

CURRICULUM VITAE of Prof. FERIDE ZORLU SEVERCAN

20.02.2022	
Prof. Dr. FERİDE SEVERCAN	
GSM: 0533 5768975	
e-mail: feride.severcan@altinbas.edu.tr	feride@metu.edu.tr

1. EDUCATION

1979	Ph.D	Hacettepe University.	Physics Engineering Dept.
1971	M.S	Rochester Univ.NY. USA	Physics Dept.
1969	B.S	Ankara Univ.	Physics Dept.

2. ACADEMIC WORK

In Turkey

Sept. 2016-	Prof. Dr, Full time	Altinbas Univ.	Faculty of Medicine, Biophysics Dept.
Dec. 2015-Sept. 2016	Prof. Dr. Research Staff	Hacettepe Univ. Dept. of Medicine	TUBITAK-1003 Project
Nov. 2015-2017	Prof. Dr. Part time	METU	Dept. of Biological Sciences
1992-Nov.2015	Prof. Dr. Full time	METU	Dept. of Biological Sciences
1998-2001	Prof. Dr. (Part time)	Başkent Univ.	Fac. Medicine,-Biophysics Dept.
1990-1992	Prof. Dr.	Dokuz Eylül Univ.	Dept. Elect. and Electronics Eng, Faculty of Medicine-Biophysics
1986-1990	Assoc. Prof. Dr.	Dokuz Eylül Univ.	Dept. Elect. and Electronics Eng, Dept. of Medicine-Biophysics
1982-1985	Asst. Prof. Dr.	Hacettepe Univ..	Physics Engineering Dept..
1971-1982	Lecturer	Hacettepe Univ.	Physics Engineering Dept.

In Abroad:			
Long term visits			
1981-1982	Lecturer	San Francisco State Univ.,USA	Physics Dept.
1981-1982	Visiting Researcher	San Francisco State Univ.,USA	Chemistry Dept.
1980-1981	Post. Doc. Researcher	Stanford Univ.,USA	Chemistry Dept.
1987-1989	Visiting Researcher	Perugia Univ.	Physics Dept.
Short term visits			
1986-1992 (3 months/ summer)	Visiting Researcher	Int. Center Theoretical Phys., Trieste, Italy	
1996-98 (3 months/year)	Visiting Researcher	Univ. California-Santa Cruz, USA	Dept. Biochem.
1993-96 (3 months/year)	Visiting Researcher	BATH Univ., UK	Dept. Biochem.
1996 (3 months-summer)	Visiting Researcher	London Univ.	Royal Free Hospital
1997-2004 (1-2 months/year)	Visiting Researcher	De Montford Univ., UK	Dept. Health Sciences
2001 (3 months)	Visiting Researcher	North West Pasific Lab,USA	
2009-2012 (2 weeks/year)	Visiting Scientist	Humboldt Univ. /Germany	Dept. Genetics
2011 (4 months)	Visiting Scientist	SUNY, Albany, NY	Life Sciences and Statistics Dept.
2010-2014 (2-4 weeks/year)	Visiting Scientist	SUNY, Albany, NY	Life Sciences
2016-2017 (1-2 weeks/year)	Visiting Scientist	RPI, Troy, USA	Computer Science

2016-2018 A week/year	Visiting Scientist	Kiev-Ukraine	National Academy of Sciences -Palladin Inst. Biochemistry
2018 (one week)	Visiting Scientist	Qatar Research Foundation and Qatar University	Biophysics Group Chemistry Dept
2018 (one month)	Visiting Scientist	NIH-USA	Biomedical and Bioinformatic Dept.

3. ADMINISTRATIVE WORK

Oct-2019	Head	Biomedical Sciences Graduate Prog.- English
Oct. 2017-	Head	Biomedical Sciences Graduate Prog.-Turkish
Oct.2016-	Head	Biophysics Department, Medical School, Altinbas University
Oct. 2017-	Head	Biomedical Sciences Graduate Programme, Altınbaş University
Nov.2016-	Faculty Representative	Altınbaş Univ. Committee for supporting Research, Publications and International Academic Activity
Nov.2016	Faculty search Committee	Altinbas University, Faculty of Medicine
Nov.1994- Dec. 1997	Chairman*	METU, Dept Biological Sciences
Several years	Coordinator	Biology Dept. Graduate Committee-Middle East Technical Univ. (METU)
For three years	Biology Dept. Representative	Biotechnology Graduate Committee of METU

1998-2000	Vice President	Turkish Biophysical Society
2000-2004	General Secretary	Turkish Biophysical Society

*** Founder of Molecular Biology and Genetics Department in 1996 at METU**

4. AWARDS AND SCHOLARSHIPS :

Title of the Award	Institution	Year
Achievement of 2.nd best academic performance in the University	Altinbas University	2017
Best Project and academician award	Altinbas University	2017
Achievement of High Academic Performance	Middle East Technical Univ.	2016
Achievement of High Academic Performance	Middle East Technical Univ.	2015
Achievement of High Academic Performance	Middle East Technical Univ.	2014
Achievement of High Academic Performance	Middle East Technical Univ.	2013
Achievement of High Academic Performance	Middle East Technical Univ.	2011
Achievement of High Academic Performance	Middle East Technical Univ.	2010
Achievement of High Academic Performance	Middle East Technical Univ.	2009
Achievement of High Academic Performance	Middle East Technical Univ.	2007
Achievement of High Academic Performance	Middle East Technical Univ.	2005
Achievement of High Academic Performance	Middle East Technical Univ.	2003
Achievement of High Academic Performance	Middle East Technical Univ.	2001
Achievement of High Academic Performance	Middle East Technical Univ.	2000
Achievement of High Academic Performance	Middle East Technical Univ.	1999

Supervisor of best Ph.D thesis (Sebnem Garip)	Middle East Technical Univ.	2013
Supervisor of best Ph.D thesis (Gulgun Cakmak)	Middle East Technical Univ.	2010
Supervisor of best M.S thesis (Özlem Bozkurt)	Middle East Technical Univ.	2006
Supervisor of best Ph.D thesis (Handan Boyar)	Middle East Technical Univ.	2004
Best paper award (Cakmak, Togan, Severcan).	WSEAS	2005
Associate membership	Int. Cent. Theoretical.Phys.	1985-92
Graduation with High Honour	Ankara University	1969
Rank 8 th	University Entrance Exam	1965
Graduation with rank 1 th	Ankara Girls High School	1965
FELLOWSHIPS		
Collaborative Research Fellowship with De-Montford University	Royal Society, UK	2000-2004
Academic Link Programme - (with De Montford University)	British Council	1997-1999
Collaborative Research Fellowship, University of California, Santa Cruz	NATO	1996-1997
Academic Link Program. – (Bath Univ. UK)	British Council	1993-1996
Research fellowship	ICTP-TWAS	1987-1989
Research fellowship	British Council	1975-3 ay
NATO Scholarship	For B.S study	1965-1969
NATO Scholarship	For M.S study (USA)	1969-1971

And several International Congress travel and living expences awards poster awards

5. EDITORIAL WORK AND REFEREEING

Senior Academic Editor Academic Editor	1. Scientific Reports-Nature, 2. Journal of Spectroscopy
Editorial Board Member	1- Turkish Journal of Biology 2- Clinical Sciences 3- Biomedical Spectroscopy and Imaging
As a Reviewer: Scientific Reports; Analytical Chemistry; Journal of Membrane Biology; J. Biological Physics; Critical Reviews in Analytical Chemistry; Chem. Physc. Lipids; J. of Biophotonics; Spectroscopy Letter; Science of the Total Environment; Ecotoxicology and Environmental Safety; Analytical Letters; Analytical Methods, IEEE Sensors Journal; Food Analytical Methods; European Food Research and Technology; Food and Chemical Toxicology; NeuroMolecular Medicine; World Journal of Clinical Oncology; Biochim. Biophysic. Acta; Plos One, Bioinformatics; Applied Spectroscopy; Biopolymers; Biophysical Chemistry; Arch. Biochem. Biophys.; Vibrational spectroscopy; Analy. Bioanaly. Chem.; Int. J of Pharmaceutics; Journal of Pharmaceutical Sciences; Journal of Pharmaceutical and Biomedical Analysis; Ann. Biomed. Eng.; Spectrochimica Acta; Tech. in Cancer Res. and Treatment; Cell Biochem. Biophys.; T. J. Biochem.; J. Biomed. Biotech.; Arch. Med. Research ; J. Plant Growth Regulation; J. Agricul. Food Chem.; Biophysical Reviews and Letters; Amino acids; Eur. J. Clin. Inv.; J. Mol. Struct.; Microscopy Res.Tech.; Toxicology Reports; Toxicol. & Environmental Chem.; Tissue and Cell; Aquatic Sciences.;TAXON; Molecular and Cellular Biochemistry; Chinese Optics Letters; Computers in Biology and Medicine, Food Control	

5. FIELDS OF ACADEMIC INTEREST

Disease Diagnosis and Characterisation, Molecular Biophysics, Biological Spectroscopy and Imaging, Vibrational Spectroscopy in Diagnosis and Screening, Ecotoxicology and Food Science

1. Biomedical Diagnosis and characterisation (Molecular characterisation and diagnosis of

several diseases using normal and pathological human and animal tissues, cells and membranes such as diabetes mellitus, obesity, cancer, epilepsy, MS and Alzheimer's, rare diseases

2. Protective and treatment role of antioxidants and different drugs on several diseases
3. Effect of radiation on different tissues.
4. Biological spectroscopy and imaging and calorimetry in biological system characterization including medical, food and plants and of environmental problems.
5. Interaction between Biological Molecules.
6. Structure and Function of Biological Membranes.
7. Drug-Disease Interactions
8. Drug-Liposome Interactions,
9. Protein Structure, Function and Stability.

6. GRADUATE THESIS COMPLETED:

6.1. M.Sc. Thesis

- 1) **Kumsal Özgün Badem**, The Molecular Investigation of the Effects of Simvastatin, A Cholesterol Reducing Drug, on Rat Sciatic Nerve, Middle East Technical University (METU), **2017**.
- 2) **Emrulla Spahiu**, ATR-FTIR evaluation of structural and functional changes on murine macrophage cells upon activation and suppression by immunotherapeutic oligodeoxynucleotides, Middle East Technical University (METU), **2015**.
- 3) **Mehmet Kardaş**, Monitoring of cobalt adaptation of environmental bacterial isolates using ATR-FTIR spectroscopy, METU, **2014** (Co-advisor: Prof. Dr. Feride Severcan).
- 4) **Aysun İnan Genç**, Molecular characterization of the effects of valdecoxib on colon cancer cell lines (ht29 & sw620) using ATR-FTIR spectroscopy, METU, **2014**.
- 5) **Richardas Rachauska**, Structural and functional effects of non-steroidal anti-inflammatory drugs rofecoxib and valdecoxib on DSPC model membranes, METU, **2014**, (Co-advisor: Prof. Dr. Feride Severcan).
- 6) **Seher Gök**, Attenuated total reflectance fourier transform infrared spectroscopy of fluid systems: case study applications to diagnosis and screening in biomedical and food areas, METU, **2013**.

- 7) **Damla Gludađ**, The effects of streptozotocin induced-diabetes on rat testes and the recovery role of vitamin C, METU, **2012**.
- 8) **lke Ően**, Macromolecular characterization of adipose tissues in inbred obese mouse models, METU, **2012**.
- 9) **Ebru Aras**, Characterization of skeletal muscle lipids in obese mice lines, METU, **2012**.
- 10) **Seza Ergn**, Structural and functional investigation of the interaction of agomelatine with model membranes, METU, **2012**.
- 11) **iđdem Kansu**, Characterization of yellow rust and stem rust resistant and sensitive durum wheat lines at molecular level by using biophysical methods, METU, **2011**, (Co-advisor: Prof. Dr. Feride Severcan).
- 12) **Ediz SaruŐık**, Interactions of cholesterol reducing agent simvastatin with charged phospholipid model membranes, METU, **2010**.
- 13) **Rafiq Gurbanov**, The effects of selenium on stz-induced diabetic rat kidney plasma membrane, METU, **2010**.
- 14) **zge Zelal Aydın**, Detection of bladder tumor recurrence by Fourier transform infrared spectroscopy as a novel method, METU, **2009**.
- 15) **Aslı Sade**, Interaction of the non steroidal anti inflammatory drug celecoxib with pure and cholesterol-containing model membranes, METU, **2009**, (Co-advisor: Prof. Dr. Feride Severcan).
- 16) **mit Acar**, Sarımsađın ntr model membranlarla etkileŐmesinin biyofiziksel yntemler ile incelenmesi, Ege niversitesi, **2009**. (Co-advisor: Prof. Dr. Feride Severcan).
- 17) **Mustafa Koak**, Interactions of cholesterol reducing agent simvastatin with phospholipid model membranes, METU, **2007**.
- 18) **Nihal ŐimŐek zek**, The molecular investigation of the effects of simvastatin, a cholesterol reducing drug, on different rat skeletal muscle tissues, METU, **2007**.
- 19) **Birsen Elibol**, Effects of chronic ethonol consumption on memory and molecular changes in the hippocampus of young adult wistar rats, METU, **2007**, (Co-advisor: Prof. Dr. Feride Severcan).

- 20) **Özlem Bozkurt**, The effect of diabetes on rat skeletal muscle tissues at molecular level, METU, **2006**.
- 21) **Şebnem Garip**, The characterization of bacteria with Fourier Transform Infrared (FTIR) spectroscopy, METU, **2005**.
- 22) **Kurtuluş Gökduman**, Effects of hydrogen peroxide bleaching on human dentin and enamel microstructure and function, METU, **2005**.
- 23) **Ayşe Özge Kepenek**, Preliminary approach for the determination of fish exuded kairomone using fourier transform infrared spectroscopy, METU, **2005**.
- 24) **Emre Koyuncu**, Expression, purification and functional analysis of adenovirus type 5 E4 ORF3 Protein, METU, **2004**.
- 25) Levent Kaya, Biosorption sites for lead [Pb(II)] in phanerochaete chrysosporium, METU, 2004, (Co-advisor: Prof. Dr. Feride Severcan).
- 26) **Sara Banu Akkaş**, Molecular investigation of the effects of antioxidants on rat brain tissues, METU, **2003**.
- 27) **Filiz Korkmaz**, Biophysical studies of progesterone-model membrane interactions, METU, **2003**, (Co-advisor: Prof. Dr. Feride Severcan).
- 28) **İpek Şahin**, Melatoninin model hücre membranları ile etkileşmesinin biyofiziksel yöntemlerle incelenmesi, Ege Üniversitesi, **2003** (Co-advisor: Prof. Dr. Feride Severcan).
- 29) **Neşe Kaptan**, Infrared spectroscopic study of diabetic rat heart crude membranes, METU, **2002**.
- 30) **Sevgi Türker**, Physicochemical study on the genera, acantholimon, astragalus and ranunculus, METU, **2002**.
- 31) **Soner Aksu**, Spectroscopic investigation of vitamin D3-melittin-model membrane interaction, METU, **2002**.
- 32) **Gülgün Çakmak**, Spectroscopic analysis of the livers in rainbow trout (*Oncorhynchus mykiss*) exposed to nonylphenol, METU, **2001**.
- 33) **Yavuz Öztürk**, Construction and analysis of a soluble version of the membrane-attached cytochrome Cy in rhodobacter capsulatus, METU, 2001
- 34) **Ayça Doğan**, The effects of gamma irradiation on hazelnut tissue at molecular level

- by fourier transform infrared spectroscopy, METU, **2001**.
- 35) **Özlem Ünver**, Molecular dynamics of pig citrate synthase, METU, **2000**.
 - 36) **Wasfi Abdel Kerim Al-Azzam**, Thermal stabilization of pig citrate synthase by crosslinking with bisimidoesters, METU, **1999**.
 - 37) **Zuhal Yazıcı**, Effects of vitamin E on human erythrocyte membranes, METU, **1999**.
 - 38) **Neslihan Toyran**, The effect of divalent ions on model membranes, METU, **1999**.
 - 39) **Hüseyin Okan Durmuş**, Spectroscopic studies of melittin in solution and in lipid bilayers, METU, **1998**.
 - 40) **Hüseyin Okan Durmuş**, Spectroscopic studies of melittin in solution and in lipid bilayers, METU, **1998**.
 - 41) **Fatma Eker**, The effect of Vitamin D2 on phospholipid model membranes and protein-lipid interactions, METU, **1997**.
 - 42) **Handan Boyar**, Interaction of estrogen and tamoxifen with phospholipid model membranes: an FTIR study, METU, **1995**.
 - 43) **Erhan Süleymanoğlu**, Effects of metal ions on nucleic acid, protein (melittin) and drug (tamoxifen)-phospholipid membrane interactions. METU, **1995**.
 - 44) **Ülkü Baykal**, Interaction of vitamin E with cholesterol-containing phospholipid liposomes, METU, **1994**.

6.2. Ph.D Thesis

- 1) **Eda Şeyma Kepenek**, Molecular Adaptations in Cadmium and Lead Resistant Environmental Species, METU **2017**, (Co-advisor: Prof. Dr. Feride Severcan).
- 2) **Fatma Küçük Baloğlu**, Biophysical Characterization and Diagnosis Of Obesity From Adipose Tissue By Fourier Transform Infrared Spectroscopy And Imaging, METU, **2017**.
- 3) **Seher Gok**, Effects of novel Compound derived from vitamin E on breast cancer cell line, METU, **2017**
- 4) **Nuri Ergen**, Effects Of Novel Compound Derived From Vitamin E on Prostate Cancer Cell Line, METU, **2016**.

- 5) **Rafiq Gurbanov**, Characterization of heavy metal resistant bacteria using infrared spectroscopy together with chemical pattern recognition techniques, METU, **2016**.
- 6) **Sherif Abbas Mousa Abbas**, Biophysical characterization of proteins in solution and human fluids for cancer diagnosis applications using fourier transform infrared spectroscopy, METU, **2016**.
- 7) **Nihal Şimşek Özek**, Characterization of molecular-level changes due to MicroRNA-125B expression in breast cancer cells by spectroscopic and chemometric analysis techniques, METU, **2015**.
- 8) **Hande Baltacıođlu**, Inactivation mechanism of polyphenol oxidase during ultrasound treatment, METU, **2014** (Co-advisor: Prof. Dr. Feride Severcan).
- 9) **Tuđba Özaktaş**, Heavy metal-induced structural and functional changes in clinical and environmental acinetobacter isolates, METU, **2014** (Co-advisor: Prof. Dr. Feride Severcan).
- 10) **Ceren Aksoy**, Characterization and identification of human mesenchymal stem cells at molecular level, METU, **2012**.
- 11) **Şebnem Garip**, Investigation of drug-related changes on bone tissues of rat animal models in healthy and disease states, METU, **2012**.
- 12) **Özlem Bozkurt**, Study of bone characteristics and muscle quality in metabolic disorders, METU, **2012**.
- 13) **Melek Duygu Bilge**, İlaç-lipit ve ptein-lipit etkileşimlerinin biyofiziksel teknikler ile tamoxifen-herceptin(trastuzumab)-model membran sisteminde incelenmesi, Ege Üniversitesi, **2011** (Co-advisor: Prof. Dr. Feride Severcan).
- 14) **Gülgün Çakmak**, The effects of radioprotectant amifostine on irradiated rat brain and liver tissues, METU, **2010**.
- 15) **Sevgi Görgülü Türker**, Molecular investigation of ptz-induced epileptic activities in rat brain cell membranes and the effects of vigabatrin, METU, **2009**.
- 16) **Sara Banu Akkaş**, The effect of ecotoxicants on the aquatic food web and prey-predator relationships, METU, **2009**.
- 17) **İpek Şahin**, Melatonin'in model ve biyolojik membranlarla etkileşmesinin fiziksel

yöntemlerle incelenmesi, Ege Üniversitesi, **2009** (Co-advisor: Prof. Dr. Feride Severcan).

- 18) Cağatay Ceylan**, The evaluation of high hydrostatic pressure effects on bovine blood constituents and microbial survival, **2005** (Co-advisor: Prof. Dr. Feride Severcan).
- 19) Handan Boyar**, Biophysical investigation of the effects of antioxidants on normal and diabetic rat bone tissues at molecular level, METU, **2004**.
- 20) Güvenç Görgülü**, The effects of antioxidants on some rat tissues and membranes, METU, **2004** (Co-advisor: Prof. Dr. Feride Severcan).
- 21) Neslihan Toyran Al-Otaibi**, Molecular approach with Fourier transform infrared spectroscopy to different pathological systems (diabetes mellitus and arteriovenous malformation) with various treatments, METU, **2003**.

7. NUMBER OF CITATIONS:

WEB of Science	4068+16 (Feride Zorlu)	H index=34
Google Scholar:	5954	H index=43

8. PUBLICATIONS

8.1. BOOKS

- 1. "VIBRATIONAL SPECTROSCOPY IN DIAGNOSIS AND SCREENING"** Eds: **Severcan F** and **Haris PI**, IOS PRESS, 2012,
- 2. "MOLECULAR BIOPHYSICS AND BIOTECHNOLOGICAL APPLICATIONS"** Eds. **Kan B** and **Severcan F**. 1997, TUBİTAK-MAM Press
- 3. "PROTEIN STRUCTURE, FUNCTION AND STABILITY"** **Severcan F**.(Ed.) METU PRESS, 1994.
- 4. University Physics, PSSS** (one of the translators from English to Turkish) Natural Education Publishing Company, 1975.

5.2. BOOK CHAPTERS

1. Gülkızılcayürür, , Tugce N. Gedik Kapancık, **Mete Severcan**, Nazli Ezer Ozer, Feride Severcan, **2021. “Application of Mid-Infrared Spectroscopy on Therapeutic Effects of Herbal Medicine in Infectious Diseases”, in *Herbal Medicine: Back to the Future. Chapter 1, 3-27.*** (Eds) Ricardo Dias, Antonio A. Martins, Rui Lima and Teresa M. Mata. Bentham Science publisher.
2. Rafiq Gurbanov and **Feride Severcan** “Bacterial Biofilms in Bioremediation of Metal-Contaminated Aquatic Environments” in *Methods for Bioremediation of Water and Wastewater Pollution.* Eds: Inamuddin , Mohd Imran Ahamed, Eric Lichtfouse Abdullah M. Asiri. Book series on Environmental Chemistry for a Sustainable World, ISSN 2213-7114 ISSN 2213-7122 (electronic) ISBN 978-3-030-48984-7 ISBN 978-3-030-48985-4 (eBook) <https://doi.org/10.1007/978-3-030-48985-4>, Nature-Springer
3. Mollaoğlu Dogan Ayca, Ozyurt Ipek, **Severcan Feride** “**Applications of Infrared Spectroscopy and Microscopy in Diagnosis of Obesity**” in “*Infrared Spectroscopy - Principles, Advances, and Applications*” Intechopen , ISBN 978-953-51-6276-6
4. Baloglu Kucuk Fatma., **Severcan Feride**, “**Characterization and Differentiation of Adipose Tissue by Spectroscopic and Spectral Imaging Techniques**” in *Adipose Tissue*, Ed. Leszek Szablewski, InTechOpen, ISBN 978-953-51-6064-9.
5. Aksoy Ceren And **Severcan Feride**, “**Infrared Spectroscopy and Imaging in Stem Cells and Aging Research**” in “*Stem Cells and Aging*” , Springer Protocols, **2018**, 119, DOI: <https://doi.org/10.1007/7651>, Humana Press.
6. **Feride SEVERCAN** and Parvez I HARIS, “**Introduction to Vibrational Spectroscopy in Diagnosis and Screening**” in “*Vibrational Spectroscopy in Diagnosis and Screening*” Eds: Severcan F and Haris PI, IOS press, **2012**, PP:1-11, ISBN: 978-1-61499-058-1.
7. **Feride SEVERCAN**, Banu AKKAS, Sevgi TURKER and Recai M YUCEL, “**Methodological Approches From Experimental to Computational Analysis In Vibrational Spectroscopy and Microspectroscopy**” in “*Vibrational Spectroscopy in Diagnosis and Screening*” Eds: Severcan F and Haris PI, IOS press, **2012**, PP:12-52, ISBN: 978-1-61499-058-1.
8. Yekbun ADIGUZEL, Parvez I HARIS and **Feride SEVERCAN**, “ **Screening of Proteins in Cells and Tissues By Vibrational Spectroscopy**” in “*Vibrational*

- Spectroscopy in Diagnosis and Screening” Eds: Severcan F and Haris PI, IOS press, **2012**, PP:52-108, ISBN: 978-1-61499-058-1.
9. Ceren AKSOY and Feride SEVERCAN, “**Characterization of Stem Cells by Vibrational Spectroscopy**”, in “*Vibrational Spectroscopy in Diagnosis and Screening*” Eds: Severcan F and Haris PI, IOS press, **2012**, PP:138-164, ISBN: 978-1-61499-058-1.
 10. Damla GULDAG, Ozlem BOZKURT, Sreeparna BANERJEE and Feride SEVERCAN, “**Screening And Diagnosis of Diabetes By Vibrational Spectroscopy**” in “*Vibrational Spectroscopy in Diagnosis and Screening*” Eds: Severcan F and Haris PI, IOS press, **2012**, PP:238-271, ISBN: 978-1-61499-058-1.
 11. Sara B. AKKAS and Feride SEVERCAN, “**Diagnosis and Screening of Aquatic Environments by Vibrational Spectroscopy**” in “*Vibrational Spectroscopy in Diagnosis and Screening*” Eds: Severcan F and Haris PI, IOS press, **2012**, ISBN: 978-1-61499-058-1.
 12. Nihal Simsek OZEK, Aliea AFNAN, Justin BUENO, Greg McLAUGHLIN, Megan RALBOVSKY, Aliaksandra SIKIRZHITSKAYA, Vitali SIKIRZHITSKI, Feride SEVERCAN, and Igor K. LEDNEV, “**Forensic Applications of Vibrational Spectroscopy On Screening And Characterization Of Tissues**” in “*Vibrational Spectroscopy in Diagnosis and Screening*” Eds: Severcan F and Haris PI, IOS press, **2012**, PP:350-385, ISBN: 978-1-61499-058-1.
 13. Severcan F., Bozkurt O., “**Application of Vibrational Spectroscopy to Investigate Radiation-induced Changes in Food**”, in “*Applications of vibrational spectroscopy in food science*,” Eds. Eunice Li-Chan, Peter R. Griffiths, John M. Chalmers (**2010**). John Wiley and Sons Ltd., pp: 241-259, ISBN 978-0-470-74299-0.
 14. V.Hasirci, F. Korkusuz, E. Bayramlı, N. Hasırcı, F. Severcan, M. Timucin, G. Alaeddinoglu, N Akkas “Production of Microbial Polyesters and their Application in the Construction of Biodegradable, Controlled Antibiotic Release Systems” in Tissue Engineering and Novel Delivery Systems (Eds: M J. Yaszamski et al.) Markel Dekker, **2004**
 15. Bayarı S, Severcan F, Gürsel I, Hasırcı V and Alaeddioğlu G, The FTIR Studies of the Poly (3-hydroxybutyrate) and Poly (3-hydroxybutyrate-co-3-hydroxyvalerate), **New Biomedical Materials** Eds. P.I Haris and D. Chapman), IOS Press, (**1998**).

16. **Severcan F.** & Plachy, W. Z. Rotational tumbling of PDDTBN in cholesterol lecithin membranes. **Application of Physics to Medicine and Biology** (Eds. Z. Bajzer, P. Baxa, C. Franconi), 568-569, World Scientific Publ. Comp. (1984).
17. **Severcan F.**, Application of spectroscopic techniques in the study of protein structure and stability, **MOLECULAR BIOPHYSICS AND BIOTECHNOLOGICAL APPLICATIONS**" Eds. Kan B and **Severcan F.** 1997, TÜBİTAK-MAM Press.
18. **Severcan F.**, Basics of Spectroscopy, in **Protein Structure, Function and Stability** (Eds. Severcan F and Hough D) 1994. METU Press.

5.3. ARTICLES IN REFEREED JOURNALS (Web of Science-SCI)

1. Ustaoglu, SG., Ali MHM., Rakib F., Van Heijningen FCL., Dijkhuizen RM & Severcan F, Biomolecular changes and subsequent time-dependent recovery in hippocampal tissue after experimental mild traumatic brain injury, **Scientific Reports** | (2021) 11:12468 | <https://doi.org/10.1038/s41598-021-92015-3>.
2. Ustaoglu Sebnem Garip, Hakan Kaygusuz, Mehmet Dinçer Bilgin, Feride Severcan, Novel approaches for COVID-19 diagnosis and treatment: a nonsystematic review, *Turk J Biol* (2021) 45: 358-371,
3. Ayca DOGAN, Rafiq GURBANOV, Mete SEVERCAN, Feride SEVERCAN, CoronaVac (Sinovac) COVID-19 vaccine-induced molecular changes in healthy human serum by infrared spectroscopy coupled with chemometrics, *Turk J Biol* (2021) 45: 549-558, doi:10.3906/biy-2105-65,
4. Rakib F, Khalid Al-Saad, Sebnem Garip Ustaoglu, Ehsan Ullah, Raghvendra Mall, Richard Thompson, Essam M. Abdelalim, Tariq Ahmed, Feride **Severcan**, Mohamed H. M. Ali, Fourier Transform Infrared Imaging—A Novel Approach to Monitor Bio Molecular Changes in Subacute Mild Traumatic Brain Injury, *Brain Sci.* 2021 Jul; 11(7): 918. Published online 2021 Jul 12. doi: 10.3390/brainsci11070918,
5. Seher Gok, • Oleksandr Kuzmenko, Andrii Babinskyi, • Feride Severcan, Vitamin E Derivative with Modified Side Chain Induced Apoptosis by Modulating the Cellular Lipids and Membrane Dynamics in MCF7 Cells, *Cell Biochemistry and Biophysics* (2021) 79:271–287, doi:10.1007/s12013-020-00961-y,

6. Dogan,A., Severcan M., Severcan F., Dose-dependent differentiation of gamma-irradiated hazelnut samples by mid-infrared spectroscopy coupled with chemometrics, *Journal of Spectroscopy*, 2020, Article number: 8859104
7. Kepenek, E.S, Severcan, M , Gozen, A.G., Severcan F, Discrimination of heavy metal acclimated environmental strains, by chemometric analysis of FTIR spectra, *Ecotoxicology and Environmental Safety*, **Volume: 202 Article Number: 110953 Published: OCT 2020.**
8. Kepenek, E. S., Gozen A. G. Severcan F., Molecular characterization of acutely and gradually heavy metal-acclimated aquatic bacteria by FTIR spectroscopy, *Journal of Biophotonics*, 2020, Vol.13(4), Art. No: e202090003, 2020
9. Gurbanov R, Tunçer S, Mingu S, Severcan F, Gozen AG. Methylation, sugar puckering and Z-form status of DNA from a heavy metal-acclimated freshwater *Gordonia* sp. *Journal of Photochemistry and Photobiology B: Biology* 2019;198. doi:10.1016/j.jphotobiol.2019.111580.
10. Cakmak Arslan G, Severcan F. The effects of radioprotectant and potential antioxidant agent amifostine on the structure and dynamics of DPPC and DPPG liposomes. *Biochimica et Biophysica Acta - Biomembranes* 2019;1861:1240–51. doi:10.1016/j.bbamem.2019.04.009.
11. Sarisik E, Kocak M, Kucuk Baloğlu F, **Severcan F**, “ Interaction of the Cholesterol Reducing Agent Simvastatin with zwitterionic DPPC and charged DPPG Phospholipid Membranes” **Biochim. Biophysc. Acta-Membranes**, 2019 Jan 29;1861(4):810-818. doi 10.1016/j.bbamem.2019.01.014.
12. Abbas Sherif, Ozek Simsek Nihal, Emri Salih, Koksal Deniz, Severcan Mete, **Severcan Feride**, “Diagnosis of Malignant Pleural Mesothelioma from Pleural Fluid by FTIR Spectroscopy coupled with chemometrics”, **J. Biomedical Optics**, 2018 Oct;23(10):1-14. doi: 10.1117/1.JBO.23.10.105003.
13. Aksoy Ceren, Severcan Feride, “Infrared Spectroscopy and Imaging in Stem Cells and Aging Research”, **Methods Mol Biol.** 2018 Feb 21. doi: 10.1007/7651_2018_119.
14. Yonar D., Ocek L., Tiftikcioglu B. I., Zorlu Y., **Severcan F.**, Relapsing Remitting Multiple Sclerosis diagnosis from cerebrospinal fluids via Fourier transform infrared spectroscopy coupled with multivariate analysis. **Scientific Reports-Nature**, 2018, 8:1025 | DOI:10.1038/s41598-018-19303-3

15. Gurbanov R, Simsek Ozek N, Tunçer S, **Severcan F**, Gozen AG, Aspects of silver tolerance in bacteria:IR spectral changes and epigenetic clues. **J Biophotonics**. Volume: 11(5) Article Number: UNSP e201700252, 2018, doi: 10.1002/jbio.201700252.
16. Ustaoglu S.G., Evis Z., Ilbay G., Boskey A., **Severcan F**. Side-Effects of Convulsive Seizures and Anti-Seizure Therapy on Bone in a Rat Model of Epilepsy. **Applied Spectroscopy**, **2018**, doi: 10.1177/0003702817734617.
17. Gurbanov R, Gozen A.G, **Severcan F.**, Rapid classification of heavy metal-exposed freshwater bacteria by infrared spectroscopy coupled with chemometrics using supervised method., *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* , **2018**, 189:282-290. doi: 10.1016/j.saa.2017.08.038.
18. Baloglu F.K, Baloglu, O, S. Heise, G. Brockmann, **F. Severcan**, “Triglyceride Dependent Differentiation Of Obesity In Adipose Tissues By FTIR Spectroscopy Coupled with Chemometrics”, **J. Biophotonics**, **2017**, 10(10), Pages: 1345-1355 ,
19. Baltacıoğlu H, Bayındırlı A, **Severcan F**, “ Secondary Structure and Conformational Change of Mushroom Polyphenol Oxidase during Thermo-sonication Treatment by using FTIR Spectroscopy” **Food Chemistry**, **2017**, 214, 507–514.
20. Genc A.I, Banerjee S, **Severcan F**, “Valdecoxib recovers the lipid composition, order and dynamics in colon cancer cell lines independent of COX-2 expression: An ATR-FTIR Spectroscopy Study”. **Applied Spectroscopy**, 2017, 71(1), 105-117,
21. Ozek N.S., Zeller I, Renaud D.E, Gümüş P, Nizam N, **Severcan F**, Budeneli N, Scott D.A, “Differentiation of chronic and aggressive forms of periodontitis and smoking status by Fourier-transform infrared spectroscopy”, **J. Dental Research**, **2016**, 95(13), 1472-1478.
22. Cakmak G., Severcan M., Zorlu F., **Severcan F**, "The Structural and Functional Damages of Whole Body Ionizing Radiation on Rat Brain Homogenate Membranes and Protective Effect of Amifostine" *Int. J of Radiation Biology*, **2016**, 92(12), 837-848.
23. Ozlem Bozkurt, Mehmet D. Bilgin, Zafer Evis, Feride Severcan, Early Alterations in Bone Characteristics of Type I Diabetic Rat Femur: A Fourier Transform Infrared (FT-IR) Imaging Study, **Applied Spectroscopy**, **2016**,70(12), 2005-2015.
24. Demir P. and Severcan F., “Monitoring radiation induced alterations in biological systems, from molecules to tissues, through infrared spectroscopy”, **Applied Spectroscopy Reviews**, **2016**, 51(10), 839-863.

25. Gok S, Ozge Z, Aydin O.Z, Sural Y.S, Zorlu F, Bayol U, **Severcan F**, “Bladder Cancer Diagnosis From Bladder Wash By Fourier Transform Infrared As a Novel Test for Tumor Recurrence”, **Journal of Biophotonics**, **2016**, 9(9), 967-975.
26. Gurbanov R, Bilgin M, **Severcan F**, "Restoring effect of selenium on the molecular content, structure and fluidity of diabetic kidney brush border cell membrane", **Biochim. Biophys. Acta- Biomembranes**, **2016**, 1858(4):845-54,
27. Garip S, Bayari SH, Severcan M, Abbas S, Lednev IK, **Severcan F.**, “Structural effects of simvastatin on rat liver tissue: Fourier transform infrared and Raman microspectroscopic studies”, **J. Biomedical Optics**. **2016**, 21(2) Article Number: 025008.
28. Altan, H. Ozek N. S. ; Gok, S; **Severcan F**. Monitoring of Tryptophan as a Biomarker for Cancerous Cells in Terahertz (THz) Sensing. Edited by: Alfano, RR; Demos, SG Optical Biopsy XIV: Toward Real-Time Spectroscopic Imaging And Diagnosis , Proceedings of SPIE . 2016, Volume: 9703 Article Number: 97030X
29. Gurbanov R, Simsek Ozek N, Gozen AG, **Severcan F**. Quick Discrimination of Heavy Metal Resistant Bacterial Populations Using Infrared Spectroscopy Coupled with Chemometrics. **Anal Chem**. **2015**, 87(19): 9653-61.
30. Baltacıoğlu H, Bayındırlı A, Severcan M, **Severcan F.**, “Effect of thermal treatment on secondary structure and conformational change of mushroom polyphenol oxidase (PPO) as food quality related enzyme: A FTIR study.”**Food Chem.**, **2015**, 187:263-9.
31. Sen I., Bozkurt O., Aras E., Heise S., Brockmann G., **Severcan F.**, "Lipid profiles of adipose and muscle tissues in mouse models of juvenile onset of obesity without high fat diet induction: A Fourier transform infrared (FTIR) spectroscopic study, **Applied Spectroscopy**, **2015**, 69(6):679-88.
32. Baloglu K. F., Garip S, Heise S., Brockmann G., **Severcan F.**, “FTIR Imaging of Structural Changes in Visceral and Subcutaneous Adiposity and Brown to White Adipocyte Trans differentiation”, **Analyst**, **2015**, 7;140(7):2205-14.
33. Elibol B., Ozek-Simsek N, Dogru E, Severcan M, **Severcan F**, Vitamin A Deficiency Induces Structural and Functional Alterations in the Molecular Constituents of the Rat Hippocampus, **British Journal Nutrition**, **2015**, 113(1), 45-55.
34. Gok S, Severcan M., Goormaghtigh E., Kandemir I, **Severcan F.**, Differentiation of Anatolian Honey Samples From Different Botanical Origins By ATR-FTIR

- Spectroscopy Using Multivariate Analysis, **Food Chemistry**, **2015**, 170, 234-240.
35. Demir P., Akkas S.B., Severcan M., Zorlu F., Severcan F., “Ionizing Radiation Induces Structural and Functional Damages on the Molecules of Rat Brain Homogenate Membranes: A Fourier Transform Infrared (FTIR) Spectroscopic Study” **Applied Spectroscopy**, **2015**, 69[1],54-164.
 36. Demir P., Onde S., Severcan F., “Phylogeny of Cultivated and Wild Wheat Species Using ATR-FTIR Spectroscopy” **Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy**, **2015**, 135, 757-763.
 37. Sevinc A., Yonar D., **Severcan F.**, “Investigation of neurodegenerative diseases from body fluid samples using Fourier transform infrared spectroscopy”, **Biomedical Spectroscopy and Imaging**, **2015**, 4 341–357 341.
 38. Ergun S., Demir P., Uzbay T., Severcan F., Agomelatine strongly interacts with zwitterionic DPPC and charged DPPG membranes, **Biochim. Biophys. Acta - Biomembranes**, **2014**, 1838 (11), 2798-2806.
 39. Turker S., Severcan M., Ilbay G., **Severcan F.**, “Epileptic seizures induce structural and functional alterations on brain tissue membranes” **Biochim, Biophysics Acta-Biomembranes**, **2014**, 1838, 3088-3096.
 40. Aksoy C., Uckan D., Severcan F., “Novel Molecular Markers Monitoring Donor Age Effect on Bone Marrow Mesenchymal Stem Cells: FTIR Spectroscopy and Imaging Study”, **Age**, **2014**, Vol. 34 Issue:4, Article Number: 9691
 41. Kardas M, Gozen A.G., **Severcan F**, “FTIR spectroscopy offers hints towards widespread molecular changes in cobalt-acclimated freshwater bacteria”, **Aquatic Toxicology**, **2014**, 155, 15–23.
 42. Turker S., Ilbay G., Severcan M., **Severcan F.**, “The Investigation of Compositional, Structural and Dynamical Changes of PTZ-induced Seizures on a Rat Brain by FTIR Spectroscopy” **Analytical Chemistry**, **2014**, 86 (3), 1395-1403.
 43. Ozek N.S., Bal B., Sara Y., Onur R, **Severcan F**, “Structural and functional characterization of simvastatin-induced myotoxicity in different skeletal muscles” **Biochim. Biophysic. Acta**, (General Subject), **2014**, 1840, 406-415.

44. Ozer Z, Gok S, Altan H, and Severcan F,” Concentration Based Measurement Studies of L-Tryptophan using THz-Time Domain Spectroscopy (THz-TDS)”, **Applied Spectroscopy**, January 2014, 68(1), 95-100.
45. Bilge D, Sahin I, Kazanci N, **Severcan F**, Interactions of tamoxifen with distearoyl phosphatidylcholine multilamellar vesicles: FTIR and DSC studies.**Spectrochim Acta A Mol Biomol Spectrosc.** 2014, 130:250-6, 2014.
46. Uysal, I., **Severcan, F.**, Tezcaner A., Evis Z..Co-doping of hydroxyapatite with zinc and fluoride improves mechanical and biological properties of hydroxyapatite, **Progress in Natural Science-Materials International**, 2014, 24(4), 340-349.
47. Ciubara, A., Dorohoi, D., Severcan, F., Creanga D., Quantitative Model Of Ultrasound Propagation in Biological Media, **University Politehnica of Bucharest Scientific Bulletin-Series A-Applied Mathematics and Physics**, 2014, 76 [4], 221-226,
48. **Garip S, Sahin D, Severcan F.** “Epileptic seizure-induced structural and functional changes in rat femur and tibia bone tissues: a Fourier transform infrared imaging study.” **J Biomedical Optics.** 2013, 18(11):111409.
49. Bilge, Duygu; Kazanci, Nadide; Severcan F., “Acyl chain length and charge effect on Tamoxifen-lipid model membrane interactions” **Journal of Molecular Structure**, 1040 Pages: 75-82, 2013.
50. Sahin I, Bilge D, **Severcan F.**, Kazanci N.,“ Concentration-dependent effect of melatonin on DSPC membrane”, **Journal of Molecular Structure**, 2013 1052, 183-188.
51. Uysal, I., **Severcan F**; Evis, Z. “Structural and mechanical characteristics of nanohydroxyapatite doped with zinc and chloride” **Advances in Applied Ceramics**, 2013, 112 (3), 149-157.
52. Uysal I., Severcan F., Evis Z., “Characterization by Fourier transform infrared spectroscopy of hydroxyapatite co-doped with zinc and fluoride”, **Ceramics International**, 2013, 39 (7) 7727-7733.
53. **Severcan F.**, Haris P., Aksoy C., Ozek N.S., “Progress of Vibrational Spectroscopic Applications in Diagnosis and Screening”. **Biomedical Spectroscopy and Imaging**, 2013, vol. 2, no. 1, pp. 73-81.

