CONFERENCE ANNOUNCEMENT


EDITORIAL

98–100...... FLUORIDE AND FERTILITY
Bruce Spittle, Dunedin. New Zealand.

RESEARCH REPORT

101–110.... EFFECTS OF FLUORIDE AND LEAD ON N-METHYL-D-ASPARTATE RECEPTOR 1 EXPRESSION IN THE HIPPOCAMPUS OF OFFSPRING RAT PUPS

INTRODUCTORY OVERVIEW

111–114.... TRANSLATIONS OF TWELVE CHINESE STUDIES ON DEVELOPMENTAL FLUORIDE NEUROTOXICITY
Albert W Burgstahler, Christopher Neurath. Lawrence, KS, and Canton, NY, USA.

TRANSLATED RESEARCH REPORTS


120–124.... RESEARCH ON THE INTELLECTUAL DEVELOPMENT OF CHILDREN IN HIGH FLUORIDE AREAS
Yongxiang Chen, Fanlin Han, Zhenlong Zhou, Huiqin Zhang, Xisheng Jiao, Suocheng Zhang, Mengcai Huang, Tianqin Chang, Youfa Dong. Shanxi, China.

125–128.... A PRELIMINARY INVESTIGATION OF THE IQS OF 7–13 YEAR-OLD CHILDREN FROM AN AREA WITH COAL BURNING-RELATED FLUORIDE POISONING
Xianchi Guo, Renyu Wang, Cifu Cheng, Wensheng Wei, Limin Tang, Qingshao Wang, Dexin Tang, Gangway Liu, Gongde He, Songlong Li. Hunan, China.

129–133. BEHAVIORAL TERATOLOGY IN RATS EXPOSED TO FLUORIDE Nanping Wu, Zhongliang Zhao, Wenhua Gao, Xiaqin Li. Yinchuan and Beijing, China.


139–143. EFFECT OF FLUORIDE EXPOSURE ON SYNAPTIC STRUCTURE OF BRAIN AREAS RELATED TO LEARNING-MEMORY IN MICE Zigui Zhang, Xiaolu Xu, Xiuying Shen, Xiaohong Xu. Jinhua City, China.

144–147. REPORT ON THE INTELLECTUAL ABILITY OF CHILDREN LIVING IN HIGH-FLUORIDE WATER AREAS Shulin Liu, Yan Lu, Zengrong Sun, Lina Wu, Wenli Lu, Xinwei Wang, Song Yan. Tianjin, China.

148–151. EFFECTS OF HIGH FLUORIDE DRINKING WATER ON THE CEREBRAL FUNCTION OF MICE Zengrong Sun, Pengzhen Liu, Li’na Wu, Yan Lu, Dekui Yu. Tianjin, China.

152–155. RESEARCH ON THE NEUROBEHAVIORAL FUNCTION OF WORKERS OCCUPATIONALLY EXPOSED TO FLUORIDE Zhiyong Guo, Yuhua He, Qixing Zhu. Hefei, China.

156–160. RESEARCH ON THE EFFECTS OF FLUORIDE ON CHILD INTELLECTUAL DEVELOPMENT UNDER DIFFERENT ENVIRONMENTAL CONDITIONS Fugui Hong, Yanxiang Cao, Dong Yang, Hui Wu. Shandong, China.

161–164. EFFECTS OF ENDEMIC FLUORIDE POISONING ON THE INTELLECTUAL DEVELOPMENT OF CHILDREN IN BAOTOU Yongping Li, Xiangyi Jing, De Chen, Liang Lin, Zhaojung Wang. Inner Mongolia, China.

165–170. EFFECTS OF HIGH FLUORIDE LEVEL ON NEONATAL NEUROBEHAVIORAL DEVELOPMENT Jing Li, Li Yao, Qing-Liang Shao, Chun-Yan Wu. Daqing, China.

ABSTRACTS

BIOLOGICAL EFFECTS IN ANIMALS

171. DECREASED IN VITRO FERTILITY IN MALE RATS EXPOSED TO FLUORIDE-INDUCED OXIDATIVE STRESS DAMAGE AND MITOCHONDRIAL TRANSMEMBRANE POTENTIAL LOSS Izquierdo-Vega JA, Sanchez-Gutiérrez M, Del Razo LM. México, D.F. México.

