Curriculum Vitae

Mehdi Tabarsa

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Personal Information:

Date and Place of Birth: Apr. 24, 1985, Gorgan, Iran

Nationality: Iran

Languages: Farsi (Fluent), English (Fluent)

Education:

Date	Degree	Institution
2009–2014	Ph. D.	**Gangneung National University**, Department of Marine Food Science (South Korea).
2007–2009	M. Sc.	**Tarbiat Modares University (TMU)**, Department of Fisheries (Iran)
2003–2007	B. Sc.	**Guilan University**, Department of Fisheries (Iran).

Employment History:

- 2013-2014: Adjunct Prof., Dept. of Seafood Processing, Tarbiat Modares University, Iran.
- 2014 Present: Assistant Prof., Dept. of Seafood Processing, Tarbiat Modares University, Iran.
- 2014-2018: Adjunct Prof., Dept. of Food Sci., Khazar Institute of Higher Education, Iran.
- 2019-Present: Adjunct Prof., College of Food Sci., Heilongjiang Bayi Agricultural University, China.
- 2019-Present: Adjunct Researcher, The East Coast Research Institute of Life Science, Gangneung National University, South Korea.
- 2019-Present: Adjunct Prof., Dept. of Bioactive Compounds, Faculty of Interdisciplinary Science and Technology, Tarbiat Modares University, Iran.
- 2019-Present: Principal Investigator, Research group of Cellular and Molecular Studies of Natural/Herbal Medicines, Tarbiat Modares University, Iran.
- 2020-Present: Principal Investigator, Institute of Natural Products and Medicinal Plants, Tarbiat Modares University, Iran.
- 2023-2024: Brain Pool Fellow, Brain Pool Fellowship Program, National Research Foundation of Korea.

Professional Services:

- 2015-2019: Managing Editor, Journal of Fisheries Science and Technology, Tarbiat Modares University.
- 2016-2017: Member, Research Board of Faculty of Natural Resources and Marine Sciences, Tarbiat Modares University.
- 2018-2019: Member, Research Board of Faculty of Natural Resources and Marine Sciences, Tarbiat Modares University.
- 2019-2020: Founder and Manager of Public Outreach Program, Faculty of Natural Resources and Marine Sciences, Tarbiat Modares University.
- 2021-20200: Member, Teaching Board of Faculty of Natural Resources and Marine Sciences, Tarbiat Modares University.
- 2021-2022: Head of Department of Seafood Processing, Faculty of Natural Resources and Marine Sciences, Tarbiat Modares University.
- 2021-2023: Deputy of Student Affairs, Faculty of Natural Resources and Marine Sciences, Tarbiat Modares University.

Research Interests:

- Structural characterizations of novel bioactive compounds
- Biological functions of bioactive compounds
- Structure-bioactivity relationship of bioactive compounds
- Characterization of bioactives from marine and land raw materials and wastes
- Development of functional foods enriched with health-promoting natural compounds

Awards:

- Recipient of a graduate fellowship provided by the Brain Korea (BK21) program sponsored by the Ministry of Education and Human Resources Development, South Korea, 2009-2013.
- Recipient of young scientist research award (Dr. Kazemi Ashtiani Award), Iran's National Elites Foundation, 2017.
- Research visiting travel award, Iran's Biotechnology Development Council, 2018.

Research Projects:

1. Isolation, purification, structural characterization and antioxidant properties of alginate and bioactive fucoidans from brown algae *Sargassum angustifolium*. Iran National Science Foundation. 2017. Project No. 95818095 (Finished).
2. Functional sausage containing anticancer and immunostimulant anionic polymers of Ulvan. Sina Food Holding Co. 2017 (Finished).
3. Recovery of protein, chitosan and chitooligosaccharides from banana shrimp (*Fenneropenaeus*

Merguiensis) wastes by use of enzymatic-chemical process and characterization of their bioactivity and antibacterial. Iran National Science Foundation. 2019. Project No. 95838459 (Finished).

4. Extraction of bioactive compounds from land and marine plant species containing heteroglycans to produce human health-promoting food products. Iran′s Biotechnology Development Council. 2019 (Finished).
5. Economic recovery of sulfated polysaccharide from Skipjack tuna (*Katsuwonus pelamis*) waste by recovered enzymes from Rainbow trout (*Oncorhynchus mykiss*) viscera and evaluation of its functional and bioactive properties. Iran National Science Foundation. 2022. Project No. 99003932 (Finished).
6. Production of functional macaroni fortified with fucoidan from brown seaweed *Nizamuddinia zanardinii* as an ingredient with immunostimulatory and inhibitory activity on α-amylase and α-glucosidase. Iran National Science Foundation. 2023. Project No. 4005545 (Ongoing).
7. Enzymatic depolymerization of corn fiber gum: Potential prebiotic activity and immunomodulatory property of oligosaccharides and their application in low-fat probiotic yoghourt. Iran National Science Foundation. 2023. Project No. 4005804 (Ongoing).
8. Production, synthesis and biological evaluation of glucosamine hydrochloride, glucosamine sulfate and glucosamine-gallic acid nanoparticles from the shells of Pacific white shrimp (*Litopenaeus vannamei*). Iran National Science Foundation. 2023. Project No. 4005100 (Finished).
9. The effect of structural modification of fucoidan extracted from *Cystoseira indica* brown algae by depolymerization and conjugation with gallic acid on the bioactivity of fucoidan. Modares Science and Technology Park. 2024. Project No. 1509049071 (Ongoing).
10. Production, synthesis and biological evaluation of glucosamine hydrochloride, glucosamine sulfate and glucosamine-gallic acid nanoparticles from the shells of Pacific white shrimp (*Litopenaeus vannamei*). Modares Science and Technology Park. 2024. Project No. 1325055068 (Finished).
11. The effect of structural modification of fucoidan by depolymerization and conjugation with gallic acid on the bioactivity of fucoidan. National Research Foundation of Korea. Project No. RS-2023-00263570 (Finished).

