



## Contact and Optional Personal Information

**Name:** Ali Mirzaei

Last Name: Mirzaei

**Date of Birth:** 1958

Place of Birth : Mammasani , Fars , Iran

Nationality: Iranian

Gender: Male

**Marital Status:** Married

**E mail. :** [mirzaee3a2003@yahoo.com](mailto:mirzaee3a2003@yahoo.com)

**Mobile:** 09171434236

**Address:** Yasuj University of Medical Sciences, Biochemistry Department

## CURRENT POSITION

I am associated professor in clinical biochemistry in Yasuj University of Medical Sciences

## EDUCATION

**Dissertation:** “Antioxidant activity of Phansomba as a medicinal plant”

Degree	Field of study	Institution	Year of completion
BS	Clinical Laboratory Methods	Shiraz University of Medical Sciences	1984
MS	Clinical Biochemistry	Tehran University of Medical Sciences	1995
PhD	Clinical Biochemistry	Pune university in India	2006

## Employment and work History

Type of employment	Research and Training	University	dates
Official-test	Laboratory expert	Yasuj University of Medical Sciences	1991
Official-Defective	Laboratory expert	Yasuj University of Medical Sciences	1998
Official-test	Academic instructor	Yasuj University of Medical Sciences	2002
Official-Defective	Faculty member	Yasuj University of Medical Sciences	2006

## HONORS AND AWARDS

Received two award for best researcher in the Yasuj University of Medical Sciences in 2013 and 2014

Received two awards for best teacher in the Yasuj University of Medical Sciences

## SERVICE

### Executive and administrative records

Vice-Chancellor for Research in Yasuj Medical School

Member of the Research committee of Yasuj University of Medical Sciences

Member of the Research committee of Yasuj Medical School

Director of Biochemistry Department

Member of the Committee for Basic Science Education Planning

Member of the Graduate School of Medicine

Member of the Educational committee of the Faculty of Medicine

Member of the Specialized committee of Graduate Studies

Member of the Committee on the Implementation of General Medical Education Standards

Member of Student Research Committee

Member of the Supreme Council of Medicinal Herbs Research Center

Member of the Promotion Committee of the Medicinal Herbs Research Center

Member of Research Council of Medicinal Herbs Research Center

Executive Director of the Medicinal Herbs Research Center

Member of the Scientific Committee of the National Conference on Medicinal Plants

Member of the Scientific Committee of the National Para medicine and Health Congress

Launching and equipping of the Biochemistry Laboratory of the Faculty of Medicine

Launch of a Master's degree in Clinical Biochemistry at the School of Medicine

Launch Animal School

Launch of Medicinal Herbs Research Center

## **PUBLICATIONS**

### **CONFERENCE International Congress abstract papers**

Hepatoprotectivity of grape seed and jaft extracts formulation in hepatotoxic rats

Antioxidant activity of the Pistaciaatlantica in carbon tetrachloride intoxicated rats in Iran

Acute and chronic toxicity of the jaft aqueous extracts a part of oak fruit in Iran.

Antioxidant activities and hepatoprotectivity of Jaft a part of oak fruit.

The antioxidant capacities and total phenol contents of some medicinal plants in Iran

In vitro antioxidant activity by different methods in some vegetables in Yasouj, Iran.

Cytotoxicity assessment by Artemia urmiana in some indigenous medicinal plants in Iran

Cytotoxic potential of five Iranian medicinal plants by Artemia urmiana.

Antioxidant activity and Nitric Oxide Scavenging potential of 10 decoction Iranian medicinal plants

Cytotoxic and genotoxic effects of *Artemisia aucheri*, *Dorema aucheri* and *Achillea millefolium* with three extracts on *Allium cepa*

Toxicity and Genotoxicity of 12 Iranian Medicinal Plants using root cells of *Allium cepa*.

Hepatoprotective effect of hydroalcoholic extract of *Artemisia aucheri* (HEAA) against CCl<sub>4</sub>-induced hepatotoxicity in male wistar rats

Cytotoxicity screening of *Dorema aucheri*, *Achillea millefolium* and *Artemisia aucheri* by *Artemia urmiana* Brine Shrimp Lethality Test

-Antioxidant Activity and Antibacterial Potential of 12 Iranian Medicinal Plants.

