

Parnian Rafei

Cognitive Neuroscience and Psychology Researcher

Office 0.65, Lloyd Building, Trinity College Dublin, Dublin, Ireland. (+353) 85 219 1023

Rafeip@tcd.ie | Parnianrafeirafei@gmail.com



RESEARCH INTERESTS AND EXPERIENCE

- Neurocognitive underpinnings of habitual behaviours and compulsive disorders (e.g., addiction)
- Novel cognitive interventions targeting reward-based decision-making and addictive behaviours
- Neurocognitive impacts of various types of addiction on the brain and behaviour
- Future-oriented cognition (episodic future thinking, prospective memory, planning)

EDUCATION

PhD, Psychology — Trinity College Dublin, Ireland 09/2022 – present

School of Psychology & Trinity College Institute of Neuroscience

Thesis: "Making and Breaking Habits" (expected submission: 30 September 2026). Supervisor: Prof Claire Gillan

MSc, Clinical Psychology — University of Tehran, Iran 09/2017 – 09/2019

Summa cum laude (GPA 18.12/20.00). Faculty of Psychology and Education

Thesis: Comparison of Episodic Future Thinking in Cannabis Users and Healthy Subjects: an fMRI Study. Supervisors: Prof Hatami, Dr Batouli, Dr Rezapour, Prof Verdejo-Garcia

BA, Clinical Psychology — Islamic Azad University, Tehran Medical Branch, Iran 09/2013 – 06/2017

GPA 16.69/20.00. School of Medicine

PROFESSIONAL EXPERIENCE AND INTERNSHIPS

Postgraduate Research Assistant, Neurocognitive Lab, INCAS 02/2021 – 08/2022

Iranian National Centre for Addiction Studies (INCAS), Tehran University of Medical Sciences

Executive Secretary & Research Staff, ISAM Neuroscience Interest Group (ISAM-NIG) 01/2020 – 08/2024

MRI Image Processing, Lab Assistant (National Brain Mapping Lab, University of Tehran) 08/2019 – 12/2019

Clinical Psychology Intern, Sina Ward, Raazi Mental Hospital, Tehran 04/2016 – 08/2016

English Teacher, Kordasti English Academy, Tehran 08/2015 – 12/2016

PUBLICATIONS AND PREPRINTS

Listed in reverse-chronological order, full list on [Google Scholar](#):

1. Buabang, E. K., Suddell, S., Grogan, J. P., Cox, A., St. Martin, N., Donegan, K. R., **Rafei, P.**, O'Connell, R. G., & Gillan, C. M. (2026). Neural dynamics of covert habit activation and control in humans. *bioRxiv*, 2025-11. [DOI](#) [Preprint]
2. **Rafei, P.**, Suddell, S., Buabang, E. K., Urcelay, G. P., & Gillan, C. (2026). Does Time Pressure Reveal Habits? Divergent Results from Outcome Devaluation and Response Remapping Paradigms. *Cognitive, Affective, & Behavioral Neuroscience*. preprint: [DOI](#) [Accepted, In press]
3. Ramalho, R., Volfová, A., Losová, A., Folch-Sánchez, D., Braddick, F., Seabra, P., **Rafei, P.**, ... & Kurcevič, E. (2025). Developing a holistic and inclusive competency framework for the addiction workforce: Insights from a transdisciplinary team of addiction professionals. *Adiktologie*, 25(1), 21-28. [DOI](#)
4. Toulami, M., Ghasemi, K., **Rafei, P.**, Sangchooli, A., Nafissi, N., Khojasteh Zonoozi, A., ... & Ekhtiari, H. (2025). Craving self-reports as outcome measures in drug addiction trials: A systematic review of ClinicalTrials.gov. *Addiction*, 120(10), 1931-1950. [DOI](#)
5. Rezapour, T., Nafissi, N., **Rafei, P.** et al. (2025). Context-dependent Impulsivity in Substance Use Disorder: A Neuroscience-informed Framework. *Current Addiction Reports*, 12, 21. [DOI](#)

