

GHAZALEH SOLEIMANI

Curriculum Vitae

Department of Biomedical Engineering, University of Minnesota:

<https://experts.umn.edu/en/persons/ghazaleh-soleimani>

Google Scholar:

<https://scholar.google.com/citations?hl=en&user=RyGoWYkAAAAJ>

ResearchGate:

<https://www.researchgate.net/profile/Ghazaleh-Soleimani>

solei039@umn.edu
gh.soleimani70@gmail.com

RESEARCH	• Substance Use Disorders • Neuromodulation / Noninvasive Brain Stimulation • Closed-Loop Neurostimulation Systems • Neuroimaging (fMRI) & EEG signal Processing • Biomarker development	
POSTDOC	• Department of Psychiatry & Behavioral Sciences University of Minnesota • Department of Biomedical Engineering University of Minnesota	Feb. 2023 - Present
EDUCATION	Ph.D. in Biomedical Engineering – Bioelectric (GPA: 19.58/20) Amirkabir University of Technology M.Sc. in Biomedical Engineering – Bioelectric (GPA: 19.34/20) University of Isfahan B.Sc. in Electrical Engineering – Control (GPA: 17.04/20) Isfahan University of Technology	Sept. 2016 – Oct. 2021 Sept. 2014 – Sept. 2016 Sept. 2009 – Sept. 2013
HONORS & AWARDS	• BBRF Young Investigator Grant – \$70,000, Brain & Behavior Research Foundation, 2027–2029 (<i>For research on traveling-wave tACS in opioid use disorder</i>) • MySafeRx Inc. Technology-Based Treatments for Addiction Award, College on Problems of Drug Dependence (CPDD-2026), Portland, USA • The College on Problems of Drug Dependence (CPDD-2025) Early Career Travel Award winner in New Orleans, Louisiana, USA • <i>SFN</i> (Society for Neuroscience) Trainee Professional Development Award • MnDRIVE Brain Conditions Research Award – \$75,000, University of Minnesota, 2024 (<i>For research on fMRI-guided TMS in addiction</i>) (https://mndrivebrainconditions.umn.edu/ghazaleh-soleimani-msc-phd) • Society of Biological Psychiatry (SOBP-2023) International Travel Award Winner in San Diego, CA, USA (https://sobp.org/awards-gallery-2023/) • The College on Problems of Drug Dependence (CPDD-2023) International Travel Award winner in Denver, Colorado, USA (https://cpdd.org/2023-cpdd-travel-awards-recipients/) • 2023 NIDA International Forum Abstract Selected Travel Award Winner in Denver, Colorado, USA • Travel Award winner for OHBM 2023 in Montreal, Canada • EZAMA Award • 1st ISAM Asian Regional Meeting on Addiction Medicine and 14th International Addiction Science Congress (ASC 2020) • Ranked 1st among Ph.D. students Biomedical Engineering Department Amirkabir University of Technology • Admission offers to the Ph.D. program University of Isfahan and Isfahan University of Technology • Ranked 1st among M.Sc. students Biomedical Engineering Department, University of Isfahan • Exceptional Talents Scholarship Department of Biomedical Engineering, University of Isfahan • Ranked top 0.3% among more than 300,000 participants in Iran's National Entrance Examination of Universities (Konkour) in mathematics and physics branch	2026 2026 2025 2025 2024 2023 2023 2023 2023 2023 2020 2017-2020 2016 2015-2016 2015 2009

Published:

- (J1) **Soleimani, G.**, Kuplicki, R., Mulyana, B., Tsuchiyagaito, A., Misaki, M., Paulus, M. P., & Ekhtiari, H. (2026). Closed-loop transcranial electrical brain stimulation with fMRI: A proof-of-concept randomized trial of real-time fMRI-guided tACS optimization. *Translational Psychiatry*. <https://doi.org/10.1038/s41398-026-04319-5>

My role in (J1): Led all data processing, statistical analyses, interpretation, figure generation, and manuscript writing; data collection was conducted by clinical collaborators.

- (J2) **Soleimani, G.**, Paulus, M. P., Ekhtiari, H., & Opitz, A. (2026). Associations Between TMS-Induced Electric Fields and Craving and Consumption Outcomes in Substance Use Disorders: A Multimodal Dose-Response Meta-Analysis. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*. <https://doi.org/10.1016/j.bpsc.2026.07.004>

My role in (J2): Led all data processing, statistical analyses, interpretation, figure generation, and manuscript writing; data collection was conducted by clinical collaborators.

