Translation of the document evaluated by the University of Helsinki Ethical review board in humanities and social and behavioral sciences (Statement 34/2013)

Sensory food research at the Department of food and Environmental Sciences: Principles of data collection

*Background of the application*

Approximately 5-15 separate data sets are annually collected at the Department of Food and Environmental Sciences, University of Helsinki. The tests comply with practices described below, therefore an approval covering the general guidelines is requested. If the research setting or other arrangements differ from the described practices, a separate application will be submitted to the Ethical Committee.

The sensory research group collaborates with the Hjelt Institute, University of Helsinki, and the National Institute for Health and Welfare (THL). When the research is related to medicine, application is submitted to a relevant ethical committee. In that case, main applicants are the collaboration partners from the medical sciences.

Sensory research at the Department of Food and Environmental Sciences, when applicable, acts according to principles described in the following ethical principles.

* Ethical Principles for Medical Research Involving Human Subjects, by the World Medical Association (WMA), <http://www.wma.net/en/30publications/10policies/b3/index.html>
* Ethical Principles of Psychologists and Code of Conduct, especially standards 4-9, by the American Psychological Association (APA)

 <http://www.apa.org/ethics/code2002.pdf>.

The ethical principles of sensory research have been described in Finnish in the book by Tuorila H, Appelbye U: Elintarvikkeiden aistinvaraiset tutkimusmenetelmät, Yliopistopaino /Gaudeamus 2006/2008, (Miettinen SM, Tuorila H: Eettiset näkökohdat aistinvaraisessa tutkimuksessa, p 193-201).

*Sensory research at the Department of Food and Environmental Sciences: general description*

Sensory food research is defined as the **evaluation of food properties through the senses (sight, touch, smell, taste and/or hearing).** Research is primarily interested in product characteristics (analytical measurement) or human responses to product (preference or other subjective assessment). An essential part of sensory research is that the assessor smells and/or tastes the samples. The assessor is asked for background information (demographic factors and possible food allergies) and often also for their diet, food habits, etc.

In sensory research, **food samples, their ingredients or combinations are normal foods**, which are prepared and handled properly (hygiene, storage temperatures, etc.). If the food additives or flavourings are available from a supplier in purified forms or in batches suitable for our purposes, those suppliers are used. Food additives and chemicals are used at concentrations corresponding to their regular levels in foods and beverages, and to food legislation.

If materials or compounds which are not normally present in food (e.g. n-propylthiouracil, PROP, food packaging materials or their compounds that migrate into food) are smelled or tasted, a separate request will be submitted to the Ethical Committee.

If the samples have special characteristics, or they temporarily may cause side-effects (e.g. if they contain small amounts of ethanol), this is explained to the potential panelists before tests and in each session. In such cases, special attention is given to instructions to expectorate the sample.

The consent form informs of those ingredients that are generally known to cause allergic reactions or oversensitivity. Such ingredients have been introduced, for example, on the web pages of EVIRA (Finnish Food Safety Authority) and in the anaphylactic register of the Helsinki University Hospital HUS. They are also listed on the bulletin board of the Sensory Laboratory. In addition, the participants are asked to explicitly report of their allergies on the informed consent form. Preparation for emergency situations includes that Jutta Varis and Hely Tuorila have taken the first aid course (2nd level), and a list of the staff of the Department who have the first aid training is on the bulletin board of the Laboratory. Our experience is that voluntary assessors are well aware of their food allergies: we do not know of any single case of allergic reactions from the history of the laboratory (starting 1980s). The risk of an allergic case is therefore low, but we are prepared for it.

**Analytical tests** are conducted todeterminedifferences between the samples, perceived intensities and perception of off-tastes or smells. In most analytical sensory tests, the assessor does not swallow the sample, but expectorates it. When a sample is to be swallowed, the assessor is informed of this in advance and s/he approves this by signing the consent form. Panelists of analytical tests have often passed the course on principles of sensory methodology (ETT230 Basics of Sensory Research, 10 credits), whereby they are familiarized with the evaluation methods and practices. As to the background of assessors of analytical testing, we usually only need to know the demographics. In the professional terminology, the persons participating in analytical testing are called panelists or assessors, but in the present document we call them mainly “participants” or “subjects”.