6. Buabang, E. K., Donegan, K. R., **Rafei**, P., & Gillan, C. M. (2025). Leveraging cognitive neuroscience for making and breaking real-world habits. *Trends in Cognitive Sciences*, 29(1), 41–59. [DOI](#)
7. Sangchooli, A., Zare-Bidoky, M., Jouzdani, A. F., Schacht, J., Bjork, J. M., Claus, E. D., ... & Addiction Cue-Reactivity Initiative. (2024). Parameter space and potential for biomarker development in 25 years of fMRI drug cue reactivity: a systematic review. *JAMA Psychiatry*, 81(4), 414–425. [DOI](#)
8. Ekhtiari, H., Khojasteh Zonoozi, A., **Rafei**, P., Abolghasemi, F. S., Pemstein, D., Abdelgawad, T., Achab, S., Ghafri, H. A., Al'Absi, M., Bisch, M., Conti, A. A., Ambekar, A., Arunogiri, S., Bhad, R., Bilici, R., Brady, K., Bunt, G., Busse, A., Butner, J. L., Danesh, A., ... Baldacchino, A. M. (2024). World addiction medicine reports: formation of the International Society of Addiction Medicine Global Expert Network (ISAM-GEN) and its global surveys. *Frontiers in Psychiatry*, 15, 1230318. [DOI](#)
9. Hamidein, Z., Mohammad, N., **Rafei**, P., Ebrahimi, M., Ekhtiari, H., Ghobadi-Azbari, P., & Rezapour, T. (2024). Development and Validation of a Pictorial Cue Database for Cannabis Cue Reactivity Studies: Insights from Behavioral and Neural Investigations. *medRxiv*, 2024-07. [DOI](#) [[Preprint](#)]
10. Rezapour, T., **Rafei**, P., Baldacchino, A., Conrod, P. J., Dom, G., Fishbein, D. H., Kazemi, A., Hendriks, V., Newton, N., Riggs, N. R., Squeglia, L. M., Teesson, M., Vassileva, J., Verdejo-Garcia, A., & Ekhtiari, H. (2024). Neuroscience-informed classification of prevention interventions in substance use disorders: An RDoC-based approach. *Neuroscience and Biobehavioral Reviews*, 159, 105578. [DOI](#)
11. **Rafei**, P., Englund, A., Lorenzetti, V., Elkholy, H., Potenza, M. N., & Baldacchino, A. M. (2023). Transcultural aspects of cannabis use: a descriptive overview of cannabis use across cultures. *Current Addiction Reports*, 10(3), 458–471. [DOI](#)
12. Verdejo-Garcia, A., Rezapour, T., Giddens, E., Khojasteh Zonoozi, A., **Rafei**, P., Berry, J., Caracul, A., Copersino, M. L., Field, M., Garland, E. L., Lorenzetti, V., Malloy-Diniz, L., Manning, V., Marceau, E. M., Pennington, D. L., Strickland, J. C., Wiers, R., Fairhead, R., Anderson, A., Bell, M., ... Ekhtiari, H. (2023). Cognitive training and remediation interventions for substance use disorders: a Delphi consensus study. *Addiction*, 118(5), 935–951. [DOI](#)
13. Bhad, R., Achab, S., **Rafei**, P., Kathiresan, P., Ardabili, H. M., Butner, J., ... Baldacchino, A. (2023). An online global survey and follow-up expert groups on the scope and needs related to training, research, and mentorship among early-career addiction medicine professionals. *Cambridge Prisms: Global Mental Health*, 10, e44. [DOI](#)
