



**Food and Agriculture  
Organization of the  
United Nations**



**World Health  
Organization**

## **Joint FAO/WHO Expert Meeting on Microbiological Risk Assessment (JEMRA)**

### **CALL FOR EXPERTS AND DATA ON MICROBIOLOGICAL RISK ASSESSMENT OF *LISTERIA* *MONOCYTOGENES* IN FOODS**

FAO and WHO are issuing an open call for experts who can contribute to future work of JEMRA in developing a full farm to table risk assessment for *Listeria monocytogenes* in foods.

In addition, FAO and WHO are requesting governments, the industry, academia, consumer groups, laboratories, and any other interested organizations and individuals submit any available data and information to support this work.

#### **Background**

In response to the request from Codex for scientific advice, FAO and WHO has undertaken the risk assessment on *L. monocytogenes* in several foods since 1999. The 2004 FAO/WHO risk assessment on *L. monocytogenes* (MRA4 and MRA5)<sup>1,2</sup> provided scientific insight into the risk characterization of *L. monocytogenes* contamination in food and the seriousness of listeriosis for susceptible populations. These risk assessment documents covered a cross-section of RTE foods (pasteurized milk, ice cream, cold-smoked fish and fermented meats) linked to invasive listeriosis. Since the publication of these documents, outbreaks of listeriosis continue to occur across the globe associated with previously reported foods, but also with many previously unreported food vehicles, including fresh and minimally processed fruits and vegetables. In 2020, a virtual meeting of the Joint FAO/WHO Expert Meeting on Microbiological Risk Assessment (JEMRA) of *L. monocytogenes* in RTE Food: Attribution, Characterization and Monitoring was held to review recent data on *L. monocytogenes* and determine the need to modify, update, or develop new risk assessment models and tools for this pathogen.<sup>3</sup> The expert group recommended to extend future risk assessments to diverse commodity sub-groups and to consider a farm-to-fork risk assessment. The expert group also recommended that future risk assessments should review groupings of susceptible populations based on physiological risks and other socio-economic factors. In conclusion, the expert group identified several critical gaps in the current FAO/WHO risk assessment model and collectively agreed that

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<sup>1</sup> MRA4: <https://www.who.int/publications/i/item/9241562617>

<sup>2</sup> MRA5: <https://www.who.int/publications/i/item/9241562625>

<sup>3</sup> Summary report: [https://www.who.int/news-room/events/detail/2020/10/20/default-calendar/joint-fao-who-expert-meeting-on-microbiological-risk-assessment-of-listeria-monocytogenes-in-ready-to-eat-\(rte\)](https://www.who.int/news-room/events/detail/2020/10/20/default-calendar/joint-fao-who-expert-meeting-on-microbiological-risk-assessment-of-listeria-monocytogenes-in-ready-to-eat-(rte))

updating the model would be valuable for informing risk analysis strategies, including in low- and middle-income countries (LMICs).

The summary of the 2020 expert meeting was reported to the 52<sup>nd</sup> session of the Codex Committee on Food Hygiene (CCFH52) in March 2022, and the proposal that JEMRA undertake a full farm to table risk assessment on *L. monocytogenes* in foods was supported by the members of CCFH52.<sup>4, 5</sup>

Thus, FAO and WHO have decided to hold an expert meeting to develop a full farm to table risk assessment for *Listeria monocytogenes* in foods. This expert meeting will inform a possible future revision of the *Guidelines on the Application of General Principles of Food Hygiene to the Control of Listeria monocytogenes in Foods* (CXG 61-2007).<sup>6</sup>

### Scope and Objectives of the Meeting

The purpose of the meeting is to develop a full farm to table risk assessment for *Listeria monocytogenes* in foods.

The assessment will include the following types of food, but not be limited to:

- Leafy greens
- Cantaloupe/rock melon
- Frozen vegetables (for example peas, corn)
- RTE seafood that allows for the growth of *L. monocytogenes*, for example gravad (sugar-salt marinated) salmon/halibut.

