

1. Personal profile

First and last name: **Ata Rafiee**

Date of Birth: 06/28/1988

E-mail: rafieeta@ualberta.ca

Ata Rafiee is a postdoctoral fellow at the University of Alberta. His research focuses on exposure assessment using human biomonitoring and metabolomics. He performed research in human biomonitoring for various contaminants such as BTEX, PAHs, heavy metals, welding fumes, etc. both in the general population and various occupational settings. Ata's expertise in the field of environmental and occupational exposure assessment has been ranked among the top **0.62%** and **0.92%** of experts worldwide, respectively (<https://expertscape.com>).

2. Research profiles (h-index as of June 2025):

- **ResearchGate:** https://www.researchgate.net/profile/Ata_Rafiee h-index (27)
- **Scopus:** <https://www.scopus.com/authid/detail.uri?authorId=56912119000> h-index (23)
- **Google Scholar:** <https://scholar.google.com/citations?user=Z0A1i3IAAAAJ&hl=en> h-index (22)
- **LinkedIn:** <https://www.linkedin.com/in/ata-rafiee-b277ab76/>
- **ORCID:** <https://orcid.org/0000-0002-3802-7554>
- **Publons:** <https://publons.com/researcher/1369238/ata-rafiee/>

3. Education Background

1. University of Alberta

Ph.D. candidate in Medicine

Sep. 2019 – Jun. 2025

GPA: **A⁺ (3.9 out of 4)**

2. Tehran University of Medical Sciences

Environmental Health (MSc)

Sep. 2012- Jun. 2014

GPA: **A⁺ (3.9 out of 4)**

3. Tehran University Medical of Sciences

Environmental Health (BSc)

Feb. 2010 – Feb. 2012

GPA: **3.4 out of 4**

4. Featured publications:

4.1. Biomonitoring and exposure assessment

1. **Ata Rafiee**, Juana Maria Delgado-Saborit, Peter D. Sly, Hoda Amiri, Shamim Mosalaei, and Mohammad Hoseini. "Health consequences of disinfection against SARS-CoV-2: Exploring oxidative stress damage using a biomonitoring approach." *Science of The Total Environment* (2022): 152832. (IF: 8.2)
2. **Ata Rafiee**, Juana Maria Delgado-Saborit, Peter D. Sly, Bernadette Quémerais, Fallah Hashemi, Sadaf Akbari, and Mohammad Hoseini. 2020. Environmental chronic exposure to metals and effects on attention and executive function in the general population. *Science of The Total Environment*. 705, 135911. (IF: 8.2)
3. **Ata Rafiee**, Juana Maria Delgado-Saborit, Peter D. Sly, Hoda Amiri, and Mohammad Hoseini. 2019. Lifestyle and occupational factors affecting exposure to BTEX in municipal solid waste composting facility workers. *Science of The Total Environment*, 656. 540-546. (IF: 8.2)
4. **Ata Rafiee**, Juana Maria Delgado-Saborit, Elham Gordi, Bernadette Quémerais, Vahid Kazemi Moghadam, Wenjing Lu, Fallah Hashemi, and Mohammad Hoseini. 2018. Use of urinary biomarkers to characterize occupational exposure to BTEX in healthcare waste autoclave operators. *Science of The Total Environment*, 631. 857-865. (IF: 8.2)
5. **Ata Rafiee**, Juana Maria Delgado-Saborit, Peter D Sly, Hoda Amiri, Mohammad Hoseini. 2022. Exploring Urinary Biomarkers to Assess Oxidative DNA Damage Resulting from BTEX Exposure in Street Children. *Environmental Research*. 203, 111725. (IF: 7.7)
6. **Ata Rafiee**, Maria B. Ospina, Tona M. Pitt, and Bernadete Quemerais. Oxidative Stress and DNA Damage Resulting from Welding Fumes Exposure among Professional Welders: A Systematic Review and Meta-analysis. *Environmental Research*. (2022): 114152. (IF: 7.7)
7. **Ata Rafiee**, Sasan Faridi, Peter D. Sly, Lara Stone, Lynsey Kennedy, and E. Melinda Mahabee-Gittens. "Asthma and Decreased Lung Function in Children Exposed to Perfluoroalkyl and Polyfluoroalkyl Substances (PFASs): An Updated Meta-Analysis Unveiling Research Gaps." *Environmental Research*. (2024): 119827. (IF: 7.7)
8. **Ata Rafiee**, Ramon Carvalho, Doris Lunardon, Carlos Flores-Mir, Paul Major, Bernadette Quemerais, and Khaled Altabtbaei. Particle Size, Mass Concentration, and Microbiota in Dental Aerosols. " *Journal of Dental Research* (2022): 00220345221087880. (IF: 5.7)