171–172. IN UTERO METHANESULFONYL FLUORIDE DIFFERENTIALLY AFFECTS LEARNING AND MAZE PERFORMANCE IN THE ABSENCE OF LONG-LASTING CHOLINERGIC CHANGES IN THE ADULT RAT Carcoba LM, Santiago M, Moss DE, Cabeza R. College Station, TX, USA.

172. α7 NICOTINIC RECEPTOR INFLUENCED BY HIGH CONCENTRATION OF FLUORIDE IN SH-SY5Y NEUROBLASTOMA CELLS Gao Q, Liu Y-J, Guan Z-Z. Guiyang, Guizhou, PR China.

172. Editor’s note

172. CORRECTION
THE INTERNATIONAL SOCIETY FOR FLUORIDE RESEARCH

The International Society for Fluoride Research was founded in 1966, at a meeting in Detroit of the American Society for Fluoride Research, to promote the sharing of scientific information on all aspects of inorganic and organic fluorides. This is done by the publication of a quarterly journal *Fluoride* and the hosting of international conferences. The first ISFR conference was held in Frankfurt, Germany in 1967. Conferences have also been held in Spain, Austria, the Netherlands, England, the United States of America, Switzerland, India, Japan, Hungary, China, Poland, and New Zealand. The next conference, the XXVIIIth, will be hosted by Associate Professor Hardy Limeback, in Toronto, Canada, August 7–10, 2008 (See announcements in this issue, p. 97 and in *Fluoride* 2007;40(4):207-13 and 2008;41(1):1-9). The XXIXth conference will be hosted by Associate Professor JD Sharma in Jaipur, India in 2010. *Fluoride* is an open access journal available free on the internet at http://www.fluorideresearch.org, .com, and .net, in full text without an embargo period. Subscription to *Fluoride* in hardcopy and attendance at the conferences are welcomed for all interested in fluoride research. *Bona fide* fluoride researchers are invited to apply for Membership of the ISFR.

The Society does not hold an official position on issues such as water fluoridation but encourages, through its conferences, and the publication of papers, commentaries, and letters to the editor, a critical examination of the scientific basis of the views which are held by individuals and organizations.

MEMBERS OF THE ISFR ADVISORY BOARD 2006

**President:**

Professor Guifan Sun. China Medical University, Shenyang, People’s Republic of China.

**Vice President:**

Associate Professor Jashwanti D Sharma. Dept. of Zoology, University of Rajasthan, Jaipur, India.

**Co-Secretaries:**

Professor Dariusz Chlubek. Pomeranian Medical University, Szczecin, Poland.

Associate Professor Masashi Tsunoda. Kitasato University School of Medicine, Sagamihara, Japan.

**Editor of Fluoride:**

Professor Emeritus Albert W Burgstahler. University of Kansas, Lawrence, KS, USA.

**Members at Large:**

**Asia**

Professor Koichi Kono. Osaka Medical College, Osaka, Japan.

Professor Emeritus Humio Tsunoda. Iwate Medical University, Morioka, Japan.

**Europe**

Professor Miklós Bély. Hungarian Academy of Science, Budapest, Hungary.

Professor Jürgen Franke. Rehaklinik an der Salza, Bad Langensalza, Germany.

Professor Emeritus Zygmunt Machoy. Pomeranian Medical Academy, Szczecin, Poland.

Professor Jörg Spitz. Society for Medical Information and Prevention, Wiesbaden, Germany.

**North America**

Professor Emeritus Gene W Miller. Utah State University, Logan, UT, USA.

**Treasurer and Managing Editor of Fluoride:**

Dr Bruce Spittle. Dunedin, New Zealand.

MEMBERS OF THE ISFR EDITORIAL BOARD 2006

**Editor of Fluoride:**

Professor Emeritus Albert W Burgstahler. University of Kansas, Lawrence, KS, USA

**Associate Editors:**

Professor Dariusz Chlubek. Department of Biochemistry and Chemistry, Pomeranian Medical University, Szczecin, Poland.

Professor Emeritus Lennart P Krook. Cornell University, Ithaca, NY, USA.

Professor Hardy Limeback. University of Toronto, Toronto, ON, Canada.

Professor Emeritus Gene W Miller. Utah State University, Logan, UT, USA.

Christopher Neurath. American Environmental Health Studies Project, Canton, NY, USA.