14. Melby, K., Farokhnia, M., Tolomeo, S., Bhad, R., Bramnes, J. G., Baldacchino, A. M., **Rafei**, P., ... & Dom, G. (2023). International perspectives on opioid use disorder and treatment: results from an online convenience sample. *Heroin Addiction and Related Clinical Problems*. [DOI](#)
15. Pourafshari, R., Rezapour, T., **Rafei**, P., & Hatami, J. (2022). The Role of Depression, Anxiety, and Stress in Problematic Smartphone Use among a Large Sample of Iranian Population. *Journal of Affective Disorders Reports*, 10, 100436. [DOI](#)
16. Rezapour, T., **Rafei**, P., Baldacchino, A., Conrod, P. J., Dom, G., Fishbein, D. H., ... & Ekhtiari, H. (2022). Neuroscience-Informed Classification of Prevention Interventions in Substance Use Disorders: An RDoC-based Approach. *medRxiv*. [DOI](#)
17. Mohaddes Ardabili, H., Akbari, A., **Rafei**, P., Butner, J., Khan, R., Khazaal, Y., ... Baldacchino, A. M. (2022). Tramadol, captagon and khat use in the Eastern Mediterranean Region: opening Pandora's box. *BJPsych International*, 1–5. [DOI](#)
18. **Rafei**, P., Rezapour, T., Batouli, S., Verdejo-García, A., Lorenzetti, V., & Hatami, J. (2021). How do cannabis users mentally travel in time? Evidence from an fMRI study of episodic future thinking. *Psychopharmacology*. [DOI](#)
19. **Rafei**, P., Rezapour, T., Bickel, W. K., & Ekhtiari, H. (2021). Imagining the Future to Reshape the Past: A Path to Combine Cue Extinction and Memory Reconsolidation with Episodic Foresight for Addiction Treatment. *Frontiers in Psychiatry*, 12, 1137. [DOI](#)
20. Mehrabinejad, M.-M., **Rafei**, P., Sanjari Moghaddam, H., Sinaeifar, Z., & Aarabi, M. H. (2021). Sex Differences are Reflected in Microstructural White Matter Alterations of Musical Sophistication: A Diffusion MRI Study. *Frontiers in Neuroscience*, 15, 622053. [DOI](#)
21. Farhoudian, A., Radfar, S. R., Mohaddes Ardabili, H., **Rafei**, P., Ebrahimi, M., Khojasteh Zonoozi, A., De Jong, C. A. J., Vahidi, M., Yunesian, M., Kouimtsidis, C., Arunogiri, S., Hansen, H., Brady, K. T., ISAM Global Survey Consortium (ISAM-GSC), Potenza, M. N., Baldacchino, A. M., & Ekhtiari, H. (2021). A Global Survey on Changes in the Supply, Price, and Use of Illicit Drugs and Alcohol, and Related Complications During the 2020 COVID-19 Pandemic. *Frontiers in Psychiatry*, 12, 646206. [DOI](#)
22. Baldacchino, A., Radfar, S. R., De Jong, C., **Rafei**, P., Yunesian, M., Gerra, G., Brady, K., Ebrahimi, M., Vahidi, M., Khojasteh Zonoozi, A., Mohaddes Ardabili, H., Busse, A., Saenz, E., Campello, G., Niaz, K., Ekhtiari, H., & Farhoudian, A. (2020). COVID-19 and Substance Use Disorder: Study Protocol for the International Society of Addiction Medicine Practice and Policy Interest Group Global Survey. *Basic and Clinical Neuroscience*, 11(2), 155–162. [DOI](#)
23. Radfar, S. R., De Jong, C. A., Farhoudian, A., Ebrahimi, M., **Rafei**, P., Vahidi, M., ... & Twala, J. M. (2021). Reorganization of substance use treatment and harm reduction services during the COVID-19 pandemic: a global survey. *Frontiers in Psychiatry*, 12, 349. [DOI](#)

