International Agency for Research on Cancer

World Health Organization

Postdoctoral Opportunity in 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 August 15, 2025, but reviewed on an ongoing basis
Start date: Flexible (immediate or delayed)
Duration: 1 year, renewable up to 4 years
Stipend: 2,950€ per month (net)
To apply: Please send a CV (including list of publications and previous research experience), a motivation letter, and contact information for 2 academic referees, with subject "IARC-RED Postdoctoral Opportunity" to Andreea Spanu (spanua@iarc.who.int).

The International Agency for Research on Cancer (IARC) is the specialized cancer agency of the WHO. The focus of IARC is international collaborative research projects spanning a wide range of disciplines including cancer epidemiology, aetiology, genomics, carcinogenesis, early detection, prevention and implementation science. The IARC Risk Assessment and Early Detection (RED) team includes 16 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 **up to 3 Postdoctoral Scientists** to join the RED team and contribute to research in one or more of the following domains:

- Biomarkers for risk assessment and early detection, including proteins, genetics, and methylation markers
- Development and validation of cancer risk prediction models
- Impact of tobacco cessation across the cancer continuum
- Opioid medications and cancer risk
- Endpoints and overdiagnosis in randomized trials of cancer screening
- Occupational risk for lung cancer and implications for lung cancer screening
- Obesity and cancer risk

Activities:

The selected candidate(s) will be 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:

- 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
- Strong quantitative, analytical, problem-solving, and scientific writing skills
- Methodological knowledge in domains such as analysis of cohort and/or consortium studies, risk prediction, microsimulation modeling, blood biomarkers, genetic analysis, 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:

The postdoctoral scientist will evolve in an innovative and scientifically stimulating environment and will have opportunities to interact and collaborate with colleagues from IARC and its worldwide networks. The postdoctoral scientist will conduct research activities in a modern and scientifically invigorating environment. The cost of return travel for the successful candidate, and in certain circumstances for dependents, will be covered. If applicable, IARC will pay allowances for dependents and health insurance.

IARC postdoctoral scientists 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 to help promote a healthy work-life balance. 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:

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. PMC11985077.

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. PMC11833608.

Nemati S, Islami F, Kamangar F, Poustchi H, Roshandel G, Shakeri R, Domingues A, Khoshnia M, Gharavi A, Brennan P, Abnet CC, Dawsey SM, Boffetta P, Malekzadeh R, Sheikh M. **Improvement of esophageal cancer survival in Northeast Iran: A two-decade journey in a high-risk, low- resource region**. *PLoS One* 2024 Sep 25;19(9):e0310842. PMC11423987.

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. PMC11000135.

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.

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. PMC11369914.

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. PMC11180302.

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. [Perspective article.]

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. PMID 37615573.

The Lung Cancer Cohort Consortium. **The blood proteome of imminent lung cancer diagnosis**. *Nature Communications* 2023 Jun 1;14(1):3042. PMC10235023.

Alcala K, Poustchi H, Viallon V, Islami F, Pourshams A, Sadjadi A, Nemati S, Khoshnia M, Gharavi A, Roshandel G, Hashemian M, Dawsey SM, Abnet CC, Brennan P, Boffetta P, Zendehdel K, Kamangar F, Malekzadeh R, Sheikh M. **Incident cancers attributable to using opium and smoking cigarettes in the Golestan cohort study**. *EClinicalMedicine*. 2023 Sep 22;64:102229. PMC10541463.

Alcala K, Zahed H, Cortez Cardoso Penha R, Alcala N, Robbins HA, Smith-Byrne K, Martin RM, Muller DC, Brennan P, Johansson M. **Kidney function and risk of renal cell carcinoma**. *Cancer Epidemiol Biomarkers Prev* 2023 Nov 1;32(11):1644-1650. PMC10618735.

Sheikh M, Mukeriya A, Zahed H, Feng X, Robbins HA, Shangina O, Brennan P, Zaridze D. **Smoking cessation after diagnosis of kidney cancer is associated with reduced risk of mortality and cancer progression: A prospective cohort study**. *J Clin Oncol* 2023 May 20;41(15):2747-2755. PMC10414692.