Associate Professor Jashwanti D Sharma. Dept. of Zoology, University of Rajasthan, Jaipur, India.
Professor Dianjun Sun. Chinese Research Center for Endemic Disease Control, Harbin Medical University, Harbin, People's Republic of China.
Associate Professor Masashi Tsunoda. Kitasato University School of Medicine, Sagamihara, Japan.
Professor Emeritus Ming-Ho Yu. Western Washington University, Bellingham, WA, USA.

Editorial Board Members:
Dr Miklos Belé. Hungarian Academy of Science, Budapest, Hungary.
Dr Russell J. Blaylock. Ridgeland, Mississippi, USA.
Associate Professor Andrzej Bohatyrewicz. Dept. of Orthopedics and Traumatology, Pomeranian Medical University, Szczecin, Poland.
Professor Masahiko Chikuma. Osaka University of Pharmaceutical Sciences, Osaka, Japan.
Professor Edward Czerwinski. Jagiellonian University, Krakow, Poland.
Dr Bruce Spittle. Dunedin, New Zealand.
Professor Jörg Spitz. Society for Medical Information and Prevention, Wiesbaden, Germany.
Professor J Franke. Rehaklinik an der Salza, Bad Langensalza, Germany.
Assistant Professor Tositaka Horiuchi. Nihon University School of Dentistry at Matsudo, Japan.
Associate Professor Kazuyoshi Itai. Iwate Medical University, Morioka, Iwate, Japan.
Professor K Kono. Osaka Medical College, Osaka, Japan.
Professor Jerzy Krechniak. Medical University, Gdansk, Poland.
Professor Emeritus C James Lovelace. Humboldt State University, Arcata, CA, USA.
Dr Boguslaw Machalinski. Pomeranian Academy of Medicine, Szczecin, Poland.
Professor Emeritus Zygmunt Machy. Pomeranian Medical Academy, Szczecin, Poland.
Professor F Murray. Murdoch University, Murdoch, WA, Australia.
Professor Masayuki Okazaki. Hiroshima University, Hiroshima, Japan.
Dr James C Pushnik. California State University, Chico, CA, USA.
Dr BP Rajan. Ragas Dental Clinic, Mylapore, Chennai, India.
Professor Masashi Shimahara. Osaka Medical College, Takatsuki City, Osaka, Japan.
Professor Jorgen Spitzer. Society for Medical Information and Prevention, Vinsdalen, Germany.
Professor Anna Strunecak. Charles University, Prague, Czech Republic.
Professor Dianjun Sun. Harbin Medical University, Harbin, PR. China.
Professor Guifan Sun. China Medical University, Shenyang, China.
Professor Emeritus AK Sushela. Fluorosis Res & Rural Develop Foundation, New Delhi, India.
Professor Satoshi Takizawa. Dept. of Urban Engineering, Graduate School of Engineering, University of Tokyo.
Professor Emeritus SPS Teotia. Institute of Higher Medical Sciences, Whitefield, India.
Professor Emeritus Humio Tsunoda. Iwate Medical University, Morioka, Japan.
Professor Jundong Wang. College of Animal Science and Veterinary Medicine, Shanxi Agricultural University, Taiyuan, Shanxi, People's Republic of China.
Professor Emeritus Zan-Dao Wei. Guiyang Medical College, Guizhou, China.
Professor Emeritus Y Yoshida. Osaka Medical College, Osaka, Japan.
Professor Emeritus NBK Yoshitake. Shiga University of Medical Science, Otsu, Japan.
Professor Boasham Zheng. State Key Laboratory of Environmental Geochemistry, Institute of Geochemistry, Chinese Academy of Sciences, Guiyang, Guizhou Province, P.R. of China.

Editorial Assistants:
Peter Meiers. Saarbrücken, Germany.

Managing Editor:
Dr Bruce Spittle. Dunedin, New Zealand.

FLUORIDE QUARTERLY JOURNAL OF THE INTERNATIONAL SOCIETY FOR FLUORIDE RESEARCH
ISSN 0015-4725, is published four times a year (January—March, April—June, July—September, and October—December), and contains scientific reports on agricultural, analytical, biochemical, biological, chemical, clinical, dental, ecological, environmental, industrial, medical, metabolic, pharmacological, synergistic, toxicological, and veterinary aspects of inorganic and organic fluorides. Publication is usually made towards the end of each quarterly period rather than at the start of the period. The journal does not contain advertising.