9. **Ata Rafiee**, Elham Gordi, Wenjing Lu, Yuzuru Miyata, Hossein Shabani, Shima Mortezaadeh, and Mohammad Hoseini. 2018. The impact of various festivals and events on recycling potential of municipal solid waste in Tehran, Iran. *Journal of Cleaner Production*, 183. 77-86. (IF: 9.8)
10. **Ata Rafiee**, Juana Maria Delgado-Saborit, Noel J Aquilina, Hoda Amiri, Mohammad Hoseini. Assessing Oxidative Stress Resulting from Environmental Exposure to Metals (Oids) in a Middle Eastern Population. *Environmental Geochemistry and Health*. (2021): 1-20. (IF: 4.89)
11. **Ata Rafiee**, Mohammad Hoseini, Sadaf Akbari, and E. Melinda Mahabee-Gittens. "Exposure to Polycyclic Aromatic Hydrocarbons and adverse reproductive outcomes in women: current status and future perspectives." *Reviews on Environmental Health* (2023). (IF: 4)
12. Faridi, Sasan, Omar Hahad, **Ata Rafiee**, Michelle L. Bell, Sanjay Rajagopalan, Hao Yin et al. "A systematic review of maternal residential proximity to unconventional oil and Natural gas sites and congenital heart defects in newborns: Recommendations for future research." *Science of The Total Environment* (2025): 178762. (IF: 8.2)
13. Fariba Abbasi, Hasan Pasalari, Juana Maria Delgado-Saborit, **Ata Rafiee**, Alireza Abbasi, and Mohammad Hoseini. "Characterization and Risk Assessment of BTEX in Ambient Air of a Middle Eastern City." *Process Safety and Environmental Protection* (2020). (IF: 7)
14. Hoseini, Mohammad, Ramin Nabizadeh, Juana Maria Delgado-Saborit, **Ata Rafiee**, Kamyar Yaghmaeian, ... & Kazem Naddafi. 2018. Environmental and lifestyle factors affecting exposure to polycyclic aromatic hydrocarbons in the general population in a Middle Eastern area. *Environmental Pollution* 240. 781-792. (IF: 7.6)
15. Shoji F. Nakayama, Annie St-Amand *, Tyler Pollock, Petra Apel, Yu Ait Bamai, Dana Boyd Barr, Jos Bessems, Antonia M. Calafat, Argelia Castaño, Adrian Covaci, Radu Corneliu Duca, Sarah Faure, Karen S. Galea, Sean Hays, Nancy B. Hopf, Yuki Ito, Maryam Zare Jeddi, Marike Kolossa-Gehring, Eva Kumar, Judy S. LaKind, Marta Esteban López, Henriqueta Louro, Kristin Macey, Konstantinos C. Makris, Lisa Melnyk, Aline Murawski, Josh Naiman, Julianne Nassif, Nolwenn Noisel, Devika Poddalgoda, Lesliam Quirós-Alcalá, **Ata Rafiee**, Loïc Rambaud, Maria João Silva, Jun Ueyama, Marc-Andre Verner, Maisarah Nasution Waras, Kate Werry. Interpreting biomonitoring data: Introducing the international human biomonitoring (i-HBM) working group's health-based guidance value (HB2GV) dashboard. *International Journal of Hygiene and Environmental Health*. 247 (2023) 114046 (IF: 4.5).

