International Agency for Research on Cancer

World Health Organization

Postdoctoral & PhD Opportunities
Cancer Risk Assessment and Early Detection
Early Detection and Prevention (EPR) Branch

Location: International Agency for Research on Cancer / World Health Organization, Lyon, France
Deadline for applications: Recommended before 1 October 2026, but reviewed on an ongoing basis
Start date: Flexible (immediate or delayed)
Duration: 1 year, renewable up to 4 years for postdoctoral scientists or 3 years for PhD students
Stipend: 3,162 € per month (net) for postdoctoral scientists / 2,013 € per month (net) for PhD students - Next planned review December 2026
Contact and Required Documents: Send your CV (including list of publications and research experience), a motivation letter, and contact information for 2 professional references to Andreea Spanu (spanua@iarc.who.int). Specify whether you are applying as a postdoctoral scientist or a PhD student. **Please avoid using generative AI in preparing your motivation letter.**

The International Agency for Research on Cancer (IARC) is the specialized cancer agency of the WHO. IARC leads international collaborative research projects spanning many disciplines. The IARC Risk Assessment and Early Detection (RED) team includes 17 scientists, staff, fellows, and students from 14 countries. We lead large international collaborations to investigate risk factors, develop risk prediction tools, and identify and validate biomarkers for early cancer detection. These include the Lung Cancer Cohort Consortium (LC3), the Opioid Cohort Consortium (OPICO), and the HPV Cancer Cohort Consortium (HPVC3). Core values of the RED team include teamwork, generosity, mutual support and respect, and open communication.

We are actively seeking **Postdoctoral Scientists and PhD students** to contribute to research in one or more of the following domains:

- Risk- and biomarker-based strategies for early cancer detection. *Including: genetic analysis, protein biomarkers, methylation, simulation modeling, HPV-driven cancers, lung cancer, analysis of overdiagnosis and endpoints for cancer screening trials, and other topics.*
- Reducing the lung cancer burden through tobacco control, lung cancer screening, and optimized risk assessment. *Including: Simulation modeling, implementation studies, lung cancer epidemiology, risk prediction modeling, geospatial analysis, occupational exposures, and other topics.*

- Cancer risk associated with emerging, addictive, and pharmaceutical exposures. *Including: opioid medications, e-cigarettes, waterpipe, obesity and metabolic factors, and other topics.*

Activities:

The selected candidate(s) will work under the supervision of Dr. Mattias Johansson, Dr. Hilary Robbins, Dr. Mahdi Sheikh, and/or Dr. Xiaoshuang Feng, and will closely collaborate with other members of the team to enhance their competencies in the following activities:

- Designing and implementing research on cancer risk assessment and early detection
- Performing statistical analyses on different types of data using a variety of methods
- Writing and publishing scientific manuscripts
- Writing or contributing to grant applications
- Presenting research findings at international conferences and internal meetings
- Teaching and mentoring other team members
- Building a scientific network inside and outside of IARC, with a view toward next career steps

Your profile:

The successful candidate would ideally have:

- For prospective postdoctoral scientists: A recently (i.e. less than 5 years) completed PhD in epidemiology, biostatistics, or a related field, or an MD with extensive training or experience in epidemiology and biostatistics. First-author publications in population research related to cancer
- For prospective PhD students: Master's level training in epidemiology, biostatistics, or a related field, and some experience in population research
- Strong quantitative, analytical, problem-solving, and scientific writing skills
- Methodological knowledge in domains such as analysis of cohort and/or consortium studies, genetic analysis, geospatial analysis, risk prediction, microsimulation modeling, blood biomarkers, cancer screening, randomized trials, Mendelian randomization, causal inference, or pharmacoepidemiology
- Orientation towards working in a team, and cross-cultural or international experience
- Full oral and written proficiency in English

We offer:

RED team members work in, and contribute to creating, an innovative and scientifically stimulating environment. Fellows and students have opportunities to travel to international meetings and conferences, and to interact and collaborate with colleagues from IARC and our networks. The cost of round-trip travel, and in certain circumstances for dependents, is covered. If applicable, IARC will pay allowances for dependents and health insurance.

IARC personnel are based full-time in Lyon. The RED team operates almost fully in person and personnel are expected to be at the office for all meetings, with flexible work arrangements possible at other times or in special circumstances. For more information about postdoctoral stays at IARC, please read the IARC Postdoctoral Charter. For more information about IARC/Early Career and Visiting Scientists at IARC, please consult IARC's Welcome Pack and ECVS Frequently Asked Questions.

We value diversity:

IARC is committed to achieving gender parity and geographical diversity in its staff. Applications from people with disabilities and nationals of low- and middle-income countries are particularly encouraged. IARC currently has more than 340 personnel from almost 60 countries. Postdoctoral scientists at IARC (around 70 at any point in time) have access to a wide spectrum of scientific disciplines and to a unique network of collaborators across the world.

Some recent publications led by the RED team include:

Zahed H, Feng X, Alcala K, Smith-Byrne K, Moez E, Guida F, Albanes D, Weinstein SJ, Arslan AA, Cai Q, Shu XO, Zheng W, Chen C, Triplette M, Tinker LF, Langhammer A, Nøst TH, Hveem K, Milne RL, Bassett JK, Sheikh M, Malekzadeh R, Wang Y, Patel AV, Visvanathan K, Yuan JM, Wang R, Koh WP, Sesso HD, Zhang X, Johansson MB, Amos C, Hung RJ, Muller D, Robbins HA, Johansson M. **Biomarker-based eligibility for lung cancer screening: Validation of the protein-based INTEGRAL-Risk model.** *JAMA* 2026 May 18:e268044.