Phytochemical analysis of 12 Species of Iranian Medicinal Plants

**Title:** . Ultrasonic and microwave assisted extraction as rapid and efficient techniques for plant mediated synthesis of quantum dots: green synthesis, characterization of zinc telluride and comparison study of some biological activities

**Journal,** New Journal Chemistry , DOI: 10.1039/c9nj03144h. 2019;1–13

**Authors:** Zinab Moradi Alvand, Hamid Reza Rajabi, **Ali Mirzaei** and Asad Masoumiasl  
nglish articles

**Title:** Unfolded protein response-mediated modulation of mesenchymal stem cells

**Journal, IUBMB Life** International Union of Biochemistry and Molecular Biology, DOI: 10.1002/iub.2154: 2019;1–11

**Authors:** Fataneh Tavasolian, Ahmad Z. Hosseini , **Ali Mirzaei** , Elham Abdollahi, Pouria Jandaghi , Sara Soudi , Mahmood Naderi , Ehsan Saburi, Amir Abbas Momtazi-Borojeni, Thomas P. Johnston , Amirhossein Sahebkar

**Title:** . Comparison of osteogenic differentiation potential of induced pluripotent stem cells on 2D and 3D Polyvinylidene fluoride scaffolds

**Journal, VOL, NO:** Journal of cellular physiology DOI: 10.1002/jcp.28415, J Cell Physiol. 2019;1–9

**Authors:** **Ali Mirzaei**1, Abbas Shapouri Moghadam\* , Mohamad Foad Abazari ,Fatemeh Nejati , Sepehr Torabinejad, | Mohamad Kaabi6 , Seyed Ehsan Enderami, Abdolreza Ardehshirylajimi, Maryam Darvish, Fatemeh Soleimanifar, Ehsan Saburi

2. **Title:** Bladder smooth muscle cell di  
cells on electrospun Poly(lactide-co-glycolide) nanofibrous structure

fferentiation of th

**Journal ,:**Gene, 2019, NO 694,26-32

**Authors :** **Ali Mirzaeia**, Ehsan Saburi , Maryam Islamid, Abdolreza Ardehshirylajimie, Mir Davood Omranif, Mohammad Taherif, Abbas Shapouri Moghadam, Soudeh Ghafouri-Fardh

3. **Title:** Synergistic effects of polyaniline and pulsed electromagnetic field to stem cells osteogenic differntition on polyvinylidene fluoride scaffold

**Journal ,VOL,NO:** Artificial cells,Nanomedicine and biotechnology, 2019,Vol 47,No.1, 3058-3066

**Authors :** **Ali Mirzaeia**, Ehsan Saburi, Seyed Elnaz Enderami,Matineh Barati Bagherabad, Marzieh Asadi, Seyed Ehsan Enderami,Mahmood Chokami, Abbas Shapouri Moghadam, Abdolreza Ardehshirylajimi,Vahid Mansouri , Fatemeh Soleimanifar

4. **Title:** Antioxidant Effect of Pistachio Khinjuk On Alkali Injury Of Rabbit’s Eye Cornea

**Journal ,VOL,NO:** Acta Medica Mediterranea, 1329 ,2016, 32:P: 1329-1333

**Authors :** Ali Mirzaei , Hossein Rezaei, Zeinab Salehpour

**5. Title:** Rapid and green synthesis of cadmium telluride quantum dots with low toxicity based on a plant-mediated approach after microwave and ultrasonic assisted extraction: Synthesis, characterization, biological potentials and comparison study.

**Journal ,VOL,NO:** MaterialsScience&EngineeringC , Vol 98 ,2019,535-544

**Authors :** Zinab Morad Alvanda,Hamid Reza Rajabia, **Ali Mirzaeib**,  
, HamedSadatfara

**6.** Microwave assisted extraction as an efficient approach for biosynthesis of zink oxide nanoparticles: synthesis, characterization, and biological properties

**Journal ,VOL,NO: MaterialsScience&EngineeringC** , Vol;78,(2017),1109-1118

**Authors :** Hamid reza rajabi , Reza Naghiha, Mansoureh Kheirizadeh, Hamed Sadatifaraji , **Ali Mirzaei**, Zinab Moradi Alvand

**7.** Effects of Pistacia Atlantica Extract on Erythrocyte Membrane Rigidity, Oxidative Stress, and Hepatotoxicity Induced by CCl4 in Rats

**Journal, VOL, NO:** Global Journal of Health Science; Vol: Vol. 7, No. 7; 2015,P: 32-38

**Authors :** Mohsen Toloeei & **Ali Mirzaei**

**8. :** The Effects of Medicago Sativa and Allium Porrum on Iron Overload in Rats

**Journal, VOL, NO:** Global Journal of Health Science; Vol. 7, No. 7; 2015, p137-142

**Authors :** Ali Mirzaei, Hamdollah Delaviz, Mahsa Mirzaei & Mohsen Toloeei

**9. Title:** Cytotoxic and Genotoxic Effects of Artemisia aucheri with Different Extracts on Allium cepa L

**Journal ,VOL,NO:** International Medical Journal , 2015, Vol. 22, No. 1, pp. 1 - 4

**Authors :** Mehdi Ghavamizadeh), **Ali Mirzaei**

**10. Title:** Anti-Inflammation and Iron Chelating Potential of 5 Iranian

**Journal, VOL, NO:** International Medical Journal. Oct2014, Vol. 21 Issue 5, p480-482. 3p.

**Authors:** **Mirzaei A** , **Mirzaei M**

**11. Title:** The Effect of rhubarb extract on lipid profile and oxidative stress in wistar male rats

**Journal, VOL, NO:** International Medical Journal . apr 2015, Vol. 22 Issue 2, p70-72. 3p

**Authors:**Golami Sakineh , **Mirzaei Ali** , Oryan Shahrehbanoo, Hossaeini Sayed Ebrahim

**12. Title:** Nephro-Protective Effects of Origanum Vulgare HydroAlcoholic Extract against Gentamicin-Induced Nephrotoxicity in Rats.

**Journal ,VOL,NO:** International Medical Journal . Feb2016, Vol. 23 Issue 1, p26-29. 4p

**Authors :** Mirzaei, Ali; Maleki, Reza; Ghavamizadeh, Mehdi

**13. Title:** Protective effect of jaft against carbendazim induced biochemical changes in male Wistar rats

**Journal ,VOL,NO:** *Journal of Medicine and Life*. 2015; 8(Spec Iss 3): 96–100

**Authors :** A Mirzaei, S Sepehri, H Sadeghi,\* and A Alamdari\*

**14. Title:** Nutrition in children with epilepsy

**Journal ,VOL,NO:** International journal of pharmaceutical research . Vol, 2018,vol 10 issue 04885, P:215-217

**Authors :** Asieh Makari, Marziyeh Moeinifard, Somayeh Aghaee, Ali Mirzaei, Zari Ravandi

**15. Title:** Hepatoprotective Activity Of Hydro- Alcoholic Extracts Of Iranian Teucrium Polium

**Journal ,VOL,NO:** World Journal of Pharmaceutical Research Vol 3, Issue 4, 2014.p1331-9

**Authors :** Parna Zahra, Mirzaei Ali

**16. Title:** Protective Effects Of Lippia Citriodora On Acetic Acid Induced Ulcerative Colitis In Rats

**Journal, VOL, NO:** World Journal of Pharmacy and Pharmaceutical Sciences Vol 3, Issue 10, 2014, p211-221

**Authors :** Roya Hassan pour, \*Mirzaei Ali

**17. Title:** Cytoprotective Potential of Jaft Extract on Hepatic Ischemia-Reperfusion Injury in Rat

**Journal ,VOL,NO:** *Nautilus*, Vol:128; Issue 2(No:1) May 2014: 134-139

**Authors :** Mirzaei Ali, Ghazizadeh Lieli, Mirzaei Nooshin, Akbartabar Toori Mehdi

**18. Title:** Gastroprotective Effects of Ziziphus nummularifolia on Hcl/Ethanol-Induced Gastric Damage in Rats

**Journal, VOL, NO:** Life Science Journal 2014;11(9s) ,p509-13

**Authors :** Mirzaei A, Shariati A\*, Ghavamizadeh M

**19. Title:** Protective effects of jaft extract on acetic acid induced ulcerative colitis in rats

**Journal ,VOL,NO:** Research Journal of Pharmaceutical ,Biological and Chemical Sciences , 6(3) 2015, Vol 6(3) 2015.1211-1216