- (J3) **Soleimani, G.**, Kuplicki, R., Paulus, M. P., & Ekhtiari, H. (2026). Targeting cortico-striatal-amygdalar networks via theta-band frontoparietal synchronization in opioid use disorder: a randomized tACS-fMRI Trial. *Molecular psychiatry*, 1-13. <https://doi.org/10.1038/s41380-026-03694-1>

My role in (J3): Led all data processing, statistical analyses, interpretation, figure generation, and manuscript writing; data collection was conducted by clinical collaborators.

- (J4) **Soleimani, G.**, Zhao, Z., Güth, M. R., & Opitz, A. (2026). When control isn't controlled: How different experimental sham control conditions complicate TMS evidence in addiction. *Drug and Alcohol Dependence Reports*, 100450. <https://doi.org/10.1016/j.dadr.2026.100450>

My role in (J4): Led all data processing, statistical analyses, interpretation, figure generation, and manuscript writing; data collection was conducted by clinical collaborators.

- (J5) **Soleimani, G.**, Wischniewski, M., Berger, T. A., Alekseichuk, I., Paulus, M. P., Lim, K. O., ... & Opitz, A. (2026). Linking electric field pattern to clinical efficacy of transcranial electrical stimulation in substance use disorder: A modeling-based meta-analysis. *Neuroscience & Biobehavioral Reviews*, 106758. [10.1016/j.neubiorev.2026.106758](https://doi.org/10.1016/j.neubiorev.2026.106758)

My role in (J5): Led all data processing, statistical analyses, interpretation, figure generation, and manuscript writing; data collection was conducted by clinical collaborators.

- (J6) **Soleimani, G.**, Alekseichuk, I., Aurup, C., Bergmann, T. O., Bestmann, S., Beynel, L., ... & Ekhtiari, H. (2026). Dose-response relationships in transcranial brain stimulation: Physics, physiology and mechanism. *Brain stimulation*, 103067. <https://doi.org/10.1016/j.brs.2026.103067>

My role in (J6): Led manuscript development and primary drafting, coordinated expert co-author contributions, and finalized revisions for publication.

- (J7) Steele VR, Addicott MA, Addolorato G, Baker T, Biernacki K, Bonci A, Brady KT, Daughters SB, Diana M, Durazzo TC, Ekhtiari H, Fecteau S, Fede SJ, Froeliger B, Gallimberti L, Garza-Villarreal EA, George TP, Goudriaan AE, Heilig M, Kang D, Kearney-Ramos TE, Li X, Lile JA, Madeo G, Madore M, Martinez D, Maretinotti G, McCalley DM, Moeller SJ, Montemitro C, Padula CB, Petersen N, Pettorruso M, Philip NS, Rakesh G, Jo Salmeron B, Sahlem GL, Sanna A, Schütz CG, Schellekens A, Sheffer CE, **Soleimani G**, Spagnolo PA, Stein EA, Trivedi M, Burrell Ward H, Wesley MJ, Young JR, Yuan K, Yuan T, Zangen A, Zhao D, Zhao M, Hanlon CA. [Toward Inclusive, Evidence-Based rTMS Care for Patients With Co-Occurring](#)

[Substance Use Disorders](#). Am J Psychiatry. 2025 Dec 1;182(12):1095-1096. doi: 10.1176/appi.ajp.20250407. Epub 2025 Dec 1. PubMed PMID: 41320823.

My role in (J7): Invited co-author contributing expertise in addiction neuroscience and manuscript revisions.

(J8) Mahdavi-Doost H, **Soleimani G**, Lim KO, Ekhtiari H. [Craving Prediction From fMRI Drug Cue Reactivity in Methamphetamine Use Disorder: A Parsimonious Neurobiological Model](#). Brain Behav. 2025 Oct;15(10):e70991. doi: 10.1002/brb3.70991. PubMed PMID: 41116654; PubMed Central PMCID: PMC12537833.

My role in (J8): Contributed to data analysis, manuscript development, and critical revisions.

(J9) **Soleimani G**, Souki A, Honari S, Baker TE, Brunoni AR, Ebrahimi M, Garza-Villarreal EA, George TP, Goldstein RZ, Kumar Jha M, Kearney-Ramos T, Kuplicki R, Le Foll B, Lim KO, Paulus MP, Rahmani A, Sahlem G, Tang VM, Tavakoli H, Valyan A, Yuan T, Zare-Bidoki M, Bikson M, Hanlon CA, Nitsche MA, Ekhtiari H. Effectiveness of Noninvasive Brain Stimulation Protocols on Drug Craving and Consumption/Relapse in Substance Use Disorders: A Systematic Review and Meta-analysis of 208 Clinical Trials and 36 Protocols. [preprint]. 2025 September. Available from: <https://doi.org/10.1101/2025.09.21.25335559>.