**Affective tests** are conducted with participants chosen according to specific inclusion criteria, e.g. age, gender or food habits. They usually do not have previous experience of sensory evaluation. In these tests, the tasted food samples are usually also swallowed. The testing may include a home consumption period, and demographic and attitude background as well as food consumption habits are inquired.

In the sensory laboratory, data sets are also collected as part of the teaching program or as service to companies, in which case they will not be not published. Testing is conducted according to the principles described in this application, but the potential assessors are informed of the course work or of the proprietary nature.

*Recruitment and treatment of panelists (assessors, participants, respondents)*

The assessors (analytical test) and the participants (affective test) are recruited through advertisement (e.g. canteens in the Viikki area), personal contacts or e-mail lists. Participants can also be found e.g. at workplaces or clubs in which the approval to introduce the task has been obtained from the administration or through personal contacts. In these introductory sessions, the potential panelists are informed of the task and the significance of their contribution. Panelists must be adult persons (18-65 years old). If the study requires younger, older or otherwise vulnerable individuals, a separate application will be submitted to the Ethical Committee.

The participants sign a written informed consent (APPENDIX 1a) and they keep a copy of this consent (APPENDIX 1b) for themselves. The consent is completed before any first session of a series of sessions. In the consent form, the rights and duties of the assessor are explained. The

assessor has the right to cancel his/her participation at any time without being pressured. The objective of the study can seldom be told in detail to the assessors in advance, as such information may affect the responses of the assessors and, consequently, the outcome. For this reason, a briefing session is arranged after the data collection. In this session, the aims and main results are reported to the assessors.

The results are treated confidentially, so that no individual can be identified in the report. To assure this, each panelist or participant is given a code number. The original forms or the files containing personal information are kept in a locked place. If files containing both the code number and the identity information of an assessor/participant exist, these files are also kept separated from the data and in the locked place. The information on personal identity is destroyed as soon as the data have been collected and analyzed completely. The contact information of the panelists/participants is never given to a third party.

The interviews and questionnaires collected for the support of affective testing are treated similarly to the sensory data: voluntary participants are recruited, they have the right to deny their participation and interrupt it, without any negative consequences, and their data are treated confidentially. The objective of the study is explained in the beginning of an interview or in the questionnaire. A contact person’s name and information is given so that the respondents can get feedback when needed. The potential participants are also told about the consequences of their interrupting their participation. Thereby the researchers try to ensure the successful data collection and recruit individuals who realistically are able to participate in the study until completion.

The data are usually collected in the sensory laboratory of the Department of Food and Environmental Sciences, but also, when needed (for example, when respondents are available), in schools, workplaces, etc. When the tests are conducted in the sensory laboratory, the participants are offered coffee, snacks etc. after each session. At the end of a study, the participants usually receive a small gift (chocolate, package of coffee, a bag of products etc). In all cases, the gifts are so small that the participation in the tests is not motivated by economic reasons.

Students who participate in the tests can receive a maximum of 2 credits by participation in the tests and by writing a report of their experience (course code ETT460 Ohjattu tutkimus, Supervised research). ETT460 is not part of the obligatory studies for any group of students. When students are recruited for a sensory study, the sessions are assigned points that are translated into credits according to the work load. In the written report, the student describes the objective and preliminary results of the study. This information can be obtained by participation in the briefing session, or in another specified way. When a student has collected points that justify a minimum of 1 credit, they get a mark. Instructions and forms are to be found in ”**Aistiblogi”** **http://blogs.helsinki.fi/aistitutkimus/ett460-ohjattu-tutkimus/** and[**http://www.mm.helsinki.fi/MMETT/AISTI/panelists.htm**](http://www.mm.helsinki.fi/MMETT/AISTI/panelists.htm)**.**

APPENDIX 2: FAMILIARIZATION AND COMMITMENT TO ETHICAL PRINCIPLES

University of Helsinki APPENDIX 1a

Department of Food and Environmental Sciences For the laboratory

INFORMED CONSENT TO PARTICIPATE IN SENSORY RESEARCH

Sensory research: general principles

In sensory research, information of food characteristics and human responses to foods are gathered. This information is collected through the senses by looking, touching, smelling and tasting of food samples or their ingredients. At the beginning of the sensory test, the purpose of the research is explained to the panelist. After the test, a briefing session is arranged, in which the objectives and results are reported. If an assessor is unable come to this feedback meeting, s/he may request information by email or post. All foods and ingredients assessed in the sensory laboratory meet the requirements of food legislation. All data collected from the assessors are managed in the strictest confidence.