Publications:

1. Shahab Naghdi, Masoud Rezaei, **Mehdi Tabarsa**, Mehdi Abdollahi. (2025). Structure, functionality and bioactivity of sulfated polysaccharide extracted from rainbow trout byproducts: pH-shift method vs enzymatic hydrolysis. *Food Chemistry* 479 (2025): 143665.
2. Pengrui Wu, Chunling Nie, Zhihong Song, Xindi Wei, Yefan Niu, **Mehdi Tabarsa**, Li Wang, Jianguo Wang. (2025). Improve the bioaccessibility of curcumin encapsulated in

Pickering emulsions stabilized by double fibrils. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* (2025): 137212.

3. Mehdi Rahmaninia, Yasin Rahmati, **Mehdi Tabarsa**. (2025). Upgrading Recycled Paper Using *Astragalus gossypinus* Tragacanth Gum as a Bio-based Additive." *BioResources* 20, no. 2: 4365-4377.
4. Majid Jalali, Mehdi Abedi, **Mehdi Tabarsa**, Diego A. Moreno. (2024). Morphological and biochemical characteristics of wild red-fleshed apples (*Malus sieversii* f. niedzwetzkyana) in the North and Northeast of Iran. *BMC Plant Biology* 24, no. 1, 899.
5. Nafiseh Sadat Mousavi, **Mehdi Tabarsa**, SangGuan You, Amir Pouya Ghandehari Yazdi, RongAn Cao, Hassan Ahmadi Gavlighi, Aria Babakhani. (2024). Hydrolysis and cross-flow ultrafiltration as an alternative process to isolate fucoidans from edible seaweed *Nizamuddinia zarnardinii* with enhanced immunostimulatory efficacy. *Algal Research*, 103632.
6. Shahab Naghdi, Masoud Rezaei, **Mehdi Tabarsa**, Mehdi Abdollahi. (2025). Extraction of glycosaminoglycan from the mixture of head and backbone byproduct of Rainbow Trout (*Oncorhynchus mykiss*) processing using alkaline solubilization method. *Fisheries Science and Technology* 14: 1-12.
7. Shahab Naghdi, Masoud Rezaei, Mehdi Alboofetileh, **Mehdi Tabarsa**, Mehdi Abdollahi, Jamshid Amiri Moghaddam. (2024). Structural, Functional, and Bioactive Properties of Sulfated Polysaccharides from Skipjack Tuna Skin as a Function of Drying Techniques. *Global Challenges*, 2400083, 1-10.
8. Jamileh Darem, **Mehdi Tabarsa**, SangGuan You, Dong-Jin Lee, Khamphone Yelithao. (2024). Insights into structural and molecular variations of alginates and fucoidans isolated from *Padina australis* under different mechanical and enzymatic conditions. *Food and Bioprocess Technology*, 18, 785-806.
9. Alika Jafari, **Mehdi Tabarsa**, Hossein Naderi-Manesh, Hassan Ahmadi Gavlighi, SangGuan You, Zahra Vaezi. (2024). Glucosamine Hydrochloride and Glucosamine-Gallic Acid Nanoparticles for the Treatment of Osteoarthritis: Synthesis, Antioxidant, and Anti-Inflammatory. *Journal of Food Biochemistry*, 2024, 3272099.
10. Alika Jafari, **Mehdi Tabarsa**, Hossein Naderimanesh, Hassan Ahmadi Gavlighi, SangGuan You. The preparation, anti-inflammatory, and antioxidant properties of glucosamine hydrochloride from the waste of *Litopenaeus vannamei* processing plant. ECOPERSIA, 12, 175-188.
11. Hamzeh Rezazadeh, Faezeh Ghanati, Mercedes Bonfill, Fatemeh Nasibi, **Mehdi Tabarsa**. (2024). Optimization of the fermentation media, mathematical modeling, and enhancement of paclitaxel production by *Alternaria alternata* after elicitation with pectin. *Scientific Reports*, 14, 12980.
12. Ehteram Tajik, Zahra Vaezi, **Mehdi Tabarsa**, Azadeh Hekmat, Hossein Naderi-Manesh. (2023). Grafting of sinapic acid onto glucosamine nanoparticle as a potential therapeutic

drug with enhanced anti-inflammatory activities in osteoarthritis treatment. *International Journal of Biological Macromolecules*, 253, 127454.