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<sup>4</sup> Matters Arising from the Work of FAO and WHO (including JEMRA): [https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FMeetings%252FCX-712-52%252Ffh52\\_03e.pdf](https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FMeetings%252FCX-712-52%252Ffh52_03e.pdf)

<sup>5</sup> The report of CCFH52: [https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FMeetings%252FCX-712-52%252FReport%252FREP22\\_FHe.pdf](https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FMeetings%252FCX-712-52%252FReport%252FREP22_FHe.pdf)

<sup>6</sup> CXG 61-2007: [https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B61-2007%252FCXG\\_061e.pdf](https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B61-2007%252FCXG_061e.pdf)

## CALL FOR EXPERTS

FAO and WHO are looking to identifying experts to participate in future work of FAO and WHO in developing a full farm to table risk assessment for *Listeria monocytogenes* in foods. All applicants should meet the following general criteria:

- Advanced University/College degree in microbiology, food technology, food science, veterinary medicine, agricultural science, epidemiology, public health, or related fields;
- Experience in risk assessment related to microbiological hazards in foods;
- At least five years of experience in relevant fields;
- Scientific publications in peer-reviewed journals, in particular relevant publications within the most recent 10 years;
- Good knowledge of the English language, both written and oral; and
- Evidence of leadership or invited participation in national or international scientific bodies, committees, and other expert advisory bodies pertinent to the scope of this work.

### Selection of experts

Applicants' curricula vitae (CV) will be reviewed based on the criteria listed above by a selection panel consisting of three or more individuals appointed by FAO or WHO. In selecting experts, FAO and WHO will consider, in addition to scientific and technical excellence, diversity and complementarities of scientific backgrounds, and representation from geographic regions, including low- and middle-income countries, as well as gender. A small number of accomplished individuals will be notified and invited to participate in the expert meeting on the microbiological risk assessment on *Listeria monocytogenes* in foods and may be added to the JEMRA roster of experts that is valid for future work until 31 December 2022. Selected experts may be required to assist in the preparation of background papers and report drafts (in English). Unsuccessful candidates are not routinely notified.

### Appointment of experts

Selected experts will be invited to contribute to the meeting only in their individual scientific capacity. An expert will not represent the government of the country of which they are a citizen, or the institution with which he or she is associated. The experts designated will not receive any remuneration, however, where a physical expert meeting is held, travel costs and a subsistence allowance will be the exclusive responsibility of FAO and WHO.

### Applications

Interested applicants should submit their CV. The CV should include a description of education, relevant work experience, evidence of national or international expertise on the topic, including a list of peer-reviewed publications relevant to the factors indicated above (please do not include reprints in your submission unless specifically requested at a later date). Applicants must have a good working knowledge of English as correspondence as meetings will be in English only.

Before participating in any related activity, all the selected experts will be required to declare any potential interests associated with the topic of the meeting. Experts will be asked to indicate, in writing, all interests (financial and intellectual) on their part or that of their spouse that may affect, or be perceived to affect, their scientific independence as experts, including one or more of the following conditions: employment (past or present) by any commercial enterprise or private or civil sector association; receipt of research or

other study grants from such enterprises or associations; shareholdings in commercial enterprises active in fields related to food safety. Identification of an interest does not necessarily indicate a conflict nor automatically exclude an individual from participation. For example, as an expert, it is expected that many, if not all, will be employed in some capacity related to the subject matter. These declarations must be completed and evaluated before a formal invitation will be issued. Declaration documents will be retained by the Joint Secretariat and a summary of declarations will be included in the report of the work. In addition, a confidentiality undertaking must also be completed prior to appointment to ensure proper handling of dossiers and proprietary information.

### **Deadline**

Please submit nominations and CVs at your earliest convenience. Selection of participants will begin on **30 June 2022** and continue until suitable candidates are identified.

### **Submissions in response to the call for experts should be sent to:**

#### **Kang Zhou**

Food Systems and Food Safety Division  
Food and Agriculture Organization of the United Nations  
Viale delle Terme di Caracalla 00153  
Rome, Italy  
Telephone: + 39 06 570 50319  
Email: [jemra@fao.org](mailto:jemra@fao.org)

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## CALL FOR DATA

FAO and WHO desire that all relevant information and data on *L. monocytogenes* in foods are considered in their assessment and are thus issuing this international call to raise awareness about data needs and invite all interested parties to provide any relevant information/data, particularly data that may not be readily available in the public domain.