My role in (J9): Led and coordinated all stages of the systematic review and meta-analysis, including study design, literature screening, statistical analyses, interpretation, manuscript drafting, and revisions; data extraction was completed with assistance from co-authors.

(J10) **Soleimani G**, Nitsche MA, Hanlon CA, Lim KO, Opitz A, Ekhtiari H. [Four dimensions of individualization in brain stimulation for psychiatric disorders: context, target, dose, and timing](#). Neuropsychopharmacology. 2025 May;50(6):857-870. doi: 10.1038/s41386-025-02094-3. Epub 2025 Mar 27. Review. PubMed PMID: 40148682; PubMed Central PMCID: PMC12032117.

My role in (J10): Led manuscript development and primary drafting, coordinated expert co-author contributions, and finalized revisions for publication.

(J11) Khazaal Y, Flayelle M, Billieux J, Penzenstadler L, Robet T, Iuga R, Rougemont-Bücking A, Gothuey I, Kuntz A, Bouzegaou R, **Soleimani G**, Ekhtiari H, Vera Cruz G, Zullino D. [\[Addiction : what's new in 2024\]](#). Rev Med Suisse. 2025 Jan 29;21(903):183-188. doi: 10.53738/REVMED.2025.21.903.183. PubMed PMID: 39881644.

My role in (J11): Invited co-author contributing expertise in addiction neuroscience and manuscript drafting.

(J12) **Soleimani G**, Conelea CA, Kuplicki R, Opitz A, Lim KO, Paulus MP, Ekhtiari H. [Targeting VMPPFC-amygdala circuit with TMS in substance use disorder: A mechanistic framework](#). Addict Biol. 2025 Jan;30(1):e70011. doi: 10.1111/adb.70011. PubMed PMID: 39783881; PubMed Central PMCID: PMC11714170.

My role in (J12): Led all data processing, statistical analyses, interpretation, figure generation, manuscript writing, and data collection.

(J13) Addiction Cue-Reactivity Initiative (ACRI) Network, Sangchooli A, Zare-Bidoky M, Fathi Jouzdani A, Schacht J, Bjork JM, Claus ED, Prisciandaro JJ, Wilson SJ, Wüstenberg T, Potvin S, Ahmadi P, Bach P, Baldacchino A, Beck A, Brady KT, Brewer JA, Childress AR, Courtney KE, Ebrahimi M, Filbey FM, Garavan H, Ghahremani DG, Goldstein RZ, Goudriaan AE, Grodin EN, Hanlon CA, Haugg A, Heilig M, Heinz A, Holczer A, Van Holst RJ, Joseph JE, Juliano AC, Kaufman MJ, Kiefer F, Khojasteh Zonoozi A, Kuplicki RT, Leyton M, London ED, Mackey S, McClernon FJ, Mellick WH, Morley K, Noori HR, Oghabian MA, Oliver JA, Owens M, Paulus MP, Perini I, Rafei P, Ray LA, Sinha R, Smolka MN, **Soleimani G**, Spanagel R, Steele VR, Tapert SF, Vollstädt-Klein S, Wetherill RR, Witkiewitz K, Yuan K, Zhang X, Verdejo-Garcia A, Potenza MN, Janes AC, Kober H, Zilverstand A, Ekhtiari H. [Parameter Space and Potential for Biomarker Development in 25 Years of fMRI Drug Cue Reactivity: A Systematic Review](#). JAMA Psychiatry. 2024 Apr

1;81(4):414-425. doi: 10.1001/jamapsychiatry.2023.5483. PubMed PMID: 38324323; PubMed Central PMCID: PMC11304510.

My role in (J13): Invited co-author contributing expertise in addiction neuroscience and manuscript drafting.

(J14) **Soleimani G**, Joutsa J, Moussawi K, Siddiqi SH, Kuplicki R, Bikson M, Paulus MP, Fox MD, Hanlon CA, Ekhtiari H. [Converging Evidence for Frontopolar Cortex as a Target for Neuromodulation in Addiction Treatment](#). Am J Psychiatry. 2024 Feb 1;181(2):100-114. doi: 10.1176/appi.ajp.20221022. Epub 2023 Nov 29. Review. PubMed PMID: 38018143; PubMed Central PMCID: PMC11318367.