13. Jalili Safaryan, Maryam, Hassan Ahmadi Gavlighi, Chibuike C. Udenigwe, **Mehdi Tabarsa**, and Mohsen Barzegar. (2023). Associated Changes in the Structural and Antioxidant Activity of Myofibrillar Proteins via Interaction of Polyphenolic Compounds and Protein Extracted from Lentil (*Lens culinaris*). *Journal of Food Biochemistry* 2023, no. 1, 4204377.
14. Fatemeh Noormand Chaloshtori, **Mehdi Tabarsa**, Hassan Ahmadi Gavlighi, SangGuan You. (2023). Structure-activity relationship of fucoidans and alginates obtained from *Cystoseira indica* in a biorefinery concept. *International Journal of Biological Macromolecules*, 126326.
15. **Mehdi Tabarsa**, Alika Jafari, SangGuan You, RongAn Cao. (2022). Immunostimulatory effects of a polysaccharide from *Pimpinella anisum* seeds on RAW264. 7 and NK-92 cells. *International Journal of Biological Macromolecules*, 213, 546-554.
16. Ruhallah Ejtemaei, Hassan Ahmadi, Maryam Jalili Safaryan, **Mehdi Tabarsa**. (2023). Evaluation of the interaction of maize fiber gum with α-amylase and α-glucosidase enzymes and its effect on enzymes inhibition activity. *Journal of Food Science and Technology (Iran)* 19, 132, 51-63.
17. Shahab Naghdi, Masoud Rezaei, **Mehdi Tabarsa**, Mehdi Abdollahi. (2023). Extraction of sulfated polysaccharide from Skipjack tuna (*Katsuwonus pelamis*) viscera using alcalase enzyme and rainbow trout (*Oncorhynchus mykiss*) visceral semi-purified alkaline proteases. *Sustainable Chemistry and Pharmacy*, 32, 101033.
18. Shahab Naghdi, Masoud Rezaei, **Mehdi Tabarsa**, Mehdi Abdollahi. (2023). Ultrasonic-assisted enzymatic extraction of sulfated polysaccharide from Skipjack tuna by-products. *Ultrasonics Sonochemistry* 95, 106385.
19. Nafiseh Mousavi, **Mehdi Tabarsa**, Hassan Ahmadi Gavlighi. (2023). Antioxidant activity of purified fractions obtained from membrane ultrafiltration of hydrolysed fucoidan from brown seaweed *Nizamuddinia zanardinii*. *Journal of Fisheries*, 76, 2, 195-207.
20. Amirhossein Valipoor, Abdolmohammad Abedian Kenari, **Mehdi Tabarsa**. (2022). Effect of water-soluble polysaccharides extracted from microalge (*Spirulina platensis*) on growth performance, body composition and immune response of Rainbow Trout (*Oncorhynchus mykiss*). *Journal of Fisheries Science and Technology*, 11, 3, 199-217.
21. Shahab Naghdi, Masoud Rezaei, **Mehdi Tabarsa**, Mehdi Abdollahi. (2023). Fish protein hydrolysate from sulfated polysaccharides extraction residue of tuna processing by-products with bioactive and functional properties. *Global Challenges.* 2023, 2200214.
22. Shahab Naghdi, Masoud Rezaei, **Mehdi Tabarsa**, Mehdi Abdollahi. (2023). Parallel extraction of sulfated polysaccharides and protein hydrolysate from Skipjack Tuna head and their bioactive and functional properties. *Food and Bioprocess Technology. (In Press)*.

23. Alboofetileh Mehdi, Rezaei Masoud, Hamzeh Ali, **Tabarsa Mehdi**, Giancarlo Cravotto. (2022). Cellular antioxidant and emulsifying activities of fucoidan extracted from *Nizamuddinia zanardinii* using different green extraction methods. *Journal of Food Processing and Preservation*, e17238.
24. Masoumeh Ghanbari Kiasara, **Mehdi Tabarsa**, Hassan Ahmadi, Amin Mokhlesi. (2022). Evaluation of stepwise precipitation of fucoidan from brown seaweed *Nizamuddinia zanardinii* on its chemical, molecular and antioxidant properties. *Fisheries Science and Technology* 11, 4, 331-345.
25. Nafiseh Mousavi, **Mehdi Tabarsa**, Hassan Ahmadi. (2022). Evaluation of relationship between molecular weight and antioxidant properties of hydrolyzed fucoidan from brown seaweed *Nizamuddinia zanardinii*. *Fisheries Science and Technology* 11, 2 (2022), 153-163.
26. Shahab Naghdi, Masoud Rezaei, Mehdi Abdollahi, **Mehdi Tabarsa**. (2022). Enzymatic extraction of sulfated polysaccharide from the skin of rainbow trout (*Oncorhynchus mykiss*) and evaluation of its chemical, antioxidant and functional properties. *Iranian Food Science & Technology Research Journal* 18, 5 (2022).
27. Ahmadi Gavlighi, Hassan, **Tabarsa Mehdi**, Maryam Ghaderi Ghahfarokhi. (2021). Antioxidant, α-amylase and α-glucosidase inhibition properties of polysaccharide from pomegranate peel via enzymatic and acidic approach. *Food Science and Technology* 18.117, 145-153.
28. Alavi Maryam, **Tabarsa Mehdi**, Hassan Ahmadi Gavlighi. (2021). Antioxidant activity, α-amylase and α-glucosidase inhibition properties of sulfated-polysaccharides purified from freshwater plant *Myriophyllum spicatum* L. *Food Science and Technology* 18.116, 81-90.
29. Jalili Safaryan Maryam, Ahmadi Hassan, Barzegar Mohsen, **Tabarsa Mehdi**, Chibuike Udenigwe. (2022). Evaluation of inhibitory effect of alpha-amylase and alpha-glucosidase by interaction phenolic compounds, soluble fiber, and protein extracted from green lentils. *Journal of Food Science and Technology (Iran)* 19, 122, 35-45.
30. Saeed Khajavi, **Mehdi Tabarsa**, Hassan Ahmadi Gavlighi, Masoud Rezaie. (2021). Relationship evaluation of molecular weight and antioxidant and alpha amylase inhibition properties of fucoidan and alginate from brown seaweed *Padina pavonica* in comparison with polysaccharides from Flixweed and Fennel. *Fisheries Science and Technology* 10, 1, 31-45.
31. RongAn Cao, RuiXue Ji, **Mehdi Tabarsa**, Subramanian Palanisamy, Natchanok Talapphet, Khamphone Yelithao, ChangYuan Wang, SangGuan You. (2020). Extraction, structural elucidation and immunostimulating properties of water-soluble polysaccharides from wheat bran. *Journal of Food Biochemistry*, 44(9), e13364.
32. Ganesan Sathiyaraj, Baskaran Babu, Raj Mithun, Mandal Anup, Shanmugam Kandan, Subramanian Palanisamy, **Tabarsa Mehdi**, You Sang Guan, Marimuthu Prabhu

Narayanasamy. (2022). Vibriosis Incidents in Marine Finfish Farms: Prevalence, Diagnosis of Pathogens using 16S rRNA, Histopathology, and In Vitro Antibacterial Evaluation Against Isolated Vibrio spp using Antibiotics and Probiotics. *Thalassas: An International Journal of Marine Sciences* 38, 1, 385-399.