Nemati S, Vand Rajabpour M, Feng X, Taheri N, Rumgay H, Heidari F, Karimi E, Abdi S, Johansson M, Sheikh M. **Tobacco control policies on cancer prevention in the Eastern Mediterranean Region, 2025-2050: A modeling study.** *PLoS Med* 2026; 23 (4):e1005032.

Sheikh M, Ling PM. **Long-term health risks of e-cigarettes after smoking cessation**. *Nat Med* 2026; 32 (7):2356-2357.

Feng X, Guida F, Guenoun A, Alcala K, Aldrich MC, Arslan AA, Cai Q, Zheng W, Chen C, Triplette M, Tinker LF, Patel AV, Liao LM, Sinha R, Rohan TE, Sesso HD, Zhang X, Visvanathan K, Wang Y, Johansson M, Robbins HA. **Performance of lung cancer risk prediction models in different racial and ethnic groups in the United States: results from the Lung Cancer Cohort Consortium**. *Annals Intern Med* 2026 Aug;179(8):1094-1106.

Alcala K, Mariosa D, Jacobson S, Coscia-Requena C, Dimou N, Franklin O, Martin RM, Smith GD, Gunter MJ, Brennan P, Pollak M, Langdon R, Johansson M. **Systematic assessment of obesity-related risk factors in renal cancer etiology: A longitudinal risk and Mendelian randomization analysis**. *PLoS Med* 2026; 23 (2):e1004906.

Onwuka JU, Zahed H, Feng X, Alcala K, Erhunmwunsee L, Williams RM, Aldrich MC, Ahlualia JS, Albanes D, Arslan A, Bassett J, Brennan P, Cai Q, Chen C, Dimou N, Ferrari P, Freedman N, Huang W-Y, Jones ME, Jones MR, Kaaks R, Koh W-P, Langhammer A, Liao LM, Malekzadeh R, Milne RL, Rohan TE, Sánchez M-J, Severi G, Sheikh M, Sinha R, Shu X-O, Stevens VL, Tinker LF, Visvanathan K, Wang Y, Wang R, Weinstein SJ, White E, Yuan J-M, Zheng W, Johansson M,* Robbins HA*. **Association between socioeconomic position and lung cancer incidence in 16 countries: A prospective cohort consortium study**. *eClinicalMedicine* 2025 Mar 24:82:103152.

Sheikh M, Domingues A, Alcala K, Langdon R, Mariosa D, Feng X, Sarich P, Weber MF, Viallon V, Fournier A, Kamangar F, Malekzadeh R, Gillette C, Vitolins MZ, Adams MCB, Virani S, Ebrahimi E, Dudding T, Galesloot TE, Kiemeney LA, Rothman N, Koutros S, Zhou J, Pearson SA, Parat MO, Brennan P, Johansson M, Davey Smith G, Robbins HA. **Regular use of pharmaceutical opioids and subsequent risk of cancer: a prospective cohort study and Mendelian randomization analysis**. *EClinicalMedicine* 2025; 89 ():103439.

Feng X, Alcala K, Guida F, Goldberg M, Zins M, Leleu O, Cao P, Jeon J, Couraud S, Johansson M, Robbins HA. **Eligibility criteria for lung cancer screening in France: a modelling study**. *Lancet Reg Health Eur* 2025 Jan 31:51:101221.

Sheikh M, Weiderpass E. **Lung cancer screening in Europe: a golden opportunity to address tobacco use through scalable, WHO-guided cessation interventions**. *Eur Respir J* 2025; 65 (6).

Domingues A, Zhai Y, Parat MO, Viallon V, Degenhardt L, Pearson SA, Zhou J, Sheikh M. **Measuring exposure to opioids using self-reported medication use data versus general practitioner prescription records in the UK Biobank study.** *Pharmacoepidemiol Drug Saf* 2025; 34 (12):e70280.

Feng X*, Zahed H*, Onwuka J*, Callister MEJ, Johansson M, Etzioni R, Robbins HA. **Cancer stage compared with mortality as end points in randomized clinical trials of cancer screening: A systematic review and meta-analysis**. *JAMA* 2024 Jun 11;331(22):1910-1917.

Feng X, Goodley P, Alcala K, Guida F, Kaaks R, Vermeulen R, Downward GS, Bonet C, Colorado-Yohar SM, Albanes D, Weinstein SJ, Goldberg M, Zins M, Relton C, Langhammer A, Skogholt AH, Johansson M, Robbins HA. **Evaluation of risk prediction models to select lung cancer screening participants in Europe: a prospective cohort consortium analysis**. *The Lancet Digital Health* 2024 6(9), e614–e624.

Onwuka JU, Guida F, Langdon R, Johansson Mi, Severi G, Milne RL, Dugué PA, Southey MC, Vineis P, Sandanger TM, Nøst TH, Chadeau-Hyam M, Relton C, Robbins HA, Suderman M, Johansson Ma. **Blood-based DNA methylation markers for lung cancer prediction**. *BMJ Oncology* 2024 3(1), e000334.

Robbins HA. **Multi-cancer early detection tests: Keeping a high bar for evidence of benefit**. *New Eng J Med* 2024 Jul 25;391(4):292-294.

Nemati S, Dardashti AR, Mohebbi E, Kamangar F, Malekzadeh R, Zendehdel K, Sheikh M. **Potential impact of controlling opium use prevalence on future cancer incidence in Iran**. *EClinicalMedicine* 2024 Jun 3:73:102650.

Zahed H, Feng X, Sheikh M, Bray F, Ferlay J, Ginsburg O, Shiels MS, Robbins HA. **Age at diagnosis for lung, colon, breast, and prostate cancers: An international comparative study**. *Int J Cancer* 2024 Jan 1;154(1):28-40.