My role in (J14): Led all data processing, statistical analyses, interpretation, figure generation, manuscript writing, and data collection.

(J15) Rahimi S, Towhidkhah F, Baghdadi G, Forogh B, Saadat P, Soleimani G, Habibi SA. [Modeling of cerebellar transcranial electrical stimulation effects on hand tremor in Parkinson's disease](#). Front Aging Neurosci. 2023;15:1187157. doi: 10.3389/fnagi.2023.1187157. eCollection 2023. PubMed PMID: 38020756; PubMed Central PMCID: PMC10679529.

My role in (J15): Invited co-author contributing expertise in computational head modeling, providing figure, simulations, and manuscript drafting.

(J16) **Soleimani G**, Kupliki R, Paulus M, Ekhtiari H. [Dose-response in modulating brain function with transcranial direct current stimulation: From local to network levels](#). PLoS Comput Biol. 2023 Oct;19(10):e1011572. doi: 10.1371/journal.pcbi.1011572. eCollection 2023 Oct. PubMed PMID: 37883583; PubMed Central PMCID: PMC10629666.

My role in (J16): Led all data processing, statistical analyses, interpretation, figure generation, manuscript writing, and data collection.

(J17) **Soleimani G**, Kuplicki R, Camchong J, Opitz A, Paulus MP, Lim KO, Ekhtiari H. [Are we really targeting and stimulating DLPFC by placing transcranial electrical stimulation \(tES\) electrodes over F3/F4?](#) Hum Brain Mapp. 2023 Dec 1;44(17):6275-6287. doi: 10.1002/hbm.26492. Epub 2023 Sep 26. PubMed PMID: 37750607; PubMed Central PMCID: PMC10619406.

My role in (J17): Led all data processing, statistical analyses, interpretation, figure generation, manuscript writing, and data collection.

(J18) **Soleimani G**, Towhidkhah F, Saviz M, Ekhtiari H. [Cortical Morphology in Cannabis Use Disorder: Implications for Transcranial Direct Current Stimulation Treatment](#). Basic Clin Neurosci. 2023 Sep-Oct;14(5):647-662. doi: 10.32598/bcn.2021.3400.1. Epub 2023 Sep 1. PubMed PMID: 38628838; PubMed Central PMCID: PMC11016884.

My role in (J18): Led all data processing, statistical analyses, interpretation, figure generation, manuscript writing, and data preparation.

(J19) **Soleimani G**, Nitsche MA, Bergmann TO, Towhidkhah F, Violante IR, Lorenz R, Kuplicki R, Tsuchiyagaito A, Mulyana B, Mayeli A, Ghobadi-Azbari P, Mosayebi-Samani M, Zilverstand A, Paulus MP, Bikson M, Ekhtiari H. [Closing the loop between brain and electrical stimulation: towards precision neuromodulation treatments](#). Transl Psychiatry. 2023 Aug 14;13(1):279. doi: 10.1038/s41398-023-02565-5. Review. PubMed PMID: 37582922; PubMed Central PMCID: PMC10427701.

My role in (J19): Led manuscript development and primary drafting, coordinated expert co-author contributions, and finalized revisions for publication.

(J20) **Soleimani G**, Conelea CA, Kuplicki R, Opitz A, Lim KO, Paulus MP, Ekhtiari H. [Optimizing Individual Targeting of Fronto-Amygdala Network with Transcranial Magnetic Stimulation \(TMS\): Biophysical, Physiological and Behavioral Variations in People with Methamphetamine Use](#)

[Disorder](#). medRxiv. 2023 Apr 12;. doi: 10.1101/2023.04.02.23288047. PubMed PMID: 37066153; PubMed Central PMCID: PMC10104226.

My role in (J20): Led all data processing, statistical analyses, interpretation, figure generation, manuscript writing, and data preparation.

(J21) Almeida J, Martins AR, Amaral L, Valério D, Bukhari Q, Schu G, Nogueira J, Spínola M, **Soleimani G**, Fernandes F, Silva AR, Fregni F, Simis M, Simões M, Peres A. [The cerebellum is causally involved in episodic memory under aging](#). Geroscience. 2023 Aug;45(4):2267-2287. doi: 10.1007/s11357-023-00738-0. Epub 2023 Feb 7. PubMed PMID: 36749471; PubMed Central PMCID: PMC10651631.

My role in (J21): Invited co-author contributing expertise in computational head modeling, providing figure, simulations.