3.2. Global Burden of Disease (GBD)

1. Lozano, R., Fullman, N., Mumford, J. E., Knight, M., Barthelemy, C. M., Abbafati, C., [...] **Ata Rafiee**, ... & Abolhassani, H. (2020). Measuring universal health coverage based on an index of effective coverage of health services in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), 1250-1284. (IF: 98)
2. CJL Murray, AY Aravkin, P Zheng, C Abbafati, [...] **Ata Rafiee**, ... & Abegaz, K. H. (2020). Global burden of 87 risk factors in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), 1223-1249. (IF: 98)
3. Trans, K. B., Lang, J. J., Compton, K., Xu, R., [...] **Ata Rafiee**, ... & Banach, M. (2022). The global burden of cancer attributable to risk factors, 2010–19: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 400(10352), 563-591. (IF: 98)
4. Vos, T., Lim, S. S., Abbafati, C., Abbas, K. M., Abbasi, M., Abbasifard, M., [...] **Ata Rafiee**, ... & Abdollahi, M. (2020). Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), 1204-1222. (IF: 98)
5. Jacek A. Kopec, Farshad Pourmalek, Daniel A. Adeyinka, Amin Adibi, Gina Agarwal, Samiah Alam, Zulfiqar A. Bhutta, Zahid A. Butt, Vijay K. Chattu, Oghenowede Eyawo, Ghazal Fazli, Seyed-Mohammad Fereshtehnejad, Jeffrey J. Hebert, Md Belal Hossain, Marcus M. Ilesanmi, Ademola J. Itiola, Haitham Jahrami, Niranjana Kissoon, Barthelemy K. Defo, Om P. Kurmi, Ali H. Mokdad, Christopher J. L. Murray, Andrew T. Olagunju, Seithikurippu R. Pandi-Perumal, Scott B. Patten, **Ata Rafiee**, Drona Prakash Rasali, Yaeesh Sardiwalla, Thirunavukkarasu Sathish, Marco Solmi, Ranjani Somayaji, Saverio Stranges, Marcello Tonelli, Ziyue Wang, & Frank J. Elgar., 2024. Health trends in Canada 1990–2019: An analysis for the Global Burden of Disease Study. *Canadian Journal of Public Health*, 115(2), pp.259-270. (IF: 3).
6. Murray, C. J., Abbafati, C., Abbas, K. M., Abd-Allah, F., [...] **Ata Rafiee**, & Aboyans, V. (2020). Five insights from the Global Burden of Disease Study 2019. *The Lancet*, 396 (10258), 1135-1159. (IF: 98)
7. Alvarez, E. M., Force, L. M., Xu, R., Compton, K., Lu, D., Henrikson, H. J., [...] **Ata Rafiee**, ... & Burkart, K. (2022). The global burden of adolescent and young adult cancer in 2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet Oncology*, 23(1), 27-52. (IF: 41.6)
8. Kocarnik, J. M., Compton, K., Dean, F. E., Fu, W., Gaw, B. L., Harvey, J. D., [...] **Ata Rafiee**, ... & Dhimal, M. (2022). Cancer incidence, mortality, years of life lost, years lived with disability, and disability-adjusted life years for 29 cancer groups from 2010 to 2019: a systematic analysis for the global

burden of disease study 2019. *JAMA oncology*, 8(3), 420-444. (IF: 33)

9. Ward, J. L., Azzopardi, P. S., Francis, K. L., Sawyer, S. M., [...] **Ata Rafiee**, ... & Constantin, T. V. (2021). Global, regional, and national mortality among young people aged 10–24 years, 1950–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 398(10311), 1593-1618. (IF: 98)
10. Paulson, K. R., Kamath, A. M., Alam, T., Bienhoff, K., Abady, G. G., Abbas, J., [...] **Ata Rafiee**, ... & Chanie, W. F. (2021). Global, regional, and national progress towards Sustainable Development Goal 3.2 for neonatal and child health: all-cause and cause-specific mortality findings from the Global Burden of Disease Study 2019. *The Lancet*, 398(10303), 870-905. (IF: 98)