### Objectives

This call is aimed to obtain more globally representative data and information on *L. monocytogenes* in foods.

The purpose of the meeting is to develop a full farm to table risk assessment for *L. monocytogenes* in foods. The data will serve as inputs to the development of scientific advice on this topic.

### Request for relevant information

FAO and WHO want to ensure that all available and relevant information/data are collected, and are requesting governments, the food industry, academia, consumer groups, laboratories, health care providers and any other interested organizations and individuals submit any available data on the specific areas indicated above. These data may be published or unpublished. Reference should be made to related published studies, where applicable. Data should be submitted as soon as possible to allow adequate time for expert review prior to the meeting.

### List of data and information requirements

Data and information on the following aspects are requested:

#### A. Availability of risk assessment related models and tools

- Brief description of any qualitative or quantitative risk assessment developed and the outputs (including unpublished).
- References or links to models described in scientific literature or any open platform.
- Any tools or models for validation and quality control of the risk assessment.

#### B. Surveillance data on *L. monocytogenes* in foods and/or outbreaks of listeriosis

- Surveillance data
  - name of place;
  - level of *L. monocytogenes* in the food attributed or the production environment;
  - serotypes of *L. monocytogenes* in the food attributed or the production environment;
  - source and points of exposure within the production environment; and
  - Other information and relevant links (articles, reports, websites, etc.).
- Outbreaks of listeriosis **from 2021 - 2022**
  - time of year and month in which the outbreak occurred;
  - Whether the outbreak/cases were confirmed or suspected regarding the link between the food vehicle and the outbreak of human cases and how this was determined (e.g. laboratory confirmation, epidemiological investigation, etc.);
  - number of cases, hospitalizations, and deaths associated with the outbreaks;
  - age and sex distribution of cases (e.g. range and median);
  - possible origin of contamination;

- corrective actions; and
  - Other information and relevant links (articles, reports, websites, etc.).
  - Surveillance of listeriosis and underlying conditions **from 2012 - 2022**
    - number of sporadic cases per year and per class of age, gender, pregnancy, clinical presentation, and underlying medical conditions such as cancer, diabetes, alcoholism, and immunodepression; and
    - incidence of listeriosis underlying medical conditions and annual health statistics.
  - Other data and information
    - food production and consumption statistics; and
    - national or regional population census.
- C. Exposure assessment related data**
- Growth and survival of *L. monocytogenes* in different commodities.
  - Cross-contamination data during food processing.
  - *Listeria* in the food chain including handling and preparation.
- D. Hazard characterization related data**
- Dose response models for the different subpopulations.
  - Human volunteer feeding studies, animal studies, *in vitro* studies and biomarker studies.
  - Relative risk values of risk factors for listeriosis such as health status, genetic background, use of medications, demographic, social and behavioural traits, etc.
- E. Other information**
- Research on climate, topology, weather (e.g. impact of flooding), hydrology and geographical features, which may be relevant to *Listeria* risk assessment.

Data provider: Please provide name, title and full contact details of the contact person for follow-up and further details, if needed.

### Confidential and/or unpublished data

FAO and WHO recognize that some of the information and relevant data which is now required may be unpublished or of a confidential nature. With regard to unpublished information and data, this remains the property of the author for subsequent publication by the owner as original material. Unpublished confidential studies that are submitted will be safeguarded in so far as it is possible to do so without compromising the work of FAO and WHO. Specific issues relating to confidentiality should be discussed directly between the information and data owners and FAO/WHO. For these and other issues please contact FAO and WHO at the contacts provided.

### Deadline

Please submit any relevant information electronically either via e-mail (if not too large) or on a USB stick, in any official United Nations language (English, French, Spanish, Arabic, Chinese, Russian), and with title and short description of the content in English, to the addresses below at your earliest convenience, but no later than 1 September 2022.

*Data submissions in response to the call for data should be sent to:*

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Food and Agriculture Organization of the United  
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