Esin Öztürk Işık

Personal

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Research Interests

- Multimodality medical imaging for diagnosis, treatment planning, and monitoring cancer and other diseases
- Machine learning and deep learning methods for noninvasive classification of disease characteristics including genetic mutations based on magnetic resonance imaging
- Fast data acquisition and accurate data quantification in magnetic resonance imaging
- Parallel imaging theories and their application to magnetic resonance imaging and magnetic resonance spectroscopic imaging
- Proton MR spectroscopic imaging and phosphorus MR spectroscopic imaging

Education

Ph.D.   University of California at Berkeley and University of California at San Francisco
                 Joint Graduate Program in Bioengineering
                 August 2002 – March 2007
                 Major: Biomedical Imaging, Minor: Anatomy and Physiology
                 Supervisor: Sarah J. Nelson
Thesis title: Implementation of Parallel Imaging Techniques for Lipid Unaliasing and Faster
                 Acquisition for Improving Spatial Characterization of Magnetic Resonance
                 Spectroscopic Imaging of Gliomas.

M.Sc.   University of Alabama at Birmingham
                 Biomedical Engineering
                 September 1999-December 2001
                 Major: Biomedical Imaging
                 Supervisor: Donald B. Twieg
Thesis title: Assessing the effects of regularization methods on MRI data reconstruction problem and
                 implementing different image reconstruction algorithms for a new fast single shot MRI
                 technique.

B.Sc.   Middle East Technical University, Ankara, Turkey
                 Computer Engineering
                 September 1995-June 1999

Grant Support

1. Neurotechnological Solutions Platform for Challenges Threatening Human Function: Small animal imaging application and innovation platform for the detection of the effects of aging on the brain and musculoskeletal system. TÜBİTAK 1004 22AG016. 2023-2027. (Co-Investigator)
2. 'Assessment of Radiotherapy Planning Efficacy Based on Brain Tumor Shape Analysis'. Bogazici University BAP Grant 19482. 2022-2023. (Principal Investigator)
3. 'The Effect of Super Resolution Deep Learning on Radiomic Shape Features Acquired from Diffusion MRI of Stroke Patients'. Bogazici University BAP Grant 19363 (Doctorate Project). 2022-2023. (Principal Investigator)
4. 'Developing BBB-ASL as non-invasive early biomarker of Alzheimer's disease'. JPND COFUND TÜBİTAK 1071 Grants. 2021-2024. (Co-Investigator)
5. 'Automatic Assessment of Gait Impairments in Stroke using Artificial Intelligence, Wearable Technology and Neuroimaging'. Aberystwyth University Global Challenges Research Fund CIDRA Grant. 2020-2021. (Co-Investigator)
6. 'Advanced Magnetic Resonance Imaging and Machine Learning Based Product Development for Noninvasive Detection of Genetic Subgroups of Brain Membrane Tumors'. TÜBİTAK 1001 grant 119S520. 2020-2022. (Principal Investigator)
7. 'Determination of Metabolic and Perfusion Magnetic Resonance Imaging Based Biomarkers in Parkinson's Disease Dementia and Parkin Gene Mutations'. Bogazici University BAP Grant 19XP1. 2019-2020. (Principal Investigator)
8. '1H, Bilateral, Flexible Breast Coil Design for Magnetic Resonance Imaging Systems'. TÜBİTAK 1001 grant 116E155. 2016-2019. (Researcher)
9. 'Development of a Diagnostic Tool for Identifying Genetic, Metabolic and Histopathologic Properties of Glial Brain Tumors'. TÜBİTAK 1003 grant 216S432. 2017-2020. (Researcher)
10. 'Feasibility Study of Obtaining High-Resolution Spectroscopy Images Using Data Fusion Techniques'. Royal Society Newton Mobility Grant NI150340. 2016-2017. (Principal Investigator)
11. 'Determination of Multimodality Magnetic Resonance Imaging Based Biomarkers for Mild Cognitive Impairment in Parkinson Disease'. TUBITAK 1001 Grant 115S219. 2015-2018. (Principal Investigator)
12. 'Investigation of the Human Brain Metabolism in-vivo in Chronic Liver Failure Using Magnetic Resonance Spectroscopic Editing Techniques'. Bogazici University BAP Grant 15XSUP8. 2015-2018. (Principal Investigator)
13. 'Fast Phosphorus Magnetic Resonance Spectroscopic Imaging using Compressed Sensing for Imaging Brain Tumors'. TUBITAK 3501 National Young Researchers Career Development Program (CAREER) 112E036, 2012-2014. (Principal Investigator)
14. 'Phosphorus MR Spectroscopic Imaging of Brain Tumors at 3T (31P_SPECTRA_3T)'. Marie Curie International Reintegration Grant (IRG) 256528, 2010-2014. (Principal Investigator)

Work Experience

(August 2018-present) Associate Professor, Biomedical Engineering Institute, Boğaziçi University.
- Have worked on magnetic resonance imaging based identification of biomarkers of genetic mutations in gliomas and meningiomas using machine learning and deep learning.
- Have implemented deep learning based algorithms for classification of MR spectroscopic imaging.
- Have worked on BBB-ASL imaging of gliomas at 3T.

- Have worked on shape analysis of brain tumors.
- Instructor for the following classes:
  - BM686 "Deep Learning in Medical Imaging"
  - BM641 "Magnetic Resonance Imaging"
  - BM590 "Magnetic Resonance Spectroscopic Imaging"
  - BM506 "Introduction to Biostatistical Methods for Research"
  - BM596 "Magnetic Resonance Image Reconstruction"
  - BM 691 'Medical Image Processing and Analysis'

(September 2014-August 2018) Assistant Professor, Biomedical Engineering Institute, Boğaziçi University.
- Have implemented deep learning based algorithms for super resolution MR spectroscopic imaging.
- Have worked on machine learning based identification of magnetic resonance spectroscopic imaging biomarkers of genetic mutations in gliomas.
- Have conducted research on multimodality MR imaging of Parkinson disease at 3T.
- Have implemented MR spectral editing methods at 3T.
- Instructor for the following classes:
  - BM641 "Magnetic Resonance Imaging"
  - BM590 "Magnetic Resonance Spectroscopic Imaging"
  - BM506 "Introduction to Biostatistical Methods for Research"
  - BM596 "Magnetic Resonance Image Reconstruction"

(December 2009-September 2014) Assistant Professor, Biomedical Engineering, Yeditepe University.
- Developed techniques for compressed sensing accelerated phosphorus MR spectroscopic imaging of brain tumors at 3T.
- Worked on machine learning algorithms for classification of disease characteristics.
- Developed T1 measurement and data acquisition methodologies for phosphorus MR spectroscopic imaging of the healthy human brain and brain tumors at 3T.
- Implemented accurate data analysis methods for functional MRI using FSL and SPM.
- Developed fast T2 measurement and display techniques for human articular cartilage.
- Conducted research on simulation of brain metabolites using GAMMA MRS simulation package.
- Taught the following classes:
  - BME 411 "Medical Imaging"
  - BME423 " Biometry for Analytical Reasoning and Modeling"
  - BME444 "Magnetic Resonance Imaging"
  - BME 412 "Magnetic Resonance Spectroscopic Imaging"
  - BME 492 " Engineering Thesis Project"
  - BTEC 526 "Applications of Biostatistics for Research"
  - EE 669 "Advanced Methods In Signal Processing: Medical Image Reconstruction"

(September 2009-September 2014) Part-time Instructor. Biomedical Engineering Institute, Bogazici University.
- Taught BM599 " Introduction to Biostatistics for Research" every Fall semester between 2009 and 2012, and in Spring 2014.
- Taught BM688 "Advanced MRI' in Spring 2010

(March 2007-February 2009) Postdoctoral Fellow. Margaret Hart Surbeck Laboratory of Advanced Imaging, University of California at San Francisco.

- Implemented B1 mapping and transmit gain optimization for accurate spectroscopic imaging of human brain at 7T ultra high field MR systems.
- Implemented elliptical SENSE for high spatial resolution imaging of brain tumors at 7T MR systems.
- Implemented lactate edited MR spectroscopic imaging of brain tumors based on elliptical SENSE at 3T imaging systems.

(August 2002-March 2007) Graduate Research Assistant. Margaret Hart Surbeck Laboratory of Advanced Imaging, University of California at San Francisco.
- Implemented fast data acquisition and reconstruction using conventional and elliptical SENSE and GRAPPA for imaging of brain tumors.
- Implemented software to reduce the aliasing lipid peaks in MR spectra using parallel imaging techniques to increase the accuracy of spectral quantitation of brain tumors.
- Analyzed MR diffusion weighted, perfusion weighted and spectroscopic imaging to understand the anatomical and metabolic characteristics of Grade 3 and Grade 4 brain tumors.
- Studied the longitudinal effects of external beam radiation therapy in brain tumors utilizing MR diffusion weighted, perfusion weighted and spectroscopic imaging.
- Compared data reconstruction strategies in time domain and frequency domain for more accurate MR spectral quantitation of the prostate cancers.

(January 2002- August 2002) Junior Specialist. Department of Radiology, University of California at San Francisco.
- Acquired, processed and interpreted MR imaging and spectroscopic imaging data of brain tumor patients on a 1.5T GE Signa clinical MR scanner.

(September 1999 – December 2001) Graduate Research Assistant, Biomedical Engineering Department, University of Alabama at Birmingham
- Implemented and assessed the effects of regularization methods on MRI reconstruction problems.
- Implemented image reconstruction algorithms for a new fast single shot MRI technique in C and MATLAB.
- Implemented macros to integrate a reconstruction routine written in C into the ParaVision package of the Bruker MR systems.

Patents
- WO2021015702 - Wearable and Flexible Breast Coil. Yeğin K, Öztürk Işık E, Kahraman Ağır B. 28.01.2021. (https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2021015702)

Teaching

2003: Course assistant at University of California at San Francisco for UCSF/UC Berkeley Bioengineering 241, "Magnetic Resonance Spectroscopy". Organized and led discussion sessions. Prepared and maintained the course website. (http://www.mrsc.ucsf.edu/~esin/Bioe241.html)
2003: Lecturer and course assistant at University of California at San Francisco for 'Parallel Imaging Group Meeting'. Presented various prominent papers of the parallel imaging field. Prepared and maintained the course website. (http://www.mrsc.ucsf.edu/~esin/Pimg.html)
2005: Lecturer and course assistant at University of California at San Francisco for UCSF/UC Berkeley Bioengineering 297, "Parallel Imaging Seminar". Organized and led discussion sessions. Prepared and maintained the course website. (http://www.mrsc.ucsf.edu/~esin/pimgseminar2005.htm)
2005: Lecturer at University of California at San Francisco for UCSF/UC Berkeley Bioengineering 297, "MR Pulse Sequences".