With this consent, the assessor agrees to comply with the given instructions for the test, as precisely as possible. The assessor has the right to refuse the participation in the test. The assessor may cancel his/her participation whenever s/he wants without a reason for cancelation and without pressure to continue against his/her will.

Information concerning the research that an assessor agrees to participate in, by signing this consent *(to be completed for each specific test series)*

Name of the research: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period, in which tests are conducted: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Samples, quality and amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Swallowing of samples: Yes/No/Part\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Number of sessions: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Contact persons (name and tel.): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Consent

I have received sufficient information concerning this research and I have understood the information provided. I agree to act as an assessor in this research. I have informed the personnel of my allergies and diet.

Helsinki, \_\_\_\_.\_\_\_\_.201\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name in block letters

Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Allergies: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

University of Helsinki APPENDIX 1b

Department of Food and Environmental Sciences For the assessor

INFORMED CONSENT TO PARTICIPATE IN SENSORY RESEARCH

Sensory research: general principles

In sensory research, information of food characteristics and human responses to foods are gathered. This information is collected through the senses by looking, touching, smelling and tasting of food samples or their ingredients. At the beginning of the sensory test, the purpose of the research is explained to the panelist. After the test, a briefing session is arranged, in which the objectives and results are reported. If an assessor is unable come to this feedback meeting, s/he may request information by email or post. All foods and ingredients assessed in the sensory laboratory meet the requirements of food legislation. All data collected from the assessors are managed in the strictest confidence.

With this consent, the assessor agrees to comply with the given instructions for the test, as precisely as possible. The assessor has the right to refuse the participation in the test. The assessor may cancel his/her participation whenever s/he wants without a reason for cancelation and without pressure to continue against his/her will.

Information concerning the research that an assessor agrees to participate in, by signing this consent *(to be completed for each specific test series)*

Name of the research: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period, in which tests are conducted: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Samples, quality and amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Swallowing of samples: Yes/No/Part\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Number of sessions: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Contact persons (name and tel.): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Consent

I have received sufficient information concerning this research and I have understood the information provided. I agree to act as an assessor in this research. I have informed the personnel of my allergies and diet.

Helsinki, \_\_\_\_.\_\_\_\_.201\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name in block letters

Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Allergies: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

APPENDIX 2

**FAMILIARISATION AND COMMITMENT TO THE ETHICAL PRINCIPLES OF RESEARCH IN THE SENSORY LABORATORY OF THE DEPARTMENT OF FOOD AND ENVIRONMENTAL SCIENCES**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Task: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I will collect data in the sensory laboratory starting \_\_\_\_.\_\_\_\_.201\_\_ and ending \_\_\_\_.\_\_\_\_.201\_\_.

**I ETHICAL FAMILIARISATION**

Before starting my work in the sensory laboratory I have

1) read and understood the article Miettinen S-M, Tuorila H: Eettiset näkökohdat aistinvaraisessa tutkimuksessa (in: Tuorila H, Appelbye U. Elintarvikkeiden aistinvaraiset tutkimusmenetelmät, Yliopistopaino/Gaudeamus 2006/2008, ss. 193-201) **or corresponding material (specify)**

and

2) become familiar with the ethical principles of the laboratory that have been approved by the Ethical Committee of the Viikki campus on (date) 2010.

I commit myself to complying to these principles when working in the sensory laboratory

Helsinki \_\_\_\_.\_\_\_\_.201\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Signed; and name in block letters)

Familiarization and commitment approved: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Hely Tuorila, professor

**II OTHER FAMILIARIZATION**

Laboratory manager Jutta Varis has familiarized me with the working principles in the sensory laboratory and I commit myself to the principles and will act accordingly.

Helsinki \_\_\_\_.\_\_\_\_.201\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Signed, and name in block letters)

Familiarisation and commitment approved:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Jutta Varis, laboratory manager

The signed form is kept in the sensory laboratory. Jutta Varis is responsible for the completed forms.