COPYRIGHT. Fluoride is owned and published by the INTERNATIONAL SOCIETY FOR FLUORIDE RESEARCH © 2008. All rights reserved.

ONLINE ACCESS Fluoride is an open access journal available without an embargo period and with free full text at: www.fluorideresearch.org, www.fluorideresearch.com, and www.fluorideresearch.net. Further details are given below in the section on past issues. Articles in Fluoride can be searched for using the 35-year Cumulative Author and Subject Indexes on the website and the Chemical Abstracts search engine. Some articles may also be found with the Google search engine and with Google Scholar and Google Advanced Scholar at: http://scholar.google.com.

Payment may be made in any of the currencies above. The rates for 2006, 2007, 2008, 2009 have been kept at the same level as was set on 23 June 2005. No journals will be mailed until payment is received for the current subscription or membership period. Apply to Dr Spittle, Managing Editor Fluoride, 727 Brighton Road, Dunedin 9035, New Zealand. E-mail: spittle@es.co.nz. Please indicate if you would like the subscription to start with the calendar year or with a particular issue of the journal. Invoices are sent to subscribers with the last issue of each year. Invoices whose orders are placed through a subscription agency.

PAYMENT OPTIONS for subscription to Fluoride, and the purchase of back issues are: bank transfer, cheque, cash, or PayPal. Bank transfers can be made to The Bank of New Zealand, New Lynn Branch, 3029 Great North Road, New Lynn, Auckland, New Zealand; Swift BKNZNZ22; Website: www.bnz.co.nz; Fax 64 09 827 6806; Account name: International Society for Fluoride Research; Account number 02 0184 0333239 000. Cheques
should be made out to the same or to ISFR. Personal cheques, bank cheques or drafts, and cash may be posted to Dr Bruce Spittle, 727 Brighton Road, Ocean View, Dunedin 9035, New Zealand. Personal or bank cheques, and cash, in US$, Canadian$, £, €, Australian$, and NZ$ are fine. Cash as Japanese Yen is also fine. Please do not send Canadian or British Postal Notes, cheques drawn on Japanese banks, or cheques in US$ drawn on British banks in the United Kingdom as they cannot be negotiated in New Zealand. PayPal allows payment by Visa or Mastercard directly to an E-mail address in a secure way. It is necessary to first register with PayPal at http://paypal.com. The recipient E-mail address for the payment is spittle@es.co.nz. Just giving the credit card number to the ISFR is not sufficient.

COPYIES OF ARTICLES AND PREVIOUS ISSUES OF FLUORIDE: Hard copies of all of the previous issues of Fluoride, including the 35-year cumulative indexes in Fluoride 2002;35(4-Parts 1 and 2), are usually kept in stock and may be ordered directly through the Managing Editor for US$10 or equivalent per single copy of an issue or part of Fluoride including postage. Individual articles can also be downloaded, free in full text, from the ISFR websites at: www.fluorideresearch.org, www.fluorideresearch.com, and www.fluorideresearch.net, by clicking on the blue highlighted page numbers on the relevant Table of Contents for Fluoride 1969;2(1), 1969;2(3), 1969;2(4), and 1999;32(1) to the current issue. All the other issues from Fluoride 1968;1(1) have also been posted at the websites but are in the form of “disassembled issues.” For these the issues were taken apart and adjacent pages were scanned so they consist of large files with the pages not in numerical order, but in the order used for printing, e.g. p. 1 next to p. 72, p. 2 next to p. 71, p. 3 next to p. 70. Because the files are large they are slow to download but if downloaded and printed out (doublesided) the original issue can be reassembled. Alternatively a hardcopy of the issue is available from the Managing Editor as above. Copies of articles are also available, at rates set by the supplier, from: University Microfilms International, Box 91, Ann Arbor, MI 48106, USA; Institute for Scientific Information, 3501 Market St, Philadelphia, PA 19104, USA; BIOSIS, c/- Advanced Information Consultants, Box 87127, Canton, MI 48187, USA; The UnCover Company, 3801 E. Florida, Suite 200, Denver, CO 80210, USA.

POSTAL METHODS USED: Fluoride is posted by Economy International Airmail to all countries (11-25 days for delivery) except Australia and India (International Air, 3-6 days and about a month, respectively), and New Zealand (Post, 2-3 days). