



Food and Agriculture
Organization of
the United Nations



World Health
Organization

JOINT FAO/WHO ACTIVITIES ON RISK ASSESSMENT OF MICROBIOLOGICAL
HAZARDS IN FOODS

CALL FOR DATA AND EXPERTS ON PUBLIC HEALTH RISK
OF HISTAMINE AND OTHER BIOGENIC AMINES
FROM FISH AND FISHERY PRODUCTS

Deadline: 31st December 2011

Introduction

Scombroid fish poisoning (often called “histamine poisoning”) is caused by ingestion of certain species of marine fish that contain high levels of histamine and possibly other biogenic amines. These fish species contain high levels of free histidine in their tissue and when such fish are subjected to temperature abuse after harvest, bacteria decarboxylate histidine to produce histamine. A number of bacterial species can produce histamine, but *Morganella morganii* and *Proteus* spp. are particularly strong histamine producers. Histamine is an organic nitrogen compound may trigger an allergic response in human and mammalian systems. Other biogenic amines produced during fish decomposition are thought to potentiate the toxic effect. Although fatal cases are rare, severity of the symptoms can vary depending on the amount of histamine and other biogenic amines ingested and the individual’s sensitivity to specific biogenic amines.

In the Codex Alimentarius Commission, there are several standards establishing the maximum levels of histamine for different fish and fishery products. In April 2011, the 31st Session of Codex Committee on Fish and Fishery Products (CCFFP) revisited these histamine maximum levels and agreed to establish an electronic Working Group in order to review the public health risk of histamine from fish and fishery products from a more general perspective, taking into account existing sampling plans, different maximum levels in products and risk reductions achieved by these at the national level¹. To support and facilitate this effort, FAO/WHO plan to provide the review on public health risk of histamine and other biogenic amines (such as cadaverine and putrescine) from fish and fishery products considering both food safety and trade impact implications.

FAO and WHO want to ensure that all available and relevant information and data are at their disposal, and are issuing an international call for data to raise awareness about data needs and invite all interested parties to provide both organizations with any relevant information/data, particularly that which may not be readily available in the public domain.

¹ Report of the 31st Session of Codex Committee on Fish and Fishery Products (paras. 38-41, REP 11/FFP: http://www.codexalimentarius.net/download/report/764/REP11_FFPe.pdf)

CALL FOR DATA

List of Data and Information requirements

Data and information on the following aspects are requested:

- a) Epidemiological data (the frequency of outbreaks, the details of past outbreaks: number of cases, specific health status or risk factors of affected individuals if any, causative food, level of histamine and/or other biogenic amines in causative food, estimate of under-reporting and any other related information)
- b) Data on toxicity of histamine and other biogenic amines when present in fish
- c) Dose-response data and effects of fish matrix
- d) Risk profiles or risk assessment on histamine and other biogenic amines in fish and fishery products performed at national or regional level
- e) Information on monitoring and inspection system in place:
 - target fish species, commodities and biogenic amines;
 - frequency of monitoring/inspection;
 - sampling plan and methodology used;
 - range of levels found;
 - level of the contamination for regulatory action;
 - rejection rate of the commodity *etc.*
- f) Control and preventive measures for histamine and other biogenic amines formation in fish and fishery products implemented, such as: rapid cooling after fishing, time-temperature control throughout food chain, legislations and regulations (*e.g.* maximum level of histamine) *etc.*
- g) Impacts of histamine poisoning other than public health impacts: impact and cost of control measures on non-health aspects such as production systems, level of commitment to address problems, economic costs due to the rejection of commodities at port of entry or any other interference *etc.*
- h) Any other related information that may be helpful to this work

Request for relevant information

FAO and WHO are requesting governments, interested organizations, health care providers, academia, veterinarians, the food industry, consumer groups, laboratories and individuals to submit any available data on the specific areas indicated above. This data may be published or unpublished. Reference should be made to related published studies, where applicable.

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 below.

Deadline

Please submit any relevant information (electronic and/or hard copies - electronic submissions are preferred, either via e-mail (if not too large) or on CD ROM), in any official United Nations language (English, French, Spanish, Arabic, Chinese, Russian), and with title and short description of the content in English if possible, to the addresses below, by **31st December 2011**.

CALL FOR EXPERTS

In addition FAO and WHO are currently in the process of identifying experts to participate in future work of FAO/WHO on the human health risks of histamine and other biogenic amines present in fish and fishery products.

General requirements:

- Advanced University/College degree in microbiology, toxicology, epidemiology, public health, food technology, food science or related fields
- Experience in food safety/risk assessment
- At least five years experience in relevant research fields
- Scientific publications in peer-reviewed journals, in particular, relevant publications within the last ten years
- Good knowledge of the English language, both written and oral
- Leadership or invited participation in national or international scientific bodies, committees, and other expert advisory bodies pertinent to food safety or related area

Specific requirements.

Experience/knowledge in one or more of the below areas:

- Quantitative risk assessment for microbial pathogens and/or metabolites/toxins of such pathogens
- Chemistry and toxic effects of histamine and other biogenic amines in the human body
- Production of fish and fishery products often involved in biogenic amine poisoning
- Statistical modelling for sampling

Selection of experts

FAO and WHO place great value on the technical quality and independence of the participating experts as well as on the transparency of its selection process. Both organizations have developed well-defined procedures for selecting experts that promote the excellence and independence of opinions provided.

Applicants' curriculum vitae will be reviewed on the basis of the criteria listed above by a selection panel consisting of three or more individuals including at least two independent, internationally recognized external experts appointed by FAO or WHO. The highly qualified individuals selected from the applicants will be listed in an expert roster that will be used by FAO and WHO to invite experts to the future work in this area.

In selecting experts FAO and WHO will consider, in addition to scientific and technical excellence, diversity and complementarities of scientific backgrounds, and balanced representation from geographic regions, including developing and developed countries, as well as gender. Selected experts may be requested to assist in the preparation of background papers.

Appointment of experts

The experts will be invited to participate only in their individual scientific capacity. An expert will not represent the government of country of which he or she is 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, subsistence allowance and other related expenses will be the exclusive responsibility of FAO and WHO.

Applications

Interested applicants should submit their curriculum vitae including a description of their education, work experience and 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 and any future meeting will be in English only.

Before participating in Expert Meetings and any related activity, the selected experts will be required to declare any potential interests associated with the subjects and substances that will be evaluated through completion of a standard form developed by FAO or WHO. They will be asked to indicate in writing any interest (financial and intellectual) on their part or that of their spouse that may 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; a recipient of research or other study grants from such enterprises or associations; or shareholdings in commercial enterprises active in fields related to food safety. These declarations will be evaluated and retained by the Joint Secretariat. In addition, a confidentiality undertaking is also to be signed to ensure proper handling of dossiers and proprietary information.

Deadline

Applications should be sent to FAO and WHO by **31st December 2011** to the addresses below, electronic applications are preferred. Applications received after that date will be evaluated only if additional expertise is required and the evaluation and selection will follow the same procedure as described.

Data submissions and applications in response to the call for data and experts should be sent to:

Fish Utilisation and Marketing Service
Attention: **Dr Iddya Karunasagar**
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United Nations
Viale delle Terme di Caracalla
00100 Rome, Italy
Telephone: + 39 06 5705 4873
Facsimile: + 39 06 5705 3020
Email: jemra@fao.org

and Department of Food Safety and Zoonoses
Attention: **Dr Kazuko Fukushima**
World Health Organization
20, avenue Appia
1211 Geneva 27
Switzerland
Telephone: +41 22 791 2920
Facsimile: +41 22 791 4807
Email: foodsafety@who.int