(J22) **Soleimani G**, Towhidkhah F, Oghabian MA, Ekhtiari H. [DLPFC stimulation alters large-scale brain networks connectivity during a drug cue reactivity task: A tDCS-fMRI study](#). Front Syst Neurosci. 2022;16:956315. doi: 10.3389/fnsys.2022.956315. eCollection 2022. PubMed PMID: 36276607; PubMed Central PMCID: PMC9582757.

My role in (J22): Led all data processing, statistical analyses, interpretation, figure generation, and manuscript writing; data collection was conducted by clinical collaborators.

(J23) Mulyana B, Tsuchiyagaito A, Misaki M, Kuplicki R, Smith J, **Soleimani G**, Rashedi A, Shereen D, Bergman TO, Cheng S, Paulus MP, Bodurka J, Ekhtiari H. [Online closed-loop real-time tES-fMRI for brain modulation: A technical report](#). Brain Behav. 2022 Oct;12(10):e2667. doi: 10.1002/brb3.2667. Epub 2022 Sep 22. PubMed PMID: 36134450; PubMed Central PMCID: PMC9575607.

My role in (J23): Invited co-author contributing expertise in computational head modeling, providing figure, simulations, and help with manuscript drafting.

(J24) Ekhtiari H, **Soleimani G**, Kuplicki R, Yeh HW, Cha YH, Paulus M. [Transcranial direct current stimulation to modulate fMRI drug cue reactivity in methamphetamine users: A randomized clinical trial](#). Hum Brain Mapp. 2022 Dec 1;43(17):5340-5357. doi: 10.1002/hbm.26007. Epub 2022 Aug 1. PubMed PMID: 35915567; PubMed Central PMCID: PMC9812244.

My role in (J24): Led all data processing, statistical analyses, interpretation, figure generation, and manuscript writing; data collection was conducted by clinical collaborators.

(J25) Dakhili A, Sangchooli A, Jafakesh S, Zare-Bidoky M, **Soleimani G**, Batouli SAH, Kazemi K, Faghiri A, Oghabian MA, Ekhtiari H. [Cue-induced craving and negative emotion disrupt response inhibition in methamphetamine use disorder: Behavioral and fMRI results from a mixed Go/No-Go task](#). Drug Alcohol Depend. 2022 Apr 1;233:109353. doi: 10.1016/j.drugalcdep.2022.109353. Epub 2022 Feb 11. PubMed PMID: 35249000.

My role in (J25): Invited co-author contributing expertise in fMRI analysis, providing figure, and help with manuscript drafting.

(J26) Ekhtiari H, Ghobadi-Azbari P, Thielscher A, Antal A, Li LM, Shereen AD, Cabral-Calderin Y, Keeser D, Bergmann TO, Jamil A, Violante IR, Almeida J, Meinzer M, Siebner HR, Woods AJ, Stagg CJ, Abend R, Antonenko D, Auer T, Bächinger M, Baeken C, Barron HC, Chase HW, Crinion J, Datta A, Davis MH, Ebrahimi M, Esmaeilpour Z, Falcone B, Fiori V, Ghodratiostani I, Gilam G, Grabner RH, Greenspan JD, Groen G, Hartwigsen G, Hauser TU, Herrmann CS, Juan CH, Krekelberg B, Lefebvre S, Liew SL, Madsen KH, MahdaviFar-Khayati R, Malmir N, Marangolo P, Martin AK, Meeker TJ, Ardabili HM, Moisa M, Momi D, Mulyana B, Opitz A, Orlov N, Ragert P, Ruff CC, Ruffini G, Ruttorf M, Sangchooli A, Schellhorn K, Schlaug G, Sehm B, Soleimani G, Tavakoli H, Thompson B, Timmann D, Tsuchiyagaito A, Ulrich M, Vosskuhl J, Weinrich CA, Zare-Bidoky M, Zhang X, Zoefel B, Nitsche MA, Bikson M. [A checklist for assessing the methodological quality of concurrent tES-fMRI studies \(ContES checklist\): a consensus study and statement](#). Nat Protoc. 2022 Mar;17(3):596-617. doi: 10.1038/s41596-021-00664-5. Epub 2022 Feb 4. PubMed PMID: 35121855; PubMed Central PMCID: PMC7612687.

My role in (J26): Invited co-author contributing expertise in fMRI and brain stimulation, providing figure, and help with data extraction.

(J27) **Soleimani G**, Kuplicki R, Bodurka J, Paulus MP, Ekhtiari H. [How structural and functional MRI can inform dual-site tACS parameters: A case study in a clinical population and its pragmatic implications](#). *Brain Stimul.* 2022 Mar-Apr;15(2):337-351. doi: 10.1016/j.brs.2022.01.008. Epub 2022 Jan 15. PubMed PMID: 35042056.

My role in (J27): Led all data processing, statistical analyses, interpretation, figure generation, manuscript writing, and data preparation.

(J28) **Soleimani G**, Saviz M, Bikson M, Towhidkhah F, Kuplicki R, Paulus MP, Ekhtiari H. [Group and individual level variations between symmetric and asymmetric DLPFC montages for tDCS over large scale brain network nodes](#). *Sci Rep.* 2021 Jan 14;11(1):1271. doi: 10.1038/s41598-020-80279-0. PubMed PMID: 33446802; PubMed Central PMCID: PMC7809198.

My role in (J28): Led all data processing, statistical analyses, interpretation, figure generation, manuscript writing, and data preparation.

(J29) Ghobadi-Azbari P, Jamil A, Yavari F, Esmaeilpour Z, Malmir N, MahdaviFar-Khayati R, **Soleimani G**, Cha YH, Shereen AD, Nitsche MA, Bikson M, Ekhtiari H. [fMRI and transcranial electrical stimulation \(tES\): A systematic review of parameter space and outcomes](#). *Prog Neuropsychopharmacol Biol Psychiatry.* 2021 Apr 20;107:110149. doi: 10.1016/j.pnpbp.2020.110149. Epub 2020 Oct 21. PubMed PMID: 33096158.

My role in (J29): Invited co-author contributing expertise in fMRI and brain stimulation and help with revisions.

Selected Conference Proceedings

(C1) **Soleimani, G.**, Kuplicki, R., Paulus, M., & Ekhtiari, H. (2026, January). TOP-DOWN REGULATION OF AMYGDALA AND STRIATUM WITH THETA-BAND STIMULATION OF FRONTO-PARIETAL NETWORK IN OPIOID USE DISORDER. In *NEUROPSYCHOPHARMACOLOGY* (Vol. 51, No. SUPPL 1). CAMPUS, 4 CRINAN ST, LONDON, N1 9XW, ENGLAND: SPRINGER NATURE.

(C2) Ekhtiari, H., & **Soleimani, G.** (2025). Individualized Targeting of Frontolimbic Networks in People with Methamphetamine Use Disorder: Multi Target Optimization Using Neuroimaging. *Drug and Alcohol Dependence*, 267, 112122.

(C3) Mahdavi-Doost, H., **Soleimani, G.**, Lim, K. O., & Ekhtiari, H. (2025). Predicting Subjective Response to Drug Cues Based on Objective Neuroimaging: An fMRI Machine Learning Study. *Drug and Alcohol Dependence*, 267, 112230.

(C4) **Soleimani, G.**, Souki, A., Honari, S., Ebrahimi, M., Tavakoli, H., Valyan, A., & Ekhtiari, H. (2025). Noninvasive neuromodulation for addiction treatment: a systematic review and meta-analysis. *Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation*, 18(1), 528.

(C5) **Soleimani, G.**, & Ekhtiari, H. (2024). FMRI INFORMED TMS TARGET SELECTION FOR FRONTOAMYGDALA CIRCUIT IN PEOPLE WITH METHAMPHETAMINE USE DISORDER. *Drug and Alcohol Dependence*, 260, 110082.

(C6) Soleimani, G., Opitz, A., Kuplicki, R., Lim, K., Paulus, M., & Ekhtiari, H. (2024, December). Identifying Reliable and Valid Personalized Targeting Biomarkers for Opioid Use Disorder Through Fronto-Parieto-Amygdala Network Interactions. In *NEUROPSYCHOPHARMACOLOGY* (Vol. 49, pp. 225-226). CAMPUS, 4 CRINAN ST, LONDON, N1 9XW, ENGLAND: SPRINGER NATURE.

(C7) Soleimani, G., & Ekhtiari, H. (2024). FMRI INFORMED TMS TARGET SELECTION FOR FRONTOAMYGDALA CIRCUIT IN PEOPLE WITH METHAMPHETAMINE USE DISORDER. *Drug and Alcohol Dependence*, 260, 110082.

- (C8) **Soleimani, G.**, Kulpicki, R., Paulus, M., Lim, K., & Ekhtiari, H. (2024). 23. Capturing Dynamic Patterns of Task-Based Functional Connectivity During Drug Cue Reactivity in Fronto-Amygdala Circuit. *Biological Psychiatry*, 95(10), S108.
- (C9) **Soleimani, G.**, Kulpicki, R., Paulus, M., Lim, K., & Ekhtiari, H. (2024). 23. Capturing dynamic patterns of task-based functional connectivity during drug Cue reactivity in Fronto-amygdala circuit. *Biological Psychiatry*, 95(10), S108.
- (C10) **Soleimani, G.**, Kulpicki, R., Lim, K., Paulus, M., & Ekhtiari, H. (2023, December). Dual Neuromodulation Targets for Treatment of Substance Use Disorders: Unraveling the Interacting Role of DLPFC and Frontopolar Cortex During Drug Cue Reactivity. In *NEUROPSYCHOPHARMACOLOGY* (Vol. 48, pp. 418-419). CAMPUS, 4 CRINAN ST, LONDON, N1 9XW, ENGLAND: SPRINGER NATURE.
- (C11) Ekhtiari, Hamed, **Ghazaleh Soleimani**, Afra Souki, Rayus Kulpicki, Kelvin Lim, and Martin Paulus. "Multi-Level Brain Mapping to Optimize Neuromodulation in Individual and Group Levels in Substance Use Disorder." *Biological Psychiatry* 93, no. 9 (2023): S21. (<https://doi.org/10.1016/j.biopsych.2023.02.069>)
- (C12) Ekhtiari, Hamed, and **Ghazaleh Soleimani**. "Individualization of NIBS in addiction treatment: multi levels of evidence with transcranial electrical stimulation." *Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation* 16, no. 1 (2023): 141. (<https://doi.org/10.1016/j.brs.2023.01.085>)
- (C13) **Soleimani, Ghazaleh**, Peyman Ghobadi-Azbari, Arash Khojasteh, Afra Souki, and Hamed Ekhtiari. "Consensus development for harmonizing transparent reporting in tES trials." *Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation* 16, no. 1 (2023): 207. (<https://doi.org/10.1016/j.brs.2023.01.276>)
- (C14) **Soleimani, Ghazaleh**, and Hamed Ekhtiari. "Inter-individual variability in transcranial electric stimulation of the dorsolateral prefrontal cortex." *Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation* 16, no. 1 (2023): 204. (<https://doi.org/10.1016/j.brs.2023.01.268>)
- (C15) **Soleimani, Ghazaleh**, Kelvin Lim, and Hamed Ekhtiari. "Where is the Main Target of the Most Commonly Used TDCS Electrode Montages for the Treatment of Neuropsychiatric Disorders?" In *NEUROPSYCHOPHARMACOLOGY*, vol. 47, pp. 433-434. CAMPUS, 4 CRINAN ST, LONDON, N1 9XW, ENGLAND: SPRINGER NATURE, 2022.
- (C16) Ekhtiari, Hamed, **Ghazaleh Soleimani**, Rayus Kupliki, Martin P Paulus, "How Structural and Functional MRI Can Inform Dual-site tACS Parameters in a Frontoparietal Synchronization Study, American Psychiatry Association Annual Meeting (APAAM 2022).
- (C17) Ekhtiari, Hamed, **Ghazaleh Soleimani**, Rayus Kupliki, Martin P Paulus, "Transcranial electrical stimulation in meth craving: A mechanistic dose response RCT, 53rd Annual Conference of the American Society of Addiction Medicine Annual Conference, (ASAM 2021).
- (C18) Ekhtiari, Hamed, **Ghazaleh Soleimani**, Rayus Kupliki, Martin P Paulus, "Dose-Response in Modulating Brain Response to Transcranial Direct Current Stimulation: An Exploration in Four Levels", accepted in 60th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), (Neuropsychopharmacology 2021, <https://doi.org/10.1038/s41386-021-01238-5>).
- (C19) **Soleimani, Ghazaleh**, Mehrdad Saviz, Farzad Towhidkhah, and Hmaed Ekhtiari. 2020. "Network-targeting in transcranial direct current stimulation: Inter- and Intra-individual variability", Organization for Human Brain Mapping (OHBM) Annual meeting (2020) (https://www.humanbrainmapping.org/files/2020/OHBM_2020_Virtual_Abstracts_2.pdf).
- (C20) **Soleimani, Ghazaleh**, Farzad Towhidkhah, and Hamed Ekhtiari. "Optimizing Frontoparietal Synchronization in Substance Use Disorders: A Brain Stimulation Study", 1st ISAM Asian Regional Meeting on Addiction Medicine and 14th International Addiction Science Congress (ASC 2020).

- Invited keynote speaker in the 6th INTAM webinar (2022)
(<https://www.youtube.com/watch?v=F51mhoREk4o&t=40s>)
- Invited keynote speaker in the 2nd INSF-CAS joint workshop (2021)
(<https://www.youtube.com/watch?v=28LKYHtY7bA>)
- Panelist of the panel entitled “Applied Technologies in Addiction” (15th International Addiction Science Congress) (2021)
- Invited talk in Shahid Beheshti University, Tehran, Iran (2021)
- Invited talk in 4th INTAM (International Network of tES/TMS Trials for Addiction Medicine) webinar (2020)
(<https://www.youtube.com/watch?v=PAvLOIXa4oI>)
- Invited talk in 9th Basic and Clinical Neuroscience congress, Tehran, Iran (2020)
- Invited talk in 13th Addiction Science Congress, Tehran, Iran (2019)
- Invited talk in Amirkabir University of Technology seminars, Tehran, Iran (2018)

RESEARCH MENTORING

- Undergraduate Students
Sasan Keshaverz (B.Sc. 2020)
Aminah Molavi (B.Sc. 2021)

EXPERIENCES

Teaching Assistant

- Modeling of Biological Systems, Department of Biomedical Engineering, Amirkabir University of Technology, 2018 (Instructed by Prof. F. Towhidkhah)
- Modeling of Mechatronic Systems, Department of Biomedical Engineering, Amirkabir University of Technology, 2018 (Instructed by Dr MA. Ahmadipajhouh)
- Linear Control System, Department of Biomedical Engineering, Amirkabir University of Technology, 2018 (Instructed by Prof. F. Towhidkhah)
- Digital Signal Processing, Department of Biomedical Engineering, University of Isfahan, 2014-2018 (Instructed by MR. Yazdchi)
- Principle of Biomedical Signal Processing, Department of Biomedical Engineering, University of Isfahan, 2014-2018 (Instructed by MR. Yazdchi)
- Advanced Topics in Biomedical Signal Processing, Department of Biomedical Engineering, University of Isfahan, 2014-2018 (Instructed by MR. Yazdchi)

Research Assistant

- Cybernetics and Modeling of Biological Systems Lab, Amirkabir University of Technology (under supervision of Prof. F.Towhidkhah)
- Iranian National Center for Addiction Studies (INCAS)
- Linear Control Lab, Isfahan University of Technology, Designing and implementing insula pump (under supervision of Dr M.Zekri)

PROFESSIONAL SERVICE

Reviewer for Journals (Selected)

Translational Psychiatry
Scientific Reports
Current Addiction Reports
Frontiers in Human Neuroscience
Frontiers in Neuroimaging
Addiction
Addiction Biology
Addictive Behavior Reports
Addiction Treatment
Brain & Behavior
Neuroimage
Drug and Alcohol Dependence
Human Brain Mapping
PlosOne
Plos Computational Biology

Reviewer for Conference

International Conference in Biomedical Engineering (ICBME)
International Addiction Science Congress (ASC)

Director of Society

Executive Director of International Network of tES and TMS for Addiction Medicine
(<https://med.umn.edu/addiction/network>)

Member of Society

Neuroscience Interest Group of the International Society of Addiction Medicine (ISAM-NIG)

International Network of tES-fMRI (INTF)

Society for Neuroscience (SfN)

College on Problems of Drug Dependence (CPDD)

SKILLS

Software

MATLAB, Simulink, Proteus

SPSS, R

Software packages for computational head modeling in brain stimulation studies (SimNIBS, ROAST)

Software tools for MRI data analysis (AFNI, FSL, SPM, CONN, FreeSurfer)

OTHER

ACTIVITIES

Karate Fighter

Third Degree Black belt Shotokan Karate Association of Iran

Gold Medalist in Iranian women's karate championship, for four consecutive years (1998-2004)

REFERENCES

Alexander Opitz, PhD

Associate Professor, Department of Biomedical Engineering, University of Minnesota

Home page: <https://opitzlab.umn.edu/>

Email: aopitz@umn.edu

Martin P Paulus, MD

Scientific Director and President, Laureate Institute for Brain Research

Home page: <https://www.laureateinstitute.org/martin-paulus.html>

email: mpaulus@laureateinstitute.org

Professor of Neuroscience, Oxley College of Health and Natural Sciences

University of Tulsa, email: mpp4692@utulsa.edu

Adjunct Professor, Department of Psychiatry, University of California, San Diego

email: mpaulus@health.ucsd.edu