54. Schughart, Klaus; Libert, Claude; Kas, Martien J., Group Author(s): SYSGENET Consortium, Controlling complexity: the clinical relevance of mouse complex genetics, EUROPEAN JOURNAL OF HUMAN GENETICS Volume: 21 Issue: 11 Pages: 1191-1196, 2013
55. Bozkurt, O, Bayari, SH , Severcan, M ; Krafft, C; Popp, J ;Severcan, F, Structural alterations in rat liver proteins due to streptozotocin-induced diabetes and the recovery effect of selenium: Fourier transform infrared microspectroscopy and neural network study, **Journal Biomedical Optics**, 2012, 17(7).
56. Cakmak G., Miller L.M., Zorlu F., **Severcan F.**, “Amifostine, a Radioprotectant Agent, Protects Rat Brain Tissue Lipids against Ionizing Radiation Induced Damage: An FTIR Microspectroscopic Imaging Study”, **Archives of Biochemistry and Biophysics**, 2012, 520, 67-73.
57. Aksoy C, Guliyev A, Kilic E, Uckan D, **Severcan F.**, “Bone marrow mesenchymal stem cells in patients with beta thalassemia major: Molecular analyses with attenuated total reflection-fourier transform infrared (ATR-FTIR) spectroscopy study as a novel method”., **Stem Cells Dev.** 21(11), 2000-2011, 2012.
58. Bezirci, G., Akkas, S.B. Rinke, K. , Yildirim, F. , Kalaylioglu, Z., **Severcan, F.**, Beklioglu, M. “Impacts of salinity and fish-exuded kairomone on the survival and macromolecular profile of *Daphnia pulex*”, **Ecotoxicology** , 21(2):601-614, 2012.
59. Ceylan, C., **Severcan, F**, Ozkul, A Severcan, M Bozoglu, F, Taheri, N “Biophysical and microbiological study of high hydrostatic pressure inactivation of Bovine Viral Diarrheavirus type 1 on serum”, **Veterinary Microbiology**, 154:266-271, 2012.
60. Sade A, Tuncay S, Cimen I, **Severcan F**, Banerjee S, , “Celecoxib reduces fluidity and decreases metastatic potential of colon cancer cell lines irrespective of COX-2 expression” **Biosci. Rep**, 32 : 35–44, 2012.
61. Aksoy C., Uckan D., **Severcan F.**, “FTIR Spectroscopic Imaging of Mesenchymal Stem Cells in Beta Thalassemia Disease State”. **Biomedical Spectroscopy and Imaging**, DOI 10.3233/BSI-2012-0006, pp. 67-78, 2012.
62. Aksoy C., **Severcan F.**, “Role of Vibrational Spectroscopy in Stem Cell Research”, **Journal of Spectroscop**, 27[3], 167-184, 2012.

63. Elibol-Can B., Jakubowska-Dogru E., Severcan M, **Severcan F.** “The effect of Short-Term Chronic Ethanol Intoxication and Ethanol Withdrawal on the Molecular Composition of Rat Hippocampus by FT-IR Spectroscopy”, **Alcoholism: Clinical and Experimental Research**, 135(11):1-13, **2011.**
64. Cakmak G, Zorlu F, Severcan M, and **F. Severcan**, “Screening of Protective Effect of Amifostine on Radiation-Induced Structural and Functional Variations in Rat Liver Microsomal Membranes by FT-IR Spectroscopy”, **Analytical Chemistry**, **83 (7) 2438-2444, 2011.**
65. Sade A, Banerjee S, **Severcan F.**, “Effects of the non-steroidal anti-inflammatory drug celecoxib on cholesterol containing distearoyl phosphatidylcholine membranes”, **Spectroscopy-Biomedical Applications**, **25(3-4),177-185,2011.**
66. Turker S, Wassall S, Stillwell W, **Severcan F.**, “Convulsant agent pentylenetetrazol does not alter the structural and dynamical properties of dipalmitoylphosphatidylcholine model membranes”, **J Pharm Biomed Anal.**, 25;54(2):379-86, **2011.**
67. Tiber P.M., Orun.O, Nacar C., Sezerman U.O., **Severcan F.**, Severcan M., Matagne A., Kan B., Structural characterization of recombinant bovine Go α by spectroscopy and homology modelling, **Spectroscopy – Biomedical Applications**, 26, 213-229, **2011.**
68. Ozek NS, Tuna S, Erson-Bensan AE, **Severcan F.**, “Characterization of microRNA-125b expression in MCF7 breast cancer cells by ATR-FTIR spectroscopy”, **Analyst**, 135(12):3094-102, **2010.**
69. Bozkurt O., Severcan M., **Severcan F.**, “Diabetes induces compositional, structural and functional alterations on rat skeletal soleus muscle revealed by FTIR spectroscopy: a comparative study with EDL muscle”, **Analyst**, 135(12):3110-9, **2010.**
70. Garip S, Yapici E, Ozek NS, Severcan M, **Severcan F.**, “Evaluation and discrimination of simvastatin-induced structural alterations in proteins of different rat tissues by FTIR spectroscopy and neural network analysis”, **Analyst**, 135(12):3233-41, **2010.**

71. **Severcan F.**, Bozkurt O., Gurbanov R., Gorgulu G., “FT-IR spectroscopy in diagnosis of diabetes in rat animal model”, **J. Biophotonic.** 3, no 8–9: 621–631, **2010.**
72. Garip S., **Severcan F.**, “Determination of simvastatin-induced changes in bone composition and structure by Fourier transform infrared spectroscopy in rat animal model”, **Journal of Pharmaceutical and Biomedical Analysis**, 52(4):580-8, **2010.**
73. **Akkas SB, Kepenek AO, Beklioglu M,** Severcan F., “Molecular approach to the chemical characterization of fish-exuded kairomone: a Fourier transform infrared spectroscopic study”, **Aquatic Sciences**, 72(1): 71-83, **2010.**
74. Deniz A, Sade A, **Severcan F,** Tezcaner A, Keskin D, Banerjee S. “Celecoxib Loaded Liposomes: Effect of Cholesterol on Encapsulation and *in vitro* Release Characteristics”, **Bioscience Reports**, 30(5):365-73, **2010.**
75. Sade A., Banerjee S., **Severcan F.**, “Concentration dependent differing actions of the non-steroidal anti inflammatory drug celecoxib on distearoyl phosphatidylcholine multilamellar vesicles”, **J. Liposome Res.**, 20(2):168-77, **2010.**
76. Ozek NS, Sara Y, Onur R, **Severcan F,** Low dose Simvastatin induces compositional structural and dynamical changes on rat skeletal extensor digitorum longus muscle tissue, **Bioscience Reports**, 6;30(1):41-50, **2010.**
77. Ceylan C, Severcan M, Bozoglu F, **Severcan F,** “Evaluation of high hydrostatic pressure effects on bovine red blood cells and platelets”, **High Pressure Research**, 29(2):358-368, **2009.**
78. Garip S., Gozen A.C., **Severcan F.**, “Use of Fourier transform infrared spectroscopy for rapid comparative analysis of Bacillus and Micrococcus isolates”, **Food Chemistry**, 113(4): 1301-1307, **2009.**
79. **Severcan F.**, Gokduman K., Dogan A., Bolay S., Gokalp S., Effects of In-Office and At-Home Bleaching on Human Enamel and Dentin: An in Vitro Application of Fourier Transform Infrared Study, **Applied Spectroscopy**, 62 (11):1274-1279, **2008.**
80. Korkmaz F., **Severcan F.**, Aflori M., Dorohoi D.O., Temperature influence on the dipalmitoylphosphatidylcholyne - Model membranes studied by FTIR, **Digest Journal of Nanomaterials and Biostructures**, 3 (2): 55-61, **2008.**

81. **Severcan F.**, Agheorghiesei C., Dorohoi D.O., Temperature dependence of the phospholipids bilayers stability, studied by FTIR spectroscopy, **Revista De Chimie**, 59 (3): 356-359, **2008**.
82. **Severcan F.**, Dorohoi DO, FTIR studies of temperature influence on the DPPG model membrane, **Journal of Molecular Structure**, 887 (Sp. Iss. SI, 1-3): 117-121, **2008**.
83. Toyran N, **Severcan F.**, Severcan M, Turan B, Effects of selenium supplementation on rat heart apex and right ventricle myocardia by using FTIR spectroscopy: A cluster analysis and neural network approach, **Food Chemistry**, 110(3): 590-59, **2008**.
84. Toyran N, **Severcan F.**, Severcan M, Turan B., Investigation of diabetes-induced effect on apex of rat heart myocardium by using cluster analysis and neural network approach: An FTIR study, *Spectroscopy-An Int J*, 2007, 21 (5-6): 269-278.
85. Toyran N, Turan B, **Severcan F.**, Selenium Alters The Lipid Content And Protein Profile of Rat Heart: An FTIR Microspectroscopic Study, **Archives of Biochemistry And Biophysics**, 458 (2), 184-193, **2007**.
86. Toyran N, **Severcan F.**, Interaction between vitamin D-2 and magnesium in liposomes: Differential scanning calorimetry and FTIR spectroscopy studies, **Journal of Molecular Structure**, **2007**, 839 (1-3): 19-27.
87. Kazanci N, **Severcan F.**, Concentration dependent different action of tamoxifen on membrane fluidity, **Bioscience Reports**, **2007**, 27 (4-5): 247-255.
88. Akkas SB, Inci S, Zorlu F, **Severcan F.**, Melatonin affects the order, dynamics and hydration of brain membrane lipids, **J Mol Struct.**, **2007**, Vol 834-83, 207-215.
89. Akkas SB, Severcan M, Yilmaz O, **Severcan F.**, Effects of lipoic acid supplementation o rat brain tissue: An FTIR and neural network study, **Food Chemistry**, **2007**, 105 (3): 1281-1288.
90. Ortac I, **Severcan F.**, Spectroscopy of biological nanocrystals, **Spectroscopy An Int. J, Biomedical Applications**, **2007**, 21 (1), 31-41.
91. Toyran N., **Severcan F.**, Interaction between vitamin D2 and magnesium in liposomes: Differential scanning calorimetry and FTIR spectroscopy studies, **Journal of Molecular Structure**, **2007**, 839 (1-3): 19-27.

92. Garip S., Bozoglu F., **Severcan F.**, “Differentiation of mesophilic and thermophilic bacteria with FTIR spectroscopy”, **Applied Spectroscopy**, **2007**. 61 (2), 186-192,
93. Dogan A., Ergen K., Budak F., **Severcan F.**, **2007**. “Evaluation of Disseminated Candidiasis on an Experimental Animal Model: An FTIR Study” **Applied Spectroscopy**, 61(2), 199-203.
94. Gorgulu T. S., Dogan M., **Severcan F.**, **2007**. “The Characterization and differentiation of Higher Plants by FTIR Spectroscopy, **Applied Spectroscopy**, 61(3), 300-308.
95. Sahin I., **Severcan F.**, Kazancı N., **2007**. Melatonin Induces Opposite Effects on Order and Dynamics of Anionic DPPG Model Membranes, **Journal of Molecular Structure**, Vol 834-836, 195-201.
96. Dogan A., Siyakus G., **Severcan F.** , **2007**. “ FTIR Spectroscopic Characterization of Irradiated Hazelnut (*Corylus avellana L.*) ” **Food Chemistry**, 100 (3), 1106-1114..
97. Bozkurt O., Bilgin M.D., **Severcan F.**, **2007**. The effect of diabetes mellitus on rat skeletal Extensor digitorum longus muscle tissue: An FTIR study, **Spectroscopy An Int. J.**, 21 (3): 151-160.
98. Toyran N., **Severcan F.**, Severcan M., Turan B., Investigation of diabetes-induced effect on apex of rat heart myocardium by usibg cluster analysis and neural network approach: An FTIR study, **Spectroscopy-An Int. J.** (2007), 21 (5-6), 268-279,
99. Toyran N, Lasch P., Naumann D.,Turan B., **Severcan F.**, “Early alterations in myocardia and vessels of the diabetic rat heart :An FTIR microspectroscopic study” **Biochemical Journal**, 397(3):427-36, **2006**.
100. Cakmak G., Togan I., **Severcan, F.** “17 β -estradiol induced compositional, structural and functional changes on rainbow trout liver, revealed by FTIR spectroscopy: A comparative study with nonylphenol” **Aquatic Toxicology**. 77(1):53-63, **2006**.
101. Stan C., Cristescu C.P., **Severcan F.**, Dorohoi D., Effect of gramicidin S on the dipalmitoylphosphatidyl-glycerol thermotropic phase transition in DPPG/GS systems: A mathematical approach, **Molecular Crystals And Liquid Crystals**, 457: 27-41, **2006**.

102. Toyran N., Zorlu F., **Severcan, F** “Effect of stereotactic radiosurgery on lipids and proteins of normal and hypoperfused rat brain homogenates: A Fourier transform infrared spectroscopy study” **Int. J. Rad. Biol.**, 81(12):911-8, **2005**.
103. Korkmaz. F, Kirbiyik. H, Severcan F “Concentration dependent different action of progesterone on the order, dynamics and hydration states of the head group of dipalmitoyl-phosphatidylcholine membrane”, **Spectroscopy-An Int. J** 19 (4): 213-219, **2005**.
104. Korkmaz F. and **Severcan F.**, “Effect of progesterone on DPPC membrane: Evidence for lateral phase separation and inverse action in lipid dynamics” **Archives of Biochem. Biophys.**, 440: 141-147, **2005**.
105. **Severcan F.**, Gorgulu, G., Gorgulu. T. S., Guray, T., “ Rapid monitoring of Diabetes-Induced Lipid peroxidation by Fourier Transform Infrared Spectroscopy”, **Analytical Biochemistry**, 339, 36-40, **2005**.
106. Bayarı S. and **Severcan F.**, “FTIR study of biodegradable biopolymers: P(3HB), P(3HB-co-4HB) and P(3HB-co-3HV)” **Journal of Molecular Structure**, 744-747: 529-534, **2005**.
107. **Severcan F.**, Sahin I., Kazancı. N., “Melatonin strongly interacts with zwitterionic model membranes-evidence from Fourier transform infrared spectroscopy and differential scanning calorimetry” **Biochimica et Biophysica Acta (BBA) - Biomembranes**, 1668 (2): 215-222, **2005**.
108. Severcan M., Severcan F., Haris, I., P., “Using artificially generated spectral data to improve protein secondary structure prediction from FTIR spectra of proteins” **Analytical Biochemistry**, 332 (2), 238-244, **2004**.
109. Preoteasa EA, Georgescu R, Ciortea C, Fluerasu D, Harangus L, Iordan A, **Severcan F**, Boyar H, Preoteasa E, Piticu I, Pantelica D, Gheordunescu V ‘Standardless PIXE analysis of thick biomineral structures’, **Anal Bioanal Chem.** 379, 825-841, **2004**.
110. Toyran N., Zorlu F., Dönmez G., Öge K., **Severcan F.**, “Chronic hypoperfusion alters the content and structure of proteins and lipids of rat brain homogenates: A fourier transform infrared spectroscopy study” **European Biophysics Journal** , 33, 549-554, **2004**.

111. Boyar H., Zorlu F., Mut M., and **Severcan F.**, “The effects of chronic hypoperfusion on rat cranial bone mineral and organic matrix: A fourier transform infrared spectroscopy study” **Analytical and Bioanalytical Chemistry**, 379 (3), 433-438, **2004.**
112. Stan C, Cristescu CP, **Severcan F**, et al. “The influence of gramicidin S on the thermotropic Phase transition of dipalmitoylphosphatidylglycerol DPPG/GS systems: Experiment and computer model” **Revue Roumaine De Chimie**, 49 (9): 777-782, **2004.**
113. Cakmak G., Togan I., and **Severcan F.** “FT-IR spectroscopic analysis of rainbow trout liver exposed to nonylphenol” **Applied Spectroscopy**, 57 (7), 835-841, **2003.** ,
114. **Severcan F.** and Haris P., “Fourier transform infrared spectroscopy suggests unfolding of loop structures precedes complete unfolding of pig citrate synthase” **Biopolymers** 69, 440-447, **2003.**
115. Toyran N. and **Severcan F.**, “Competitive effect of vitamin D₂ and Ca²⁺ on phospholipid model membranes: An FTIR study” **Chemistry and Physics of Lipids**, 123, 165-176, **2003.**
116. Boyar H. , Turan B., and **Severcan F.**, “ FTIR spectroscopic investigation of mineral structure of streptozotocin induced diabetic rat femur and tibia”, **Spectroscopy, an Int. J** 17, 627-633, **2003.**
117. **Severcan F**, Kaptan N., Turan B., “FTIR spectroscopic investigation of diabetic rat heart crude membranes”.**Spectroscopy, an Int J**, 17, 569-577, **2003.**
118. Toyran N. and **Severcan F.**, “Infrared spectroscopic studies on the dipalmitoyl phosphatidylcholine bilayer interactions with calcium phosphate: Effect of vitamin D₂”, **Spectroscopy, an Int. J**, 16, 399-408, **2002.**
119. Severcan F., Tokmak S., Agheorghiesei C., Dorohoi D., “ Phase transition in DPPC and DPPC/gramicidin S vesicles described by mathematical functions”, **Anale. Chimie**, 2, 251-254, **2002.**
120. Kazancı N., Toyran N., Haris I. P., **Severcan F.**, “Vitamin D₂ at high and low concentrations exert opposing effects on molecular order and dynamics of dipalmitoyl phosphatidylcholine membranes”, **Spectroscopy, An Int. J**, 15, 47-55, **2001**

121. Akınoğlu. B. G., Gheith M., and **Severcan F.**, "Thermodynamics study of gramicidin S and DPPC model membrane interactions based on the FTIR spectroscopy" **J. Molecular Structure**, 565-566, 281-285, **2001**.
122. Severcan M., **Severcan F.** and Haris I.P, "Estimation of protein secondary structure from FTIR spectra using neural networks", **J. Molecular Structure**, 565-566, 383-387, **2001**.
123. Turan B., Bayarı S., Balçık C., **Severcan F.** and Akkaş N, "A biomechanical and spectroscopic study of bone from rats with selenium deficiency and toxicity", **Biometals**, 13, 113-121, **2000**.
124. **Severcan F.**, Toyran N., Kaptan N., and Turan B., "FTIR study of the effect of diabetes on rat liver and heart tissues in the C-H region", **Talanta**, 53, 55-59, **2000**.
125. **Severcan. F.** Durmuş. O.H., Eker F., P. Haris, Akınoğlu B.G. "Vitamin D₂ modulated melittin--membrane interactions", **Talanta** 53, 205-211, **2000**.
126. Toyran N., and **Severcan F.**, "The effect of magnesium ions on vitamin D₂-phospholipid model membrane interactions in the presence of different buffer media" **Talanta**, 53, 23-27, **2000**.
127. **Severcan F.**, Ozan A., and Haris P., "Development of biotechnology education in Turkey", **Biochemical Education**, 28, 36-38, **2000**.
128. **Severcan F.**, Bayarı S, Karahan D., "An FTIR and turbidity studies of fish oil-dipalmitoylphosphatidylcholine model membrane interactions", **J. Molecular Structure**, 480-481, 413-416, **1999**.
129. Eker F, Durmuş H.O, Akınoğlu B.G. and **Severcan F.**, Application of turbidity technique on peptide-lipid and drug-lipid interactions, **J. Molecular Structure**, 482-483, 693-697, **1999**.
130. Haris P and **Severcan F.**, FTIR spectroscopic characterization of protein structure in aqueous and non-aqueous media, **J. Molecular Catalysis: B (Enzymatic)**, 7, 207-221, **1999**.
131. Eker F, Haris I P and **Severcan F.**, Vitamin D₂-Melittin-Model Membrane Interactions, **Biochemical Society Transaction**, 26, S359, **1998**.