CONFERENCE PRESENTATIONS

1. **Rafei P.**, Gillan C. (2026). Does Thinking About Goals Disrupt Habits? Evidence from a Behavioural Outcome-Devaluation Paradigm. *Trinity College Neuroscience Research Day, June 2026, Dublin, Ireland.*
2. **Rafei P.**, Mildner J., Bricker J., Gillan C. (2026). Linguistic Markers of Temporal Focus in Behaviour Change: Insights from a Smoking-Cessation Trial of Acceptance and Commitment Therapy. *Association for Psychological Science (APS) Annual Convention, June 2026, Barcelona, Spain.*
3. **Rafei P.**, Suddell S., Buabang E., Urcelay G., Gillan C. (2025). Time-dependent Sensitivity to Habits: Findings from Outcome Devaluation and Remapping Paradigms. *Multi-disciplinary Conference on Reinforcement Learning and Decision Making (RLDM 2025), June 2025, Dublin, Ireland.*
4. **Rafei P.**, Suddell S., Buabang E., Urcelay G., Gillan C. (2025). Time-dependent Sensitivity to Habits: Findings from Outcome Devaluation and Remapping Paradigms. *Society of Biological Psychiatry (SOBP) Meeting, April 2025, Toronto, Canada.*
5. **Rafei P.**, Toulami M., Ghasemi K., Ekhtiari H., Rezapour T. (2025). The effect of Cue-induced Retrieval and Reconsolidation with Episodic Foresight on craving in opioid users receiving MMT. *European Conference on Addictive Behaviours and Dependencies (Lisbon Addictions), October 2025, Lisbon, Portugal.*
6. **Rafei P.**, Oliveras C. (2024). Professionals' insights into the use of AI and digital tools in addictions (Workshop). *European Conference on Addictive Behaviours and Dependencies (Lisbon Addictions), October 2024, Lisbon, Portugal.*
7. **Rafei P.**, Suddell S., Buabang E., Urcelay G., Gillan C. (2024). Time-Dependent Sensitivity to Outcome Devaluation: Findings from a Novel Habit Paradigm. *British Association of Psychopharmacology (BAP) Meeting, July 2024, Birmingham, UK.*
8. **Rafei P.**, Kohut S., Prisciandaro J., Ekhtiari H. (2024). Cue Reactivity as a Paradigm to Assess and Intervene in Addiction across Species (Symposium). *86th Annual Meeting of College on Problems of Drug Dependence (CPDD) and NIDA International Forum, June 2024, Montreal, Canada.*
9. **Rafei P.**, Buabang E., Gillan C. (2023). How goal simulation impacts the formation and control of habits. *Trinity College Dublin School of Psychology's Annual Research Day, March 2023, Dublin, Ireland.*
10. **Rafei P.** (2022). Cannabis and cognitive impairments: recent evidence and implications of the future-oriented aspects of cognition. *24th Annual Meeting of the International Society of Addiction Medicine (ISAM), October 2022, Valletta, Malta.*
11. Ekhtiari H., **Rafei P.** (2022). A Neuroscience-Based Research Domain Criteria (RDoC) Approach to Classify Prevention Interventions for Substance Use Disorders in Adolescents: A Scoping Review. *69th Annual Meeting of the American Academy of Child & Adolescent Psychiatry, October 2022, Toronto, Canada.*
12. **Rafei P.** (2021). Cue-induced Retrieval and Reconsolidation with Episodic Foresight (CIREF): a newly developed framework. *23rd Meeting of the International Society of Addiction Medicine (ISAM), November 2021 (Virtual due to COVID-19).*
13. **Rafei P.** & Farokhnia, M. (2021). Advances in addiction neuroscience: Clinical implications and opportunities for research. *23rd Meeting of the International Society of Addiction Medicine (ISAM), November 2021 (Virtual due to COVID-19).*
14. **Rafei P.** (2020). Introduction to ISAM-NIG: Neuroscience Interest Group of the International Society of Addiction Medicine. *9th Basic and Clinical Neuroscience Congress, December 2020 (Virtual due to COVID-19).*
15. **Rafei P.** (2020). Need and Scope of Early Career Addiction Professionals' Network. *Joint Annual Meeting of the International Society of Addiction Medicine (ISAM) and the Canadian Society of Addiction Medicine (CSAM), November 2020, Victoria, Canada (Virtual due to COVID-19).*
16. **Rafei P.** (2020). Episodic Future Thinking Deficit in Cannabis Users: an fMRI Study of Neurofunctional Alterations. *4th HBP Conference on Interdisciplinary Brain Research, 21-23 January 2020, Pisa, Italy.*
17. **Rafei P.** (2019). Different Brain Activation Patterns Underlying Episodic Future Thinking in Cannabis Use Disorder. *21st Annual Meeting of the International Society of Addiction Medicine (ISAM), 13-16 November 2019, New Delhi, India.*
18. **Rafei P.** (2019). Future-oriented Cognition and Addiction: Where Do We Stand? *13th International Addiction Science Congress, 21 August 2019, Tehran, Iran.*
19. **Rafei P.** (2019). Mental Time Travel into the Past in Cannabis Users: An fMRI Study. *13th International Addiction Science Congress, 21 August 2019, Tehran, Iran.*
20. **Rafei P.** (2019). Blood-based Biomarkers Affecting the Ageing Cognitive Functions. *7th Conference of Applied Psychological Research in the Middle East, 28 February 2019, Middlesex University, Dubai, UAE.*
21. **Rafei P.** (2018). The Blood Laboratory Values Predict Cognitive Functions in Healthy Older Adults. *8th Basic & Clinical Neuroscience Congress, 12-14 December 2018, Tehran, Iran.*
22. **Rafei P.** (2018). Cognitive Impairments in Synthetic Cannabis Users: A Brief Review. *12th International Addiction Science Congress, 5-7 September 2018, Tehran, Iran.*