33. Cao Rong-An, Ji RuiXue, **Tabarsa Mehdi**, Zhang JianQiang, Meng LingQi, Zhang ChengTai, Zhang JiaMiao, et al. (2021). Purification, characterization and immunostimulatory effects of polysaccharides from *Anemarrhena asphodeloides* rhizomes. *International Journal of Biological Macromolecules* 172, 550-559.
34. Mirzaie Sara, **Tabarsa Mahdi**, Safavi Maliheh. (2021). Effects of extracted polysaccharides from a *Chlorella vulgaris* biomass on expression of interferon-γ and interleukin-2 in chicken peripheral blood mononuclear cells. *Journal of Applied Phycology* 33.1, 409-418.
35. Taghizadeh Andevari Ghasem, Rezaei Masoud, **Tabarsa Mehdi**, Turid Rustad. (2021). Carotenoprotein from by-product of banana shrimp (*Penaeus merguiensis*) extracted using protease from viscera of rainbow trout: antiradical and angiotensin I-converting enzyme inhibitory activity. *Iranian Journal of Fisheries Sciences* 20, 5, 1510-1525.
36. Avudaiyan Muthamil Selvi, Subramanian Palanisamy, S. Jeyanthi, Manoharan Vinosha, Sonaimuthu Mohandoss, **Mehdi Tabarsa**, SangGuan You, Ethiraj Kannapiran, Narayanasamy Marimuthu Prabhu. (2020). Synthesis of *Tragia involucrate* mediated plantinum nanoparticles for comprehensive therapeutic applications: Antioxidant, antibacterial and mitochondria-associated apoptosis in HeLa cells. *Process Biochemistry*. *Accepted*.
37. Baskaran Babu, Subramanian Palanisamy, Manoharan Vinosha, Ravichandran Anjali, Ponnuchamy Kumar, Boomi Pandi, **Mehdi Tabarsa**, SangGuan You, Narayanasamy Marimuthu Prabhu. (2020). Bioengineered gold nanoparticles from marine seaweed *Acanthophora spicifera* for pharmaceutical uses: Antioxidant, antibacterial and anticancer activities. *Bioprocess and Biosystems Engineering*, 43(12), 2231-2242.
38. Manoharan Vinosha, Subramanian Palanisamy, Ravichandran Anjali, Changsheng Li, Khamphone Yelithao, Tangapandi Marudhupandi, **Mehdi Tabarsa**, SangGuan You, Narayanasamy Marimuthu Prabhu. (2020). Sulfated galactan from *Halymenia dilatata* enhance the antioxidant properties and prevents *Aeromonas hydrophila* in tilapia fish: *in vitro* and *in vivo* study. *International Journal of Biological Macromolecules, 158, 569-579.*
39. **Mehdi Tabarsa**, Elham Hashem Dabaghian, SangGuan You, Khamphone Yelithao, Subramanian Palanisamy, Narayanasamy Marimuthu Prabhu, Changsheng Li. (2020). Inducing inflammatory response in RAW264.7 and NK-92 cells by an arabinogalactan isolated from *Ferula gummosa* via NF-κB and MAPK signaling pathways. *Carbohydrate Polymers, 241, 116358.*
40. **Mehdi Tabarsa**, Elham Hashem Dabaghian, SangGuan You, Khamphone Yelithao,

RongAn Cao, Masoud Rezaei, Mehdi Alboofetileh, Seraj Bita. The activation of NF-κB and MAPKs signaling pathways of RAW264.7 murine macrophages and natural killer cells by fucoidan from *Nizamuddinia zanardinii*. *International Journal of Biological Macromolecules, 148, 56-67.*

41. **Mehdi Tabarsa**, SangGuan You, Khamphone Yelithao, Subramanian Palanisamy, Narayanasamy Marimuthu Prabhu, Ma Nan. (2019). Isolation, structural elucidation and immuno-stimulatory properties of polysaccharides from *Cuminum cyminum*. *Carbohydrate Polymers, 230, 115636.*
42. Maryam Alavi, **Mehdi Tabarsa**[a], SangGuan You, Hassan Ahmadi Gavlighi. (2019). Structural characteristics, molecular properties and immunostimulatory effects of sulfated polysaccharide from freshwater *Myriophyllum spicatum* L. *International Journal of Biological Macromolecules, 153, 951-961*.
43. Manikandakrishnan Muthushanmugam, Palanisamy Subramanian,…, **Mehdi Tabarsa**, SangGuan You, Prabhu Narayanasamy Marimuthu. (2019). Facile green route synthesis of gold nanoparticles using *Caulerpa racemosa* for biomedical applications. *Journal of Drug Delivery Science and Technology*, *54, 101345.*
44. Seyed Vahid Safavi, Abdolmohamad Abedian Kenari, **Mehdi Tabarsa**, Mohammad Esmaeili. (2019). Effect of sulfated polysaccharides extracted from marine macroalgae (*Ulva intestinalis* and *Gracilariopsis persica*) on growth performance, fatty acid profile, and immune response of rainbow trout (*Oncorhynchus mykiss*). *Journal of Applied Phycology, 31, 4021-4035.*
45. Rajasekar Periyannan, Palanisamy Subramanian,…, **Mehdi Tabarsa**, SangGuan You, Prabhu Narayanasamy Marimuthu. (2019). Isolation and structural characterization of sulfated polysaccharides from *Spirulina platensis* and its bioactive potential: *In vitro* antioxidant, antibacterial activity and Zebra fish growth and reproductive performance. *International Journal of Biological Macromolecules, 141,* 809-821.
46. Niloofar Aghajanpoor, Aria Babakhani, **Mehdi Tabarsa**. (2019). Optimization of the extraction of pigments of Persian Gulf brown alga *Sargassum angustifolium* using response surface method (RSM). *Journal of Fisheries, 71*, 390-400.
47. Surayot Utoomporn, Khamphone Yelithao, **Mehdi Tabarsa**, Dae-Hee Lee, Subramanian Palanisamy, Narayanasamy Marimuthu Prabhu, JuHun Lee, SangGuan You. (2019). Structural characterization of a polysaccharide from *Certaria islandica* and its derivatives affecting immune cells. *Process Biochemistry, 83,* 214-221.
48. **Mehdi Tabarsa**, SangGuan You, Mehdi Abedi, Negar Ahmadian, Changsheng Li, Natchanok Talapphet. (2019). The activation of RAW264.7 murine macrophage and natural killer cells by glucomannogalactan polysaccharides from *Tornabea scutellifera*. *Carbohydrate Polymers, 219, 268-377.*
49. Hakimeh Jannat-Alipour, Masoud Rezaei, Bahareh Shabanpour, **Mehdi Tabarsa**, and Fereidoon Rafipour. (2019). Addition of seaweed powder and sulphated polysaccharide