3.3. Publications:

1. **Ata Rafiee**, Imranul Laskar, and Bernadette Quemerais. Investigating the Field Effectiveness of Respirators Against Metal Particle Exposure in Various Workplaces: A Systematic Review. *Reviews on Environmental Health*. (IF: 4)
2. **Ata Rafiee**, Mohammad Hoseini, Sadaf Akbari, and E. Melinda Mahabee-Gittens. "Exposure to Polycyclic Aromatic Hydrocarbons and adverse reproductive outcomes in women: current status and future perspectives." *Reviews on Environmental Health* 39, no. 2 (2024): 305-311. *Reviews on Environmental Health*. (IF: 4)
3. Hashemi, Fallah, Farahnaz Soleimani Hamidinejad, Lori Hoepner, **Ata Rafiee**, Alireza Abbasi, and Mohammad Hoseini. "BTEX exposure of pregnant women and associations with pro-inflammatory cytokines (IL-6 and TNF- α)." *Air Quality, Atmosphere & Health* (2021): 1-13. (IF: 5.8)
4. Dueck, Meghan E., **Ata Rafiee**, James Mino, Sindhu G. Nair, Samineh Kamravaei, Lei Pei, and Bernadette Quémerais. "Welding Fume Exposure and Health Risk Assessment in a Cohort of Apprentice Welders." *Annals of Work Exposures and Health* (2021). (IF: 2.77)
5. **Ata Rafiee**, Kamyar Yaghmaeian, Mohammad Hoseini, Saeid Parmy, Amirhosein Mahvi, Masud Yunesian, Mehran Khaefi, and Ramin Nabizadeh. "Assessment and selection of the best treatment alternative for infectious waste by modified Sustainability Assessment of Technologies methodology." *Journal of Environmental Health Science and Engineering*. 14 (2016): 1-14. (IF: 3.43)
6. Mosalaei, Shamim, Hoda Amiri, **Ata Rafiee**, Alireza Abbasi, Abbas Norouzian Baghani, and Mohammad Hoseini. "Assessment of fungal bioaerosols and particulate matter characteristics in indoor and outdoor air of veterinary clinics." *Journal of Environmental Health Science and Engineering*. 19, no. 2 (2021): 1773-1780 (IF: 3.43)

7. Zeynab Tabatabaei, **Ata Rafiee**, Alireza Abbasi, Akbar Mehdizadeh, Roya Morovati & Mohammad Hoseini. Investigation of fungal contamination in indoor air and on surfaces of traditional public baths in a historical city. *Journal of Environmental Health Science and Engineering* (2020). (IF: 3.43)
8. Momeniha, Fatemeh, Ahmad Jonidi Jafari, Sasan Faridi, **Ata Rafiee**, and Afsaneh Arefi Oskouie. "Effects of exposure to trihalomethanes in swimming pool waters on metabolomics profile: a randomized parallel design trial." *Journal of Environmental Health Science and Engineering* (2024): 1-12. *Journal of Environmental Health Science and Engineering* (IF: 3.43)

4. Abstracts

1. **Ata Rafiee**, David Wishart, Shelby Yamamoto, Lei Pei, Emily Quecke, Bernadette Quémerais. Biomonitoring and Metabolomics Integration for Assessing Welding Fume Exposure in Professional Welders. **International Society of Exposure Sciences (ISES) conference. 2024.** Montreal, Canada (**Oral**).
2. **Ata Rafiee**, Lei Pei, Emily Quecke, Bernadette Quémerais. *Investigating Welding Fume Exposure in Professional Welders Using Biomonitoring and Metabolomics Approaches.* **International Occupational Hygiene Conference 2024 - Advancing Worker Health Protection (Oral).**
3. **Ata Rafiee**, Maria B. Ospina, Tona M. Pitt, Bernadette Quémerais. Exploring Oxidative Stress and DNA Damage in Professional Welders Exposed to Welding Fumes. **Nanosafe 2023 (Oral).**
4. **Ata Rafiee**, Ramon Carvalho, Doris Lunardon, Carlos Flores-Mir, Paul Major, Bernadette Quemerais, Khaled Altabtbai. Characterization of Aerosols Generated by Various Dental Procedures. OHS 2023. Leeds. UK.
5. **Ata Rafiee**, Juana Maria Delgado-Saborit, Peter D.Sly, Bernadette Quémerais, Fallah Hashemi, Sadaf Akbari, Mohammad Hoseini. Environmental chronic exposure to metals and effects on attention and executive function in the general population. **International Society of Exposure Sciences (ISES) conference. 2020.** Oklahoma, United States.
6. **Ata Rafiee**, Imranul Laskar, Bernadette Quémerais. Investigating the Efficiency of Respirators Against Welding Fumes Exposure During Welding Processes. **Nanosafe 2020.**
7. **Ata Rafiee**, Sasan Faridi, Mohammad Hoseini, Saeid parmy, Mohammad sadegh Hassanvand. **2015.** Investigation of benzene concentration variations in ambient air of Tehran from 2011 to 2012. **4th National Conference on Air & Noise Pollution Management. Tehran, Iran.**

5. Awards, Honours & Recognitions

1. Alberta Innovates Graduate Studentship Award (2020-2023)	\$93,000
2. University of Alberta Doctoral Recruitment Scholarship (2019-2020)	\$20,000
3. Alberta Graduate Excellence Scholarship (2020)	\$12,000
4. Andrew Steward Memorial Graduate Prize (2022)	\$5,000
5. IPA/DGUV Award for Young Exposure Scientists (2021)	\$2,000
6. Dean's Doctoral Award – Faculty of Medicine & Dentistry (U of A) (2023)	\$12,500
7. Faculty of Medicine & Dentistry 75th Anniversary Award – Awarded but declined.	