PRIZES, AWARDS AND HONOURS

APS RISE Award — \$500 Association for Psychological Science (APS)	05/2026
ISAM Global Addiction Therapeutics Innovation Award — Finalist International Society for Addiction Medicine (ISAM), <i>Hamburg, Germany</i>	05/2025
Trinity Research in Social Sciences (TRiSS) Travel Grant — €750 To present at the 80th Annual Meeting of the Society of Biological Psychiatry (SOBP), <i>Toronto, Canada</i>	04/2025
EU-funded WAVE Bursary — €1,000 + complimentary registration (€650) To present at the European Conference on Addictive Behaviours (Lisbon Addictions 2024), <i>Lisbon, Portugal</i>	10/2024
CPDD International Travel Award — \$2,000 To present at the 86th Annual Meeting of the College on Problems of Drug Dependence (CPDD) and the NIDA International Forum, <i>Toronto, Canada</i>	06/2024
Basic Researcher Grant — €210 Gorilla Experiment Builder	12/2023
Ussher PhD Fellowship — €25,000 + overseas tuition fees (per annum) Trinity College Dublin, Ireland	04/2022
UK ESRC Doctoral Scholarship — £17,668 + overseas tuition fees (per annum) (declined) UK Economic and Social Research Council, University of Sheffield, United Kingdom	03/2022
Travel Award — €800 To present at the 4th Human Brain Project (HBP) Student Conference, <i>Pisa, Italy</i>	01/2020
ISAM Fellowship Grant — €2,000 To present at the 21st Annual Meeting of the International Society of Addiction Medicine (ISAM), <i>New Delhi, India</i>	11/2019
“EZAMA” Young Investigator Award in Addiction Medicine 13th International Addiction Science Congress, <i>Tehran, Iran</i>	08/2019
Best Poster Presentation 12th International Addiction Science Congress, <i>Tehran, Iran</i>	09/2018
Top 10% of graduating class (ranked 2nd, Master’s degree) University of Tehran, <i>Tehran, Iran</i>	09/2019

PROFESSIONAL MEMBERSHIPS

- Society of Biological Psychiatry (SOBP) — Early-career Scientist Membership (2025 – present)
- WAVE Community of Practice on Addiction Workforce Development (2023 – present)
- ALBA Network — division of the Federation of European Neuroscience Societies, FENS (2022 – present)
- International Society of Substance Use Professionals (ISSUP) (2022 – present)
- International Society of Addiction Medicine (ISAM) (2019 – present)
- International Society of Addiction Medicine Neuroscience Interest Group (ISAM-NIG) (2019 – present)
- Iranian Neuroscience Society (INSS) (2018 – 2022)
- Iranian Association of Psychology (IPA) (2016 – 2020)

NEUROSCIENTIFIC TECHNIQUES

- fMRI task design, data acquisition and data analysis
- Structural MRI data analysis (with FSL)
- EEG and eye-tracking data collection
- Neuropsychological testing and cognitive assessments

PROGRAMMING AND ANALYSIS SKILLS

- Professional knowledge of R programming (tidyverse)
- Professional knowledge and use of SPSS
- Professional use of PsychoPy and Gorilla experiment builders
- Professional knowledge and use of FMRIB Software Library (FSL) and Statistical Parametric Mapping (SPM)
- Professional knowledge of Natural Language Processing with LIWC and Large Language Model fine-tuning
- Basic knowledge of MATLAB (Psychtoolbox) and Python coding
- Professional knowledge and use of Microsoft Office

ADMINISTRATIVE EXPERIENCES

- Member of the organising committee, Reinforcement Learning Decision-making Conference ([RLDM](#)), June 2025
- Workshop organiser, "Professionals' insights into the use of AI and digital tools in addiction", [Lisbon Addictions Conference](#), October 2024
- Member of the local organising committee, Computational Psychiatry Conference ([CPC 2023](#)), July 2023
- Symposium organiser, Annual Research Symposium, Trinity College Dublin School of Psychology, March 2023
- Organisation representative, ISAM early-career representative at the ISSUP annual meeting in Abu Dhabi, May 2022
- Communication officer, ISAM Global Experts Network ([ISAM-GEN](#)), July 2021 – present
- Member secretary, [ISAM-NExT](#) (New Professionals Exploration, Training & Education), September 2020 – July 2022
- Member of the organising committee, Fundamentals of Cognitive Neuroscience [Course](#), August – December 2020
- Member of the organising committee, "In Love with Addiction Neuroscience" [talk series](#), 2020 – 2021
- Abstract reviewer, 1st National Student Cognitive Science Congress, Gilan, Iran, November 2020
- Executive Secretary, International Society of Addiction Medicine Neuroscience Group ([ISAM-NIG](#)), 2020 – 2024
- Global survey project manager, International Society of Addiction Medicine Training and Educational Committee, November 2019 – 2022
- Member of the organising committee, Mind and Brain Fall School at the University of Tehran, Fall 2019
- Chief operating officer of the workshops committee, Interdisciplinary Neuroscience Research Program ([INRP](#)), Tehran University of Medical Sciences, 2019 – 2021

TEACHING EXPERIENCE

- PSU11005 module — Academic Skills Tutorials (Junior Fresh / PCC1), 2023–2025
- PSU11010 module — Research Skills and Methodology I (Junior Fresh / PCC1), 2024–2025
- PSU11011 module — Statistics and Methodology I Seminars (Junior Fresh / PCC1), 2024–2026

AD-HOC JOURNAL REVIEWS

International Journal for Equity in Health, PLOS One, Advances in Dual Diagnosis, Neuroscience and Biobehavioral Reviews, Frontiers in Psychology, BMC Public Health.

LANGUAGE SKILLS

- Persian: Native language
- English: Fluent verbal and writing skills (IELTS overall band 8 — W:7, R:9, S:8, L:9)

ACADEMIC REFEREES

Prof Claire Gillan. Professor & Director of Research, School of Psychology, Trinity College Dublin, Ireland
Gillancl@tcd.ie · +353 1 896 8526

Dr Hamed Ekhtiari. Associate Professor & Division Chief of Addiction Psychiatry, University of Texas Southwestern Medical Centre, Dallas, USA. hekhtiari@laureateinstitute.org · +1 918-502-5105

Dr Valentina Lorenzetti. Associate Professor & Deputy Director, Healthy Brain and Mind Research Centre, Australian Catholic University, Melbourne, Australia Valentina.Lorenzetti@acu.edu.au · +61 3 9230 8088

Dr Tara Rezapour. Assistant Professor, Institute for Cognitive Sciences Studies (ICSS), Tehran, Iran Rezapour_t@iricss.org