on shelf_life extension of functional fish surimi restructured product. *Journal of Food Science and Technology, 56*, 3777-3789.

50. Saman Bahramzadeh, **Mehdi Tabarsa**, SangGuan You, Khamphone Yelithao, Vladimir Klochkov, Rakhmatullin Ilfat. (2019). An arabinogalactan isolated from *Boswellia carterii*: Purification, structural elucidation and macrophage stimulation via NF-κB and MAPK pathways. *Journal of Functional Foods, 52, 450-458.*
51. Saman Bahramzadeh, **Mehdi Tabarsa**, SangGuan You. (2019). Purification, structural analysis and mechanism of murine macrophage cell activation by sulfated polysaccharides from *Cystoseira indica*. *Carbohydrate Polymers, 205, 261-270.*
52. Mehdi Alboofetileh, Masoud Rezaei, **Mehdi Tabarsa**, SangGuan You (2019). Bioactivities of *Nizamuddinia zanardinii* sulfated polysaccharides extracted by enzyme, ultrasound and enzyme-ultrasound methods. *Journal of Food Science and Technology, 56, 1212-1220.*
53. Hakimeh Jannat Alipour, Masoud Rezaei, Bahareh Shabanpour, **Mehdi Tabarsa**. (2019). Edible green seaweed, *Ulva intestinalis* as an ingredient in surimi-based product: Chemical composition and physicochemical properties. *Journal of Applied Phycology, 31,* 2529-2539.
54. Mehdi Alboofetileh, Masoud Rezaei, **Mehdi Tabarsa**, SangGuan You, Francesco Mariatti, Giancarlo Cravotto. (2019). Subcritical water extraction as an efficient technique to isolate biologically-active fucoidans from *Nizamuddinia zanardinii*. *International Journal of Biological Macromolecules, 128, 244-253.*
55. Ghasem Taghizadeh Andevari, Masoud Rezaei, **Mehdi Tabarsa**, Turid Rustad. (2019). Extraction, partial purification and characterization of alkaline protease from Rainbow Trout (*Oncorhynchus Mykiss*) viscera. *Aquaculture, 500, 458-463.*
56. Mehdi Alboofetileh, Masoud Rezaei, **Mehdi Tabarsa**, Massimo Rittà, Manuela Donalisio, Francesco Mariatti, ... & Giancarlo Cravotto, (2019). Effect of different non-conventional extraction methods on the antibacterial and antiviral activity of fucoidans extracted from *Nizamuddinia zanardinii*. *International Journal of Biological Macromolecules, 124, 131-137.*
57. Mehdi Alboofetileh, Masoud Rezaei, **Mehdi Tabarsa**. (2019). Enzyme-assisted extraction of *Nizamuddinia zarnardinii* for the recovery of sulfated polysaccharides with anticancer and immune-enhancing activities. *Journal of Applied Phycology, 31,* 1391-1402.
58. JeYoung Lee, Changsheng Li, Utoomporn Surayot, Khamphone Yelithao, SangMin Lee, WooJung Park, **Mehdi Tabarsa**, SangGuan You. (2018). Molecular structures, chemical properties and biological activities of polysaccharide from *Smilax glabra* rhizome. *International Journal of Biological Macromolecules, 120, 1726-1733.*
59. Mehdi Alboofetileh, Masoud Rezaei, **Mehdi Tabarsa**, SangGuan You. (2018). Ultrasound-assisted extraction of sulfated polysaccharide from *Nizamuddinia zanardinii*:

Process optimization, structural characterization, and biological properties. *Journal of Food Process Engineering, 34, e12797.*