6. Grants

1. Does disinfection in public places against SARS-CoV-2 have health consequences?

Grant no: 993682

Status: Completed.

Role: Main collaborator

Sponsor: National Institute for Medical Research Development (NIMAD)

2. Characterization of aerosols generated by various dental procedures

Grant no: IT19013

Status: Completed.

Role: Main collaborator

Sponsor: Alberta Dental Association & College

3. Exposure assessment of Shiraz residents to metals and metalloids using non-invasive biomarkers

Grant no: 42-17569

Status: Completed.

Role: Main collaborator

4. Biomonitoring of exposure to metals and metalloids and potential effects on cognition in the general population of Tehran, Iran

Grant no: 971913

Status: Completed.

Role: Main collaborator

Sponsor: National Institute for Medical Research Development (NIMAD)

5. Exposure assessment of street children to BTEX using biomonitoring in Tehran

Grant no: 98-01-04-20204

Status: Completed

Role: Main collaborator

Sponsor: Shiraz University of Medical Sciences

6. Investigation the exposure of infectious waste decontamination devices operators with BTEX compounds with using of urinary metabolites

Grant no. 1396-01-42-14713

Status: Completed

Role: Main collaborator

7. Editorial board membership:

- Journal of Exposure Science and Environmental Epidemiology (**IF: 4.5**)
- BMC Public Health (**IF: 4.5**)
- Reviews on Environmental Health (**IF:4**)
- Journal of Environmental Exposure Assessment (**SCOPUS** indexed)

8. Reviewer board membership:

- Critical Reviews in Environmental Science and Technology (**IF: 11.75**)
- Science of The Total Environment (**IF: 8.2**)
- Environmental Pollution (**IF: 7.6**)
- Environmental Research (**IF: 7.7**)
- Environmental Science and Pollution Research (**IF: 5.98**)
- Air Quality, Atmosphere & Health (**IF: 5.8**)
- Toxics (**IF: 4**)
- Journal of Environmental Health Sciences and Engineering (**IF:3.43**)
- **The Waterloo Foundation** – Grant review (December 2020)

9. Professional membership:

- Global Burden of Disease collaborator (**GBD**)
- International Society of Exposure Sciences (**ISES**)
- International Human Biomonitoring Group (**i-HBM- ISES**)

10. Employment:

- **2025/07 – present** – Postdoctoral Fellow– Department of Medicine, University of Alberta, Canada
- **2019/9 – 2025/05** – Graduate Research Assistant Fellowship – Department of Medicine, University of Alberta, Canada
- **2017/9 - 2019/7** – Research Assistant, Department of Environmental Health, School of Health, Shiraz University of Medical Sciences, Iran
- **2017/6 - 2018/10** – Research and Development (R&D) manager, Pakan Ghatreh Engineering Co, Iran
- **2015/6 - 2016/3** – Research and Development (R&D) manager, Pakan Ghatreh Engineering Co, Iran
- **2012/2 - 2012/9** – Research and Development (R&D) Manager, Pakan Ghatreh Engineering Co, Iran

11. Computer skills & software:

- **STATA, R package, SPSS, GraphPad Prism** (Statistical Analysis software)
- **Reference Manager (Revman)** to perform systematic reviews and meta-analysis
- **MetaboAnalyst** to analysis metabolomics data

12. References:

1. Prof. Peter D. Sly

Director, Children's Health and Environment Program, Child Health Research Centre, University of Queensland

Email: p.sly@uq.edu.au

2. Dr. Juana Maria Delgado-saborit

Department of Medicine, School of Health Science, Universitat Jaume I, Spain

Email: delgado@uji.es

3. Dr. Mohammad Hoseini

Associate Professor of Environmental Health, Shiraz University of Medical Sciences, Iran

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