2009 – 2012, 2014: Instructor at the Biomedical Engineering Institute of Bogazici University for BM 599, "Introduction to Biostatistical Methods for Research"

2010: Instructor at the Biomedical Engineering Institute of Bogazici University for BM 688, "Advanced MRI"

2010: Instructor at the Faculty of Engineering of Yeditepe University for ES106, "Technical Report Writing and Presentation Skills"

2010 - 2012: Instructor at the Biomedical Engineering department of Yeditepe University for BME 423, "Biometry for Analytical Reasoning and Modeling"

2010-2013: Instructor at the Biomedical Engineering Department of Yeditepe University for BME 444, "Magnetic Resonance Imaging"

2010 - 2014: Instructor at the Biomedical Engineering department of Yeditepe University for BME 421, "Medical Imaging"

2010 - 2014: Instructor at the Biomedical Engineering Department of Yeditepe University for BME 412, "Magnetic Resonance Spectroscopic Imaging"

2010 - 2014: Instructor and advisor at the Biomedical Engineering department of Yeditepe University for BME 492, "Engineering Project"

2011-2013: Instructor at the graduate level Biotechnology program of the Science Institute of Yeditepe University for BTEC 526, "Applications of Biostatistics for Research"

2013: Instructor at the graduate level Electrical and Electronics Engineering program of the Science Institute of Yeditepe University for EE669, "Advanced Methods In Signal Processing: Medical Image Reconstruction"

2015-2023: Instructor at the Biomedical Engineering Institute of Bogazici University for BM 590, "Magnetic Resonance Spectroscopic Imaging"

2015-2023: Instructor at the Biomedical Engineering Institute of Bogazici University for BM 506, "Introduction to Biostatistical Methods for Research"

2015-2019: Instructor at the Biomedical Engineering Institute of Bogazici University for BM 596, "Magnetic Resonance Image Reconstruction"

2015-2022: Instructor at the Biomedical Engineering Institute of Bogazici University for BM 641, "Magnetic Resonance Imaging Principles"

2020-2023: Instructor at the Biomedical Engineering Institute of Bogazici University for BM 686, "Deep Learning in Medical Imaging"

2023-: Instructor at the Biomedical Engineering Institute of Bogazici University for BM 691 'Medical Image Processing and Analysis'

Board Duties

- Member, The Scientific and Technological Research Council of Turkey (TUBITAK) TEYDEB Biomedical Equipments Invited Grant Calls Advisory Board (2017-2020)
- Member, Human Research and Ethics Committee, Yeditepe University (2012-2014)

Reviewing Services

- TUBITAK ARDEB (grant proposal review panelist)
- TUBITAK TEYDEB (grant proposal reviewer/monitor)
- Magnetic Resonance in Medicine
- Journal of Magnetic Resonance Imaging

- Computer Methods and Programs in Biomedicine
- Turkish Journal of Electrical Engineering & Computer Sciences
- British Journal of Medicine and Medical Research
- International Society of Magnetic Resonance in Medicine (ISMRM) Conference (2014, 2015, 2018, 2019, 2020, 2021)
- European Society of Magnetic Resonance in Medicine and Biology (ESMRMB) Conference (2013, 2019, 2022, 2023)
- Electrical, Electronics and Computer Engineering Symposium (ELECO) (2010, 2011,2012, 2014)
- Biomedical Engineering Meeting (BIYOMUT) (2010, 2011, 2012, 2014)
- IEEE Signal Processing and Communication Applications Congress (SIU) (2012, 2013, 2014)

Guest Editorial Services

- Turkish Journal of Biology
- Turkish Journal of Electrical Engineering and Computer Sciences

Administrative Services

- Associate Director of the Biomedical Engineering Institute of Bogazici University (2019-present)
- ERASMUS coordinator of the Biomedical Engineering Institute of Bogazici University (2018-present)
- Publicity committee member of the Biomedical Engineering Institute of Bogazici University (2017-present)
- Summer internship coordinator of the Biomedical Engineering Institute of Bogazici University (2014-2020)
- Registration advisor at the Biomedical Engineering Institute of Bogazici University (2014-present)
- ERASMUS coordinator of the Biomedical Engineering department of Yeditepe University (2010-2014)
- MUDEK coordinator of the Biomedical Engineering department of Yeditepe University (2011-2014)
- Double major and minor program coordinator of the Biomedical Engineering department of Yeditepe University (2010-2014)
- Academic advisor at the Biomedical Engineering department of Yeditepe University (2010-2014)

Programming Skills

Pulse Programming: Siemens IDEA (March 2018 at Cary, NC), Philips Paradise (Gyrotools Pulse Programming course on 13-17 September 2010 at ETH, Zurich), GE EPIC (attended an in-house seminar series on EPIC programming held at UCSF)

Medical Imaging Systems: Experience with PET/MR 7T MR Solutions preclinical system, 3 Tesla human MRI system (Siemens), 3 Tesla human MRI system (Philips Achieva, Philips Ingenia), 1.5, 3, and 7 Tesla human MRI systems (GE), and 4.1 Tesla Bruker MRI system

Programming Languages: Python, ANSI C, C++, Delphi, UML, GLUT, OpenGL, HTML, SQL, Assembly Language, Pascal, ML, Lisp, Prolog

Application Packages: Anaconda, MATLAB, ParaVision, Rational Rose, Front Page

Professional Societies

- Organizing Committee Member, European Society for Magnetic Resonance in Medicine and Biology (ESMRMB) 2023 Annual Conference
- Co-president, Turkish Chapter of International Society of Magnetic Resonance in Medicine (ISMRM) (2018-2022)
- Organizing Committee Member, Turkish Chapter of International Society of Magnetic Resonance in Medicine (ISMRM) Sessions at TMRD 2022, 26-28 May 2022, Ankara, Turkey
- Organizing Committee Member, ISMRM Workshop on Cancer Imaging: From Discovery to Diagnosis. 01-04 November 2022, Asilomar, Monterey, CA, USA
- Organizing Committee Member, GliMR 2.0 Annual Meeting 2022. 28-30 September 2022, Kusadasi, Izmir, Turkey
- Organizing Committee Member, GliMR 2.0 Training School – Artificial Intelligence in Neuro-Oncology. 25-27 July 2022, Dublin, Ireland
- Organizing Committee Member, European Society for Magnetic Resonance in Medicine and Biology (ESMRMB) 2021 Annual Conference
- Secretary, Organization for Human Brain Mapping (OHBM) Turkey Chapter (2015-Present)
- Member, ISMRM (2002-Present)
- Member, ESMRMB (2010-Present)
- Member, Turkish Society of Magnetic Resonance (TMRD) (2010-Present)
- Member, OHBM (2015-2018)
- Member, IEEE EMBS (2010-2014)

Organized Workshops

1. 'Emerging Concepts in Advanced Imaging of Neurodegenerative Diseases' workshop, organized with Prof. Dr. Tamer Demiralp and Prof. Dr. Cengizhan Öztürk, Bogazici University, Istanbul, October 18th-20th, 2015 (abstract book online at: https://cil.boun.edu.tr/sites/cil.boun.edu.tr/files/abstract.pdf)
2. 'Recent Advances in Magnetic Resonance Imaging' workshop, organized with Dr. Maria Valdes Hernandez, Bogazici University, Istanbul, June 20th, 2017 (https://cil.boun.edu.tr/content/workshop-recent-advances-magnetic-resonance-imaging-bogazici-university-turkey-june-20th)
3. 'Reconstruction schemes for MR data' workshop, organized with Dr. Maria Valdes Hernandez, University of Edinburgh, UK, August 17th, 2016 (https://cil.boun.edu.tr/content/reconstruction-schemes-mr-data-workshop-university-edinburgh-england-august-17th-2016)
4. 'Workshop on Emerging Methods in Neuroimaging of Cognitive Impairment in Parkinson's Disease', organized with Dr. Maria Valdes Hernandez, Bogazici University, September 26th, 2018
5. 'Magnetic Resonance Spectroscopy Training', organized with Gokce Hale Hatay, Banu Sacli Bilmez and Abdullah Bas. Bogazici University, March 19, 2022

Languages

English (fluent), Turkish (mother tongue)

Publications

(Esin Ozturk Isik worked part time in 2008 and 2009.)

Peer-reviewed Journal Articles

1. Sacli-Bilmez B, Danyeli AE, Yakicier MC, Aras FK, Pamir MN, Özduman K, Dinçer A, **Ozturk-Isik E**. Magnetic resonance spectroscopic correlates of progression free and overall survival in "glioblastoma, IDH-wildtype, WHO grade-4". **Front Neurosci**. 2023 Jun 29;17:1149292. doi: 10.3389/fnins.2023.1149292. PMID: 37457011; PMCID: PMC10339315.
2. Hangel G, Schmitz-Abecassis B, Sollmann N, Pinto J, Arzanforoosh F, Barkhof F, Booth T, Calvo-Imirizaldu M, Cassia G, Chmelik M, Clement P, Ercan E, Fernández-Seara MA, Furtner J, Fuster-Garcia E, Grech-Sollars M, Guven NT, Hatay GH, Karami G, Keil VC, Kim M, Koekkoek JAF, Kukran S, Mancini L, Nechifor RE, Özcan A, **Ozturk-Isik E**, Piskin S, Schmainda KM, Svensson SF, Tseng CH, Unnikrishnan S, Vos F, Warnert E, Zhao MY, Jancalek R, Nunes T, Hirschler L, Smits M, Petr J, Emblem KE. Advanced MR Techniques for Preoperative Glioma Characterization: Part 2. **J Magn Reson Imaging**. 2023 Jun;57(6):1676-1695. doi: 10.1002/jmri.28663. Epub 2023 Mar 13. PMID: 36912262.
3. Hirschler L, Sollmann N, Schmitz-Abecassis B, Pinto J, Arzanforoosh F, Barkhof F, Booth T, Calvo-Imirizaldu M, Cassia G, Chmelik M, Clement P, Ercan E, Fernández-Seara MA, Furtner J, Fuster-Garcia E, Grech-Sollars M, Guven NT, Hatay GH, Karami G, Keil VC, Kim M, Koekkoek JAF, Kukran S, Mancini L, Nechifor RE, Özcan A, **Ozturk-Isik E**, Piskin S, Schmainda K, Svensson SF, Tseng CH, Unnikrishnan S, Vos F, Warnert E, Zhao MY, Jancalek R, Nunes T, Emblem KE, Smits M, Petr J, Hangel G. Advanced MR Techniques for Preoperative Glioma Characterization: Part 1. **J Magn Reson Imaging**. 2023 Jun;57(6):1655-1675. doi: 10.1002/jmri.28662. Epub 2023 Mar 3. PMID: 36866773.
4. Sümer E, Tek E, Türe OA, Şengöz M, Dinçer A, Özcan A, Pamir MN, Özduman K, **Ozturk-Isik E**. The effect of tumor shape irregularity on Gamma Knife treatment plan quality and treatment outcome: an analysis of 234 vestibular schwannomas. **Scientific Reports.** 2022 Dec 17;12(1):21809. doi: 10.1038/s41598-022-25422-9. PMID: 36528740; PMCID: PMC9759589.
5. Sacli-Bilmez, B., Firat, Z., Topcuoglu, O. M., Yaltirik, K., Ture, U., **Ozturk-Isik, E**. Identifying overall survival in 98 glioblastomas using VASARI features at 3T. **Clinical Imaging**, 2023. 93, 86-92. doi:https://doi.org/10.1016/j.clinimag.2022.10.011.
6. Kilic H, Sahin S, Toprak MF, Hatay GH, Yilmaz K, Adrovic A, Barut K, **Ozturk-Isik E**, Tuzun E, Kizilkilic O, Saltik S, Kasapcopur O. Assessment of myelin oligodendrocyte glycoprotein antibodies and magnetic resonance spectroscopy in childhood-onset systemic lupus erythematosus. **Clin Exp Rheumatol**. 2023 Mar;41(3):753-757. doi: 10.55563/clinexprheumatol/7pgsnc. Epub 2022 Nov 24. PMID: 36441660.
7. Cengiz S, Arslan DB, Kicik A, Erdogdu E, Yildirim M, Hatay GH, Tufekcioglu Z, Uluğ AM, Bilgic B, Hanagasi H, Demiralp T, Gurvit H, **Ozturk-Isik E**. Identification of metabolic correlates of mild cognitive impairment in Parkinson's disease using magnetic resonance spectroscopic imaging and machine learning. **MAGMA**. 2022 Jul 22. doi: 10.1007/s10334-022-01030-6.
8. Cengiz, S, Yildirim, M, Bas, A, **Ozturk-Isik, E**. ORYX-MRSI: A fully-automated open-source software for proton magnetic resonance spectroscopic imaging data analysis. **Int J Imaging Syst Technol**. 2022; 32(4): 1068- 1083. doi:10.1002/ima.22748
9. Turhan G, Kucuk H, **Ozturk-Isik E**, Spatio-temporal convolution for classification of Alzheimer disease and mild cognitive impairment, **Computer Methods and Programs in Biomedicine**, Volume 221, 2022, 106825, https://doi.org/10.1016/j.cmpb.2022.106825.
10. Kilic H, Yilmaz K, Asgarova P, Kizilkilic O, Hatay GH, **Ozturk-Isik E**, Yalcinkaya C, Saltik S. Electrical status epilepticus in sleep: The role of thalamus in etiopathogenesis. **Seizure.** 2021 Dec;93:44-50. doi: 10.1016/j.seizure.2021.10.010. Epub 2021 Oct 17. PMID: 34687985.

11. Azamat S, Betul Arslan D, Erdogdu E, Kicik A, Cengiz S, Eryürek K, Tufekcioglu Z, Bilgic B, Hanagasi H, Demiralp T, Gurvit H, **Ozturk-Isik E**. Detection of visual and frontoparietal network perfusion deficits in Parkinson's disease dementia. **Eur J Radiol**. 2021 Nov;144:109985. doi: 10.1016/j.ejrad.2021.109985.

12. Kahraman-Agir B, Yegin K and **Ozturk-Isik E**, Wearable and Elastic Surface Coil for 1H Magnetic Resonance Imaging, **IEEE Microwave and Wireless Components Letters**, vol. 31, no. 5, pp. 517-520, May 2021, doi: 10.1109/LMWC.2021.3068930.

13. Altun B, Demirkan I, **Ozturk-Isik E**, Kocaturk O, Unlu MB, Garipcan B. Acoustic impedance measurement of tissue mimicking materials by using scanning acoustic microscopy. **Ultrasonics.** 2021; 110, 106274.

14. The Open Brain Consent Working Group including **Ozturk-Isik E**. The Open Brain Consent: Informing research participants and obtaining consent to share brain imaging data. **Human Brain Mapping.** 2021; 42: 1945– 1951. https://doi.org/10.1002/hbm.25351

15. Arslan DB, Gurvit H, Genc O, Kicik A, Eryurek K, Cengiz S, Erdogdu E, Yildirim Z, Tufekcioglu Z, Uluğ AM, Bilgic B, Hanagasi H, Tuzun E, Demiralp T, **Ozturk-Isik E.** The cerebral blood flow deficits in Parkinson's disease with mild cognitive impairment using arterial spin labeling MRI. **Journal of Neural Transmission.** 2020; 127(9), 1285-1294.

16. Yildiz C, Semerciöz AS, Yalcinkaya BH, Ipek TD, **Öztürk-Işık E**, Özilgen M. Entropy generation and accumulation in biological systems. **Int J Exergy.** 2020; 33(4), 444-468. doi: 10.1504/IJEX.2020.111691

17. **Ozturk-Isik E**, Cengiz S, Ozcan A, Yakicier C, Ersen Danyeli A, Pamir MN, Özduman K, Dincer A. Identification of IDH and TERTp Mutation Status Using 1H-MRS in 112 Hemispheric Diffuse Gliomas. **J Magn Reson Imaging.** 2020; 51(6), 1799-1809.

18. Kıçık A, Tüzün E, Erdoğdu E, Bilgiç B, Tüfekçioğlu Z, **Ozturk-Isik E,** Hanagasi H, Gurvit H. Neuroinflammation Mediators are Reduced in Sera of Parkinson's Disease Patients with Mild Cognitive Impairment. **Archives of Neuropsychiatry.** 2020; 57(1), 15-17.

19. Öztürk N, **Ozturk-Isik E**, Ülgen Y. Screening post-menopausal women for bone mineral level by bioelectrical impedance spectroscopy of dominant arm. **J Electr Bioimp.** 2018; vol. 9, pp. 39-47. doi:10.2478/joeb-2018-0007.

20. Citak-Er F, Firat Z, Kovanlikaya I, Ture U**, Ozturk-Isik E**. Machine-learning in grading of gliomas based on multi-parametric magnetic resonance imaging at 3T. **Comput Biol Med**. 2018; 99: 154-160. 2018/06/23. doi: 10.1016/j.compbiomed.2018.06.009.

21. Hatay GH, Yildirim M, **Ozturk-Isik E**. Considerations in applying compressed sensing to in vivo phosphorus MR spectroscopic imaging of human brain at 3T. **Med Biol Eng Comput.** 2017 Aug; 55(8):1303-1315. doi: 10.1007/s11517-016-1591-9.

22. Cihangiroglu MM, **Ozturk-Isik E**, Firat Z, Kilickesmez O, Ulug AM, Ture U. Preoperative grading of supratentorial gliomas using high or standard b-value diffusion-weighted MR imaging at 3T. **Diagn Interv Imaging**. 2017 Mar; 98(3):261-268. doi: 10.1016/j.diii.2016.11.005.

23. **Ozturk-Isik E**, Marshall I, Filipiak P, Benjamin AJ, Ones VG, Ramón RO, Valdés Hernández MD. Workshop on reconstruction schemes for magnetic resonance data: summary of findings and recommendations. **R Soc Open Sci.** 2017;4(2):160731. doi: 10.1098/rsos.160731.

24. Acar Ö, **Ozturk-Isik E**, Mut T, Sağlıcan Y, Onay A, Vural M, Musaoğlu A, Esen T. Comparison of the trifecta outcomes of robotic and open nephron-sparing surgeries performed in the robotic era of a single institution. **Springerplus**. 2015; 4:472. doi: 10.1186/s40064-015-1274-2. eCollection 2015.

25. Citak Er F, Vural M, Acar O, Esen T, Onay A, **Ozturk-Isik E.** Final Gleason Score Prediction Using Discriminant Analysis and Support Vector Machine Based on Preoperative Multiparametric MR Imaging of Prostate Cancer at 3T. **Biomed Res Int.** 2014;2014:690787. doi: 10.1155/2014/690787. Epub 2014 Dec 2.

26. Cebeci H, Aydin O, **Ozturk-Isik E**, Gumus C, Inecikli F, Bekar A, Kocaeli H, Hakyemez B. Assesment of perfusion in glial tumors with arterial spin labeling; comparison with dynamic susceptibility contrast method. **Eur J Radiol.** 2014 Oct;83(10):1914-9.

27. Li Y, Xu D, **Ozturk-Isik E**, Lupo JM, Chen AP, Vigneron DB, Nelson SJ. T1 and T2 Metabolite Relaxation Times in Normal Brain at 3T and 7T. **J Mol Imag Dynam.** 2012. S1:002.

28. **Ozturk-Isik E**, Pirzkall A, Lamborn K, Cha S, Chang SM, Nelson SJ. Spatial Characteristics of Newly Diagnosed Grade 3 Glioma Assessed by Magnetic Resonance Metabolic and Diffusion Tensor Imaging. **Transl Oncol**. 2012 Feb; 5(1):10-18.

29. Tropp J, Lupo JM, Chen A, Calderon P, McCunee D, Grafendorfer T, **Ozturk-Isik E**, Larson PEZ, Hu S, Yeng YF, Robbe F, Bokb R, Schulteh R, Xu D, Hurd R, Vigneron D, Nelson SJ. Multi-Channel Metabolic Imaging, with SENSE reconstruction, of Hyperpolarized [1-^{13}C] Pyruvate in a Live Rat at 3.0 tesla on a Clinical MR Scanner. **J Magn Reson**. 2011 Jan;208(1):171-7.

30. Park I, Chen AP, Zierhut ML, **Ozturk-Isik E**, Vigneron DB, Nelson SJ. Implementation of 3 T Lactate-Edited 3D (1)H MR Spectroscopic Imaging with Flyback Echo-Planar Readout for Gliomas Patients. **Ann Biomed Eng**. 2011 Jan;39(1):193-204. Epub 2010 Jul 23.

31. Banerjee S, **Ozturk-Isik E**, Nelson SJ, Majumdar S. Elliptical MRSI with GRAPPA for imaging brain tumors at 3 Tesla. **Magn Reson Imaging**. 2009 Dec;27(10):1319-25.

32. Zierhut ML, **Ozturk-Isik E**, Chen AP, Vigneron DB, Nelson SJ. ^{1}H Spectroscopic Imaging of Human Brain at 3T: Comparison of Fast 3D-MRSI Techniques. **J Magn Reson Imaging**. 2009 Sep;30(3):473-80.

33. **Ozturk-Isik E**, Chen AP, Crane JC, Han ET, Xu D, Vigneron DB, Chang SM, Nelson SJ. 3D Sensitivity Encoded Ellipsoidal MR Spectroscopic Imaging of Gliomas at 3T. **Magn Reson Imaging**. 2009 Nov;27(9):1249-57.

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35. Chen AP, Cunningham CH, **Ozturk-Isik E**, Xu D, Hurd RE, Kelly DAC, Pauly JM, Kurhanewicz J, Nelson SJ, Vigneron DB. High Speed 3T MR Spectroscopic Imaging of Prostate with Flyback Echo Planar Encoding. **J Magn Reson Imaging**. 2007 Jun;25(6):1288-92.

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Book Chapters

1. Buz Yaluğ B, Arslan DB, **Ozturk-Isik E.** 'Prospect of data science and artificial intelligence for patient specific neuroprostheses' in 'Somatosensory Feedback for Neuroprosthetics'. (Elsevier/Academic Press). in press.

2. Sevim Cengiz, Maria del C. Valdes-Hernandez, **Ozturk-Isik E**. Super Resolution Convolutional Neural Networks for Increasing Spatial Resolution of ^{1}H Magnetic Resonance Spectroscopic Imaging. Medical Image Understanding and Analysis 2017, Communications in Computer and Information Science, Vol. 723, pp.641-650, Springer, 2017. ISSN 1865-0929.

Peer-reviewed National Journal Articles

1. **Öztürk Işık E.** Beyin Tümörlerinin 3T Manyetik Alanda in vivo Fosfor Manyetik Rezonans Spektroskopik Görüntüleme Piklerinin Z-Skorlarına Dayalı İncelenmesi (Z-Score Based Investigation

of in vivo Phosphorus Magnetic Resonance Spectroscopic Imaging Peaks of Brain Tumors at 3T). **İst Tıp Fak Derg (J Ist Faculty Med).** 2016; 79:2.

Invited Speeches

1. **Ozturk-Isik E**. Metabolites by MRS/I. ISMRM 2023. Educational session: 'Quantifying Spins from Head to Toe'. June 3, 2023 (invited talk)
2. **Ozturk-Isik E**. Imaging Physics - MRI of Gliomas. SPARK ACADEMY AFRICA-BRATS BRAINHACK 2023. May 24, 2023 (invited talk)
3. **Ozturk-Isik E**. Detection of Genetic Mutations in Brain Tumors using Advanced Magnetic Resonance Imaging-based Machine Learning. Turkish Health Institutes (TÜSEB), Turkish Cancer Institute (TKE), Innovative Diagnostic Methods in Cancer Seminar. April 6, 2023. (invited talk)
4. **Ozturk-Isik E**. Advanced MRI Techniques for Glioma Imaging. The Collaborative Glioma Imaging and Clinical Management Symposium for African Scientists and Clinicians. February 13, 2023 (invited talk)
5. **Ozturk-Isik E**. The Role of Machine Learning in Brain Tumor Classification and Detection of Genetic Mutations. 18th Congress of Neurosurgery. Antalya, Turkey, October 27, 2022 (invited talk)
6. **Ozturk-Isik E**. Detection of Cognitive Impairment in Parkinson's Disease through Multimodal MR Imaging and Machine Learning. National Neuroscience Congress (USK) 2022. Panel 11: Cognition in Parkinson's and Alzheimer's Diseases: Overlaps and Disparities, Istanbul, Turkey, October 22, 2022 (invited talk)
7. **Ozturk-Isik E**. Pearls of Dublin I: Genomics – Integrating Genomics into Neuro-oncology. GliMR 2.0 3rd Annual Meeting. Kuşadası, Izmir, Turkey, September 28, 2022 (invited talk)
8. **Ozturk-Isik E**. Genomics – Integrating Genomics into Neuro-oncology. GliMR Training School – Artificial Intelligence in Neuro-Oncology. Dublin, Ireland, July 25, 2022 (invited talk)
9. **Ozturk-Isik E**. How do Radiologists and Engineers Collaborate? An Engineer's Perspective. TMRD 2022. May 26, 2022. (invited talk)
10. **Ozturk-Isik E**. How Can AI Help for MRS? ISMRM 2022. Educational session: 'Steady State MRS'. London, UK, May 8, 2022 (invited talk)
11. **Ozturk-Isik E**. Innovative Approaches in Medical Imaging. March 30, 2022. Isik University, Biomed IV. (invited talk)
12. **Ozturk-Isik E**. Machine Learning on MRI Images for the Detection of Genetic Mutations in Brain Tumors. TÜSEB Artificial Intelligence in Healthcare Mini Symposium Series – 6. December 29, 2021 (invited talk)
13. **Ozturk-Isik E**. Prediction of Recurrence Risk of Meningiomas with MRI. TURNOG 2021. December 18, 2021 (invited talk)
14. **Ozturk-Isik E**. Machine Learning-Based Classification of Genetic Mutations in Brain Tumors for Determining Prognosis: MR Spectroscopic Imaging Analysis. Acıbadem Üniversitesi Nörolojik Bilimler Toplantısı. January 25, 2020. (invited talk)
15. **Ozturk-Isik E**. The Role of Magnetic Resonance Spectroscopic Imaging in Glioma Diagnosis. Turkish Neurosurgery Society NOVA 2019. Istanbul, Turkey, December 21, 2019. (invited talk)
16. **Ozturk-Isik E**. MRS in brain tumours: The technical perspective. Glioma MR imaging 2.0 Action meeting. Malta. December 12, 2019. (invited talk)
17. **Ozturk-Isik E**. Determination of Biomarkers in Brain Disorders Using Magnetic Resonance Imaging-Based Machine Learning Methods. Novel Medical Imaging Techniques: From Laboratory to the Clinics Course. Turkish Society of Radiology, Antalya,Turkey, November 6-9, 2019. (invited talk)
18. **Ozturk-Isik E**. Magnetic Resonance Imaging Based Biomarkers of Cognitive Decline in Parkinson's Disease. ATLAS T3 Conference. Cluj-Napoca, Romania, June 3-7, 2018. (invited talk)
19. **Ozturk-Isik E**, Magnetic Resonance Imaging of Mild Cognitive Impairment in Parkinson's Disease

(Parkinson Hastalığında Hafif Kognitif Bozukluğun Manyetik Rezonans Görüntülenmesi). Biyomut 2017, 25 November 2017, Istanbul, Turkey. (invited speech)

20. **Ozturk-Isik E**, Multiparametric MR imaging of Mild Cognitive Impairment in Parkinson's disease. OHBM-Turkey Turkish Human Brain Mapping Meeting 2017, 22 November 2017, Istanbul, Turkey. (invited speech)

21. **Ozturk-Isik E**. MRI-based markers of brain tumors and mild cognitive impairment in Parkinson's Disease. University of California at San Francisco, Department of Radiology and Biomedical Imaging, Seminar Series. 21 April 2017. (invited speech)

22. **Ozturk-Isik E**. Fast MR Imaging Techniques: MR Spectroscopic Applications. ASELSAN Health Workshop. 9 December 2015. (invited speech)

23. **Ozturk-Isik E**. Advanced MR Techniques: Parallel Imaging, MRA, Flow Analysis. Türk Radyoloji Derneği MR Fizik Kursu. 28 February 2015. (invited speech)

24. **Ozturk-Isik E**. Advanced MR Techniques: MRSI, DTI, fMRI, PWI. Türk Radyoloji Derneği MR Fizik Kursu. 28 February 2015. (invited speech)

25. **Ozturk-Isik E**. Assesment of High Grade Brain Tumors Using Anatomical, Metabolic, and Physiological MR Imaging Techniques. Istanbul Üniversitesi Nöroloji Sempozyum Serisi. 26 February 2015. (invited speech)

26. **Ozturk-Isik E**. Clinical Presentation and Imaging Assessment of HGG - Standard Anatomical Imaging and Metabolic and Physiological MR Imaging Techniques. 1st WFNS Neuro-Oncology Course - Multidisciplinary Management of High Grade Glioma, Istanbul, TURKEY, 11 September 2014. (invited speech)

27. **Ozturk-Isik E**. Fast Phosphorus MR Spectroscopic Imaging of Brain Tumors at 3T. 3rd Magnetic Resonance Balkan Outreach Program, Ankara, TURKEY, 23 May 2014. (invited speech)

28. **Ozturk-Isik E**. Functional Magnetic Resonance Imaging. Fmri Workshop, Cognitive Neuroscience Program, Yeditepe University, Istanbul, TURKEY, 20 March 2014. (invited speech)

29. **Ozturk-Isik E**. MR Spectroscopic Imaging Techniques - Metabolic Imaging with 1H, 31P, and 23Na. Yeditepe University Hospital, Istanbul, TURKEY, 27 November 2013. (invited speech)

30. **Ozturk-Isik E**. Magnetic Resonance Spectroscopic Imaging of Brain Tumors. A Short Course on Bio-medical Sciences and Engineering, Koc University, Istanbul, TURKEY, 30 May 2012. (invited speech)

31. **Ozturk-Isik E**. Anatomical, Metabolic and Functional Magnetic Resonance Imaging of Brain Tumors. The International Symposium on Health Informatics and Bioinformatics, (HIBIT) 2012, Medical Image Analysis Workshop (Neuroimaging), Nevsehir, TURKEY, 20 April 2012. (invited speech)

International Conference Proceedings

1. **Ozturk-Isik E,** Hatay GH, Okeer E, Yildirim M, Sak H, Hakyemez B. Quantitative Assessment of Phosphorus MR Spectroscopic Imaging Metrices of Brain Tumors in vivo at 3T. IEEE EMBS Annual International Conference. Chicago, Illinois, USA, 26-30 August 2014. (poster)

2. Citak Er F, Hatay GH, Okeer E, Yildirim, M, Hakyemez B, **Ozturk-Isik E**. Classification of Phosphorus Magnetic Resonance Spectroscopic Imaging of Brain Tumors Using Support Vector Machine and Logistic Regression at 3T. **Conf Proc IEEE Eng Med Biol Soc.** 2014 Aug;2014:2392-5. doi: 10.1109/EMBC.2014.6944103.

3. Citak Er F, Vural M, Acar O, Esen T, Onay A, **Ozturk-Isik E**. Preliminary Results on Estimation of Final Gleason Score Using Discriminant Analysis on Preoperative Clinical Parameters and Multiparametric MRI Findings in Prostate Cancer. **Proceedings of the International Conference on Applied Informatics for Health and Life Sciences.** 2013:1.

4. Citak Er F, Firat Z, Kovanlikaya I, Ture U, **Ozturk-Isik E**. Multivariate Discriminant Analysis of Multiparametric Brain MRI to Differentiate High Grade and Low Grade Gliomas - A Computer-Aided Diagnosis Development Study. **Proceedings of the IEEE BIBE Annual International Conference.** 2013 Nov; 2013:1-5. doi: 10.1109/BIBE.2013.6701649.
5. Askin NC, Atis B, **Ozturk-Isik E.** Accelerated Phosphorus Magnetic Resonance Spectroscopic Imaging Using Compressed Sensing. **Proceedings of the IEEE EMBS Annual International Conference**. 2012;1: 1106-9.
6. **Ozturk E**, Banerjee S, Majumdar S, Nelson SJ. Partially parallel MR spectroscopic imaging of gliomas at 3T. **Proceedings of the IEEE EMBS Annual International Conference**. 2006;1:493-6.
7. Banerjee S, **Ozturk-Isik E**, Nelson SJ, Majumdar S. Fast magnetic resonance spectroscopic imaging at 3 Tesla using autocalibrating parallel technique. **Proceedings of the IEEE EMBS Annual International Conference**. 2006;1:1866-9.

International Conference Abstracts

1. G. Turhan, A. Cetin, A. Mahroo, B. Padrela, S. Konstandin, D. Hoinkiss, N. Breutigam, K. Eickel, J. Petr, H. Mutsaerts, A. Danyeli, K. Ozduman, M. Guenther, A. Dincer, and **E.Ozturk-Isik**, Perfusion and Time of Exchange Measurements Using BBB-ASL in Gliomas: The Initial Experience., International Society for Magnetic Resonance in Medicine, Toronto, Canada, June 3-8, 2023 (digital poster)
2. B. Padrela, M. Tee, M. Sneve, A. Mahroo, O. Geier, D. Thomas, C. Morgan, P. Moyaert, **E. Ozturk-Isik**, W. Nordhøy, L. Pålhaugen, J. Linn, P. Selnes, K. Eickel, S. Konstandin, J. Kuijer, D. Hoinkiss, N. Breutigam, M. Buck, R. Achten, F. Barkhof, S. Hilal, T. Fladby, U. Anazodo, J. Petr, H. Mutsaerts, and M. Günther, DEveloping Blood-Brain barrier arterial spin labeling as a non-Invasive Early biomarker (DEBBIE), International Society for Magnetic Resonance in Medicine, Toronto, Canada, June 3-8, 2023, pp. 367. (oral presentation)
3. Sacli-Bilmez B, Danyeli AE, Yakicier C, Pamir MN, Ozduman K, Dincer A, **Ozturk-Isik E**. Magnetic Resonance Spectroscopic Correlates of Survival in IDH-wt, TERTp-mut Gliomas. International Society for Magnetic Resonance in Medicine. Toronto, Canada, June 3-8, 2023 (digital poster)
4. Azamat S, Buz-Yalug B, Ozcan A, Ersen Danyeli A, Pamir MN, Dinçer A, Ozduman K, **Ozturk-Isik E.** Boosting The Deep Learning Performance in Predicting IDH Mutation in Gliomas Using Multiparametric MRI Including SWI, FLAIR and CE-T1WI. International Society for Magnetic Resonance in Medicine. Toronto, Canada, June 3-8, 2023 (digital poster)
5. Azamat S, Buz-Yalug B, Ozcan A, Ersen Danyeli A, Pamir MN, Dinçer A, Ozduman K, **Ozturk-Isik E**. A Pretrained CNN Model Using Multiparametric MRI to Identify WHO Tumor Grade of Meningiomas. International Society for Magnetic Resonance in Medicine. Toronto, Canada, June 3-8, 2023 (oral presentation)
6. Sumer E, Danyeli A. E., Pamir MN, Özduman K, Dinçer A, **Ozturk- Isik E**. Prediction of Astrocytoma Pathological Grade Using Radiomics Extracted from Pre-operative Multiparametric MRI. International Society for Magnetic Resonance in Medicine. Toronto, Canada, June 3-8, 2023 (digital poster)
7. Sumer E, Türe OA, Şengöz M, Pamir MN, Dinçer A, Ozduman K, **Ozturk-Isik E**. Correlation of MRI Radiomics Features and Recurrence After Gamma Knife Treatment in Parasagittal and Falx Meningiomas. International Society for Magnetic Resonance in Medicine. Toronto, Canada, June 3-8, 2023 (digital poster)
8. Buz-Yalug B, Danyeli AE, Yakicier C, Pamir MN, Ozduman K, Dincer A, **Ozturk-Isik E.** Relative Cerebral Blood Volume Differences Between Adult-Type Diffuse Glioma Subtypes According to WHO 2021. International Society for Magnetic Resonance in Medicine. Toronto, Canada, June 3-8, 2023 (digital poster)

9. Bas A, Sacli-Bilmez B., Buz-Yalug B.,Sumer E., Azamat S., Hatay G. H., Danyeli A. E., Can O., Ozduman K., Dincer A., **Ozturk-Isik E.** IRIS-DL: A Deep Learning Software Tool for Identifying Genetic Mutations in Gliomas and Meningiomas. International Society for Magnetic Resonance in Medicine. Toronto, Canada, June 3-8, 2023 (oral presentation)

10. Bas A, Danyeli AE, Can O, Ozduman K, Dincer A, **Ozturk-Isik E**. Identification of NF2 loss in meningiomas using T2-weighted MRI and Deep Learning. International Society for Magnetic Resonance in Medicine. Toronto, Canada, June 3-8, 2023 (digital poster)

11. Bas A, Sacli-Bilmez B, Danyeli A. E., Can O., Ozduman K., Dincer A., **Ozturk-Isik E**. Attention Deep-Shallow Network (ADSN): A Deep Learning Model for IDH and TERTp Mutation Detection in Gliomas using 1H-MRS. International Society for Magnetic Resonance in Medicine. Toronto, Canada, June 3-8, 2023 (digital poster)

12. Arpak A, Sümer E, Samli A, Ozbay P, Pamuk U, Caglar K, Demir EM, Yumak M, Yucesoy C, **Ozturk-Isik E**. The Impact of Compressed Sensing on Radiomics of Fast Anatomical MRI of Rat Brain at 7T. International Society for Magnetic Resonance in Medicine. Toronto, Canada, June 3-8, 2023 (digital poster)

13. Dindar SS, Buz-Yalug B, Tan K, Danyeli AE, Can O, Pamir N, Dincer A, Ozduman K, Kahya YP, **Ozturk-Isik E.** Prediction of NF2 Loss in Meningiomas Using Synthetic T1-Weighted Contrast Enhanced MRI Generated by Deep Convolutional Generative Adversarial Networks. International Society for Magnetic Resonance in Medicine. Toronto, Canada, June 3-8, 2023 (digital poster)

14. Azamat S, Buz-Yalug B, Ozcan A, Danyeli AE, Pamir MN, Dincer A, Ozduman K, **Ozturk-Isik E**. Can Deep Learning Based on Multiparametric MRI Distinguish IDH Mutation in Gliomas? GliMR 3rd Annual Meeting. Kuşadası, Turkey, September 28-30, 2022 (oral presentation)

15. Guven NT, Dinçer A, Tanrıkulu B, **Ozturk-Isik E**. Non-Invasive Prediction of Survival Times of Pediatric Diffuse Midline Glioma Patients with H3K27M Mutation Using MRI Radiomics Features. GliMR 3rd Annual Meeting. Kuşadası, Turkey, September 28-30, 2022 (oral presentation)

16. Buz-Yalug B, Dindar SS, Danyeli AE, Yakicier MN, Pamir MN, Ozduman K, Dincer A, **Ozturk-Isik E.** Identification of IDH and TERTp mutations of Gliomas Using DSC-MRI and Deep Learning. GliMR 3rd Annual Meeting. Kuşadası, Turkey, September 28-30, 2022 (oral presentation)

17. Bas A, Sacli-Bilmez B, Hatay GH, Ozcan A, Levi C, Danyeli AE, Can O, Yakicier C, Pamir MN, Ozduman K, Dincer A, **Ozturk-Isik E.** IRIS-MRS-AI and IRIS-DL. GliMR 3rd Annual Meeting. Kuşadası, Turkey, September 28-30, 2022 (oral presentation)

18. Çetin AI, Danyeli AE, Pamir MN, Ozduman K, Dincer A, **Ozturk-Isik E**. Tumor Segmentation in Glioma with Deep Learning on T2-Weighted MRI. GliMR 3rd Annual Meeting. Kuşadası, Turkey, September 28-30, 2022 (oral presentation)

19. Turhan G, **Ozturk-Isik E**. Classification of Histopathological Grades of Glial Tumors on Arterial Spin Labeling MRI Using Spatio-temporal Convolutional Neural Networks. GliMR 3rd Annual Meeting. Kuşadası, Turkey, September 28-30, 2022 (oral presentation)

20. Samli A, Sümer E, Danyeli AE, Pamir MN, Dincer A, Ozduman K, **Ozturk-Isik E**. The Effect of Super Resolution on Radiomics Analysis in Gliomas. GliMR 3rd Annual Meeting. Kuşadası, Turkey, September 28-30, 2022 (oral presentation)

21. Sacli-Bilmez B, Bas A, Danyeli AE, Pamir MN, Ozduman K, Dincer A, **Ozturk-Isik E**. 1D-CNN models for IDH and TERTp Mutation Detection in Diffuse Gliomas using Proton Magnetic Resonance Spectroscopy. GliMR 3rd Annual Meeting. Kuşadası, Turkey, September 28-30, 2022 (oral presentation)

22. Sümer E, **Ozturk-Isik E,** A radiomics pipeline for neuro-oncological research. GliMR 3rd Annual Meeting. Kuşadası, Turkey, September 28-30, 2022 (oral presentation)

23. Sümer E, Danyeli AE, Pamir MN, Dinçer A, Özduman K, and **Ozturk-Isik E,** Radiomics for Prediction of Grades of Intracranial Astrocytomas from T2-weighted MRI. GliMR 3rd Annual Meeting. Kuşadası, Turkey, September 28-30, 2022 (oral presentation)

24. Hatay GH, Dincer A, Tanrikulu B, **Ozturk-Isik E**. Survival Analysis of Pediatric DMG Patients using MRSI. GliMR 3rd Annual Meeting. Kuşadası, Turkey, September 28-30, 2022 (oral presentation)

25. Şahin Erdoğan M, Sümer E, Villagra F, **Ozturk-Isik E**, Akanyeti O, Saybaşılı H. Predicting Modified Rankin Scale Scores of Ischemic Stroke Patients using Radiomics Features and Machine Learning. UK Workshop on Computational Intelligence. Sheffield, UK, September 7-9, 2022 (oral presentation)

26. Buz-Yalug B, Ersen Danyeli A, Ekşi MŞ, Tan K, Can Ö, Yakicier C, Pamir MN, Dincer A, Ozduman K, **Ozturk-Isik E.** Differentiation of NF2 loss and S100 presence in Meningioma using Dynamic Susceptibility Contrast MRI with Machine Learning Approach. International Society for Magnetic Resonance in Medicine. London, UK, May 7-12, 2022 (digital poster)

27. Buz-Yalug B, Ersen Danyeli A, Yakicier C, Pamir MN, Ozduman K, Dincer A, **Ozturk-Isik E.** Differentiation of IDH and TERTp mutations in Glioma Using Dynamic Susceptibility Contrast MRI with Machine Learning at 3T. International Society for Magnetic Resonance in Medicine. London, UK, May 7-12, 2022 (digital poster)

28. Azamat S, Buz-Yalug B, Baş A, Ozcan A, Ersen Danyeli A, Pamir MN, Dinçer A, Ozduman K, **Ozturk-Isik E.** Susceptibility Weighted MRI for Predicting Critical Developmental Regulatory S100 Proteins in Meningiomas at 3T. International Society for Magnetic Resonance in Medicine. London, England, UK. May 07-12, 2022.

29. Sacli-Bilmez B, Bas A, Tan K, Ersen Danyeli A, Can Ö, Yakicier C, Pamir MN, Dincer A, Ozduman K, **Ozturk-Isik E.** Identification of NF2 loss in meningiomas using 1H-MRS at 3T. International Society for Magnetic Resonance in Medicine and Biology. London, UK, May 7-12, 2022 (digital poster)

30. Sumer Esra, Tan K, Ersen Danyeli A, Can Ö, Yakicier C, Pamir MN, Dincer A, Ozduman K, **Ozturk-Isik E.** Meningiomas with NF2-Loss Exhibit Strong Radiomics Correlations on Contrast Enhanced T1-Weighted MRI at 3T. International Society for Magnetic Resonance in Medicine and Biology. London, UK, May 7-12, 2022 (online oral power pitch presentation)

31. Bas A, Tan K, Ersen Danyeli A, Can Ö, Yakicier C, Pamir MN, Dincer A, Ozduman K, **Ozturk-Isik E.** Identification of S100 Immunopositivity on T2-weighted MRI Using Deep Learning. International Society for Magnetic Resonance in Medicine and Biology. London, UK, May 7-12, 2022 (digital poster)

32. Azamat S, Cengiz S, Çebi M, Arslan DB, Kıcik A, Erdoğdu E, Bilgiç B, Demiralp T, Gürvit H, Hanağası H, **Ozturk-Isik E**. Metabolic Profile Alterations at Ventral Attention Network Detected Using Proton MR Spectroscopic Imaging are Associated with Parkin Gene Mutation. The European Society for Magnetic Resonance in Medicine and Biology. Virtual Meeting, Oct 7-9, 2021, p.104-105. (digital poster)

33. Azamat S, Cengiz S, Erdogdu E, Arslan DB, Kıcik A, Tufekcioglu Z, Bilgiç B, Hanagasi H, Gürvit H, Demiralp T, **Ozturk-Isik E**. Identification of Metabolic Changes of Cognitive Decline Continuum in Parkinson's Disease Using Proton Magnetic Resonance Spectroscopic Imaging at 3T. The European Society for Magnetic Resonance in Medicine and Biology. Virtual Meeting, Oct 7-9, 2021, p.103-104. (digital poster)

34. Sümer E, Arpak A, Pamir MN, Dinçer A, Özduman K, **Ozturk-Isik E**, Assessment of Stability of Radiomic Shape Features on T2-Weighted Images of Meningiomas, The European Society for Magnetic Resonance in Medicine and Biology. Virtual Meeting, Oct 7-9, 2021, p.182. (digital poster)

35. Sümer E, Pamir MN, Dinçer A, Özduman K, **Ozturk-Isik E**, Classification of Low- and High-Grade Meningiomas Using Radiomics Features of Post-Contrast T1-Weighted MRI, The European Society for Magnetic Resonance in Medicine and Biology. Virtual Meeting, Oct 7-9, 2021, p.181. (digital poster)

36. Halilibrahimoglu H, Buz Yalug B, Kaykayoglu A, Ersen Danyeli A, Eksi M.S, Yakicier C, Pamir MN, Dincer A, Ozduman K, Ozcan A, **Ozturk–Isik E**, Classification of High- and Low-Grade Meningiomas Using Diffusion Anisotropy Indices with Deep Learning. The European Society for

Magnetic Resonance in Medicine and Biology. Virtual Meeting, Oct 7-9, 2021, p.184-185. (digital poster)

37. Sacli-Bilmez B, Bas A, Ersen Danyeli A, Ekşi MŞ, Tan K, Can Ö, Yakicier C, Pamir MN, Dincer A, Ozduman K, **Ozturk-Isik E.** 1D-CNN for grading of meningiomas using Proton Magnetic Resonance Spectroscopy. The European Society for Magnetic Resonance in Medicine and Biology. Virtual Meeting, Oct 7-9, 2021, p.178-179. (digital poster)

38. Halilibrahimoglu H, Kaykayoglu A, Bas A, Ozduman K,Yakicier C, Ersen Danyeli A, Pamir MN, Dincer A, **Ozturk-Isik E,** Ozcan A, Using Transfer Learning for IDH Mutation Prediction in Gliomas Using Whole Brain Diffusion Anisotropy Indices. The European Society for Magnetic Resonance in Medicine and Biology. Virtual Meeting, Oct 7-9, 2021, p.183-184. (digital poster)

39. Halilibrahimoglu H, Polat K, Keskin S, Ozduman K,Yakicier C, Ersen Danyeli A, Pamir MN, Dincer A, **Ozturk-Isik E**, Ozcan A, Predicting Glioma Genotype Using n-Component Gaussian Distributions of Diffusion Anisotropy Distributions of Normal-Appearing White Matter. The European Society for Magnetic Resonance in Medicine and Biology. Virtual Meeting, Oct 7-9, 2021, p.192-193. (digital poster)

40. Şahin M., Sümer E., Povina FV., Akanyeti O., **Ozturk-Isik E.,** Saybaşılı H., 'Predicting Modified Rankin Scale Scores using Radiomics Derived from Apparent Diffusion Coefficient Maps of Patients with Ischemic Stroke', Welsh Stroke Conference, July 6-7, 2021. (oral presentation)

41. Bas A, Sacli-Bilmez B, Ersen Danyeli A, Yakicier C, Pamir MN, Ozduman K, Dincer A, **Ozturk-Isik E**. 1D-CNN for the Detection of IDH and TERTp Mutations in Diffuse Gliomas using Proton Magnetic Resonance Spectroscopy. International Society for Magnetic Resonance in Medicine. Vancouver, Canada, May 15-20, 2021. (digital poster)

42. Bas A, Sacli-Bilmez B, Ersen Danyeli A, Yakicier C, Pamir MN, Ozduman K, Dincer A, **Ozturk-Isik E**. The Effect of Cramer-Rao Lower Bound Thresholds on Classification of IDH and TERTp Mutation Status in Gliomas using 1H-MRS. International Society for Magnetic Resonance in Medicine. Vancouver, Canada, May 15-20, 2021. (digital poster)

43. Bas A, Sacli-Bilmez B, Hatay GH, Ozcan A, Levi C, Ersen Danyeli A, Can O, Yakicier C, Pamir MN, Ozduman K, Dincer A, **Ozturk-Isik E**. Glioma Genetic Diagnosis Software for Detection of IDH and TERTp Mutations based on 1H MR Spectroscopy and Mass Spectrometry. International Society for Magnetic Resonance in Medicine. Vancouver, Canada, May 15-20, 2021. (digital poster)

44. Yildirim M, Scholtz P, Schütz M, Kovalyk X, Heijman E, Lamerichs R, Grüll H, **Ozturk-Isik E.** Fast Fluorine Spectroscopic Imaging with Pseudo-Spiral k-Space Sampling. International Society for Magnetic Resonance in Medicine. Vancouver, Canada May 15-20, 2021. (submitted)

45. Halilibrahimoglu H, Polat K, Keskin S, Ozduman K, Yakicier C, Ersen Danyeli A, Pamir MN, Dincer A, **Ozturk-Isik E,** Ozcan A. Predicting Glioma Genotype Using n-Component Gaussian Distributions of Diffusion Anisotropy Indices of Normal-Appearing White Matter. International Society for Magnetic Resonance in Medicine. Vancouver, Canada, May 15-20, 2021. (submitted)

46. Samli A, **Ozturk-Isik E.** Super Resolution of Color Fractional Anisotropy Maps for Diffusion Weighted MR Imaging using End-to-End Convolutional Deep and Shallow Network. International Society for Magnetic Resonance in Medicine. Vancouver, Canada May 15-20, 2021. (submitted)

47. Cengiz S, Yildirim M, Bas A, **Ozturk-Isik E**. ORYX-MRSI: A data analysis software for multi-slice 1H-MRSI. International Society for Magnetic Resonance in Medicine.Vancouver, Canada, May 15-20, 2021. (submitted)

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59. **Ozturk-Isik E**, Sacli-Bilmez B, Ersen Danyeli A, Ozcan A, Yakicier C, Pamir MN, Ozduman K, Dincer A. The Effect of Tumor Grade Within IDH Wild-Type and IDH Mutant Gliomas Assessed by Proton Magnetic Resonance Spectroscopy at 3T. International Society for Magnetic Resonance in Medicine. Virtual Meeting, August 8-14, 2020. 406 (oral presentation)

60. Sacli-Bilmez B, Firat Z, Topcuoglu M, Yaltirik CK, Ture U, **Ozturk-Isik E.** Identifying Overall Survival in Glioblastoma Patients Using VASARI Features at 3T. International Society for Magnetic Resonance in Medicine Virtual Meeting, August 8-14, 2020. 422. (oral presentation) (Magna Cum Laude)

61. Sacli-Bilmez B, Gursan A, Ersen Danyeli A, Yakicier C, Pamir MN, Ozduman K, Dincer A, **Ozturk-Isik E.** MR Spectroscopic Differences of Low and High Grade TERTp-only Gliomas. International Society for Magnetic Resonance in Medicine. Virtual Meeting, August 8-14, 2020. (e-poster)

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66. Bayrambas B, Hatay GH, Yegin K, **Ozturk-Isik E**. BreastIS: An Analysis Software for Breast Magnetic Resonance Imaging. European Society of Magnetic Resonance in Medicine and Biology Annual Conference. Rotterdam, Netherlands, October 3-5, 2019. (e-poster, software exhibit)

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74. Bayrambas B, **Ozturk-Isik E**, Algin O. Assessment and Classification of Motility of Terminal Ileum in Crohn's Disease on Cine Magnetic Resonance Enterography. International Society for Magnetic Resonance in Medicine. Montreal, Canada, May 11-16, 2019. (digital poster)

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78. **Ozturk-Isik E**, Cengiz S, Ozcan A, Yakicier C, Pamir MN, Ozduman K, and Dincer A. Magnetic Resonance Spectroscopic Differences of Diffuse Glioma Groups Classified by IDH and TERT Promoter Mutations at 3T. International Society for Magnetic Resonance in Medicine. Paris, France, June 16-21, 2018. (oral presentation)

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80. **Ozturk-Isik E**, Cengiz S, Arslan D.B., Kicik A., Erdogdu E., Tufekcioglu Z., Bilgic B., Hanagasi H., Ulug A.M., Demiralp T., Gurvit H.. Machine Learning for Classification of Mild Cognitive Impairment in Parkinson's Disease Based on Multiparametric MRI at 3T. ESMRMB, Barcelona, Spain, 19-21 October 2017. (e-poster)

81. Hatay GH, **Ozturk-Isik E**. Optimization of Echo Times for TE-Averaged PRESS Spectral Editing Technique Using Monte Carlo Simulations. ESMRMB, Barcelona, Spain, 19-21 October 2017. (poster)

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87. **Ozturk-Isik E**, Cengiz S, Ozduman K, Ozcan A, Yakicier C, Pamir MN, Dincer A. Prediction of IDH-Mutation Status of Diffuse-Gliomas Based on Short- Echo Time Magnetic Resonance Spectroscopy at 3T. International Society of Magnetic Resonance in Medicine Annual Conference, Honolulu, HI, USA, 22-27 April 2017. (e-poster)

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International Society of Magnetic Resonance in Medicine Annual Conference, Honolulu, HI, USA, 22-27 April 2017. (e-poster)

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91. Cengiz S, Kicik A, Erdogdu E, Arslan DB, Buker S, Tufekcioglu Z, Ulug AM, Bilgic B, Gurvit H, Demiralp T, Tuzun E, Hanagasi H, **Ozturk-Isik E**. Comparison of MR spectroscopic imaging findings between different MAPT and COMT genotypes of cognitively normal or mild cognitively impaired Parkinson's disease patients at 3T. International Society of Magnetic Resonance in Medicine Annual Conference, Honolulu, HI, USA, 22-27 April 2017. (poster)

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93. Cengiz S, Arslan DB, Erdogdu E, Kicik A, Hatay GH, Tufekcioglu Z, Bilgic B, Hanagasi H, Ulug AM, Gurvit H, Demiralp T, **Ozturk-Isik E**. Proton MR spectroscopic imaging of Parkinson's disease with mild cognitive impairment or normal cognition registered to MNI152 brain atlas. European Society of Magnetic Resonance in Medicine and Biology Annual Conference. Vienna, Austria, September 29 - October 1, 2016 (oral presentation)

94. Kurt E, Sirin NG, Ulasoglu-Yildiz C, Karaaslan Z, Kicik A, Gungor İ, **Ozturk-Isik E**, Gurses C. Functional Connectivity Networks in Patients with Unilateral and Bilateral Temporal Lobe Epilepsy. Organization for Human Brain Mapping Annual Conference. Geneva, Switzerland, June 26-30, 2016 (poster)

95. **Ozturk-Isik E**. Multinuclear Magnetic Resonance Spectroscopic Imaging of Human Brain Disorders. The ATLAS T3 International Conference. Suzhou, China. May 29-June 2, 2016. (oral presentation)

96. Okeer E, Hatay GH, Yildirim M, **Ozturk-Isik E**, Hakyemez B. Fast Phosphorus MR Spectroscopic Imaging of Brain Tumors in vivo with Five Fold Scan Time Reduction Using Compressed Sensing at 3T. European Society of Magnetic Resonance in Medicine and Biology Annual Conference. Edinburgh, UK, 1-3 October 2015. (e-poster)

97. Acar Ö, **Ozturk-Isik E**, Mut T, Sağlıcan Y, Onay A, Vural M, Musaoğlu A, Esen T. Comparison of the trifecta outcomes of robotic and open nephron sparing surgeries done in the robotic era of a single institution. Challenges in Laparoscopy and Robotics. Istanbul, Turkey, 4-6 Haziran 2015. (oral presentation)

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102. Citak Er F, Vural M, Acar O, Esen T, Onay A, **Ozturk-Isik E**. Final Gleason Score Prediction Using Discriminant Analysis and Support Vector Machine Based on Preoperative Multiparametric MR Imaging of Prostate Cancer at 3T. International Society of Magnetic Resonance in Medicine Annual Conference, Milan, Italy, 10-16 May 2014. (e-poster)

103. **Ozturk-Isik E**, Cihangiroglu MM, Firat Z, Kilickesmez O, Ulug AM, Ture U. Quantitative Comparison of High and Standard b-Value Diffusion Weighted MR Imaging in Grading Supratentorial Gliomas at 3T. European Society of Magnetic Resonance in Medicine and Biology Annual Conference. Toulouse, France, 3-5 October 2013 (oral presentation)

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109. **Ozturk-Isik E**, Lupo J, Nelson SJ, Kelley DAC. Improved 3D PRESS MRSI at 7T Using B1 Field Mapping and Optimization of Transmit Gain. International Society of Magnetic Resonance in Medicine Annual Conference, Honolulu, HI, 19-24 April 2009. (traditional poster)

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International Society of Magnetic Resonance in Medicine Annual Conference, Miami Beach, FL 7-13 May 2005. (oral presentation)

129.   Osorio J, **Ozturk E**, Cha S, Chang SM, Berger MS, Nelson SJ. 3D MRSI of Brain Tumors at 3 Tesla using an 8 Channel Phased Array Head Coil. International Society of Magnetic Resonance in Medicine Annual Conference, Miami Beach, FL 7-13 May 2005. (traditional poster).

130.   Pirzkall A, **Ozturk E**, Choy R, Lupo JM, Lee MC, Cha S, Chang SM, Berger MS, Nelson SJ. MR-based Anatomic, Metabolic and Physiologic Imaging Information on spatial heterogeneity in newly diagnosed GBM. International Society of Magnetic Resonance in Medicine Annual Conference, Miami Beach, FL 7-13 May 2005. (oral presentation)

131.   Pirzkall A, **Ozturk E**, Choy R, Lupo JM, Lee MC, Cha S, Chang SM, Berger MS, Nelson SJ. MR imaging based biological characterization of newly diagnosed GBM. 2nd quadrennial meeting of the World Federation of NeuroOncology, 6th meeting of the European Association for NeuroOncology, Edinburgh, United Kingdom 5-8 May 2005. (oral presentation)

132.   Pirzkall A, **Ozturk E**, Lee MC, Lupo JM, Crawford FW, Chang CF, Nelson SJ. Assessing tumor response in GBM following concurrent radiation and chemotherapy by means of novel MR based imaging methods characterizing metabolic and physiologic changes. ASTRO 2005, Denver, Colorado, October 16-20, 2005. (oral presentation)

133.   **Ozturk E**, Chang SM, Nelson SJ. 3D 1H MRSI, MRI, and Diffusion Tensor Imaging in Newly-Diagnosed Patients with Grade 3 Brain Tumors. International Society of Magnetic Resonance in Medicine Annual Conference, Kyoto Japan, 15-21 May 2004. (oral presentation)

134.   Pels P, **Ozturk E**, Vanhamme L, Van Huffel S, Nelson SJ. Model Based Time Domain Fitting versus Frequency Domain Analysis Applied To Prostate MRSI. European Society for Magnetic Resonance in Medicine and Biology 21st Annual Scientific Meeting, Copenhagen, Denmark, September 9 - 12, 2004. (traditional poster)

135.   **Ozturk E**, Turner G, Twieg DB. Image Enhancement in Single Shot Direct Parametric Imaging (SS-DPI). Biomedical Engineering Society (BMES) Annual Conference, 2001. (oral presentation)

136.   **Ozturk E**, Akella NS, Turner G, Twieg DB. Noise Reduction in EPI Images Using Regularization Methods. Biomedical Engineering Society (BMES) Annual Conference, 2001. (oral presentation)

137.   Turner G, **Ozturk E**, Twieg DB. Imaging of the Brain via Single Shot Direct Parametric Imaging (SS-DPI). Biomedical Engineering Society (BMES) Annual Conference, 2001. (oral presentation)

138.   Seker R, Tanik MM, Ozaydin B, **Ozturk E**. Representation of N-Queens Problem With Chebyshev Polynomials, Fourth & Fifth World Conference on Integrated Design and Process Technology (IDPT), 1999-2000. (oral presentation)

National Conference Proceedings and Abstracts

1.   Durmus F, Aydin E, Torlak N, Alonso MO, Aslanyürek B, Bayazıt NG, **Ozturk-Isik E**, Peiro JL. Doğumsal Diyafragma Hernili Sıçan Fetüslerinde Akciğer Damarlanmasının Karakterizasyonu. 42.Pediatri Günleri, Virtual Meeting, September 13-16, 2020. (oral presentation)

2.   Arslan DB, Yıldırım Z, Cengiz S, Kıçik A, Erdoğdu E, Tüfekçioğlu Z, Bilgiç B, Hanağası H, Uluğ AM, Demiralp T, Gürvit H, **Ozturk-Isik E**. Parkinson Hastalığında MAPT Genotiplerinde Korteks Parselasyonlarında Serebral Kan Akımı Değişiklikleri. 55. Ulusal Nöroloji Kongresi. Antalya, Turkey, November 15-21, 2019. (oral presentation)

3.   Tunçer S, Arslan DB, İpek TD, Aslan O, Eryürek K, Cengiz S, Kiçik A, Erdoğdu E, Yildirim Z, Tüfekcioglu Z, Bilgic B, Hanagasi H, Uluğ AM, Demiralp T, Gürvit H, **Ozturk-Isık E.** Parkinson Hastalarında Kognitif Bozulmanın Arteryel Spin Etiketleme Manyetik Rezonans Görüntüleme Temelli Biyoişaretleyicilerinin Değerlendirilmesi. 55. Ulusal Nöroloji Kongresi. Antalya, November 15-21, 2019. (oral presentation)

4. Tüfekçioğlu Z, Çebi M, Tunçer S, Arslan DB, İpek TD, Aslan Ö, Cengiz S, Kıcik A, Erdoğdu E, Yıldırım Z, Bilgiç B, Hanağası H, Uluğ AM, Demiralp T, Gürvit H, **Ozturk-Isık E.** Parkin Gen Mutasyonu Taşıyan Bireylerde Serebral Kan Akımının Değerlendirilmesi ve Kognitif Normal Parkinson Hastaları ile Karşılaştırılması. 55. Ulusal Nöroloji Kongresi. Antalya, November 15-21, 2019. (oral presentation)

5. Sacli-Bimez B, Firat Z, Topcuoglu M, Yaltirik CK, Ture U, **Ozturk-Isik E,** Estimation of Survival of Glioblastoma Multiforme Patients Using VASARI Properties. Novel Medical Imaging Techniques: From Laboratory to the Clinics Course. Turkish Society of Radiology, Antalya, Turkey, November 6-9, 2019. (oral presentation)

6. Hatay GH, Dincer A, **Ozturk-Isik E,** Detection of Low Concentration Metabolites in Magnetic Resonance Spectroscopic Imaging and Rapid Data Acquisition. Novel Medical Imaging Techniques: From Laboratory to the Clinics Course. Turkish Society of Radiology, Antalya, Turkey, November 6-9, 2019. (oral presentation)

7. Bayrambas B, Yegin K, **Ozturk-Isik E**. BreastIS: An Analysis Software for Breast Magnetic Resonance Imaging. Novel Medical Imaging Techniques: From Laboratory to the Clinics Course. Turkish Society of Radiology, Antalya, Turkey, November 6-9, 2019. (oral presentation)

8. Sümer E, Tek E, Dinçer A, Pamir MN, Ozcan A, Özduman K, **Ozturk-Isik E**. Extracting Three Dimensional Models of Brain Tumors from Magnetic Resonance Images and Evaluating their Radiomic Properties. Novel Medical Imaging Techniques: From Laboratory to the Clinics Course. Turkish Society of Radiology, Antalya, Turkey, November 6-9, 2019. (oral presentation)

9. Bayrambaş B, Oktay A, Yeğin K, **Öztürk Işık E**. BreastIS: Meme MR Görüntüleri Analiz Yazılımı. Türk Manyetik Rezonans Derneği. Ankara, Turkey, April 25-27, 2019. (oral presentation)

10. Arslan DB, Cengiz S, Erdoğdu E, Kıcik A, Tüfekçioğlu Z, Bilgiç B, Hanağası H, Uluğ AM, Gürvit H, Demiralp T, **Öztürk Işık E**. ASL-MR ile Parkinson hastalığı hafif kognitif bozukluğunda serebral perfüzyon değerlendirmesi. USK. Istanbul, Turkey, May 20-23, 2018. (oral presentation)

11. Genc O, Arslan DB, Cengiz S, Hatay GH, Kıcik A, Erdoğdu E, Kaplan OC, Tüfekçioğlu Z, Bilgiç B, Hanağası H, Gürvit H, Demiralp T, Uluğ AM, **Öztürk Işık E.** Parkinson hastalığı hafif kognitif bozukluğunun MRG temelli makine öğrenme ile sınıflandırılması. USK. Istanbul, Turkey, May 20-23, 2018. (oral presentation)

12. Kıçik A, Erdoğdu E, Arslan DB, Cengiz S, Bilgiç B, Tüfekçioğlu Z, Hanağası H, Uluğ AM, Tüzün E, Demiralp T, **Öztürk Işık E**, Gürvit H. Parkinson hastalığında kognitif bozulmayla ilişkili yapısal ve fonksiyonel farklılıklar. USK. Istanbul, Turkey, May 20-23, 2018. (oral presentation)

13. Kaplan OC, Arslan DB, Cengiz S, Kicik A, Erdogdu E, Hatay GH, Tufekcioglu Z, Bilgic B, Hanagasi H, Gurvit H, Demiralp T, Ulug AM, **Öztürk Işık E**. Determination of Diffusion Weighted Magnetic Resonance Imaging Based Biomarkers of Mild Cognitive Impairment in Parkinson's Disease (Parkinson Hastalığı Hafif Kognitif Bozukluğunun Difüzyon Ağırlıklı Manyetik Rezonans Görüntüleme Temelli Biyoişaretleyicilerinin Belirlenmesi). Biyomut 2017, 24 November 2017, Istanbul, Turkey. (poster)

14. **Öztürk Işık E,** Prediction of IDH mutation status of gliomas based on MR spectroscopic imaging in clinical settings. Workshop on Recent Advances in Magnetic Resonance Imaging, 20 June 2017. İstanbul, Turkey. (oral presentation)

15. Hatay GH, Arslan DB, Cebeci H, Okeer E, Hakyemez B, **Ozturk-Isik E**. Compressed Sensing Accelerated Arterial Spin Labeling MRI of Brain Tumors. (Sıkıştırılmış Algılama ile Atardamar Fırıl İşaretleme Tekniğinin Beyin Tümörlerinde Hızlandırılması için Uygunluğunun Araştırılması). TMRD 2016. Ankara, Turkey. 26-28 May 2016. (oral presentation)

16. Arslan DB, Cengiz S, Erdogdu E, Kicik A, Hatay GH, Tufekcioglu Z, Bilgic B, Hanagasi H, Ulug AM, Gurvit H, Demiralp T, **Ozturk-Isik E**. Comparison of Cerebral Blood Flow of Parkinson's Disease with Mild Cognitive Impairment or Normal Cognition Using Arterial Spin Labeling MRI. (Atardamar Fırıl Etiketleme Manyetik Rezonans Görüntüleme Tekniği Kullanılarak Kognitif Normal ve Hafif Kognitif Bozukluğu olan Parkinson Hastalarının Serebral Kan Akım Değerlerinin Karşılaştırılması). TMRD 2016. Ankara, Turkey. 26-28 May 2016. (oral presentation)

17. Cengiz S, Arslan DB, Erdogdu E, Kicik A, Hatay GH, Tufekcioglu Z, Bilgic B, Hanagasi H, Ulug AM, Gurvit H, Demiralp T, **Ozturk-Isik E**. Comparison of Three Dimensional Magnetic Resonance Spectroscopic Imaging Findings in Parkinson's Disease with Mild Cognitive Impairment or Normal Cognition. (Hafif Kognitif Bozukluğu Olan ve Kognitif Normal Parkinson Hastalarının Üç Boyutlu 1H Manyetik Rezonans Spektroskopik Görüntüleme Verilerinin Karşılaştırılması). TMRD 2016. Ankara, Turkey. 26-28 May 2016. (oral presentation)

18. Kiçik A, Erdogdu E, Buker S, Tufekcioglu Z, Arslan DB, Cengiz S, **Ozturk-Isik E**, Bilgic B, Hanagasi H, Ulug AM, Gurvit H. Resting State Functional Connectivity Networks Associated with Parkinson's Disease with Mild Cognitive Impairment. (Parkinson hastalığında hafif kognitif bozuklukla ilişkili dinlenim durumu fonksiyonel bağlantısallık ağları). 14. Ulusal Sinir Bilim Kongresi 2016. Ankara, Turkey. 26-29 May 2016. (poster)

19. Onay A, Böge M, Vural M, **Öztürk Işık E**, Acar Ö, Mut T, Gümüş T, Esen T. The fractional anisotrophy ratio in differentiating low and high grade prostate cancer (Düşük ve yüksek gradeli prostat karsinom ayırımında fraksiyonel anisotropi oranı). Türk Radyoloji Derneği Kongresi 2015. Antalya, Turkey, 21-25 Ekim 2015. (poster)

20. **Öztürk Işık E.** Fast Multi Nuclei MR Spectroscopic Imaging of Brain Lesions. Emerging Concepts in Advanced Imaging of Neurodegenerative Diseases Workshop. Istanbul, Turkey, 18-20 Ekim 2015. (oral presentation)

21. Acar Ö, **Öztürk Işık E**, Vural M, Onay A, Esen T. Prediction of the Histopathological Findings with Machine Learning Based Methods Using Clinical and Radiological Data for Kidney Tumors (Böbrek Tümörlerinde Klinik ve Radyolojik Verilerin Kullanıldığı Makine Öğrenme Temelli Yöntemler ile Histopatolojik Bulguların Öngörülmesi). Ulusal Ürolojik Cerrahi Kongresi 2014. Antalya, Turkey, 5-9 November 2014. (oral presentation)

22. Topkara A, Ökeer E, Hakyemez B, **Öztürk Işık E**, Olcay B. Computational Fluid Dynamics Simulations Based on Time-of-Flight Magnetic Resonance Angiography (Time-of-Flight Manyetik Rezonans Anjiyografi Görüntüleri Üzerinde Hesaplamalı Akışkanlar Dinamiği Simülasyonları). Biyomut 2014. İstanbul, Turkey, 16-17 October 2014. Paper number:51. (oral presentation)

23. Yıldırım M, Hatay GH, Ökeer E, Nicolay K, Hakyemez B, **Öztürk Işık E**. Fast Phosphorus MR Spectroscopic Imaging of Human Brain Using Compressed Sensing (İnsan Beyninin Sıkıştırılmış Algılama Kullanılarak Hızlandırılmış Fosfor MR Spektroskopik Görüntülenmesi). Biyomut 2014. İstanbul, Turkey, 16-17 October 2014. Paper number:107. (poster)

24. Ökeer E, Hatay GH, Yıldırım M, Çıtak Er F, **Öztürk Işık E**, Hakyemez B. Two Dimensional Phosphorus MR Spectroscopic Imaging of Brain Tumors at 3T (Beyin Tümörlerinin 3T Manyetik Alanda İki Boyutlu Fosfor MR Spektroskopik Görüntülenmesi). TMRD 2014. Ankara, Turkey, 22-24 May 2014. (oral presentation)

25. Hatay GH, Ökeer E, Hakyemez B, **Öztürk Işık E**. Comparison of 2D iterative frame based and 3D direct Compressed Sensing Reconstruction for Accelerated Phosphorus MR Spectroscopic Imaging of Human Brain (Hızlandırılmış Fosfor Manyetik Rezonans Spektroskopi ile İnsan Beyninin Görüntülenmesi için İki Boyutlu İteratif ve Üç Boyutlu Direkt Sıkıştırılmış Algılama Yöntemlerinin Karşılaştırılması) TMRD 2014. Ankara, Turkey. 22-24 May 2014. (oral presentation)

26. Çıtak Er F, Fırat Z, Sarıkaya B, Türe U, **Öztürk Işık E**. Supervised Non-Negative Matrix Factorization Based Classification of Multiparametric MR Imaging of Gliomas at 3T (Negatifsiz Matris Çarpanlarına Ayırma (NMF) Yönteminin Multiparametrik 3T MR Görüntülerini Kullanarak Gliom Derecesinin Öngörülmesinde Gözetimli Yöntem Olarak Kullanılması). TMRD 2014. Ankara, Turkey. 22-24 May 2014. (oral presentation)

27. Çıtak Er F, Vural M, Acar O, Esen T, Onay A, **Öztürk Işık E**. Final Gleason Score Prediction Using Discriminant Analysis and Support Vector Machine Based on Preoperative Multiparametric MR Imaging of Prostate Cancer at 3T (Prostat Kanserinde Gleason Skorunun Multiparametrik 3T MR Görüntüleme ile Ayırma Analizi ve Destek Vektör Makineleri Kullanılarak Öngörülmesi). TMRD 2014. Ankara, Turkey. 22-24 May 2014. (oral presentation)

28. Aygen B, Fırat Z, Hatay GH, Hamamcı A, **Öztürk Işık E**. Analysis of Resting State fMRI Data Using Group Independent Component Analysis. (İstirahat Hali (Resting-State) Fonksiyonel Manyetik Rezonans Görüntüleme (RS-fMRG) Verilerinin Grup Bağımsız Bileşen Analizi ile İncelenmesi). TMRD 2014. Ankara, Turkey. 22-24 May 2014. (oral presentation)
29. Onay A, Vural M, Acar Ö, Esen T, **Öztürk Işık E**, Gümüş T, Akpek S. Diffusion Tensor Imaging for Prostate Cancer Detection (Difüzyon Tensör Görüntülemenin Prostat Kanserinde Tanısal Değeri). TRD 2013. Antalya, Turkey, 6-10 November 2013. (e-poster presentation)
30. Kayiş D, Fırat Z, Gürses B, **Öztürk Işık E.** A Graphical User Interface Design for Magnetic Resonance Spectroscopy of Breast Cancer at 3T. Tıptekno 2013. Antalya, Turkey. 31 October-2 November 2013. (oral presentation)
31. Şahin E, Fırat Z, Gürses B, **Öztürk Işık E.** A Graphical User Interface Design for Analyzing T1 Weighted Perfusion Magnetic Resonance Images of Breast Tissue at 3T. Tıptekno 2013. Antalya, Turkey. 31 October-2 November 2013. (oral presentation)
32. Düzenli İ, Gümüş Ç, Cebeci H, Hakyemez B, **Öztürk Işık E.** A Graphical User Interface Design for Arterial Spin Labelling Magnetic Resonance Imaging of Brain Tumors at 3T. Tıptekno 2013. Antalya, Turkey. 31 October-2 November 2013. (oral presentation)
33. Aydın UC, Hatay GH, Firat Z, Askin NC, Ture U, **Ozturk-Isik E.** Analysis of Speech Function in Brain Tumor Patients by Functional Magnetic Resonance Imaging Using SPM and FSL. TMRD 2013. Ankara, Turkey. 23-25 May 2013. (oral presentation)
34. Gumus C, Hatay GH, Askin NC, Hakyemez B, **Ozturk-Isik E.** A Simulation Study for Accelarated Data Acquisition of Phosphorus MR Spectroscopic Imaging of Brain Tumors Using Compressed Sensing. TMRD 2013. Ankara, Turkey. 23-25 May 2013. (oral presentation)
35. Askin NC, Hakyemez B, **Ozturk-Isik E.** A Preliminary Simulation Study for Fast Phosphorus MR Spectroscopic Imaging Using Compressed Sensing. Biyomut 2012, Istanbul, Turkey. 3-5 October 2012. Paper number:36. (oral presentation)
36. Arifoglu E, Tugcu G, Firat Z, **Ozturk-Isik E.** 3D Visualization of Hip and Knee Bone Structure Segmented from Computed Tomography Images. Biyomut 2012, Istanbul, Turkey. 3-5 October 2012. Paper number:35. (poster presentation)
37. Askin NC, Demirkan S, **Ozturk-Isik E**. Partial Saturation Factors and T1 Relaxation Times of 31P MR Spectra of Human Brain at 3T. TMRD 2012. Ankara, Turkey. 24-26 May 2012. (oral presentation)
38. Askin NC, Firat Z, Hamamci A, Bilir B, Ture U, **Ozturk-Isik E**. Analyzing The Activation Points of Hand Movement of Patients Diagnosed With Brain Tumors by Functional Magnetic Resonance Imaging Using SPM. TMRD 2012. Ankara, Turkey. 24-26 May 2012. (oral presentation)
39. Askin NC, Firat Z, Ture U, Kilickesmez O, **Ozturk-Isik E.** Analyzing The Activation of Accurate Points of Hand Movement of Patients Diagnosed With Brain Tumors by Functional Magnetic Resonance Imaging Technique Using FSL. Biyomut 2011, Antalya, Turkey. Paper number:9. (oral presentation)
40. **Ozturk-Isik E**, Nelson SJ. The Differences of MR Spectroscopic Imaging and MR Diffusion Weighted Imaging Parameters in Different Subtypes of Grade 3 Gliomas. Biyomut 2010. Antalya, Turkey. 21-24 April 2010. (oral presentation)
41. Yetimoglu B**, Ozturk-Isik E**, Firat Z, Kilickesmez O, Cihangiroglu M. Fosfor Spektroskopide Kranyal Uygulamalar: Ön Çalişma Sonuçlari. Annual Conference of the Turkish Radiology Society. Antalya, Turkey. 04-09 November 2009. (oral presentation)
42. **Ozturk-Isik E**, Chen AP, Crane JC, Xu D, Han ET, Vigneron DB, Cha S, Chang SM, Nelson SJ. SENSE MR Spectroscopy of Gliomas at 3T. TMRD 2006, Ankara, Turkey, 25-27 May 2006. (poster presentation)

Other Presentations

1. **Ozturk-Isik E**, Nelson SJ. Fast MR Spectroscopic Imaging of Gliomas using SENSE, UCSF/UCB Joint Graduate Group in Bioengineering Annual Research Conference 2006, Lake Tahoe, CA, 6-8 October 2006
2. **Ozturk-Isik E**, Nelson SJ. Parallel MR Spectroscopic Imaging of Gliomas using Sensitivity Encoding, UC Systemwide Bioengineering Symposium 2006, University of California at Los Angeles, Los Angeles, CA, 24-26 June 2006
3. **Ozturk-Isik E**, Fast Parallel Imaging or Lipid Unaliasing for MR Spectroscopic Imaging of Gliomas at 3T, BUMIL Lab, Bosphorus University, Istanbul, Turkey, June 8, 2006
4. **Ozturk E**, Crane JC, Chen AP, Cha S, Chang SM, Berger MS, Vigneron DB, Nelson SJ. Fast and Accurate 3D 1H MR Spectroscopic Imaging of Gliomas at 3T Using Sensitivity Encoding (SENSE), Brain Tumor Imaging Retreat 2005, Mission Bay Campus, UCSF, San Francisco, CA, October 25, 2005
5. **Ozturk E**, Nelson SJ. Parallel MR Spectroscopic Imaging of Gliomas at 3T, UCSF/UCB Joint Graduate Group in Bioengineering Annual Research Conference 2005, Lake Tahoe, CA, October 1, 2005
6. **Ozturk E**, Cha S, Chang SM, Berger MS, Nelson SJ. Lipid Unaliasing using SENSE for MR Spectroscopic Imaging of Gliomas at 3T, UC Systemwide Bioengineering Symposium 2005, Santa Cruz, CA, June 26, 2005
7. **Ozturk E**, Chang SM, Nelson SJ. 3D 1H MRSI, MRI and Diffusion Tensor Imaging in Newly-Diagnosed Patients with Grade 3 Brain Tumors, UCSF/UCB Bioengineering Research Forum (BERF), San Francisco, CA, March 3, 2004

Other Attended Meetings

1. Joint Brain, Breast, and Prostate 2004 Specialized Program of Research Excellence (SPORE) Scientific Retreat, 12 February, 2004, San Francisco, CA, USA
2. UC Systemwide Bioengineering Symposium 2003, 22-23 June 2003, University of California at San Diego, San Diego, CA

Honors and Awards

- Bogazici University Academic Encouragement Award, 2014, 2015, 2016
- TUBITAK EU Project Submission Encouragement Award, 2010
- Educational Stipend Award, ISMRM conferences, 2004-2006
- High Field Workshop Trainee Award, 2007
- Educational Stipend Award, UC Systemwide Bioengineering Symposium, 2003-2006
- UCSF Graduate Division Earle C. Anthony Travel Award, University of California, San Francisco, 2006
- UCB Graduate Division Conference Travel Grant, University of California, Berkeley, 2006

Extracurricular Activities

- Mentor Faculty Member, Innovation Management & Leadership Certification Programme (IMLEAP) (Bogaziçi University & Siemens Healthineers partnership), 2017-2019
- Instructor Faculty Member, Brain Awareness Week Event, 2015-2019
- Member, Bioengineering Association of Students (BEAST), 2002-2007
- Bioengineering Research Forum (BERF) Coordinator, Bioengineering Association of Students (BEAST), 2004-2005

- BEAST Student Room Representative, Bioengineering Association of Students (BEAST), 2005-2006
- Qualifying Exam Advisor, Bioengineering Association of Students (BEAST), 2005-2006
- Student Representative, Faculty Recruitment Visits, 2003-2006
- Student Representative, UCSF/UCB Joint Graduate Group in Bioengineering Program Review, 2006-2007
- Turkish Student Association President, University of Alabama at Birmingham, 2000-2001
- Turkish folk dancer, Yore Folk Dance Ensemble, San Francisco, CA, 2002-2007.