60. Zeynab Rostami, **Mehdi Tabarsa**, Masoud Rezaei. (2018). Antioxidant activities of by-products of polysaccharide extraction from brown seaweed *Colpomenia peregrine*. *Journal of Food Processing and Preservation, 10, 151-158*.
61. Zeynab Rostami, **Mehdi Tabarsa**, SangGuan You, Masoud Rezaei. (2018). Structural characterization and RAW264.7 murine macrophage stimulating activity of a fucose-containing polysaccharide from *Colpomenia peregrina*. *Journal of Food Science and Technology, 55, 4650-4660.*
62. Marzieh Ramzani Shemami, **Mehdi Tabarsa**, SangGuan You. (2018). Isolation and chemical characterization of a novel immunostimulating galactofucan from freshwater *Azolla filiculoides*. *International Journal of Biological Macromolecules, 118, 2082-2091*.
63. Hassan Ahmadi Gavlighi, **Mehdi Tabarsa**, SangGuan You, Utoomporn Surayot, Maryam Ghaderi-Ghahfarokhi. (2018). Extraction, characterization and immunomodulatory property of pectic polysaccharide from pomegranate peels: Enzymatic vs conventional approach. *International Journal of Biological Macromolecules, 116, 698-706.*
64. Mohammad Salehi, **Mehdi Tabarsa**, Milad Amraie, Mohammad Anvari, Masoud Rezaei, Brennan M. Smith. (2018). Characterization of rheological and structural properties of a gum from Balangu seeds. *International Journal of Biological Macromolecules, 117, 294-300.*
65. Niloofar Jokar Borazjani, **Mehdi Tabarsa**, SangGuan You, Masoud Rezaei. (2018). Purification, molecular properties, structural characterization, and immunomodulatory activities of water soluble polysaccharides from *Sargassum angustifolium*. *International Journal of Biological Macromolecules, 109,* 793-802.
66. Mohammad Anvari, **Mehdi Tabarsa**, Helen S. Joyner (Melito). (2018). Large amplitude oscillatory shear behavior and tribological properties of gum extracted from *Alyssum homolocarpum* seed. *Food Hydrocolloids, 77,* 669-676.
67. Hakimeh Jannat Alipour, Masoud Rezaei, Bahareh Shabanpour, **Mehdi Tabarsa**. (2018). Effects of sulfated polysaccharides from green alga *Ulva intestinalis* on physicochemical properties and microstructure of silver carp surimi. *Food Hydrocolloids, 74,* 87-96.
68. **Mehdi Tabarsa**, SangGuan You, Elham Hashem Dabaghian, Utoomporn Surayot. (2018). Water-soluble polysaccharides from *Ulva intestinalis*: Molecular properties, structural elucidation and immunomodulatory activities. *Journal of Food and Drug Analysis, 26,* 599-608.
69. Niloofar Jokar Borazjani, **Mehdi Tabarsa**, SangGuan You, Masoud Rezaei. (2017). Improved immunomodulatory and antioxidant properties of unrefined fucoidans from *Sargassum angustifolium* by hydrolysis. *Journal of Food Science and Technology, 54,* 4016-4025.
70. Zeynab Rostami, **Mehdi Tabarsa**, SangGuan You, Masoud Rezaei. (2017). Relationship

between molecular weights and biological properties of alginates extracted by different methods from *Colpomenia peregrina*. *Process Biochemistry, 58*, 289-297.

71. Niloofar Jokar Borazjani, **Mehdi Tabarsa**, SangGuan You, Masoud Rezaei. (2017). Effects of extraction methods on molecular characteristics, antioxidant properties and immunomodulation of alginates from *Sargassum angustifolium*. *International Journal of Biological Macromolecules, 101*, 703-717.
72. Niloofar Jokar Borazjani, **Mehdi Tabarsa**, Masoud Rezaei. (2017). Ethanol extraction and solvent partitioning of antioxidant compounds from brown seaweed *Sargassum angustifolium*. *Fisheries Science and Technology, 6, 1-16.*
73. **Mehdi Tabarsa**, Mohammad Anvari, Helen S. Joyner (Melito), Shabnam Behnam, Alireza Tabarsa. (2017). Rheological behavior and antioxidant activity of a highly acidic gum from *Althaea officinalis* flower. *Food Hydrocolloids, 69*, 432-439.
74. Elham Hashem Dabbaqian, Masoud Rezaei, **Mehdi Tabarsa**. (2017). Ethanolic extraction and solvent-solvent partitioning of antioxidant compounds from green seaweed *Enteromorpha intestinalis*. *Journal of Fisheries, 69*, 385-396.
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76. Zeynab Rostami, **Mehdi Tabarsa**, Masoud Rezaei. (2016). Chemical structure and biological effects of sulfated polysaccharides extracted from green seaweeds. *Fisheries Science and Technology*, 5, 97-116.
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78. Mohammad Anvari, **Mehdi Tabarsa**, Rongan Cao, SangGuan You, Helen S. Joyner, Shabnam Behnam, Masoud Rezaei. (2016). Compositional characterization and rheological properties of an anionic gum from *Alyssum homolocarpum* seeds. *Food Hydrocolloids 52: 766-773.*
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81. Utoomporn Surayot, Jianguo Wang, Phisit Seesuriyachan, Ampin Kuntiya, **Mehdi Tabarsa**, YoungJin Lee, Jin-Kyung Kim, WooJung Park, SangGuan You. (2014). Exopolysaccharides from lactic acid bacteria: Structural analysis, molecular weight effect on immunomodulation. *International Journal of Biological Macromolecules 68: 233-240.*
82. **Mehdi Tabarsa**, Supatra Karnjanapratum, MyoungLae Cho, Jin-Kyung Kim, SangGuan

You. (2013). Molecular characteristics and biological activities of anionic macromolecules from *Codium fragile. International Journal of biological Macromolecules 59*: 1-12.

83. **Mehdi Tabarsa**, Sung-Joon Lee, SangGuan You. (2012). Structural analysis of immunostimulating sulfated polysaccharides from *Ulva pertusa*. *Carbohydrate Research 361: 141-147.*
84. **Mehdi Tabarsa**, Jung H. Han, Chul Young Kim, SangGuan You. (2012). Molecular characteristics and biological activities of water soluble sulfated polysaccharides from *Ulva pertusa*. *Journal of Medicinal Food 15(2):* 135-144.
85. Supatra Karnjanapratum, **Mehdi Tabarsa**, MyoungLae Cho, SangGuan You. (2012). Characterization and immunomodulatory activities of sulfated polysaccharides from *Capsosiphon fulvescens*. *International Journal of Biological Macromolecules 51*: 720-729.
86. HongHui Bao, **Mehdi Tabarsa**, Won-Seok Choi, SangGuan You. (2012). Molecular characteristics of water-unextractable polysaccharides from *Hypsizigus marmoreus* and their in vitro anticancer and immunomodulatory activities. *Molecules 17:* 207-226.
87. **Mehdi Tabarsa**, Masoud Rezaei, Zohreh Ramezanpour, J. Robert Waaland. (2012). Chemical compositions of marine algae *Gracilaria salicornia* and *Ulva lactuca* as potential food source. *Journal of the Science of Food and Agriculture 92:* 2500-2506.
88. **Mehdi Tabarsa**, Masoud Rezaei, Zohreh Ramezanpour, J. Robbert Waaland, Reza Rabiei. (2012). Fatty acids, amino acids, mineral contents and proximate composition of some brown seaweeds. *Journal of Phycology 48:* 285-292.
89. Ali Bani, **Mehdi Tabarsa**, Bahram Falahatkar, Ashkan Banan. (2009). Effects of different photoperiods on growth, stress and haematological parameters in juvenile great sturgeon *Huso huso*. *Aquaculture research 40*: 1899-1907.