**Authors :** Jafari K , Mirzaei A, Ghavamizadeh M

**20. Title:** Antioxidant Activity and Hepatoprotective Potential of *Artemisia aucheri* in Rat

**Journal ,VOL,NO:** Indian Journal of Science and Technology, Vol 8(12), 2015,**1-8**

**Authors :** Mehdi Ghavamizadeh and **Ali Mirzaei**

**21. Title:** Hepatoprotective Effect and Antioxidant Activity of Aqueous Cherry Extract on Rats

**Journal ,VOL,NO:** Indian Journal of Science and Technology, Vol 8(22), September 2015,**1-5**

**Authors :** **A. Mirzaei** \* and M. T. Rezanejad

**22. Title:** Effects of Chronic Ethanol Consumption on Biochemical Parameters and Oxidative Stress on Rat

**Journal ,VOL,NO:** Indian Journal of Science and Technology 8(25) · October 2015,1-5

**Authors :** **Ali Mirzaei**, Alikaram Alamdari, Nooshin Mirzaei

**23. Title:** Comparison of IL-13 and IL-27 levels between schizophrenics and healthy subjects before and after antipsychotic administration

**Journal ,VOL,NO:** International Journal of Medical Research & Health Sciences, 2016, 5, 9S:654-661

**Authors :** Ali Alidadi , Hossein Ali Khazaei , Babak Nakhjavan Shahraki , Salar Andarzi , Arman Jalili , **Ali Mirzaei** \* , Ali Shahraki , Salah Hajinejad and Seyed Mehdi Hashem

**24.**

1. Mirzaei N and **Mirzaei A**\*. Acute and chronic toxicity of iranian *jaftan* oak fruit component. ■  
International Journal of Biology , Pharmacy and allied sciences, 2013, 2(3): 610-619.
2. Mirzaei N and **Mirzaei A**\*. Antioxidant and antimutagenic property of iranian oak and walnut plants. ■  
International Journal of Biology , Pharmacy and allied sciences, 2013, 2(3): 620-629.
3. Ghahramanifar m , mirzaeiMahsa , **mirzaei Ali** \* and kazemi m. Cytotoxicity and antimutagenicity screening of 5 iranian medicinal plants using *artemiaurmiana* and ames test. International Journal of Biology, Pharmacy and allied sciences, 2013, 2(3): 654-664. ■
4. Mahsa Mirzaei and **Ali Mirzaei**\*. Comparison of the *Artemiasalina* and *Artemiauramian* bioassays for toxicity of 4 Iranian medicinal plants. *International Research Journal of Biological Sciences*. 2013; 2(3): 49-54. ■

5. Mehdi AkbartabarToori , MahsaMirzaei , NooshinMirzaei , Prasad Lamrood and **Ali Mirzaei\*** ▪  
00.Antioxidant and hepatoprotective effects of the internal layer of oak fruit (Jaft).Journal of Medicinal Plants Research 2013;l. 7(1) : 24-28.
- 6.**AliMirzaei**, MahsaMirzaei.The Effects of Adding Milk on Antioxidant Activities of Green and Black ▪  
Tea. Bull. Env. Pharmacol. Life Sci., 2013; 2 (5): 37-42.
- 7.**Ali Mirzaei** , Mehdi AkbartabarToori\*, NooshinMirzaei ,Reza GhafarianShirazi.Antioxidant, ▪  
Antimicrobial and Antimutogenic Potential of 4 Iranian Medicinal Plants. Life Science Journal  
2013;10(7s):1085-91.
- 8.**Ali Mirzaei** ,NooshinMirzaei , Majid amouei , SeyedAbdolmajidKhosravani , ZeynabSalehpour . ▪  
Toxicity of *Tecuriumpolium*extract using micronucleus and biochemical analysis in  
*Oncorhynchusmykiss*fish. Life Science Journal 2013;10(7s):1102-8.
9. **Ali Mirzaei**, Nooshin Mirzaei1, Zeynab Salehpour1, SeyedAbdolmajidKhosravani , Majid Amouei . ▪  
Phenolic, ascorbic Contents and Antioxidant activities of 21 Iranian Fruits.Life Science Journal  
2013;10(7s):1240-45.
- 10.**Ali Mirzaei**,MahsaMirzaei, SeyedAbdolmajidKhosravani , ZeynabSalehpour .Radical Scavenging ▪  
Potential of *Iranian QuercusBrantii* and *JuglansRegia*. Life Science Journal 2013;10(7s):1246-50.
11. **Ali Mirzaei**, MahsaMirzaei. The Effects of Adding Milk on Antioxidant Activities of Green ▪  
and Black Tea. Bull. Env.Pharmacol.Life Sci., Vol 2 (5) April 2013: 37-42.
- 12. Ali Mirzaei**, Raheleh Khatami. Antioxidant and Iron Chelating Activity of *Coriander sativum*and ▪  
*Petroselinum crispum*. Bull. Env. Pharmacol. Life Sci., Vol 2 (7) June 2013: 27-31.
- 13.AmrollahRoosbehi, Mohammad TaghiJoghataie, Mehdi Mehdizadeh, **Ali Mirzaei**, and ▪  
HamdollahDelaviz. The Effects of Cyclosporin-A on Functional Outcome and Axonal. Regrowth  
Following Spinal Cord Injury in Adult Rats.*ActaMedicaIranica*, 2012; 50(4): 226-232.
- . 14.AliMirzaei, NargesNikpayHosseinabad, MojtabaAbbasi, Reza GhafarianShirazi, NooshinMirzaei. ▪  
IronChelating potential of *Zatariamultiflora*and *Matricariachamomilla*on Thalassemic Serums *in Vitro*  
model. *Life Sci J* 2013;10(9s): 230-235](ISSN:1097-8135).
15. Ali Mirzaei, MahsaMirzaei. Anti-Inflammation and Iron Chelating Potential of 5 Iranian  
*Decoctions*.*International Medical Journal*. 2014; 21: 1 - 4.
16. Ali Mirzaei, NooshinMirzaei, Shilamoshrefi. Anti-diarrheal Activity of Iranian Jaft Extract on  
*Experimental Rats*. *NAUTILUS*.2014; 128: 76-81.
17. Samira Ildashti , Ali Mirzaei, Ali Akbar Abulfathei .*Comparison of green and black tea antioxidant*  
*activity with lippiacitriodora*. *world journal of pharmacy and pharmaceutical sciences*. 2013; 3: 942-950.
18. Mirzaei Ali, GhazizadehLieli, MirzaeiNooshin, AkbartabarToori Mehdi. *Cytoprotective Potential of*  
*Jaft Extract on Hepatic Ischemia-Reperfusion Injury in Rat*.*NAUTILUS*. 2014; 128: 134-139



19. Mirzaei Ali, MirzaeiNooshin .Comparison of antioxidant activity and phenolic content of garlic, leek and onion vegetables in different cooking methods. *world journal of pharmacy and pharmaceutical sciences*. 2014; 3: 1155-1164.

20. Mirzaei A, Shariati A, Ghavamizadeh M .Gastroprotective Effects of *Ziziphusnummularifolia* on Hcl/Ethanol-Induced Gastric Damage in Rats. *Life Science Journal* 2014 ;11(9s)

21. Roya Hassan pour, \*MirzaeiA.Protective effects of *lippiacitriodora* on acetic acid induced ulcerative colitis in rats. *world journal of pharmacy and pharmaceutical sciences*. 2014; 3: 211-221.

22. SakinehGholami, Ali Mirzaei, SharebanooOryan ,and Sayed EbrahimHosseini. The effect of rhubarb extracts on lipid profile and oxidative stress in wistar male rats. *Annals of Biological Research*. 2014; 5 (9):26-30

23. Samira Ildashti , \*Ali Mirzaei. Antioxidant activity of *lippiacitriodora* as a new beverage and some iranian brand tea. *World Journal of Pharmaceutical Research*.2014; 3: 1320-1330.

24. SakinehGholami, Ali Mirzaei, SharebanooOryan ,and Sayed EbrahimHosseini . Hepatoprotective activity of hydro- alcoholic extracts of *iranianteucriumpolium*. 2014;3: 1331-1339.

25. Ali Mirzaei, HamdollahDelaviz, Hamidreza Mohammad .The effects of cooking methods on antioxidant activity and phenol content in vegetables. *world journal of pharmacy and pharmaceutical sciences*. 2014; 3: 242-252.

26. TayyebehGhaedi ,AliMirzaei,&BehzadLaameerad. Protective effect of *pistaciakhinjuk* on gentamicin-induced nephrotoxicity in rats.*world journal of pharmacy and pharmaceutical sciences*. 2013 ; 3: 919-926.

27. Ali Mirzaei, Mohammad Satarifar,FaridehBadakhshanZadeh antioxidant activities of iranian bitter vetch in different methods. *world journal of pharmacy and pharmaceutical sciences*. 2014; 3: 186-193.

28. Reza Maleki, Ali Shariati, NooshinMirzaei , Ali Mirzaei .Prevalence of beta thalassemia minor, iron deficiency and glucose-6-phosphate dehydrogenase deficiency in Iranian boy's primary schools in Yasuj. *Life Science Journal* 2014;11(9s)

29. MadinehZahediZadeh, Ali Mirzaei, Mohammad, Fazilati. Effects of hydro-alcoholic extract of *medicago sativa* on the chemical burn injuries in rats. *world journal of pharmacy and pharmaceutical sciences*. 2013;3: 910-918.

30. Comparison of osteogenic differentiation potential of induced pluripotent stem cells on 2D and 3D Polyvinylidene fluoride scaffolds

31. Bladder smooth muscle cell differentiation of the human induced pluripotent stem cells on electrospun Poly(lactide-co-glycolide) nanofibrous structure

differentiation of the human induced pluripotent stem cells on electrospun Poly(lactide-co-glycolide) nanofibrous structure

32. Rapid and green synthesis of cadmium telluride quantum dots with low toxicity based on a plant-mediated approach after microwave and ultrasonic assisted extraction: Synthesis, characterization, biological potentials and comparison study
33. Microwave assisted extraction as an efficient approach for biosynthesis of zinc oxide nanoparticles: synthesis, characterization, and biological properties
34. Effects of Pistacia Atlantica Extract on Erythrocyte Membrane Rigidity, Oxidative Stress, and Hepatotoxicity Induced by CCl<sub>4</sub> in Rats.
35. The Effects of Medicago Sativa and Allium Porrum on Iron Overload in Rats
36. Cytotoxic and Genotoxic Effects of Artemisia aucheri with Different Extracts on Allium cepa L
37. Anti-Inflammation and Iron Chelating Potential of 5 Iranian
38. Effect of rhubarb extract on lipid profile and oxidative stress in wistar male rats
- 39.** Nephro-Protective Effects of Origanum Vulgare HydroAlcoholic Extract against Gentamicin-Induced Nephrotoxicity in Rats.
40. Antioxidant Effect Of Pistachio Khinjuk On Alkali Injury Of Rabbit's Eye Cornea
41. protective effect of jaft against carbendazim induced biochemical changes in male Wistar rats
42. Nutrition in children with epilepsy
43. Hepatoprotective Activity Of Hydro- Alcoholic Extracts Of Iranian Teucrium Polium
44. Comparison Of Antioxidant Activity And Phenolic Content Of Garlic, Leek And Onion Vegetables In Different Cooking Methods
45. The Effects Of Pistacia Atlantica On Testosterone- Induced Benign Prostatic Hyperplasia In Rats
46. The Effects Of Cooking Methods On Antioxidant Activity And Phenol Content In Vegetables
47. Protective Effects Of Lippia Citriodora On Acetic Acid Induced Ulcerative Colitis In Rats
48. Antioxidant Activities Of Iranian Bitter Vetch In Different Methods
49. Cytoprotective Potential of Jaft Extract on Hepatic Ischemia-Reperfusion Injury in Rat
50. Gastroprotective Effects of Ziziphus nummularifolia on Hcl/Ethanol-Induced Gastric Damage in Rats
51. Protective effects of jaft extract on acetic acid induced ulcerative colitis in rats
52. Antioxidant Activity and Hepatoprotective Potential of *Artemisia aucheri* in Rat
53. Hepatoprotective Effect and Antioxidant Activity of Aqueous Cherry Extract on Rats
54. Effects of Chronic Ethanol Consumption on Biochemical Parameters and Oxidative Stress on Rat

55. Comparison of IL-13 and IL-27 levels between schizophrenics and healthy subjects before and after antipsychotic administration

56. Dietary Steroid Supplements Effect on Biochemical Parameters in Male Bodybuilder

57. Antioxidant and Anti-Inflammatory Potential of Iranian Chicken Broth