

Preface

This monograph represents the proceedings of the joint meeting of the 14th International Symposium on Olfaction and Taste and the 38th annual meeting of the Japanese Association for the Study of Taste and Smell (ISOT/JASTS 2004), which was held on July 5–9, 2004, in Kyoto, Japan. A total of about 750 people participated in the meeting, including more than 200 from abroad. The meeting included two plenary lectures, 173 oral presentations in 27 session symposia, 276 poster presentations, a young scientists' seminar and a luncheon seminar. Participants in the meeting had the chance to meet informally at three evening parties and one afternoon excursion. This was an additional fruitful product of the meeting.

The ISOT is an international conference convened by the International Commission of Olfaction and Taste (ICOT) settled in the International Union of Physiological Sciences (IUPS). The first meeting of ISOT was held in Stockholm in 1962 under Professor Yngve Zotterman's chairmanship. The ISOT used to be held every 3 years until 1989 as one of the satellite symposia of the IUPS. It is now loosely bound to the IUPS in terms of timing and place of the main congress. At the ICOT meeting on the occasion of ISOT XIII in Brighton, UK, it was determined that the JASTS would host the ISOT in 2004. The following is the list of ISOTs with the chairperson in parenthesis.

- I 1962 Stockholm, Sweden (Y. Zotterman)
- II 1965 Tokyo, Japan (Y. Katsuki)
- III 1968 New York, USA (C. Pfaffmann)
- IV 1971 Starnberg, Germany (D. Schneider)
- V 1974 Melbourne, Australia (D.A. Denton)
- VI 1977 Paris, France (J. Le Magnen)
- VII 1980 Noordwijkerhout, Netherlands (H. van der Starre)
- VIII 1983 Melbourne, Australia (D.A. Denton)
- IX 1986 Snowmass, USA (S.D. Roper)
- X 1989 Oslo, Norway (K.B. Døving)
- XI 1993 Sapporo, Japan (K. Kurihara)
- XII 1997 San Diego, USA (C. Murphy)
- XIII 2000 Brighton, UK (S. van Toller)
- XIV 2004 Kyoto, Japan (T. Yamamoto)

Each of the three research organizations for chemoreception science, i.e. JASTS, the Association for Chemoreception Sciences (AChemS) and the European Chemoreception Organization (ECRO), have selected two representative members to the ICOT. In ISOT 2000 and ISOT 2004, a representative of the Australasian Association for Chemosensory Sciences (AACSS) attended the ICOT meetings as an observer. If ISOT is to be held every 4 years from now on in the olympic year, it may be a kind of the olympic games of chemical senses in terms of international competitive works on one hand, and an opportunity to develop good friendships with each other on the other. According to the decision of the ICOT meeting in Kyoto, the next ISOT will be organized by AChemS in 2008.

The ISOT/JASTS 2004 was coordinated by the members of the Organizing Committee. The committee members were Takashi Yamamoto, Osaka University (president), Tohru Fushiki, Kyoto University (vice president), Yuzo Ninomiya, Kyushu University (program chair), Kensaku Mori, University of Tokyo (program chair), Kenzo Kurihara, Mitsuru Furukawa, Kanazawa University, Masafumi Sakagami, Hyogo Medical College, Kunio Torii, Ajimonoto Co. Inc., Takayuki Marui, Ohu University, Takatoshi Nagai, Keio University, Mitsuo Tonoike, National Institute of the AIST, Noriyo Suzuki, Hokkaido University and Shuitsu Harada, Kagoshima University. The Committee would like to express its sincere gratitude to all participants for having contributed to the success of the meeting.

The organizing committee selected representative researchers from different fields to organize sessions with leading scientists in each field. Consequently, a total of 27 session symposia were scheduled to address every current topic in the various fields of chemoreception. Apart from the invited symposium speakers, many frontline scientists of each field participated in the conference and actively exchanged their scientific information. The session symposia covered a wide variety of themes in chemical senses, from molecular and genetic studies on peripheral receptor and transduction mechanisms to central cognition and ingestion behavior. This is based on the fact that JASTS members comprise researchers working in many different fields, such as chemistry, biology, physiology, biochemistry, genetics, psychology, clinical sciences, brain sciences, food sciences, nutrition, ingestion behavior and biosensors.

In light of findings regarding receptors and the mechanisms of transduction of chemosensitive cells, significantly more papers on molecular biology of chemoreception were presented at this conference. A total of 276 posters were presented in the follow categories: Development and functional organization of the olfactory system (14), Olfactory receptors and sensory processing (15), Sensory transduction and neural physiology of the olfactory system (11), Vomeronasal organ and accessory olfactory bulb (9), Odor learning and behavior (10), Human olfaction in methodology, physiology and biophysics (29), Olfactory dysfunctions (8), Taste dysfunctions (5), Human taste and flavor perception (15), Taste and odor sensing (11), Gustatory processing (20), Taste preference and aversion (8), Bitter taste (5), Sweet taste (6), Salty and sour taste (4), Umami and other taste (12), Taste receptor transduction and molecular physiology (13), Developmental taste cell differentiation (7), Trigeminal system (4), Taste and saliva (5), Chemoreception in aquatic animals (21) and Chemoreception in insects (44).

The meeting was held in Kyoto, an old city with much history. Emperor Kanmu moved from Nara to Kyoto about 1200 years ago. Kyoto was then the capital of Japan, remaining so for more than 1000 years until Emperor Meiji moved from Kyoto to Tokyo about 140 years ago. This accounts for the many historical monuments of old Japanese culture in Kyoto. The purpose of the meeting was of course

scientific communication, but the organizing committee thought that the meeting would lose half its value if participants from abroad went back home without visiting those monuments and experiencing real Japanese culture. For researchers working on olfaction and taste, it is not enough to work only in the laboratory and think merely in their mind. Instead, it is important for us to experience real food with our own tongues and noses. In this respect, Kyoto was the best place to enjoy typical Japanese foods. It was a good opportunity to experience the actual taste of such things as umami, 'dashi' and 'koku' in traditional Japanese cuisine. The luncheon seminar was very timely: it was entitled 'Umami: it's past and future' and was presented by Yojiro Kawamura, who was one of the pioneers who introduced umami to the world.

The detailed organization of ISOT/JASTS 2004 was carried out mainly by Dr Tohru Fushiki, assisted by the skillful secretarial help of Dr Yukako Hayashi of Kyoto University. All the other staff members and students of their and Dr Yamamoto's laboratories worked very hard before, during and after the congress. I wish to extend my sincerest thanks to all of them.

The conference finished with the number of participants exceeding our expectations, and was a good opportunity for

them, and especially the young researchers, to understand the present status and future trends of chemical senses research through up-to-date and exciting presentations—especially of recent developments of receptor mechanisms of olfaction and taste, active discussion and meaningful exchange of information. It was planned that these proceedings were to cover the two plenary lectures and 173 symposium presentations, but not all the speakers submitted their manuscripts, mainly due to other commitments.

The Committee also wishes to extend its gratitude to the many foundations and companies that provided generous financial assistance to this congress. Their support was essential for the success of the congress. While it is not possible to cite everyone, we are especially grateful to Ajinomoto Co. Inc. and Osaka Pharmaceutical Society. We would also like to thank the Ministry of Education, Culture, Sports, Science and Technology of Japan for Grants-in-Aid for Scientific Research and for Publication of Scientific Research Results (No. 1663002).

Takashi Yamamoto
*President of ISOT XIV/Editor-in-Chief for the
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