Presentations:

a) Conference Presentations:

1. Hesam Borzuyi, **Mehdi Tabarsa**. Application of polysaccharides from *Eicchornia crassipes* as free radical scavengers. 2nd National Conference on the Agricultural Science and Technology, Tehran, Iran. March 11, 2018.
2. **Mehdi Tabarsa**, SangGuan You. Molecular characteristics and bioactivities of Ulvan polysaccharides from green seaweed *Ulva intestinalis*, 2017 KOSFOST International Symposium and Annual Meeting, South Korea. June 21-23, 2017.
3. Marzieh Ramzani Shemami, **Mehdi Tabarsa**. Ferrous reducing capacity of water soluble polysaccharides from *Azolla filiculoides*. International Conference on Agriculture Environment and Natural Resources in the Third Millennium, Rasht, Iran. May 22, 2017.
4. Zeynab Rostami, **Mehdi Tabarsa**, Masoud Rezaei. Antioxidant properties of alginates isolated from brown seaweed *Colpomenia peregrine*. 4th International Conference on

New Ideas in Agriculture, Environment and Tourism, Ardebil, Iran. December 19, 2016.

5. Marzieh Ramzani Shemami, **Mehdi Tabarsa.** Free radical scavenging activities of water soluble polysaccharides from *Azolla filiculoides*. 1st International and 24th National Congress of Iran's Food Science. Tehran, Iran. October 18-20, 2016.
6. Hakimeh Jannat Alipour, Masoud Rezaei, **Mehdi Tabarsa.** Marine algae and potent bioactive metabolites. 1st International and 24th National Congress of Iran's Food Science. Tehran, Iran. October 18-20, 2016.
7. Zeynab Rostami, **Mehdi Tabarsa**, Masoud Rezaei, Enzymatic extraction and stepwise precipitations of polysaccharides from *Colpomenia peregrina*. 2016 KOSFOST International Symposium and Annual Meeting; Food Science for Daily Living. Daegu, South Korea. August 17-19, 2016.
8. **Mehdi Tabarsa**, Masoud Rezaei. Correlation between structure of glycoprotein extracted from *Codium fragile* with its capacity to activate macrophage cells. 2nd National Conference on Improvement of Production, Distribution and Consumption Chains in Food Science, Sari, Iran. February 18-19, 2015.
9. **Mehdi Tabarsa**., SangGuan You. Characterization and immunomodulatory activities of sulfated polysaccharides from green seaweed *Capsosiphon fulvescens*. International Conference and Exhibition on Nutraceuticals and Functional Foods. Sapporo, Japan. November 14-17, 2011.
10. **Mehdi Tabarsa**., SangGuan You. Structural characterization of sulfated polysaccharides from *Ulva pertus*. The 3rd Korea-Russia Bio Joint Forum on the Natural Products Industrilization and Application. Gangneung Science Industry Foundation, Korea. October 05-06, 2011.
11. **Mehdi Tabarsa**., SangGuan You. Immunomodulatory activity of water-soluble polysaccharides derived from *Chlorella vulgaris* and their Molecular characteristics. International Symposium and Annual Meeting on Green and Personalized Foods. Hotel Inter-Burgo Daegu, Daegu, Korea. October 27-29, 2010.
12. **Mehdi Tabarsa**., SangGuan You. Molecular characterization and biological activities of water soluble sulfated polysaccharides from *Ulva pertusa*. Bioconvergence for Food Innovation 'Annual Meeting of Korean Society of Food Science and Technology'. Songdo Convensia, Incheon, Korea. June 16-18, 2010.

b) Invited Lectures:

1. **Mehdi Tabarsa.** 2019. Polysaccharides: Human health boosters. College of Food Science, Heilongjiang Bayi Agricultural University, China. Jun, 2019.
2. **Mehdi Tabarsa.** 2019. Functional properties of non-starch polysaccharides from chickpea (*Cicer arietinum*). 2019 International Miscellaneous Beans Industry Technology Symposium, Daqing, China. May, 2019.

Supervising Activities:

a) Master's Students:

- 2013-2014: F. Rahimi, Ulvan from green algae Ulva intestinalis: optimization of ultrasound-assisted extraction and antioxidant activity Marine Food Science, Tarbiat Modares University (TMU) (Principal Supervisor)
- 2013-2014: E. Hashem Dabbaqian., Marine Food Science, TMU (Co-Supervisor)
- 2014-2015: Z. Rostami, Isolation of water-soluble polysaccharides from *Colpomenia peregrina* and determination of bioactivity properties of polysaccharides and complex of polysaccharide-nanoparticle selenium, Marine Food Science, TMU (Principal Supervisor)
- 2014-2015: N. Jokar Borazjani, Structural characteristics of fucoidans from brown alga *Sargassum angustifolium* and biological activities of alginate and fucoidan and fucoidan-selenium nanoparticles, Marine Food Science, TMU (Principal Supervisor)
- 2014-2015: M. Salehi, Isolation and chemical composition identification of bioactive polysaccharides from Balangu seeds (*Lallemantia royleana*) and their biological properties evaluation, Food Science, Khazar Institute of Higher Education (KIHE) (Principal Supervisor)
- 2014-2015: M. Amraei, Extraction and chemical compositions of bioactive hydrocolloids and evaluation of attribute's from date plum seeds (*Diospyros lotus*), Food Science, KIHE (Principal Supervisor)
- 2015-2016: M. Ramzani, Isolation and purification of cytotoxic anticancer and immunoenhancer polysaccharides from Azolla (*Azolla filiculoides*), Marine Food Science, TMU (Principal Supervisor)
- 2015-2016: H. Borzuii, Biological activities of secondary metabolites and water-soluble polysaccharides from water hyacinth (*Eicchornia crassipes*) in inhibition of alpha-amylase activity and oxidation reactions, Marine Food Science, TMU (Principal Supervisor)
- 2016-2017: Z. Garusian, Extraction¸ chemical characterization and antioxidant evaluation of bioactive hydrocolloids from mallow (*Malva sylvestries*), Food Science, KIHE (Principal Supervisor)
- 2016-2017: S. Bakhtiari, Evaluation of antioxidant properties of sulfated polysaccharides from *Colpomenia sinousa* and determination of its chemical compositions, Food Science, KIHE (Principal Supervisor)
- 2016-2017: A. Arshi, Determination of chemical composition and antioxidant capacity of water-soluble polysaccharides from date plum seeds (*Melilotus officinalis*), Food Science, KIHE (Principal Supervisor)
- 2017-2019: S. Bahramzadeh, Comparison between chemical structure, molecular characeristics and ability in stimulating RAW264.7 macrophage cells of fucoidan isolated from *Cystoseria indica* with arabinogalactan, galactoglucan, arabinoxylan and

galactoxylan, Marine Food Science, TMU (Principal Supervisor)

- 2017-2019: M. Alavi, Purification, chemical structure, alpha amylase and glucosidase inhibitory and antioxidant activities of polysaccharides from *Myriophyllum spicatum* L, Marine Food Science, TMU (Principal Supervisor)
- 2017-2019: S. Khosravi, Structural and antioxidant properties of water soluble polysaccharides from aquatic plant *Potamogeton lucens*, Marine Food Science, TMU (Principal Supervisor)
- 2018-2020: J. Darem, Effects of different conventional and novel extraction methods on chemical, molecular and biological characteristics of fucoidan and sodium alginate from *Padina australis*, Marine Food Science, TMU (Principal Supervisor)
- 2018-2020: F. Noormand, Evaluation of acid and temperature variations of fucoidan and sodium alginate from brown seaweed *Cystoseira indica* in industrial extraction process, Marine Food Science, TMU (Principal Supervisor)
- 2019-2021: K. Sahragard, Extraction, purification, anti-diabetic and antioxidant structure and properties of *Sargassum ilicifolium*, Marine Food Science, TMU (Principal Supervisor)
- 2019-2021: N. Mousavi, Fractionation of hydrolyzed fucoidans obtained from *Nizamuddinia zanardinii* by ultrafiltration Marine Food Science, TMU (Principal Supervisor)

b)Doctoral Students

- 2014-2018: H. Jannat-Alipour, Marine Food Science, TMU (Co-Supervisor)
- 2015-2019: M. Alboofetileh, Evaluation of chemical, functional and biological properties of fucoidan and secondary metabolites extracted from *Nizamuddinia zanardinii* by solvent and enzyme-ultrasonic assisted extraction, Marine Food Science, TMU (Co-Supervisor)
- 2015-2019: H. Teimuri, Marine Food Science, TMU (Co-Supervisor)
- 2015-2019: G. Taghizadeh Andevari, Characteristics and bioactive potential of carotenoprotein and chitosan recovered from banana shrimp (*Fenneropenaeus merguiensis*) waste by enzymatic process, Marine Food Science, TMU (Co-Supervisor)
- 2017-2023: S. Khajavi, Mimicking the structural properties of fucoidan from *Padina pavonica* in arabinogalactan, glucogalactoarabinan and alginate to improve the immunostimulatory, antioxidant and antidiabetic properties, Marine Food Science, TMU (Principal Supervisor)
- 2019-Present: A. Jafari, Production, synthesis and biological evaluation of glucosamine hydrochloride, glucosamine sulfate and glucosamine-gallic acid nanoparticles from the shells of Pacific white shrimp (*Litopenaeus vannamei*), Marine Food Science, TMU (Principal Supervisor)
- 2020-Present: F. Noormand, Structural modification of fucoidan extracted from brown

alga *Cystoseira indica* using depolymerization and conjugation with gallic acid, Marine Food Science, TMU (Principal Supervisor)

- 2021-Present: K. Sahragard, Fucoidan from brown seaweed *Sargassum assimile* as an active ingredient for functional pasta with anti-diabetic and immunostimulatory properties, Marine Food Science, TMU (Principal Supervisor)

Teaching Activities:

1. 2014-Present: Biotechnology of Marine Food Products, Department of Seafood Processing, TMU
2. 2014-Present: Food Waste Management and By-products, Department of Food Science, KIHE
3. 2017-Present: Marine Bioactive Compounds, Department of Seafood Processing, TMU
4. 2017-Present: Marine Food Biochemistry, Department of Seafood Processing, TMU
5. 2017-Present: Food Processing and Impact on Nutrition, Department of Seafood Processing, TMU

Journal Review Activities:

1. Carbohydrate Polymers
2. Food Bioscience
3. Food Hydrocolloids
4. International Journal of Biological Macromolecules
5. Journal of Food Biochemistry
6. Journal of Functional Foods
7. Journal of the Science of Food and Agriculture
8. Molecules
9. Food & Function

Journal Editorial Board:

1. Journal of Food Processing and Preservation
2. Journal of Food Biochemistry
3. Journal of Fisheries Science and Technology