents, Peroxidase and Polyphenoloxidase Activities in Shoot Microcuttings from Persian Walnut (*Juglans regia* L.) Cultivars. The 6th International Walnut Symposium, February 25-27, 2009, Melbourne, Australia
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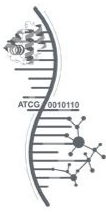
Gothenburg, Sweden.

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- 30 **Ali Masoudi-Nejad**, Minoru Kanehisa and Susumu Goto. (2006) Eassembler: Online Bioinformatics Tool for Large-Scale Clustering and assembling ESTs and Genomic DNA. The Applied Computing. February 25-28, 2006, San Sebastian, Spain.
- 31 **Ali Masoudi-Nejad**, Minoru Kanehisa and Susumu Goto. (2006) EGENES: Plant Metabolic Pathway Information Database, a Bioinformatics Resource for Plant Research Community. Genomes to Systems Conference. March 22-24, 2006, Manchester International Convention Center, UK.
- 32 Luke Ramsay, Nicola Bonar, Malcolm Macaulay, **Ali Masoudi-Nejad**, Roger P. Wise, Robbie Waugh. (2006) Use of Flanking Loci To Characterise Variation At The Mla Disease Resistance Locus In Barley. Plant & Animal Genomes XIV Conference. January 14-18, 2006 Town & Country Convention Center, San Diego, CA, USA.

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