132. **Severcan F**, Stendal C, and Millhauser G, ESR studies of Pig Citrate Synthase, **Biochemical Soc. Transaction**, 25, 380S, **1997**.
133. Boyar H and **Severcan F**, Estrogen-Phospholipid Model membrane Interactions: An FTIR Study, **J. Molecular Structure**, 408/409, 269-272, **1997**
134. Boyar H and **Severcan F**, Tamoxifen-Phospholipid Model membrane Interactions : An FTIR Study, **J. Molecular Structure** , 408/409, 265-268, **1997**.
135. **Severcan F**, Acar B and Gökalp S, Investigation of the fluidity of Biological Fluids by PDDTBN spin probe, **J. Molecular structure**, 408/409, 279-281,**1997**.
136. **Severcan F**, Süleymanoglu E and Boyar H, Turbidity Studies of the effect of divalent cations on tamoxifen Model membrane Interactions, **Biochemical Soc. Trans.**, 25, 493S , **1997**.
137. **Severcan F**, Kazancı N and Eker F, FTIR Studies of Vitamin D2- Model membrane Interactions, **Biochemical Soc. Transaction**, 25, 449S, **1997**.
138. **Severcan F.**, Vitamin E decreases the order of the phospholipid model membranes in the gel phase: An FTIR study, **Bioscience Reports** 17, 231-235, **1997**
139. **Severcan F.**, Baykal Ü. & Süzer S., FTIR Studies of Vitamin E-Cholesterol-DPPC Membrane Interactions in CH₂ region. **Analytical and Bioanalytical Chemistry**, 354, 415-417, **1996**.
140. **Severcan F.**, Haris P.I., Heaton, R.J. & Chapman D. FTIR Spectroscopic Analysis of the Structure and Stability of Pig Citrate Synthase, **Biochemical Soc. Transactions**, 24, 299S, **1996**.
141. **Severcan F.** Kazancı.N. Baykal. Ü. & Süzer. P. IR and Turbidity Studies of Vitamin E - Cholesterol - Phospholipid Membrane Interactions. **Bioscience Reports**. 15, 221-229, **1995**.
142. Kazancı N., Kocabas K., Yavuz M., Komsoğlu B., **Severcan F.** " Whole blood fluidity in normal and hypertensive women by electron spin resonance technique", **Turkish Journal Biology**, 19, 105-110, (1995).
143. **Severcan F.** Influence of Vitamin E on motional anisotropy in phospholipid model membranes. **Nanobiology**. Vol. 1. Number 3, 373-378, **1992**.

144. **Severcan F.**, & Cannistraro, S. A Spin Label ESR and Saturation Transfer ESR Study of a-tocopherol containing model membranes. **Chemistry and Physics of lipids**, 53, 17,26, **1990**.
145. **Severcan F.** & Yavuz, M., Investigation of whole parotid saliva from smokers and nonsmokers with ESR spectroscopy. **Bulletin of Magnetic Resonance**, Vol. 11, Issue 3/4, 327-331, **1989**.
146. **Severcan F.** Effect of melittin on phase transition and fluidity of a phospholipid model membrane, **Bulletin of Magnetic Resonance**, Vol. 11, Issue 3/4, 327-331, **1989**.
147. **Severcan F.**, & Cannistraro, S. Vitamin E-Phospholipid membrane interactions: ESR and STESR study. **Bulletin of Magnetic Resonance**, Vol. 11, Issue3/4, 277-280, **1989**.
148. **Severcan F.**, & Cannistraro, S. Model membrane partition ESR study in the presence of a-tocopherol by a new spin probe. **Bioscience Reports**, 9(4), 489, **1989**.
149. **Severcan F.** & Cannistraro S, Direct electron spin resonance evidence for a-tocopherol-induced phase separation in model membranes. **Chem. Phys. Lipids** 47, 129-133, **1988**.
150. **Severcan F.** & Cannistraro, S., Use of PDDTBN spin probe in partition studies of lipid membranes, **Chemical Physics Letters**, 153 263-267, **1988**.
151. Akyüz, S., & **Severcan F.**, Melittin-Lipid Interactions: A FT-IR Spectroscopic study . **J. of Molecular Structure**, 175, 371-376, **1988**.
152. **Severcan F.** Topology of N-Ethylmaleimide in normal human erythrocyte membranes, **J. of Inclusion Phenomena**, 5, 127-134, **1987**.
153. Atherton, N. M. Manterfield, M. R., Oral, B., **Zorlu (Severcan) F.**, Interaction of DTBN with alcohols: ESR measurement, **J. Chem. Soc. Faraday Trans.**, 1. 73, 430-433,**1977**.

5.4. ARTICLES PUBLISHED IN OTHER REFEREED JOURNALS

1. **Bozkurt O.**, Cakmak G., Garip S., Severcan F. ‘FTIR Mikrospektroskopisi ile yumuşak ve sert doku örneklerinin görüntülenmesi’ (2009), 6B2, 118. IEEE eXpress Proceedings.

2. **Tuzlaci. A.D., Dogan A., Guvenc H., Severcan F.**, “Effects of commercial formula feeding in a fasting animal model. A Fourier transform infrared spectroscopic study”, *Rev., de Cir. Infantil.* (1,2,3,4) 2008, Articulo 25.
3. Ergen, K., Dogan A., Keceli Ozcan S., Budak F., **Severcan F.** “Evaluation of Disseminated Candidiasis by FTIR Spectroscopy.” **WSEAS Transactions on Biology and Biomedicine**, Vol 2(3), 2005, Greece, pp. 269-273.
4. Ceylan C., Severcan M., Bozoglu F., **Severcan F.** “Effect of Hydrostatic Pressure on Bovine Blood Protein and Lipid Constituents Revealed by Fourier Transform Infrared Spectroscopy.” **WSEAS Transactions on Biology and Biomedicine**, Vol 2(3), 2005, Greece, pp. 307-311.
5. Erar H., Gorgulu Turker S., Akkas B. S., Yilmaz O., **Severcan F.** “The Effect of STZ-Induced Diabetes on Lipid Structure, Function and Composition of Rat Skeletal Muscle: An FTIR Study” **WSEAS Transactions on Biology and Biomedicine**, Vol 2(4), 2005, Greece, pp. 351-354.
6. Gorgulu Turker S., Ates N., Ilbay G., Gunes Z., Kara N, **Severcan F.** “An FTIR Approach to Investigate Molecular Changes Induced by Epilepsy” **WSEAS Transactions on Biology and Biomedicine**, Vol 2(4), 2005, Greece, pp. 355-358.
7. Cakmak G., Togan I., **Severcan F.** “A Comparative FTIR Spectroscopic Analysis of Rainbow Trout Liver Exposed to Nonylphenol and Estradiol” **WSEAS Transactions on Biology and Biomedicine**, Vol 2(4), 2005, Greece, pp. 359-364.
8. Dogan A., Gokduman K., Bolay S., **Severcan F.** “Evaluation of In-Office Bleaching on Enamel and Dentine: An FTIR Study” **WSEAS Transactions on Biology and Biomedicine**, Vol 2(4), 2005, Greece, pp. 365-369.
9. Sahin I., Kazanci N., Severcan, F. . “Interactions of Melatonin with Anionic Phospholipid Model Membrane: An FTIR Study” **WSEAS Transactions on Biology and Biomedicine**, Vol 2(4), 2005, Greece, pp. 376-380.
10. Preoteasa, E.A., Harangus L., Iordan A., Ciortea C., Fluerasu D., Preoteasa E., Boyar H., **Severcan F.**, Moldovan M., Gheordunescu Vl., Gugiu M., Gutu D., Ionescu-Tirgoviste C., Dumitriu D., Radu T. “PIXE qualitative analysis of trace, minor and major elements in thick biomineral structures.” **Proceedings of 3rd International Conference of Instrumental Methods of Analysis (Modern Trends and Applications)** IMA 03, 2003, Thessaloniki, Greece, pp. 413-416.
11. Preoteasa E.A., C. Ciortea, I. Piticu, D. Fluerasu, L. Harangus, **F. Severcan**, H. Boyar, Andreea Iordan, M. Gugiu, E. Preoteasa, M. “Anghel. Relative concentrations of

- elements in thick biomineral structures by standardless PIXE analysis". 03 **Proceedings of 3rd International Conference of Instrumental Methods of Analysis (Modern Trends and Applications) IMA**, 2003, Thessaloniki, Greece, pp. 417-420.
12. Kazancı N.& Severcan. F. Turbidity Measurements on Phospholipid Multilamellar Liposomes Containing Vitamin E and Cholesterol. **Balkan Physics Letters**, 3,129-134, (1995).
 13. Kazancı N., Kocabas K., Yavuz M., Komsooğlu B., Severcan F. " Whole blood fluidity in normal and hypertensive women by electron spin resonance technique", **Turkish Journal Biology**, 19, 105-110, (1995).
 14. Kazancı N.& Severcan. F. Turbidity Measurements on Phospholipid Multilamellar Liposomes Containing Vitamin E and Cholesterol. **Balkan Physics Letters**, 3,129-134, (1995).
 15. Severcan F. Influence of Vitamin E on motional anisotropy in phospholipid model membranes. **Nanobiology**. Vol. 1. Number 3, 373-378, **1992**.
 16. Severcan F. Kolesterol ile "Dimyristoyl Lecithin" Bilayer membranların etkileşmesinin spin-label ESR Tekniği ile incelenmesi, . **DOGA J. Biol** Vol. 12, No: 3, 204-217, 1988.
 17. Severcan F. "A spin label ESR study of melittin-DMPC Liposomes", **DOGA J. Biol.** Vol. 12, No: 2, 123-127, 1988.
 18. Severcan F. ESR studies of Parotid Saliva. Proc. XXIII Ampere Congress on Magnetic Resonance (Eds. B. Maraviglia, F. de Luca & R. Companella) Istituto Superiore di Sanita (1986) 530-531.
 19. Severcan F. Partitioning of PDDTBN into phospholipid-melittin mixtures. Proc. XXIII Ampere Congress on Magnetic Resonance (Eds. B. Maraviglia, F. de Luca & R. Companella) Istituto Superiore di Sanita, 548-549 (1986).
 20. Severcan F. ESR investigation of the hydrophobic sub-phases present in cholesterol phospholipid mixture. XXIII Ampere Congress on Magnetic Resonance (Eds. B. Maraviglia, F. de Luca & R. Companella) Istituto Superiore di Sanita 550-551, (1986).
 21. Severcan F. "Spin labelling of normal human hemoglobin free erythrocyte ghost and spectrin". **DOGA J Biology** A2, Vol., No: 1, 111-117, 1985.
 22. Severcan F. "Fosfolipid (DMPC) –Kolesterol ikili karışımlarında faz dengesi". **DOGA A1**, Vol. 8, No: 1, 47-53, 1984.
 23. Severcan F. "Melittin-Phospholipid Interactions: ESR Studies". **Hacettepe Bull, of Nat. Sci. Eng.**, 13, 45-52, 1984.

24. **Severcan F.**, Öztekin, E., Oral B. "Continuous saturation measurements and calculations of the spin lattice relaxation times of some nitroxides in methanol". **A. U. Communications**, A2, 31, 27-40, 1982.
25. **Zorlu (Severcan) F.**, Oral, B., & Atherton, N. M. "Çözümlerde, DTBN in Elektron Spin Dinamiği", **Hacettepe Bull. of Natural Science and Engineering**, 6, 87-102, 1977.

5.5 ABSTRACTS PUBLISHED IN REFEREED JOURNALS (SCI)

1. Garip Sebnem, Severcan Feride; The Effects of Carbamazepine, an Anti-Epileptic Drug, on Structure and Surface Roughness of Healthy Rat Bone Tissues: An FTIR Microspectroscopy and AFM Microscopy Study; Conference: 63rd Annual Meeting of the Biophysical-Society, Baltimore, MD Date: MAR 02-06, 2019, **BIOPHYSICAL JOURNAL** Volume: 116 Issue: 3 Supplement: 1 Pages: 564A-564A, 2019. Published: FEB 15, 2019.
2. Ozyurt, Ipek; Garip, Sebnem; Baloglu, Fatma Kucuk, Zorlu Faruk; Investigation of the Structural Effects of Radiotherapy Dose Rate on Rat Lung Tissue: An FTIR Imaging Study, Conference: 63rd Annual Meeting of the Biophysical-Society, Baltimore, MD Date: MAR 02-06, 2019, **BIOPHYSICAL JOURNAL** Volume: 116 Issue: 3, Supplement: 1 Pages: 565A-566A Meeting Abstract: 2019. Published: FEB 15, 2019.
3. Severcan Feride; Abbas Sherif; Yonar Dilek, Emri Salih, Infrared Spectroscopy Offers Tremendous Potential in Cancer Diagnosis, Conference: 63rd Annual Meeting of the Biophysical-Society, Baltimore, MD Date: MAR 02-06, 2019, **BIOPHYSICAL JOURNAL** Volume: 116 Issue: 3 Supplement: 1 Pages: 568A-568A , 2019. Published: FEB 15, 2019.
4. Girit, Ozlem Bozkurt; Keser, Hatice; **Severcan, Feride**, Mehmet. D. Bilgin, Protective Effects of Extremely Low Frequency Magnetic Field (50 Hz, 1 mT) and Pterostilbene Treatment on Renal ischemic Injury, Conference: 58th Annual Meeting of the Biophysical-Society Location: San Francisco, CA Date: FEB 15-19, 2014 **BIOPHYSICAL JOURNAL**, Volume: 112, Issue: 3, Supplement: 1 , Pages: 280A-280A, Meeting Abstract: 1372-Pos, Published: FEB 3 2017

5. Sevinc, Akin; Ozyurt, Ipek; **Severcan, Feride**, Possible Therapeutic Effects of Gamma-Tocotrienol Conjugation Therapy with Doxorubicin on Hepatocellular Carcinoma Cell Line HEPG2, Conference: 58th Annual Meeting of the Biophysical-Society Location: San Francisco, CA Date: FEB 15-19, 2014 **BIOPHYSICAL JOURNAL**, Volume: 112, Issue: 3, Supplement: 1, Pages: 280A-280A, Meeting Abstract: 1373-Pos, Published: FEB 3 2017
6. Sebnem Garip, Seyit Temel Ceyhan, Cem Korkmaz, Muge Atis, Elif Guney, Esin Muslu Bal, Feride Severcan “Embryo quality assessment in in vitro fertilization (IVF) using metabolite footprints secreted to human embryo culture media by ATR-FTIR spectroscopy and multivariate analysis”, **Reproductive BioMedicine Online**, Vol: 32, S39, **2016**.
7. Abbas S., S. Ozek., N., Koksal, D. Severcan, M., Emri S. A., Severcan, F., “Infrared Spectroscopy as a Novel Approach in Differential Diagnosis of Malignant Pleural Mesothelioma from Lung Cancer Using Pleural Fluid” (ID 2601), **16th World Conference on Lung Cancer (WLCL) 2015**, September 6 – 9, 2015, Denver, USA, (Mini Oral Presentation-MINI24- ID 2601), **JOURNAL OF THORACIC ONCOLOGY**, 10 (9), P: S350, supplement 2, **2015**.
8. S. A. Emri, D. Yonar, A. Sandal, U. Yilmaz, **F. Severcan**, “Differentiation of Mesothelioma from Lung Cancer and Healthy Individuals Using Human Serum by ATR-FTIR Spectroscopy Coupled with Chemometrics”, **16th World Conference on Lung Cancer**, Denver, Colorado, September 6 - 9, 2015. **JOURNAL OF THORACIC ONCOLOGY**, Volume: 10, Issue: 9, Supplement: 2, Pages: S631 P2.08-012, **2015**.
9. **Severcan F.**, Simsek Ozek N., Gok S., “Fourier Transform Infrared Spectroscopy and Imaging in Cancer Diagnosis and Characterization”, **Biophysical Journal**, 108(2), Supplement 1, p479a–480a, **2015**.
10. Kucuk Baloglu F., Brockmann G., Heise S., Garip S., **Severcan F.**, “Investigation of Gender Effect on Obesity using a Model of Inbred Obese Mouse Lines by Fourier Transform Infrared Imaging”, **Biophysical Journal**, 108(2), Supplement 1, p626a, **2015**.

11. Yonar D., Sandal A., Emri S., **Severcan F.**, A Novel Method for Early Diagnosis of Malignant Pleural Mesothelioma from Human Serum Samples: ATR-FTIR Spectroscopy, **Biophysical Journal**, 108(2), Supplement 1, p626a, **2015**.
12. Gurbanov R., Abbas S., Bilgin M., **Severcan F.**, “The Effect of Selenium Treatment On-Diabetic-Induced Structural Variations in the Molecules of Rat Kidney Plasma Membrane”, **Biophysical Journal**, 108(2), Supplement 1, p626a, **2015**.
13. Abbas S., **Severcan F.**, Haris P. I., “Effect of Molecular Crowding on the Structure and Dynamics of Human Apo and Holo Transferrin using 2D-IR Correlation Spectroscopy”, **Biophysical Journal**, 108(2), Supplement 1, p16a, **2015 (Oral presentation)**
14. Ocek L., Tiftikcioglu B. I., Yonar D., Zorlu Y., Tekgul Z., **Severcan F.**, “Does CSF Infrared Spectroscopy Useful in Diagnosing RRMS Patients During the First Clinical Attack?”, **Neurology**, 84 (14), Supplement P5.246, **2015**.
15. Kanat, T.; Gozen, A. G.; **Severcan F.**, “The comparison of macromolecular changes in different acinetobacter isolates upon neomycin exposure”, Conference: FEBS EMBO 2014, **FEBS JOURNAL**, Volume: 281, Special Issue: SI, Supplement: 1, Pages: 671-671, **2014**.
16. Gok S., Arvas F., Adabalı O., **Severcan F.**, Severcan M., “Molecular Classification of Honey Samples from Different Botanical Origins via ATR-FTIR Spectroscopy”, **Biophysical Society 57th Annual Meeting**, Biophysical J, FEB **2013**.
17. Garip, S., Sahin, D., **Severcan, F.** “Epileptic Seizures-Induced Structural Changes in Rat Spine Bone Tissues: FTIR Microspectroscopic and Chemometric Study”, **Biophysical J.**, Volume: 104, Issue: 2, Supplement: 1, Page: 231A, Biophysical Society 57th Annual Meeting, **2013**.
18. Aksoy, C., Uckan, D., **Severcan F.**, “Application of FTIR Imaging on Healthy (Donor Age Effect) and Disease (Beta Thalassemia Major) States”, 57th Annual Meeting of the Biophysical-Society, **Biophysical J.** Volume: 104, Issue: 2, Supplement: 1, Pages: 338, **2013**.
19. Ozek, N.S., Sade, A., Banerjee, S., **Severcan F.**, “Characterization of Sodium Butyrate Induced Differentiation in Colon Cancer Cells by Fourier Transform Infrared

- Spectroscopy and Microscopy”, 57th Annual Meeting of the Biophysical-Society, **Biophysical J.**, Volume: 104, Issue: 2, Supplement: 1, Pages: 339A, **2013**.
20. Ozek, N S., Gok, S., Banerjee S., **Severcan F.** “FTIR microspectroscopic analysis of sodium butyrate induced differentiation in colon cancer cells in a time-dependent manner”, Joint Annual Meeting of the ASPET/BPS at Experimental Biology, **FASEB J.**, Volume: 27, Meeting Abstract: 1006.4, APR **2013**.
 21. **Severcan F.**, Gocmen, S. U., Ozek, N. S. Severcan M., “Characterization of simvastatin-induced structural and functional alterations in the molecules of kidney brush border membrane by ATR-FTIR spectroscopy and chemometric approaches, **FASEB J.**, Volume: 27, Meeting Abstract: 1033.8, **2013**.
 22. **Severcan F.**, “FTIR spectroscopy as a novel method in characterization and diagnosis of type I diabetes in rat animal model and the protective role of antioxidants”, *Diabetes & Metabolism World Congress 2013*, **J. of Diabetes and Metabolism**, Vol.4(6)page 61, **2013. (Invited Oral presentation)**.
 23. G. Cakmak, M. Severcan, F. Zorlu, **F. Severcan** (invited oral presentation) “FTIR Spectroscopy Together with Neural Network Approach in the Study of Radioprotectant Amifostine-Rat Tissue and Membrane Interactions in Irradiated and Healthy Systems” International Congress on Pathology, J. Clin. Exp. Pathology, Vol:2, No:5, **August 27-29, 2012** Philadelphia, USA. . **(Invited Oral presentation)**.
 24. B.C. Elibol, N. S. Ozek, M: Severcan, **F. Severcan**, E. Jakubowska-Dogru, “Vitamin A Deficiency-Induced Alterations and The Protective Role of Vitamin A Supplementation in Protein Secondary Structure of Rat Hippocampus”, J. Clin. Exp. Pathology, Vol:2, No:5, **August 27-29, 2012** Philadelphia, USA. **(Invited Oral presentation)**.
 25. Demir, P., Onde, S., Ozgen, M., Birsin M.A., **Severcan F.** “Phylogenetic differentiation of Aegilops and Triticum species by using ATR-FTIR spectroscopy” Eurobiotech Agriculture Symposium, Kayseri **J. Biotechnology** Volume: 161, Page: 32, **2012**.
 26. Bozkurt O., Bayari S.H., Severcan M., Krafft C., Popp J., **Severcan F.**, “Diabetes Induced Structural Alterations in Rat Liver Proteins, and The Recovery Effect of Selenium: An FTIR Microspectroscopy and Neural Network Study”, **Amino acids**, Vol: **41**, Publisher: Springer, Page: **23.**, **2011**, 12th International Congress on Amino

Acids, Peptides and Proteins, China.

27. Akkas S.B., Severcan M., Beklioglu M., **Severcan F.**, “Toward a Protein Profile of the Zooplankton *Daphnia Pulex* Exposed to the Pesticide Cypermethrine Using ATR-FTIR Spectroscopy as a Novel Method”, **Amino acids**, 2011, China, Vol: 41, Publisher: Springer, Page: 16. 12th International Congress on Amino Acids, Peptides and Proteins, China.
28. Turker S., Severcan M., Ilbay G., **Severcan F.**, “Investigation of the Effects of Different Epileptic Activities on Cell Membrane, Proteins Reveals Diagnostic Information”, **Amino acids**, 2011, Vol: 41, Publisher: Springer, Page: 28. 12th International Congress on Amino Acids, Peptides and Proteins, China.
29. Ozgun K, Simsek Ozek N, Severcan M., **Severcan F.**, “High Dose Simvastatin Administration induces changes in the structure and concentration of liver microsomal membranes.” **Amino Acids**, 2011 Vol: 41, Page: 26. 12th International Congress on Amino Acids, Peptides and Proteins, China.
30. Garip S., Evis Z., Ilbay G., Boskey AL., **Severcan F.**, “The side-effects of convulsive epileptic seizures and carbamazepine therapy on bone tissues of genetically-induced epileptic rats: an FTIR imaging and biomechanical study”, **FASEB J/ Experimental Biology** (2011), USA, Vol: 25, No: 721, Page: 4
31. **Severcan F.**, Guldag D., Severcan M., “Protein Secondary Structure Determination and Differentiation of Type I-Diabetes in Rat Testis Tissues and Protective and/or Recovery Effect of Vitamin C in Diabetes-Induced Damages: An FTIR Spectroscopic and Neural Network study”, **FASEB J/Experimental Biology Congress** Vol :25 No :720 Pages :5, 2011.
32. Türker S., Severcan M., Komsuoğlu S., **Severcan F.** “The Structural Investigation of Protective Role of Antiepileptic Vigabatrin in Epilepsy Treatment by FTIR Spectroscopy and Neural Networks”, **Molecular Biology of the Cell / Cell Biology Society Meeting** Vol :22 No :24, Pages :691, 2011.
33. Cakmak G., Miller L. M., Severcan M., Zorlu F., and **Severcan F.** “Monitoring of Radioprotective Effects of Amifostine on Rat Liver Microsomal Membrane and Brain Tissue Lipids by FTIR Spectroscopy and Microspectroscopy”, **Molecular Biology of the Cell/Cell Biology Society Meeting**, Vol: 22 No :24, Pages :262, 2011.

34. Cakmak G., Severcan M., Zorlu F., **Severcan F.**, “Amifostine, a Radioprotectant Agent, Protects Rat Hepatic Microsomal Membranes Against Ionizing Radiation Induced Damage”, *Biophysical Journal*, vol. 96, issue 3, pp. 353a-353a, **2009**.
35. Ozgun K., Ozek N.S., **Severcan F.**, “Determination of Simvastatin Induced Variations in Sciatic Nerve by ATR-FTIR Spectroscopy”, 53 rd Annual Meeting of Biophysical Society, *Biophysical J.*, Vol 96, 2009.
36. Garip S., **Severcan F.**, “The effects of high and low dose simvastatin on rat tibia: AN ftrir study” Int Congress on Chemistry and Biology of mineralized tissues, *Cells Tissues and Organs* 189-295-302, **2009**.
37. Severcan M., Akkas B., Gorgulu S.T., **Severcan F.**, “Protein Structure Determination of Proteins in Rat Brain Tissues and Membranes using Neural Networks based on FTIR Spectroscopy”, *Biophysical Society Meeting Abstracts*, **Biophysical Journal**, Volume 94, Supplement, pp. 1089, **2008**.
38. Cakmak G., Zorlu F., **Severcan F.**, “The Investigation of Ionizing Radiation- Induced Damages on Liver Microsomal Membranes by FTIR Spectroscopy”, *Biophysical Society Meeting Abstracts*, **Biophysical J.**, Volume 94, Supplement, pp. 113, **2008**.
39. Cakmak G., **Severcan F.**, “The Effects of Radioprotectant Amifostine on Zwitterionic Dipalmitoyl Phosphatidylcholine (DPPC) Membranes”, *Biophysical Society Meeting Abstracts*, **Biophysical Journal**, Volume 94, Supplement, pp. 117, **2008**.
40. Ozek N. S., **Severcan F.**, Bal I.B., Esen E., Sara Y., Onur R., Yilmaz O., “The Investigation of the Effects of Simvastatin on Rat Skeletal Muscle by Spectroscopic and Electrophysiological Techniques”, *Biophysical Society Meeting Abstracts*, **Biophysical Journal**, Volume 94, Supplement, pp.290-291, **2008**.
41. Bozkurt O, Bilgin MD, Severcan M, **Severcan F**, “Molecular investigation of the effect of diabetes on skeletal muscle: An FTIR study”, **Biophysical J.:** 336A, **2007**.
42. Ozek N. S., Sara Y., Onur R., **Severcan F.**, “The investigation of the possible effects of cholesterol reducing agent simvastatin on rat testis tissue”, **Biophysical J.** 336A, **2007**.
43. Kocak M., **Severcan F**, “Interactions of cholesterol reducing agent simvastatin with neutral DPPC and DMPC multilamellar liposomes”, **Biophysical J.**, 59A, **2007**.

[Atif Sayısı: 1]

44. Gorgulu S. T., Kara N., Gunes Z., Ates N., Ilbay G., **Severcan F.**, “The investigation of early molecular consequences of chemically induced epileptic activity”, **EPILEPSIA**, 47: 234, **2006**.
45. Gorgulu S. T., **Severcan F.**, Wassall S., Stillwell W., “Interaction of picrotoxin with DPPC model membrane”, **EPILEPSIA**, 47: 236, **2006**.
46. Gorgulu.T. S., Severcan F., Wassal S., Stiwell W., “The Investigation of The Interaction of Pentylenetetrazol with DPPC”, **Biophysical J**, Vol. 32, 157, **2006**.
47. Dogan A., Tuzlacı A., Guvenc B., Severcan F, “ Effect of Commercial Formula Feeding in a Fasting Animal Model A FTIR Spectroscopic Study”, **Molecular Biology of the Cell**, Vol: 17, Supplement S, 2006.
48. Dogan A., Ergen K., Ozcan S.K., Severcan F., The effect of Antifungal Drug Caspofungin on Dissiminated Candidiasis: An FTIR Study, **Molecular Biology of the Cell**, Vol: 17, Supplement S, 2006.
49. Toyran N, Turan B, **Severcan F.** “The role of selenium treatment on diabetes-induced changes in rat heart at the molecular level”, **J.Molecular and Cellular Cardiology** 38 (6): 1066, 189, **2005**.
50. Erar H, Akkas B, Gorgulu ST, **Severcan F.**, et al. “Effect of STZ-induced diabetes on rat skeletal muscles: An FTIR study”, **Biophysical J**. 88 (1): 159A, Part 2, **2005**.
51. Akkas S. B., Yilmaz O., **Severcan F.**, “The effect of lipoic acid and vitamin E on rat brain: An FTIR spectroscopic approach”, **Biophysical J**. 88 (1): 159A, Part 2, **2005**.
52. **Severcan F.**, Togan I., Cakmak G., “FTIR spectroscopic analysis of rainbow trout liver exposed to 17 beta-estradiol”, **Biophysical J** 88 (1): 159A Part 2, **2005**.
53. Gorgulu S., Deniz O., Komsuoglu S., **Severcan F.**, et al., “Antiepileptic agent vigabatrin -Model membrane interaction”, **Biophysical Journal** 88 (1): 418A-419A Part 2 Suppl. S (2005)
54. Dogan A., Gokduman K., Bolay S., Gokalp S., **Severcan F.**, “FTIR spectroscopic characterization of bleaching agents on human teeth”, **Biophysical J**. 88 (1): 55A-56A Part 2, **2005**.

55. Akkas S. B., Kok F. O., Demircioglu F. E., **Severcan F.**, et al. "An FTIR investigation of the effect of radiation and the possible protective effect of melatonin on rat brain crude membrane" **Biophysical J.** 88 (1): 160A-160A Part 2, **2005**.
56. Severcan M, Gorgulu G, **Severcan F.**, "Protein secondary structure prediction of STZ-induced diabetic and antioxidant treated diabetic rat kidney microsomal membranes by neural networks", **Biophysical Journal** 88 (1): 331A-331A Part 2, **2005**.
57. Akkas SB, Zorlu F, and **Severcan F.**, "An FTIR investigation of the effect of melatonin on rat brain crude membrane", **Biophysical J.**, 86(1): 381A, Part 2, **2004**.
58. **Severcan F.**, Sahin I, Kazancı N, "Interaction of melatonin with zwitterionic model membranes", **Biophysical J**, 86 (1): 382A, Part 2, **2004**.
59. Tuzlacı A., Guvenc H. B., Gurbuz Y., Kolaylı F., Ersoy Y., Ercan F., Dogan A., **Severcan F.** "Preservation of gut functions in fasting animal model with ileal anastomosis using donor human milk" *Clinical Nutrition*, 23, P:1509, **2004**.
60. E.A. Preoteasa E.A., C. Ciortea, D. Flueraşu, L. Harangus, A. Iordan, M. Petrascu, D. Pantelica, H. Boyar, **F. Severcan.** "Characterization of nano composites and calcified tissues by ion beam analysis and optical methods." 1st World Congress on Regenerative Medicine, 22-25 Oct., **2003**, Leipzig, Germany; *Int. J. Artificial Organs* 26:840 (abstract).
61. **Severcan F** and Gökalp S, "Effect on Pregnancy on Fluidity of Parotid Saliva", **J of Dental Research**, 77, 1183, **1998**.
62. Toyran N, Ayaz M, Turan B and **Severcan F.**, "Comparison of streptozocin-induced diabetic and control rat liver tissue by Fourier transform infrared spectroscopy", **Physiological Research**, 48, S131, **1999**.
63. Kaptan N, Yazıcı Z, Tuncer T, Turan B, **Severcan F.**, "Fourier Transform infrared spectroscopy of experimental diabetic rat heart", **Physiological Research**, 48, S131, **1999**.
64. Yücesoy C.A., Boyar H, Uğur M, Turan B, **Severcan F** and Akkaş N., "Biomechanical and spectroscopical investigations of streptozotocin-induced diabetic rat bones", **Physiological Research**, 48, S131, **1999**.
65. **Severcan F.**, Yazıcı Z., and Güray T., "Interaction of vitamin E-acetate with human erythrocyte membranes", **Chem.Phys. Lipids**, 110, 176-177, **1999**.

66. Eker F, Haris P.I. **Severcan F.**, “The effect of steroids on lipid-peptide interactions”, **Chem.Phys. Lipids**, 110, 197, **1999**.
67. Kazancı N., Toyran N., Eker F., and **Severcan F.**, Estimation of the location of vitamin D2 in lipid bilayers by Fourier transform infrared spectroscopy, **Chem.Phys. Lipids**, 110, 200-201, **1999**.
68. **Severcan F.**, Eker F., “Vitamin D2 induces phase separation in phospholipid model membranes”, 9 th Int. Conference on the Biochemistry of Lipids, **Chem. Phys. Lipids**, 94, 161-162, **1998**.
69. Toyran N., Eker F., **Severcan F.**, “The effect of Ca ++ ions on vitamin D₂-phospholipid model membrane interactions”, 9 th Int. Conference on the Biochemistry of Lipids, **Chem. Phys. Lipids**, 94, 163-164, **1998**.
70. Turan B., Balcık C., **Severcan F.**, Ugur M., Bayarı S., Akkas N., “Biomechanical and Spectroscopic Study of Bone from Rats with Selenium Deficiency and Toxicity”, 3 th Int. Congress on Pathophysiology, **Pathophysiology**, Vol:5 (supl. 5) sayfa 132, 1998.

5.6. ABSTRACTS PUBLISHED IN OTHER INTERNATIONAL CONGRESSES

1. Baloglu K. F., Brockmann G., **Severcan F.**, Biophysical characterization and diagnosis of obesity from adipose tissue by FTIR spectroscopy and imaging, **25 th European Congress on Obesity, May 23-26, 2018**, Vienna, Austria (sözlü sunum).
2. Baloglu K. F., Severcan F., Anti-obesity and anti-diabetic effects of palmitoleic acid in adipose tissue., **25 th European Congress on Obesity, May 23-26, 2018**, Vienna, Austria
3. Ergen N. Gok S., Kuzmrnko O., **Severcan F.**, Lipid related spectral signatures of the effect of novel vitamin E analog with antitumoral properties on a prostate cancer cell line, **15 th Euro Fed Lipid Congress, 27-30 Aug. 2017**, Uppsala, Sweden.
4. Baloglu K. F., Baloglu. O., Sebastian H., Brockmann G., **Severcan F.**, Triglyceride dependent differentiation of obesity in adipose tissues by FTIR spectroscopy coupled with chemometrics, , **15 th Euro Fed Lipid Congress, 27-30 Aug. 2017**, Uppsala, Sweden.
5. Ergen N., Gok S., Kuzmenko A., **Severcan F.**, A novel alpha tocopherol analog

- induces Apoptosis by Lipid Driven Cytotoxicity in prostate Cancer Cells, **15 th Euro Fed Lipid Congress**, Uppsala, Sweeden, Aug. 2017, Abstract Book: page 364.
6. Ergen N, Gok S. , Kuzmenko A., **Severcan F.**, Lipid Related Spectral Signatures of the effect of Novel Vitamin E Analog with antitumeral properties on prostate Cancer Cell line. **15th Euro Fed Lipid Congress**, Uppsala, Sweeden, Aug. 2017. Abstract Book page: 363.
 7. BalogluKucuk Fatma, Baloglu Onur, Heise Sabastian, Brockmann Gudrun, Severcan Feride, “Triglyceride dependent differentiation of obesity in adipose tissues by FTIR spectroscopy coupled with chemometrics”, **15th Euro Fed Lipid Congress**, Uppsala, Sweeden, Aug. 2017. Abstract Book: page: 373.
 8. Bozkurt Girit O, **Severcan F**, Bilgin MD, Protective effects of pterostilbene on diabetic neuropathy, **European Conference on the Spectroscopy of Biological Molecules (ECSBM2017)**, 11-14 September, 2017, Amsterdam, Netherlands, Abstract Book, pp. 93.
 9. Simsek Ozek N, Ozgun K., **Severcan F.**(2017). Molecular Analysis of Effects of Chronic Simvastatin in Rat Sciatic Nerve and Liver Microsomal Membrane by FTIR Spectroscopy. **3 rd International Multidisciplinary Symposium on Drug Research and Development - DRD 2017 05-07 October 2017**, Erzurum, Congress Book, Page 40; (Oral Presentation.)
 10. Bozkurt Girit O, Keser H, **Severcan F**, Bilgin MD, The effects of combined treatment of extremely low frequency magnetic field (50 Hz, 1 mT) and pterostilbene on renal ischemic injury, **III. International Turkish Congress on Molecular Spectroscopy (TURCMOS2017)**, 26-29 August, 2017, Abstract Book, pp 141.
 11. **Bozkurt O.**, Keser H., Bilgin M.D., Severcan F., Protective effects of pterostilbene and magnetic field on renal ischemic injury, **6th World Congress of Oxidative Stress, Calcium Signaling and TRP Channels, 24-27 May**, 2016, Isparta, Turkey,
 12. Hakan Altan, Yıldız Menteşe, **Seher Gok**, Ipek Ozyurt, Feride Severcan, Characterization of liquid sweeteners in the terahertz (THz) frequency region. **4th annual conference of COST action MP1204 & SMMO2016 Conference**, Lisbon, PORTUGAL, 21-24 March 2016.
 13. Simsek Ozek N.,Zeller I.,Renaud D.,Gümüş P.,Nizam N.,Severcan F.,Buduneli

- N., Scott D., (2016). "Differentiation of chronic and aggressive forms of periodontitis and of smokers and non smokers by Fourier transform infrared spectroscopy". **ENSP Conference on Tobacco Control: Research, Prevention and Treatment.**, : 5-7 April 2016, Brussels – Belgium, Tob. Prev. Cessation 2016;2(April Supplement):24. (Oral Presentation)
14. Gurbanov R., Simsek Ozek N., Gozen A. G., **Severcan F.**, "An ATR-FTIR Spectroscopic Approach to Elucidate Biochemical Mechanisms in Heavy Metal Resistant Escherichia coli", **115th General Meeting of the American Society for Microbiology** (ASM2015), New Orleans, Louisiana, USA; 05/2015. (Poster Presentation).
 15. Ozaktas T., Gozen A.G., Severcan F., "Detection of Silver Associated Gross Molecular Changes in Acinetobacter", **115th General Meeting of the American Society for Microbiology** (ASM2015), New Orleans, Louisiana, USA; 05/2015. (Poster Presentation).
 16. **Severcan F.**, Yonar D., Ocek L., Zorlu Y., "The Characterization and Differential Diagnosis of Relapsing-Remitting Multiple Sclerosis and Clinically Isolated Syndrome from Cerebro Spinal Fluids by Infrared Spectroscopy", **9th World Congress International Brain Research Organization**, Rio de Janeiro, Brezilya, July 7 - 11, 2015.
 17. S. Bayari, A. Sevinc, B. I. Tiftikcioglu, Y. Zorlu, **F. Severcan**, "Molecular Differentiation of Mild Cognitive Impairment and Dementia Phases in Alzheimer's Disease Using Vibrational Spcetroscopy", **9th World Congress International Brain Research Organization**, Rio de Janeiro, Brezilya, July 7 -11, 2015.
 18. Gurbanov R., Simsek Ozek N., Gozen A. G., **Severcan F.**, "IR coupled pattern recognition techniques for the classification of toxic metal tolerant bacteria", MBD2015 - IV. International Congress of the Molecular Biology Association of Turkey, Ankara, Turkey; 11/2015. Abstract Book Page 119, Poster No:189.
 19. Simsek Ozek N., Akhavantabasi S., Tuna S., Erson-Bensan, A. E., **Severcan F** "Characterization of Molecular-Level Changes Due to miR-125b Expression in Breast Cancer Cells by Spectroscopic and Chemometric Analysis Techniques", MBD2015 - **IV. International Congress of the Molecular Biology Association of Turkey**, Ankara, Turkey; 11/2015. Abstract Book Page 119, Poster No:77.

20. Dogan A., Siyakus G., **Severcan F.**, “FT-IR Spectroscopy and Multivariate Analysis for the detection of Irradiated hazelnut (*Corylus avellana* L.), **FTIR Spectroscopy in Microbiological and Medical Diagnostics Workshop, October, 2015**, Berlin, Germany.
21. O. Bozkurt, M.D. Bilgin, Z. Evis, N. Pleshko, **F. Severcan.** “Bone Characteristics in Type I Diabetes: An FTIR Imaging Study”, Abstract Book, **SPEC 2014, Shedding New Light on Disease**, 17-22 August **2014**, Krakow, Poland.
22. Gok, S. Ozek S. N., **Severcan. F.**, “Analysis of Histone Deacetylase Inhibitor Treatment-Induced Alterations in Cancer Cells by FTIR Spectroscopic and Microspectroscopic Techniques”, Abstract Book, SPEC 2014, **Shedding New Light on Disease**, 17-22 August **2014**, Krakow, Poland.
23. Kucuk F., Brockmann G., Heise S., Garip S., **Severcan F.**, “Obesity-Related Structural, Functional and Ucp1 Protein Content Changes in Different Inbreed Obese Male Mouse Lines of Gonadal and Inguinal Adipose Tissues, Abstract Book, SPEC 2014, **Shedding New Light on Disease**, 17-22 August **2014**, Krakow, Poland.
24. **Kucuk F.**, Brockmann G., Heise S., Garip S., **Severcan F.**, “Obesity Dependent Structural and Functional Changes in Male and Female Inbreed Obese Mouse Lines by Fourier Transform Infrared Imaging”, Abstract Book, pp:43 ITNANO, **2nd International Translational Nanomedicine Conference**. 25-27 July **2014**, Boston, USA.
25. Gok S., Aydın O.Z., Sural Y.S., CZorlu F., **Severcan F.**, “A new test for bladder tumor recurrence from bladder wash sample: FTIR Spectroscopy”, Abstract Book, pp:43 ITNANO, **2nd International Translational Nanomedicine Conference**. 25-27 July **2014**, Boston, USA.
26. Abbas. S., S. Ozek, N. Emri, S., **Severcan, F.**, “Evaluation of FTIR Spectroscopy as a Diagnostic Tool for Malignant Pleural Mesothelioma from Pleural Fluid”, Abstract Book, pp:56 ITNANO, **2nd International Translational Nanomedicine Conference**. 25-27 July **2014**, Boston, USA.
27. Abbas S., Yonar D., S. Ozek N., Emri S., **Severcan, F.** “Novel Method for Better Diagnosis of Asbestos-Induced Lung Cancer (Mesothelioma) From Human Body Fluids”, **1st International Congress & Workshop of Forensic Toxicology**, November 29-30, **2014**, Ankara-Türkiye. Ankara, Turkey. S6, p.23 (oral presentation),

Turkish Journal of Occupational / Environmental Medicine and Safety (TURJOEM), 2015, 1(1), Supp. 1 / 8.

28. Gurbanov, R. S. Ozek, N., Gozen, A., **Severcan, F.**, "A Novel Approach for Environmental Bioremediation", "**1st International Congress and Workshop of Forensic Toxicology**", November 29-30, **2014**, Ankara, Turkey. S12, p.33 (oral presentation), **TURJOEM, 2015, 1(1), Supp. 1 / 14.**
29. Abbas. S., Haris P.I., Severcan M., Emri S, **Severcan F.**, "Protein Secondary Structures Changes in Pleural Fluids due to Asbestos-Induced Lung Cancer", "**1st International Congress and Workshop of Forensic Toxicology**", November 29-30, **2014**, Ankara, Turkey. S12, p.33 (oral presentation), **TURJOEM, 2015, 1(1), Supp. 1**
30. Emri A.S., Abbas, S., S. Ozek, N., **Severcan F.** "ATR-FTIR Spectroscopy is a Promising Novel Diagnostic Tool for Malignant Pleural Mesothelioma from Pleural Fluid", IMIG 2014, **12th International Conference of the International Mesothelioma Interest Group**, 21-24 October **2014**, Cape Town-South Africa.
31. **Severcan, F.**, Ozek N.S., Ozgun. K. "Molecular Analysis of Toxic Effects of Simvastatin in Rat Tissues and Membranes by FTIR Spectroscopy" **The 2nd World Congress of Clinical Lipidology**", December 5-7, **2014**, Vienna, Austria.
32. R. Gurbanov, S.Abbas, M.Bilgin, **F.Severcan**, "Restoring Effect of Selenium on Lipid Structure and Dynamics of Diabetic Kidney Cell Membrane", "The 2nd World Congress of Clinical Lipidology", December 5-7, 2014, Vienna, Austria.
33. S. Abbas, P. Haris, **F. Severcan**, M. Severcan, "Estimation of protein secondary structure from FTIR spectra using wavelet analysis and neural networks". **Modeling of Biomolecular Systems Interactions, Dynamics, and Allostery: Bridging Experiments and Computations**, Koc University Nisantasi Campus Istanbul, Turkey; 09/2014.
34. Garip S., Sahin D., Miller L.M., **Severcan F.**, "Epileptic Seisure-induced Structural Changes in Genetically Epileptic Rat Bone Tissues: A Synchrotron FTIR Imaging Study", **Modeling of Biomolecular Systems Interactions, Dynamics, and Allostery: Bridging Experiments and Computations**, Koc University Nisantasi Campus Istanbul, Turkey; 09/2014.
35. R. Gurbanov, N. S. Ozek, A. Gozen, **F. Severcan**, "Discrimination of Lead and

- Cadmium Resistant Bacteria by ATR-FTIR Spectroscopy", "IICBE 2014 International Conference on Earth, Environment and Life sciences (EELS-2014)", December 23-24, 2014 Dubai, UAE. Paper ID: C1214017
36. **F. Severcan**, "Infrared spectroscopy and imaging in cancer diagnosis and characterization", **MicroRNA cancer biomarkers and next generation sequencing techniques**, Gediz University, Izmir, Turkey on November 4-5, **2014** (oral presentation).
 37. Abbas S., Severcan M., **Severcan F.**, Semi-automated features extraction from Fourier Transform Infrared spectra for biomedical artificial intelligence and statistical analysis" 15th European Conference on the Spectroscopy of Biological Molecules (ECSBM), Aug. 2013, Oxford, UK.
 38. B. S Akkas, G. Cakmak, M. Meklioglu, **F. Severcan**, "A novel Approach to Aquatic Ecotoxicology", **FTIR Spectroscopy in Microbiological and Medical Diagnostics**", Robert Koch-Institute, Berlin/GERMANY, October 24 - 25, **2013 (Invited talk)**.
 39. S. Garip, D. Sahin L.M. Miller, **F. Severcan**, "Epileptic-Seizure-induced Intra-Bone Structural Changes in Spines of Genetically Epileptic Rats: A Synchrotron-FTIR Infrared Study", **FTIR Spectroscopy in Microbiological and Medical Diagnostics**, Robert Koch-Institute, Berlin/GERMANY, October 24 - 25, **2013**.
 40. N.S Ozek, B. Oztan, S. Gok, B. Yener, S. Banerjee, **F. Severcan**, "Quantitative analysis of Sodium Butyrate induced differentiation of colon cancer cells by FTIR microspectroscopic and computational methods", **FTIR Spectroscopy in Microbiological and Medical Diagnostics**, Robert Koch-Institute, Berlin/GERMANY, October 24 - 25, **2013**.
 41. F. Kucuk, G. Brockmann, S. Heise, S. Garip, **F. Severcan**, "Obesity-dependent structural and functional changes in different Inbreed obese mouse lines of gonadal and inguinal adipose tissues: A Fourier transform infrared imaging study", **FTIR Spectroscopy in Microbiological and Medical Diagnostics**, Robert Koch-Institute, Berlin/GERMANY, October 24 - 25, **2013**.
 42. G. Cakmak, M. Severcan, A. Dogan, F. Zorlu, L. Miller, **F. Severcan**, "FTIR Spectroscopy and Imaging in Ionizing Radiation and Radiation Protection Monitoring: Application to Biomedical and Food Science". **FTIR Spectroscopy in Microbiological and Medical Diagnostics**, Robert Koch-Institute,

Berlin/GERMANY, October, **2013**.

43. Uzun Gocmen S., Simsek Ozek N., Severcan M., **Severcan F.**, “Effects of Simvastatin on the Structure and Function of Kidney Brush Border Membrane Macromolecules”, **9th European Biophysics Congress (EBSA2013)**, 12-17 July, 2013, Lisbon, Portugal.
44. **F. Severcan**, “Infrared Spectroscopy and Imaging in Diagnosis and Screening, **International Turkish Congress on Molecular Spectroscopy**, Istanbul/TURKEY, invited talk, Abstract Book, September, **2013**; 39,
45. Z. Özer, S. Gok, H. Altan, **F. Severcan**, “Concentration Based Measurement Studies of L-Tryptophan using THz-Time Domain Spectroscopy”, **International Turkish Congress on Molecular Spectroscopy**, Istanbul, Abstract Book, September, **2013**; 134.
46. R. Rachkauskas, F. Severcan, S. Banerjee, “Comparing The Effects of Valdecoxib, Rofecoxib and Celecoxib Drugs on The Model Membrane Properties Using Infrared Spectroscopy, DSC and Turbidity Techniques”, **Int. Turkish Congress on Molecular Spectroscopy**, Istanbul/TURKEY, Abstract Book, September 15-20, **2013**; 173.
47. A. Inan Genç, S. Banerjee, **F. Severcan**, “Characterization of the Effect of Selective COX-2 Inhibitor Valdecoxib on the Colon Cancer Cell Lines Using ATR-FTIR Spectroscopys”, **International Turkish Congress on Molecular Spectroscopy**, Istanbul/TURKEY, Abstract Book, September 15-20, **2013**; 174.
48. F. Küçük, I. Sen, O. Baloglu, M. Severcan, G. Brockmann, **F. Severcan**, “Differentiation of Different Inbred Obese Mouse Lines at Adipose Tissues by ATR-FTIR Spectroscopy with Chemometric Tools”, **International Turkish Congress on Molecular Spectroscopy**, Istanbul/TURKEY, Abstract Book, September 15-20, 2013; 187.
49. **Severcan F**, FTIR spectroscopy, as a novel method in characterization and diagnosis of different pathological states, SYSGENET meeting, Bilbao, Spain, 2012 (Oral presentation).
50. Bozkurt O., Heise S., Brockmann A.G., **Severcan F.**, “FTIR microspectroscopic imaging of skeletal muscles of BFMI mice”, 3rd Int. Workshop on Molecular Approaches to Obesity and Diabetes with New Implications, Mart, Ankara, **2012**.

(Oral presentation)

51. **Severcan F.**, Guldag D., Bozkurt O., Gurbanov R., Gorgulu G., “Application of FT-IR spectroscopy in diagnosis and characterization of type I diabetes in rat animal models” 3rd Int. Workshop on Molecular Approaches to Obesity and Diabetes with New Implications, Mart, Ankara, Turkey, **2012** (Oral presentation).
52. Aras E., Heise S., Brockmann G., **Severcan F.**, “Characterization and Quantification of Lipid Profiles in Longissimus Dorsi and Quadriceps Muscle Tissues of Berlin Fat and Muscle Mouse Models by HPLC-ELSD”, 3rd Int. Workshop on Molecular Approaches to Obesity and Diabetes with New Implications, Mart, Ankara, Turkey, **2012**.
53. Guldag D., Bozkurt O, Severcan M., **Severcan F.**, “Protein Secondary Structure Determination and Characterization of Type I-Diabetes in Different Rat Tissues and the Protective/ Recovery Role of Vitamin C in the Diabetes-Induced Damages”, 3rd Int. Workshop on Molecular Approaches to Obesity and Diabetes with New Implications, Mart, Ankara, Turkey, **2012**.
54. Bozkurt O., Shaw C.S., Heise S., Brockmann A.G., **Severcan F.**, “Fiber type specific distribution of lipid droplets in skeletal muscles of inbred Berlin fat mice (BFMI) lines”, **LIPID MAPS Annual Meeting, American Lipid Maps Society**, Mayıs, **2012**, San Diego, USA.
55. Sen I., Bozkurt O., Heise S., Brockmann A.G., **Severcan F.**, “Effect of obesity on lipids in adipose and skeletal muscle tissues in inbred obese mouse models: A novel ATR-FTIR study. **LIPID MAPS Annual Meeting, American Lipid Maps Society**, Mayıs, 2012, San Diego, USA.
56. Cakmak G., Severcan M., Zorlu F., **Severcan F.**, “FTIR Microspectroscopy in the study of Amifostine-Brain Tissue Interactions in the Irradiated and Healthy Systems”, Turkish Accelerator Centre Light Sources users’ meeting, October **2012**.
57. Cakmak G., Miller L. M., Zorlu F., **Severcan F.**, “SR-FTIR Microscopic Imaging Study as a Novel Method to Monitor Radioprotective Effects of Amifostine Against Ionizing Radiation Induced Lipid Peroxidation in Rat Brain”, **10 th SESAME Users’ Meeting**, Nov. **2012**, Amman, Jordan.
58. P. Demir, S. B. Akkas, M. Severcan, F. Zorlu and **F. Severcan**, “FTIR Spectroscopic

- Investigation of Ionizing Radiation-Induced Damage and Possible Protective effect of Melatonin on Rat Brain Crude Membrane Proteins and Lipids”, **FTIR Spectroscopy in Microbiological and Medical Diagnostics” Workshop**, Robert Koch-Institute, Berlin, Germany, Page: 9, October **2011**.
59. Sen I., Heise S., Brockmann G., **Severcan F.**,” Effect of Obesity On Different Adipose Tissues in Inbred Obese Mouse Models: An ATR-FTIR Study, **FTIR Spectroscopy in Microbiological and Medical Diagnostics”**, Robert Koch-Institute, Berlin, Germany October, **2011**.
 60. Aksoy C., Uckan D., **Severcan F.**; “Investigation of Bone Marrow Mesenchymal Stem Cell Properties in Patients with Beta Thalassemia Major: FTIR Spectroscopy and Imaging Study.” **"FT-IR Spectroscopy in Microbiological and Medical Diagnostics"**, **Workshop** Robert Koch-Inst., Berlin, Germany, October, **2011**.
 61. I. Uysal, **F. Severcan**, A. Tezcaner, ve Z. Evis, Synthesis, microstructural, mechanical and biological characterization of zinc and fluoride doped hydroxylapatite, **13th Ceramics, Cells and Tissues, Regenerative Nanomedicine, Tissue and Genetic Engineering**, Italy, May 2011.
 62. D. Guldag, M. Severcan, **F. Severcan**, “Characterization of TypeI-Diabetes and the Protective/ Recovery Role of Vitamin C in the Diabetes-Induced Complications,” **8th Horizons in Molecular Biology International PhD Student Symposium**, 14-17 September, 2011, Göttingen, Germany, Page: 77.
 63. Cakmak G., Miller L. M., Zorlu F., and **Severcan F.** “SR-FTIR Microspectroscopic Imaging Study as a Novel Method to Monitor Radioprotective Effects of Amifostine against Ionizing Radiation Induced Lipid Peroxidation in Rat Brain” **First International Workshop on Machine and Research Aspects of the Proposed Turkish Light Sources**, İstanbul, TURKEY, Page: 56, July, **2011**.
 64. Aksoy C., Guliyev A., Kilic E., Uckan D., **Severcan F.**; “Investigation of Bone Marrow Mesenchymal Stem Cell Properties in Patients with Beta Thalassemia Major: Attenuated Total Reflection-Fourier Transform Infrared (ATR-FTIR) Spectroscopy Study”._**“1st International Conference on Stem Cell Research and Applications”**, October, Erciyes University, in Kayseri, Turkey, Page: 41.2011 (en iyi bildiri ödülü).
 65. Aksoy C., Uckan D., Severcan F., “Investigation of Donor Age Effect on Healthy Human Bone Marrow Mesenchymal Stem Cells”, **“1st International Conference on**

- Stem Cell Research and Applications**”, October, Erciyes University, in Kayseri, Turkey, Page: 40, 2011.
66. Ozgun K, Simsek Ozek N, **Severcan F.**, ” Determination of High Dose Simvastatin Induced Variations in Rat Sciatic Nerve by ATR-FTIR Spectroscopy” **International Symposium On New Approaches in Cardiovascular Disorders: From Genes & Molecules To Clinical Applications**, 4-8 Mayıs 2011 Ankara, Türkiye.
 67. Garip S. Yapici E., Simsek Ozek N., Severcan M., **Severcan F.**,” Evaluation and discrimination of simvastatin-induced structural alterations in proteins of different rat tissues by FTIR spectroscopy and neural network analysis,” **International Symposium On New Approaches in Cardiovascular Disorders: From Genes & Molecules To Clinical Applications**, 4-8 Mayıs 2011 Ankara, Türkiye.
 68. Simsek Ozek N., Bal I. B., Sara Y., Onur R., **Severcan F.**, “Chronic Simvastatin Treatment induces functional and Structural Changes in a fiber type dependent manner in Rat Skeletal Muscles,” **International Symposium On New Approaches in Cardiovascular Disorders: From Genes & Molecules to Clinical Applications**, 4-8 Mayıs 2011 Ankara, Türkiye.
 69. Akkas S.B., Cakmak G., **Severcan F.**, “Applications of FTIR spectroscopy in aquatic sciences”, **International conference on recent frontiers in applied spectroscopy (ICORFAS-2010)**, 22-24 September, 2010, Tamil Nadu, India, Abstract book, pp:23. (Davetli Konuşma).
 70. **Severcan F.**, Turker S., Severcan M., “Applications of FTIR spectroscopy in disease characterization and diagnosis: A case study of epilepsy”, **International conference on recent frontiers in applied spectroscopy (ICORFAS-2010)**, 22-24 September, 2010, Tamil Nadu, India, Abstract book, pp:3 (Davetli Konuşma).
 71. Sade A., Tunçay S., Çimen I., **Severcan F.**, Banerjee S., “Biophysical and functional characterization of celecoxib in colorectal cancer cell lines”. **4th International Meeting on Medicinal and Pharmaceutical Chemistry & 6th International Symposium on Pharmaceutical Chemistry**, 30 Eylül – 2 Sept., 2010 Ankara, Turkey.
 72. Severcan F, Guldag D., Bozkurt O., Severcan F., “Protein Secondary Structure Determination and Differentiation of Type I-Diabetes in Different Rat Tissues and

Membranes and the role of Vitamin C in the Protection of Diabetes-induced Damages: An FTIR Spectroscopic and Neural Network Study, **2nd Int. Conf. On Vibrational Optical Activity and Biomedical Applications of Raman Spectroscopy**, Aug. 5-7, 2010 Albany, NY, USA.

73. Cakmak G., Severcan M., Zorlu F., **Severcan F.**, “Investigation of Radioprotective effects of Amifostine on Rat liver microsomal membrane and brain tissue proteins by FTIR spectroscopy: An imaging and neural network approach, **2nd Int. Conf. On Vibrational Optical Activity and Biomedical Applications of Raman Spectroscopy**, Aug. 5-7, 2010 Albany, NY, USA.
74. Bozkurt O., Severcan M., **Severcan F.**, “Diabetes induces compositional, structural and dynamical changes on rat skeletal soleus muscle: An FTIR and neural network study”, **SPEC2010 “Shedding Light on Disease: Diagnostic Applications for the New Millennium”** June 26-July 1, 2010, Manchester, UK, Abstract book, pp: 155.
75. Bozkurt O., Heise S., Brockmann A.G., **Severcan F.**, “Structural and functional characterization of macromolecules in skeletal muscles of inbred mice lines: An ATR-FTIR spectroscopic study”, **SPEC2010 “Shedding Light on Disease: Diagnostic Applications for the New Millennium”** June 26-July 1, 2010, Manchester, UK, Abstract book, pp: 219.
76. Garip S., Yapici E., Ozek N.S., Severcan M., **Severcan F.**, “Discrimination of simvastatin-induced structural alterations in proteins of different rat tissues by FTIR spectroscopy and neural network analysis”, **SPEC2010 “Shedding Light on Disease: Diagnostic Applications for the New Millennium”**, June 26-July 1, 2010, Manchester, UK, Abstract book, pp: 163.
77. Simsek Ozek.N., Tuna S., Erson A.E., **Severcan F.**, “Characterization of microRNA-125b expression in MCF7 breast cancer cells by ATR-FTIR spectroscopy”, **SPEC2010 “Shedding Light on Disease: Diagnostic Applications for the New Millennium”** June 26-July 1 2010, Manchester, UK, Abstract book, pp:189.
78. Turker S., Severcan M., İlbay G., **Severcan F.**, “Diagnosis of epilepsy on different epileptic models by infrared spectroscopy”, **SPEC2010 “Shedding Light on Disease: Diagnostic Applications for the New Millennium”** June 26-July 1 2010, Manchester, UK, Abstract book, pp: 217.
79. Bozkurt O., Brockmann G., **Severcan F.**, “Characterization of lipids in skeletal

- muscles of inbred mice lines: An ATR-FTIR spectroscopic study”, **FEBS/IUMB Workshop Eukaryotic lipids; treasure of regulatory information**, June 19 - 24, 2010, Spetses, Greece, Poster Abstract book, pp: 14.
80. **Severcan F.**, “A Novel Molecular Approach in Metabolic Diseases: FTIR Spectroscopy”, Oral presentation, 1 th **International Workshop on Molecular Approaches to Obesity with New Implications**, 12 Haziran 2009, METU, Ankara.
 81. Ozlem Bozkurt, Gülgün Çakmak, Sebnem Garip, **Feride Severcan**, “Implications of FTIR Microspectroscopy in Pathological Conditions”, Oral presentation, **International Workshop on Molecular Approaches to Obesity with New Implications**, 12 Haziran 2009, METU, Ankara.
 82. **Severcan F.**, Bozkurt O., Ergun S., “Application of FTIR Spectroscopy to Diabetes in Rat Animal Model and the role of some Antioxidants in the Recovery of Diabetes-Induced Damages”, “FT-IR Spectroscopy in Microbiological and medical Diagnostics, Robert Koch-Institute, Berlin, October-2009.
 83. **Severcan F.**, “Application of FTIR Spectroscopy and Microspectroscopy in Diagnosis and Treatment of Diseases”, **2nd International Biophysics Congress and Biotechnology at GAP & 21st National Biophysics Congress**, 5-9 Sept. 2009, Diyarbakır, Lec10A, Abstract Book, pp: 34-36, (Oral presentation).
 84. Cakmak G. Zorlu F., Miller L. M. and **Severcan F.**, “Amifostine, a Radioprotectant Agent, Protects Rat Brain Tissue Lipids Against Ionizing Radiation Induced Damage: A Fourier Transform Infrared Microspectroscopic Imaging Study”, **2nd International Biophysics Congress and Biotechnology at GAP & 21st National Biophysics Congress**, 5-9 Sept. 2009, Diyarbakır, Oral presentation, Abstract Book, pp: 46-47.
 85. Garip S., İlbay G., Boskey A., **Severcan F.**, “The Side-effects of Convulsive Seizures on the Bone Tissues of Epileptic Rats”, **2nd International Biophysics Congress and Biotechnology at GAP & 21st National Biophysics Congress**, 5-9 Sept. 2009, Diyarbakır, Poster no 51, Abstract Book, pp: 90-91.
 86. Simsek Ozek N., Ozgun K., Severcan M., **Severcan F.**, “Application of FTIR Spectroscopy as A Novel Bioinformatic Method to Determine Simvastatin-Induced Protein Secondary Structure Alterations in Rat Liver Microsomal Membranes”, **2nd International Biophysics Congress and Biotechnology at GAP & 21st National Biophysics Congress**, 5-9 Sept. 2009, Diyarbakır, Poster no 85, Abstract Book, pp:

109-110.

87. Simsek Ozek, N., Akhavan Tabasi, S., Erson, A.E., **Severcan, F.**, “An ATR-FTIR Spectroscopy Analysis of Metastatic and Nonmetastatic Breast Cancer Cell Lines”, **2nd International Biophysics Congress and Biotechnology at GAP & 21st National Biophysics Congress**, 5-9 Sept. 2009, Diyarbakır, Poster no 86, Abstract Book, pp: 110. Poster Presentation- Second Best Poster Award).
88. Sariisik E., **Severcan F.**, “Investigation of the Acyl Chain Length Effect on Interaction of Simvastatin with DPPG and DMPG Model Membranes”, **2nd International Biophysics Congress and Biotechnology at GAP & 21st National Biophysics Congress**, 5-9 Sept. 2009, Diyarbakır, Poster no 79, Abstract Book, pp: 105-106.
89. Bozkurt O., Brockmann G., **Severcan F.**, “ATR-FTIR Spectroscopy Reveals the Different Characteristics of Lipids in Longissimus Dorsi Muscles of Inbreed Mice Lines”, **2nd International Biophysics Congress and Biotechnology at GAP & 21st National Biophysics Congress**, 5-9 November 2009, Diyarbakır, Poster no 80, Abstract book, pp: 106-107.
90. Sahin I., Wurpel G.W.H., Gerritsen H.C., **Severcan F.**, Kazanci N., Lifetime Contrast In Different Lipid Mixtures, **25th International Physical Congress**, 25-29 August 2008, Bodrum, Poster presentation, Abstract book, pp. 505.
91. Bilge D., Kazanci N., **Severcan F.**, Acyl Chain Length Effect On Tamoxifen and Membrane Interactions, **25th International Physical Congress**, 25-29 August 2008, Bodrum, Poster presentation, Abstract book, pp. 441.
92. **Severcan F.**, Cakmak G., Zorlu F., The Effects of Ionising Radiation on Compositional, Structural and Functional Properties of Liver Microsomal Membranes, **12th European Conference on the Spectroscopy of Biological Molecules ECSBM’2007**, p 88, 1-6 Sep 2007, Bobigny, France (Sozlü Sunum).
93. Severcan M., **Severcan F.**, Protein Structure Determination of Proteins in Biological Systems using Neural Networks based on FTIR Spectroscopy, **12th European Conference on the Spectroscopy of Biological Molecules ECSBM’2007**, p 154, 1-6 Sep 2007, Bobigny, France.
94. Bal İ. B., Esen E., Özek N., Sara Y., Yılmaz Ö., **Severcan F.**, Onur R. “Investigation

of the Effects of Simvastatin on Rat Skeletal Muscle by Spectroscopic and Electrophysiological Techniques - Workshop on Drug Treatment of Psychiatric and Neurological Disorders” November , 26-29, 2007 - Bad Honnef, Germany . (Poster and Oral Presentation).

95. **Severcan F.**, Gokduman K., Dogan A., Bolay S., Gokalp S., Comparison of Office and Home Bleaching on Dental Tissue: An FTIR Study, **9th International Conference on the Chemistry and Biology of Mineralized Tissues (ICCBMT)**, November 2007, Lakeway, Texas, USA, Abstract book, pp 48.
96. Garip S., **Severcan F.**, The effects of High and Low Dose Simvastatin on Rat Tibia: A Fourier Transform Infrared Spectroscopic Study, **9th International Conference on the Chemistry and Biology of Mineralized Tissues (ICCBMT)**, November 2007, Lakeway, Texas, USA, Abstract book, pp 49.
97. A. Doğan, A. Tuzlacı, M. Severcan, B. H. Güvenç, **F. Severcan**, “Effects of prolonged starvation on ileum tissue; An FTIR and Neural Network Study” **5. International Pathophysiology Conference**, 28 June-6 July 2006 Beijing, China.
98. Bozkurt, O., Bilgin, M.D., Severcan M., **Severcan F.**, The Investigation of The Effect of Diabetes On Slow- and Fast-Twitch Skeletal Muscle Tissues Using FTIR Spectroscopy, **Spec 2006, Shedding Light on Disease: Optical Diagnosis for the New Millennium**, (2006), Abstr. Book, p. 101, Heidelberg, Germany.
99. Skvortsov, A., Kocabas, F., Bozkurt, O., Ozesmi, Ç., **Severcan F.**, FT-IR Spectroscopic Study On Effects Of Sleep Deprivation On Rat Spleen Tissue, **Spec 2006, Shedding Light on Disease: Optical Diagnosis for the New Millennium (2006)**, Abstr. Book, p. 102, Heidelberg, Germany.
100. Cakmak, G., Togan, İ., **Severcan F.**, 17 β -Estradiol Induced Compositional, Structural and Functional Changes in Rainbow Trout Liver, revealed by FTIR Spectroscopy: A Comparative Study with Nonylphenol, **Spec 2006, Shedding Light on Disease: Optical Diagnosis for the New Millennium (2006)**, Abstr. Book, p. 103, Heidelberg, Germany.
101. Tuzlaci, A., Dogan, A., Guvenç, **Severcan F.**; Comparison of Human Breast Feeding and Commercial Formula Feeding in a Fasting Animal Model: An FTIR Study, **Spec 2006, Shedding Light on Disease: Optical Diagnosis for the New Millennium (2006)**, Abstr. Book, p. 142, Heidelberg, Germany.

102. Garip, S., Bozoğlu, F., **Severcan, F.**; Differentiation of Mesophilic and Thermophilic Bacteria with FTIR Spectroscopy, Sebnem Garip, Faruk Bozoglu, Feride Severcan, **Spec 2006, Shedding Light on Disease: Optical Diagnosis for the New Millenium (2006)**. Abstr. Book, p. 155, Heidelberg, Germany.
103. **Severcan F.**, “Biophysical Methods in Biomedical Research”, World Year of Physics 2005 Turkish Physical Society **23rd International physics Congress**” 13-16 September **2005** Muğla page:19.
104. Akkas. S.B., Beklioglu M., **Severcan F.**, Impact of Pesticide and Fish Kairomone on the life History Traits of Daphnia using Molecular and Ecological Approaches, VII th Int. Symposium on Cladocera, Sept. **2005**, Herzberg, Switzerland..
105. Boyar H. Turan B., **Severcan F.** “Effects of selenium on Diabetic Rat Femur: An FTIR Study”, **8th Inter. Conf. the Chemistry and Biology of Mineralized Tissues**, October 17-22, **2004**, Banff, Alberta, Canada Abstract Book: p:77.
106. Dogan A., Boyar H., Bolay S., Gokalp S., **Severcan F.** “Effects of High Concentration of Hydrogen peroxide on Human Enamel and Dentin: An FTIR study” **8th Inter. Conf. the Chemistry and Biology of Mineralized Tissues**, October 17-22, **2004**, Banff, Alberta, Canada Abstract Book: p:80.
107. Preoteasa E.A., Livia Harangus, Andreea Jordan, C. Ciortea, D. Fluerasu, E. Preoteasa, H. Boyar, **F. Severcan**, M. Moldovan, Vi. Gheordunescu, M. Gugiu, D. Gutu, C. Ionescu-Tirgoviste, D. Dumitriu, T. Radu. “PIXE qualitative analysis of trace, minor and major elements in thick biomineral structures.” **3rd International Conference of Instrumental Methods of Analysis (Modern Trends and Applications)** IMA 03, 23-27 September, **2003**, Thessaloniki, Greece.
108. Eugen.A. Preoteasa, C. Ciortea, I. Piticu, D. Fluerasu, L. Harangus, **F. Severcan**, H. Boyar, A. Jordan, M. Gugiu, E. Preoteasa, M. Anghel. Relative concentrations of elements in thick biomineral structures by standardless PIXE analysis. **3rd International Conference of Instrumental Methods of Analysis (Modern Trends and Applications)** IMA 03, 23-27 September, **2003**, Thessaloniki, Greece.
109. Boyar, H., Zorlu, F., Mut, M. and **Severcan, F.** “The effects of chronic hypoperfusion on rat cranial bone mineral and organic matrix: A Fourier Transform Infrared Spectroscopy Study”, **Colloquium Spectroscopicum Internationale**, CSI XXXIII, 7-12 September, **2003**, Granada, Spain. (Abstract book pp 258-259).

110. E. A. Preoteasa, L. Harangus, A. Iordan, H. Boyar and **F. Severcan** “PIXE and FTIR Analysis of Bones from Normal and Streptozotocin-Induced Diabetic Rats”, **Colloquium Spectroscopicum Internationale**, XXXIII, 7-12 September, **2003**, Granada, Spain. (Abstract book pp 566-567).
111. Boyar, H. and **Severcan, F.** “Temperature Induced Effect of 17 β -Estradiol at Low and High Concentrations, on Phospholipid Model Membranes: An FTIR Study” **Second International Conference on Biomedical Spectroscopy**, 5-8 July, **2003**, London, U. K.
112. Boyar, H., Turan, B. and **Severcan, F.** “FTIR Spectroscopic Investigation of the Effects of Selenium on Streptozotocin Induced Diabetic Rat Femur and Tibia in the C-H Stretching Region” **Second International Conference on Biomedical Spectroscopy**, 5-8 July, **2003**, London, U. K.
113. Dogan, A., Siyakus, G. and **Severcan, F.** "Effect of gamma irradiation on peanut tissues: An FTIR study." **Second International Conference on Biomedical Spectroscopy**, 5-8 July, **2003**, London, U. K. (Abstract book pp. 202).
114. Görgülü G., Görgülü S., Yılmaz Ö., Güray T., **Severcan F.**, “FTIR spectroscopic study of streptozotocin-induced diabetic rat liver microsomes”, **13 th Balkan Biochemical Biophysical Days and Meeting on Metabolic Disorders**” 12-15 October, Kuşadası, Turkey, Turkish Journal of Biochemistry, Vol: 28, No:3, **2003**, pp:72-73 (oral presentation).
115. Akkas. S.B., Zorlu F., and **Severcan F.**, “Molecuşar investigation of the effect of melatonin on rat brain tissue”, **13 th Balkan Biochemical Biophysical Days and Meeting on Metabolic Disorders**” 12-15 October, Kuşadası, Turkey, Turkish Journal of Biochemistry, Vol: 28, No: 3, **2003**, pp: 73 (oral presentation).
116. Sahin İ., Kazancı N., and **Severcan F.**, “Concentration and temperature dependent studies of interaction of melatonin with lipid membranes”, **13 th Balkan Biochemical Biophysical Days and Meeting on Metabolic Disorders**” 12-15 October, Kuşadası, Turkey, Turkish Journal of Biochemistry, Vol: 28, No: 3, **2003**, pp: 170.
117. Zeyniyev. A., Cetin A.G., Severcan F., “FTIR Spectroscopic Investigation of Differences between Bacillus and Micrococcus Species”, **13 th Balkan Biochemical Biophysical Days and Meeting on Metabolic Disorders**” 12-15 October, Kuşadası, Turkey, Turkish Journal of Biochemistry, Vol: 28, No: 3, **2003**, pp: 188.

118. Doğan A., Siyakuş G., and **Severcan F.**, “Comparison of the effects of gamma irradiation on hazelnut tissue prepared by homogenate membrane and pellet methods using Fourier transform infrared spectroscopy”. **13 th Balkan Biochemical Biophysical Days and Meeting on Metabolic Disorders** 12-15 October, Kuşadası, Turkey, Turkish Journal of Biochemistry, Vol: 28, No:3, **2003**, pp:205-206.
119. Korkmaz F., **Severcan F.**, “Biophysical Studies of progesterone-model membrane interactions” **13 th Balkan Biochemical Biophysical Days and Meeting on Metabolic Disorders** 12-15 October, Kuşadası, Turkey, Turkish Journal of Biochemistry, Vol: 28, No:3, **2003**, pp:210
120. Toyran, N., Boyar, H., Zorlu, F., Mut, M. and **Severcan, F.** “FTIR Spectroscopic Analysis of Chronic Hypoperfusion on Rat Brain and Cranial Bone Proteins. **13th BBBB (Balkan Biochemical Biophysical Days) and Meeting on Metabolic Disorders**, 12-15 October, **2003**, Kuşadası, Turkey.
121. Severcan M, **Severcan F.**, Haris P. I.,” Improved prediction of protein secondary structure from FTIR spectra using neural networks”, **XIV Int. Biophysics Congress**, Apr.27-May 1, **2002**, Buenos Aires, Argentina.
122. **Severcan F.**, Drodoi D., Tokmak S., Haris P.I. “Interaction of Gramicidin S with lipid membranes, **XIV Int. Biophysics Congress**, Apr.27-May 1, **2002**, Buenos Aires, Argentina.
123. **Severcan, F.** “Fourier transform infrared spectroscopic studies of diabetic rat tissues” **1st Int. Conference on Biomedical Spectroscopy**, July 7-10, **2002**, Cardiff, Wales.
124. Cakmak G., Uğuz C., Togan I., **Severcan F.**, “The effect of Nonylphenol on Liver Tissue by Fourier Transform Infrared Spectroscopy”, **1st Int. Conference on Biomedical Spectroscopy**, July 7-10, **2002**, Cardiff, Wales.
125. **Severcan F.**, " Structural and Functional Characterization of Biological Systems by FTIR Spectroscopy", Plenary Lecture, Book of Abstract, p.16, **12 th BBBB Balkan Biochemical Biophysical Days**, May 10-13, **2001**, Bucharest, Romania.
126. Boyar H., Turan B., **Severcan F.**, "Comparison of streptozotocin-induced diabetic and control rat bones by Fourier transform infrared spectroscopy" Book of Abstract, p.116, **12 th BBBB Balkan Biochemical Biophysical Days**, May 10-13, **2001**, Bucharest, Romania.

127. Eker, Bayarı and **Severcan F**, " FTIR studies of melittin, vitamin D3 and DPPC" **EUCMOS XXV**, Page 327, Abstract book, 27 Aug.-Sep.1, **2000**, Coimbra, Portugal.
128. Bayarı S., Boyar H., Turan B., and **Severcan F.**, The effect of Selenium-vitamin E deficiency and selenium excess on bone mineral and amide matrix, measured by FTIR spectroscopy, **EUCMOS XXV**, Page 328, Abstract book, 27 Aug.-Sep.1, **2000**, Coimbra, Portugal.
129. Severcan M., **Severcan F.**, and Haris P, "Estimation of secondary structure from FTIR spectra using neural networks" **EUCMOS XXV**, Page 377, Abstract book, 27 Aug.-Sep.1, **2000**, Coimbra, Portugal.
130. **Severcan F.**, Toyran N., Kaptan N., and Turan B., "FTIR study of the effect of diabets on rat liver and heart tissues in the C-H region", **CSI XXXI**, Sept.5-10, **1999**.
131. Kazancı N., Zorlu F., Durmuş. O.H., and **Severcan F.**, "Comparison of the interaction of tamoxifen at high and low concentrations with model membranes by spectroscopic and thermodynamic studies", **CSI XXXI**, Sept.5-10, **1999**.
132. Durmuş O.H., Eker F., Akınoğlu B.G., and **Severcan F.** "Melittin-vitamin D2-Model membrane interactions: A turbidity and thermodynamic study". **CSI XXXI**, Sept.5-10, **1999**.
133. Toyran N., and **Severcan F.**, "The effect of magnesium ions on vitamin D2-phospholipid model membrane interactions in the presence of different buffer media" **CSI XXXI**, Sept.5-10, **1999**.
134. **Severcan F** and Bayarı F, An FTIR study of fish oil-dipalmitoyl phosphatidylcholine model membrane interactions, **XXIV European Congress on Molecular Spectroscopy**, 23-28 Aug. **1998**, Prague, Czech Republic.
135. Eker F, Durmuş H.O., Akınoğlu B., and **Severcan F.**, Application of Turbidity technique on peptide-lipid and drug-lipid interactions, **XXIV European Congress on Molecular Spectroscopy**, 23-28 Aug. **1998**, Prague, Czech Republic.
136. **Severcan, F.**, Süleymanoğlu, E., and Boyar H., "Turbidity Studies of the Effect of Divalent Cations on the Thermotropic Phase Behaviour of Phospholipid Model Membranes Containing Tamoxifen", **XXIII European Congress on Molecular Spectroscopy**, 25-30 August, **1996**, Balatonfüred, Hungary.
137. **Severcan, F.**, Acar B and Gökalp S, "Investigation of the Fluidity of the Biological

- Fluids by a new ESR spin Probe, **XXIII European Congress on Molecular Spectroscopy**, 25-30 August, **1996**, Balatonfüred, Hungary.
- 138.** Severcan, F., Baykal Ü and Süzer S., “Concentration and Temperature Induced Effects of α -Tocopherol on Cholesterol-Containing Phospholipid Model Membranes” **XXIII European Congress on Molecular Spectroscopy**, 25-30 August, **1996**, Balatonfüred, Hungary.
 - 139.** Boyar, H and Severcan, F., “Tamoxifen-Model Membrane Interactions: An FTIR Study **XXIII European Congress on Molecular Spectroscopy**, 25-30 August, **1996**, Balatonfüred, Hungary.
 - 140.** Boyar, H and Severcan, F., “Estrogen-Model Membrane Interactions: An FTIR Study”, **XXIII European Congress on Molecular Spectroscopy**, 25-30 August, **1996**, Balatonfüred, Hungary.
 - 141.** Severcan, F., Kazancı N., Baykal U. & Süzer S. Optical Studies of Vitamin E-Cholesterol-Phospholipid membrane Interactions, **23 th meeting of FEBS**, p. 236, Aug. **1995**, Basel, Switzerland.
 - 142.** Süleymanođlu, E. & Severcan, F. Calcium/Magnesium Specificity in Modulation of Phospholipid Phase Transitions Induced by Tamoxifen, **23 th Meeting of FEBS**, p. 236, Aug. **1995**, Basel, Switzerland.
 - 143.** Severcan, F., Kazancı, N., Baykal, Ü. & Süzer, IR and Turbidity Studies of Vitamin E-Cholesterol-Phospholipid Model Membrane Interactions, **35 th IUPAC Congress**, p. 360, Aug. **1995**, Istanbul, Türkiye.
 - 144.** Kazancı, N. Severcan, F. An FTIR Study of Vitamin D2-Phospholipid Model Membrane Interactions, **35 th IUPAC Congress**, p. 359, Aug. **1995**, Istanbul, Türkiye.
 - 145.** Suleymanoglu E., Severcan F., “Calcium/Magnesium Specificity in Modulation of Phospholipid Phase Transitions Induced by Tamoxifen”, *Molecular Dynamics of Biomembranes*, **1995**.
 - 146.** Baykal Ü, Süzer S, & Severcan F. "Vitamin E influences the interaction of cholesterol with phospholipid membranes: FTIR study". **NATO ASI, Trafficking of Intracellular membranes**, June **1994**, Espinho, Portugal.
 - 147.** Süleymanoglu, E., Zhdanov, R., & Severcan F. "Turbidimetric study of interaction

- between polyribonucleotides, phosphatidylcholine vesicles and metal ions", **NATO ASI, Trafficking of Intracellular membranes**, June 1994, Espinho, Portugal.
148. **Severcan F.** "Interaction of Vitamin E with cholesterol-containing phospholipid model membranes: ESR and STESR study". **11. Int. Biophysics Congress**, July 1993, p.144, Budapest, Hungary.
 149. **Severcan F., Acar, B., & Tolgay, E.** "Investigation of whole Blood Fluidity during the Menstrual Cycle and in the postmenopausal state in healthy women by spin-label electron spin resonance". **IV. Int. Conf. on Application of Physics in Medicine and Biology**. p. 41, Sep. 1992, Trieste, Italy. (Oral Presentation).
 150. **Severcan F.** "Interaction of Vitamin E with Phospholipid Model Membrane in the absence and in the Presence of Cholesterol", **V. Int. Conf. on Application of Physics in Medicine and Biology**, p. 40, Sep. 1992, Trieste, Italy.
 151. **Kocabas. K., Gökalp S & Severcan, F.** "Joint effect of smoking and pregnancy in the parotid saliva of women: A spin label ESR study", **V. Int. Conf. on Application of Physics in Medicine and Biology**,. p. 42, Sep. 1992, Trieste, Italy. Turkey. (Oral Presentation).
 152. **Severcan F.** "Interaction of Vitamin E with phospholipid model membranes", **Coherent and Emergent Phenomena in Bio-molecular systems, NATO Advanced Research Workshop**, January 15-19, 1991, Tucson, Arizona, USA.
 153. **Severcan F., Acar, B., Tolgay, E.** "Electron spin resonance studies on Blood fluidity during the menstrual cycle and in the postmenopausal period in healthy women and in woman with hyperplasia". **First International Biophysics Congress and Biotechnology at GAP**, p. 92 May, 1991, Diyarbakir, Turkey (Oral Presentation).
 154. **Severcan F.** "Electron spin resonance investigation of lateral phase separation in binary mixture of Lipids", **First International Biophysics Congress and Biotechnology at GAP**, p. 92 May, 1991, Diyarbakir, Turkey. (Oral Presentation).
 155. **Severcan F.** "Effect of melittin on phase transition and fluidity of a phospholipid model membrane", **International Society of Magnetic Resonance X. Meeting, (1989), D 16**, Morzine, France. (Invited Speaker in Round Table Discussion).
 156. **Severcan F., & Cannistraro, S.** "A spin label ESR and saturation transfer ESR study of a-Tocopherol containing model membranes", **International Society of Magnetic**

- Resonance X th Meeting, (1989)**, P6-45, Morzine, France.
157. **Severcan F.**, Toygar, N., Gökalp, S. **International Society of Magmatic Resonance X. Meeting, (1989)**, P6-48, Morzine, France.
 158. **Severcan F.** "A spin probe ESR study of the interaction melittin with DMPC liposomes". **NATO ASI on Protein Structure and Engineering**" course (1989), Erice, Italy. (Oral Presentation).
 159. **Severcan F.**, & Cannistraro, S. "Use of PDDTBN spin probe in partion studies of lipid membranes", **IX. Congresse Gruppo Nazionale di Cibernetica e Biofisica**, p. 210, Set. 1988, Trento Italy.
 160. **Severcan F.**, & Akyüz, S. "A Fourier transform infrared spectroscopic study of the interaction of a-tocopherol with L-a-phosphotidylcholine dimyristoyl bilayers", **XVIII the European Congress on Molecular Spectroscopy** (1987), Abstracts Book p. 227, Amsterdam, The Netherlands.
 161. Gökalp, S., **Severcan F.**, Akyüz, S., Akyüz, T. "IR and ESR spectroscopic investigations of parotid saliva", **XVIII th European Congress on Molecular Spectroscopy** (1987), Abstracts Book p. 229, Amsterdam, The Netherlands.
 162. **Severcan F.**, & Akyüz, S. "Melittin-Lipid Interactions: A FT-IR spectroscopic study" **XVIII th European Congress on Molecular Spectroscopy** (1987), Abstracts Book p. 230, Amsterdam, The Netherlands.
 163. **Severcan F.**, & Cannistraro, S. "Direct ESR evidence for a-Tocopherol induced phase separation in model membranes", **Meeting of Italian Society of Biophysics**, p. 51, Nov. 1987, Piza, Italy.
 164. **Severcan F.**, & Huestis, W. "Identification of Protein labelled in normal human erythrocyte membrane and spin labelling of human spectrin", **College in Biophysics** (1984), ICTP, Trieste, Italy.
 165. **Severcan F.**, & Plachy W. Z. "Rotational tumbling of PD-DTBN in cholesterol- lecithin membranes", **2 nd International Conference on Applications of Physics to Medicine and Biology** (1983), Trieste Italy. Abstr. 3
 166. **Severcan F.**, Frank, J., Morse, C., Plachy, W. "Direct ESR evidence for a lateral phase separation in cholesterol-lecithin membranes", **Biological Systems** (1982). Abstr. Book p. 42, Stanford, CA, USA.

5.7. NATIONAL ARTICLES

1. **Severcan F.** Kolesterol ile "Dimyristoyl Lecithin" Bilayer membranların etkileşmesinin spin-label ESR Tekniği ile incelenmesi, **DOGA J. Biol** Vol. 12, No: 3, 204-217, **1988**.
2. **Severcan F.** "A spin label ESR study of melittin-DMPC Liposomes", **DOGA J. Biol.** Vol. 12, No: 2, 123-127, **1988**.
3. **Severcan F.** "Spin labelling of normal human hemoglobin free erythrocyte ghost and spectrin". **DOGA J Biology A2**, Vol., No: 1, 111-117, **1985**.
4. **Severcan F.** "Fosfolipid (DMPC) –Kolesterol ikili karışımlarında faz dengesi", **DOGA A1**, Vol. 8, No: 1, 47-53, **1984**.
5. **Severcan F.** "Melittin-Phospholipid Interactions: ESR Studies". **Hacettepe Bull. Nat. Sci. Eng.**, 13, 45-52, **1984**.
6. **Severcan F.**, Öztekin, E., Oral B. "Continuous saturation measurements and calculations of the spin lattice relaxation times of some nitroxides in methanol". **A. U. Communications**, A2, 31, 27-40, **1982**.
7. **Zorlu (Severcan) F.**, Oral, B., & Atherton, N. M. "Electron spin dynamics of DTBN in solutions", **Hacettepe Bull. of Natural Science and Engineering**, 6, 87-102, **1977**.

ABSTRACTS IN NATIONAL CONGRESSES

~ 130

5.8. NATIONAL BOOK CHAPTERS

1. Gok. S., **Severcan F.**, "Rapid and Sensetive Differentiation of honey according to the botanical origins and fake honey by infrared spectroscopy", *Maka bal olma yolunda Samsun Sempozyumu*, (Eds: T. Bakır, H. Duran, D. Altan), *Dizgi ve Baskı Renk Vizyon Matbaacılık, Yayıncılık A.Ş.*, 151-162, **2015**.
2. **Severcan F.** Ünver Ö. *Basis of Spectroscopy*" in "Biyokimyada Temel ve Modern Teknikleré kitabı içinde (Edits: A. Telefoncu, J. Salhinow, F. Zihnioğlu, A. Kılınç)

Ege Üniversitesi Yayını. 2000.

3. **F. Severcan**, “Application of UV/Visible, Infrared, ESR ve CD spectroscopic techniques in Biological Systems, in “Biyokimyada Temel ve Modern Teknikler kitabı içinde yer almaktadır. (Editorler: A. Telefoncu, J. Salhinow, F. Zihnioğlu, A. Kılınç) Ege Üniversitesi Yayını. **2000. (ISBN:978-605-4672-93-6).**

6. PROJECTS

6.1. INTERNATIONAL:

1. **F.Severcan-MC member, COST Action BM1401-** Raman-Based applications for Clinical Diagnostics (Raman4 Clinics); Starting date: 14/05/2014, Ending date: 11/12/2018
2. **F. Severcan-Consultant, QUATAR NATIONAL PRIORITY RESEARCH PROGRAM- NPRP No.: NPRP 7 - 1648 - 3 – 420**, “Characterization of physiological, structural and biomolecular changes in brain tissue underlying functional impairment after experimental traumatic brain injury"- May-2014-May 2017, Budget: 9000000\$
3. **F.Severcan (Local Coordinator), TUBITAK-KBAG-114Z424:** Binary Project with Ukraina, “Synthesis of a Novel Vitamin-E Analogue and Investigation of its Anticancer Properties in Breast and Prostate Cancer Cells by Biochemical,Biophysical and Molecular Biological Techniques”; Budget: 270 000 TL; 15.01.2015-15ç01.2016
4. **F. Severcan (MC member) COST Action BM0901, SYSGENET – “European systems genetics network for the study of complex genetic human diseases using mouse genetic reference populations”,** Nov. 2009-Nov. 2013.
5. **F. Severcan (Local Coordinator).** Germany-Turkey, Promotion German-Turkish Higher Education Research Project TUBITAK-SBAG-BMBF-6 (108S264), “Genetic and Biophysical Investigation of The Relation Between Muscle Characteristics and Obesity”, Duration:2009-2012, Budget: 120000 EUR for each Country.
6. **F. Severcan (Local Coordinator).** “Study of the Capabilities and Requirements of Operational Client-Server Health Information System for Diabetes (TeleDiab)”. Organization of the Black Sea Economic Cooperation Projectct Development Fund, 2006-2007.

7. **F. Severcan (Local Coordinator)**. “Protein secondary structure determination from FTIR data”. Royal Society (UK) Scientific Exchange Research Fund, 2000-2003; 2003-2005
8. **F. Severcan (Local Coordinator)**. “Biophysical Studies of Protein Structure, Function and Stability”. British Council Academic Link, 1997-2000.
9. **F. Severcan (Researcher)**. “The Production and Application of Microbial Polyesters in the Construction of Biodegradable Controlled Antibiotic Release systems and Bone Fracture Repair Rods”. NATO Science for Stability, 1996-1998.
10. **F. Severcan (Local Coordinator)**. NATO SA.(CRG.951356), “Structure, function and stability of thermophilic enzymes”. NATO , 1996-1997.
11. **F. Severcan (Local Coordinator)**. “The Structural Basis of Enzyme Stability in Extreme Environments”. British Council Academic Link, 1993-1996.
12. **F. Severcan (Local Coordinator)**, “Drug-model membrane interactions” Third World Academy of Science, 1987-1989.
13. **F. Severcan (Coordinator)**. No: **35-TUR-1**", Application of Spin Labeling ESR spectroscopy technique to Parotid Saliva", TWAS Third World Academy of Sciences, Trieste, Italy, 1988-1989.

6.2. NATIONAL: (Funded by National Research Organizations-with big size budget)

1. F. Severcan (Director and Coordinator), Evaluation of Infrared spectroscopy as a novel approach in characterization and diagnosis of Myasthenia Gravis. TUBITAK-SBAG- Project No: 218S986. 01.01.2020-01.01.2023
2. F. Severcan(Consultant) The effect of high fat diet and high carbohydrate diet on liver tissues of rats with different gender by infrared spectroscopy, **TUBITAK-3501**, Project no:114S484, 15/11/2018- 15/01/2022
3. **F. Severcan (Researcher) TUBITAK-1003**, Development of Chemical Sensor Based Device Prototype for Scanning and Detection of Volatile Markers in Human Breath for Early Phase Lung Cancer, worked between 2015-2016
4. **F. Severcan (Coordinator) TUBITAK-ÇAYDAG-113Y515**, “Method development for design and choice of bacteria in sustainable bioremediation of heavy metals”, 15.04.2014-15.04.2016;

5. **F. Severcan (Coordinator), TUBITAK-1002-SBAG-115Z702**, “Investigation of Obesity Induced Type 2 Diabetes dependent molecular alterations and therapeutic effect of Palmitoleic Acid on these alterations in adipose tissue by Fourier Transform Infrared Microspectroscopy”, 15.08.15- 15.08.16,
6. **F. Severcan (Researcher), TUBITAK-SBAG-113S294**, “Evaluation of Attenuated Total Reflectance Fourier Transform Infrared (ATR-FTIR) Spectroscopy as a diagnostic method for the diagnosis of malignant pleural mesothelioma from body fluids”, 15.10.2013-15.10.2015;
7. **F. Severcan (Coordinator) , TUBITAK-2232 - 115C061 (Fellow: Dr. Akın Sevinc)**, The possible therapeutic effects of gamma-tokotrienol on liver cancer cell lines. 30 March 2015 - 30 March 2017;
8. **F. Severcan (Consultant), TUBITAK-3001-SBAG-Projectct no: 114S848** “Investigation of systemic inflammation on rat hippocampusat molecular level by Fourier Transform Infrared spectroscopy and imaging) 2014- 2015.
9. **F. Severcan (Coordinator), ÖYP-DPT Projectct: No: BAP-08-11-DPT.2012K121010**, The investigation of the effects of Non-Steroidal inflammatory drugs (COX-2 inhibitor) on colon cancer by Fourier transform infrared spectroscopy at molecular level”, 2012-2013.
10. **F. Severcan Coordinator). ÖYP-DPT Project: No: BAP-08-11-DPT.2011K121010.**“ The investigation of the structural and functional variations on breast cancer cells and membranes due to MikroRNA125b Transfection by ATR-FTIR Spektroscopy”, 2011-2012.
11. **F. Severcan (Coordinator), TUBITAK - Project No: SBAG- 110S235 (COST National Project) "** Characterisation of different adipose tissues of inbreed obese Mouse models” " 01.02.2011-01.08.2013,
12. **F. Severcan (Coordinator), TUBITAK-1002, Project No: 210T125**, “ Structural and functional investigation of Agomelatine-model membrane interactions by biophysical techniques”. 2011-2012, Projectct budged:
13. **F. Severcan (Coordinator). TUBITAK-1002, Project No: TBAG-108T616**, “Investigation of Simvastatin-membrane interactions by biophysical techniques at molecular level” 2008-2009.

14. **F. Severcan (Coordinator), ÖYP-DPT Project, BAP-08-11-DPT2002K120510-TB-04,**“ The investigation of the effects of cholesterol reducing agent simvastatin on nerve tissues at molecular level“, 2006-2008.
15. **F. Severcan (Coordinator). TUBITAK-1001-SBAG-2940 (104S475)** “The investigation of the molecular mechanism of epilepsy and the role of anti-epileptic drugs vigabatrin and topiramate in the treatment of epilepsy”, 2005-2008.
16. **F. Severcan (Coordinator). ÖYP-DPT Project: BAP-08-11-DPT2002K120510-TB-04,**“ Investigation of molecular mechanism of epilepsy and action mechanism of some drugs“. 2004-007.
17. **F. Severcan (Researcher), Project No: DPT-2003K1207-901,** “ The investigation of molecular mechanism of epilepsy and the role of some drugs on the treatment by molecular and biotechnological methods”, 2004-2007.
18. **F. Severcan (Researcher), TUBITAK-1001, Project No: SBAG-2939,** “Investigation of the effects of radioprotectant Amifostine on rat tissues by molecular methods” 2005-2007.
19. **F. Severcan (Coordinator), DPT Project** “ The investigation of action mechanism of antioxidants on tissues and membranes by molecular and biotechnological methods”, 2001-2004.
20. **F. Severcan (Researcher), TUBITAK-1001-EEEAG-No: Project No: 100E036,** “Estimation of protein secondary structure from FTIR spectra using neural networks”, 2001-2004.
21. **F. Severcan (Coordinator), DPT Projects: BAP-01-08-DPT.2003K120920-13,** The investigation of the possible effects of antioxidants and amifositin used as a radioprotector on irradiated diabetic tissues with molecular and biotechnological methods”, 2003-2006,
22. **F. Severcan (Researcher), DPT Project:** “The effects of antioxidants on diabetic rat microsomal membranes”, 2003-2006.
23. **F. Severcan (Researcher), TUBITAK-1001-YDABÇAG-100YO35,** Detection of Alkyphenol pollution in River Sakarya and Değirmendere and effects of Nonylphenol on Rainbow trout”. 2002-2004.
24. **F. Severcan (Researcher), TUBİTAK-1001, Project No: ÇAYDAG-104Y308,** “Design of a fast and dependable fish stock determination methodology based on the of physical and chemical fish Q” , 2005-2007,

25. **F. Severcan (Coordinator), DPT Project**, “Investigation of therapeutic effects of Vitamin E and Selenium in diabetes by molecular and biotechnological methods” , 2002-2005.
26. **F. Severcan (Researcher). DPT Project**, “Therapeutic effect of Lipophilic antioksidants and N-3 fatty acids on cancer”. 2002-2005.
27. **F. Severcan (Researcher). TUBITAK-1001, Project No: SBAG-2320**, Investigation of the molecular effect of stereotactic radiosurgery at chronic hypoperfused rat brain tissue and membrane by using biophysical techniques” 1998-2000.
28. **F. Severcan (Coordinator)**. “Molecular Biology- Biotechnology Research and Development Center Projectct”, State Planning Organisation of Turkey 1997-2000 for the establishment of Biotechnology Center in METU 1997-2000.
29. **F. Severcan (Coordinator). TUBITAK-1001, Project No: TBAG-1777**, “The role of steroids on Melittin-Membrane interaction”, 1999-2001.
30. **F. Severcan (Coordinator), DPT Project** “Antioksidant action mechanism and their use in therapy” , 1997-2000
31. **F. Severcan (Researcher). TUBITAK-1001, SBAG**, Investigation of the effect of diabetes mellitus on several organ functional disorders by electrophisologic, biomechanic and molecular biophysical studies”. 1999-2001.
32. **F. Severcan (Coordinator), TUBITAK-1001, Project No: TBAG-1295**, “Investigation of Protein Structure, Function and Stabiliy by Biophysical techniques”, 1996-1998.
33. **F. Severcan (Coordinator), DPT Projects: Project No: AFP01-08 DPT97K122060** “Interaction of Vitamin E and D with model and native Biological membranes” State Planning Organization Projectct, Coordinator: **F. Severcan** , 1996-1998, Budged: 3.500.000.000 TL
34. **F. Severcan (Coordinator), TUBITAK-1001, Project No: TBAG-1968**, “Using of estrogen and Vitamin E in treatment of Cardiovascular disorders”, 1992-1994.
35. **F. Severcan (Coordinator), TUBITAK-1001, Project No: TBAG-676**, “Molecular interactions in biological membranes”. 1984-1986.
36. **F. Zorlu (Severcan) (Researcher). TUBITAK, Project No: TBAG-1589**, “Investigation of physical, chemical and biophysical properties of organic negative ions and free radicals by ESR, NMR and ENDOR” 1973-1975.

6.3. UNIVERSITY FUNDED PROJECTS (Interdispliner, with medium size budget)

1. **F. Severcan** (Coordinator), Molecular characterization and biomarker determination of Orange Peel Crude Extract-Candida albicans interaction by Infrared Spectroscopy coupled with Chemometric and Statistical Methods-AU-BAP Project 2020-
2. **F. Severcan** (Researcher), identification of Biomolecular Characterization and biomarkers determination for Antifungal Effect of Orange Peel Essential Oil in Candida Fungus by Infrared Spectroscopy , AU-BAP- **PB2019-TIP-8**,
3. **F. Severcan** (Researcher), Investigation of Platelet Concentrates Prepared by Apheresis Method for Infection Transmission Using Infrared Spectroscopy Method, AU-BAP, **PB2019-TIP-6**,
4. Investigation of Possible Cytotoxic Effects of Black Cumin Seed Methanol Extract on Colon Cancer CACO-2 Cell Line by Infrared and Raman Spectroscopy” **Altınbaş University-BAP Project, PB2018-GÜZ-TIP-2**, Start: 2019-2020 September,
5. The Investigation of the Therapeutic Effects of Histone Deacetylase Inhibitors on Colon Cancer Cells by Micro-nanotechnological Methods”, METU - Project, Feb-2015-Dec.2015 (**F.Severcan-Researcher**).
6. “The Investigation of Sodium Butyrate Concentration dependent Structural and contextual variations in Human Colon Adenocarcinoma Cells by Raman, FTIR and Terahertz Spectroscopic Techniques”, METU - Project, , 01.01.2013-31.12.2015, F.Severcan-Coordinator)
7. **F. Severcan (Researcher), Disiplinler arası Project: BAP-07-02-2015-006**, Investigation of therapeutic effect of histon deactylase inhibitor on colon cancer cell line micronano technologic methods. Jan 2015-Dec. 2015,
8. **F. Severcan** (Coordinator). “ Structural and functional studies of Essitalopram-Spingomyelin Model Membrane interactions by biophysical approach ” **Project No: Bap-08-11-2013-012**; 01.2013-01.2014.
9. **F. Severcan** (Researcher). “ Molecular characterization of aqueous bacteria due to Arsenic, Nickel and Cadmium resistance” **Project No: BAP-01-08-2013-004**; 01.2013-12.2013.
10. **F. Severcan** (Researcher). “Quality control of embryo by FTIR spectroscopy”, **No: BAP- 08-11-2010-16 (METU-GATA Project)**, 2010-2011.
11. **F. Severcan** (Coordinator). “Agomelatine –Model membrane intractions”, (**METU-**

GATA Project), Project No: BAP-08-011-2012-013 (METU-GATA İşbirliği Projesi),2012-2014.

- 12. F. Severcan** (Coordinator). “ The effects of Karbamazepin therapy on healthy rat bones”. **Project No: BAP-07-02-2010-003**, 2010-2011.
- 13. F. Severcan** (Coordinator). “Structural and functional studies of Antidepressant-membrane interaction” **Project No: BAP-08-11-2010-R-15, (METU-GATA İşbirliği Projesi)**, 2010-2012.
- 14. F. Severcan** (Coordinator). “The effect of diabetes on rat kidney and the therapeutic role of Selenium”, **Project No: BAP-07.02.2009.03-, METU-BAP, Project**, 2009-2011.
- 15. F. Severcan** (Researcher). “Characterization of yellow rust and stem rust resistant and sensitive durum wheat lines at molecular level by using biophysical methods”, **Project No: BAP-07.02.2009.02.. METU-BAP**, 2009-2011.
- 16. F. Severcan** (Coordinator). “Therapeutic effect of vitamin C on diabetic liver tissues: An FTIR imaging study), 2008-2009, **METU-BAP**,
- 17. F. Severcan** (Coordinator). “Investigation of the effects of streptozotocin induced-diabetes on rat testes and muscle and the recovery role of vitamin C by biophysical and bioinformatical methods”, **Project No: BAP-2006-R-07-217, METU-BAP**, 2006-2008.
- 18. F. Severcan** (Coordinator), “ Study of the effects of diabetes and biotechnological diagnosis and treatment methods”. AFP-YUUP, 2003-2004.
- 19. F. Severcan** (Coordinator), “ ESR spectroscopic study of Dynamics and thermal stability of Pig Citrate Synthase”. METU, 2002-2003
- 20. F. Severcan** (Coordinator), AFP 96-01-08-17, Spin Label ESR spectroscopy in cancer research: Dokuz Eylül Üniversitesi: 1986-1987.

6.4. Small size graduate student Projects

Each M.Sc student had funding for 2 years, and each Ph.D student had funding for 4 years from METU for their graduate thesis Projectct.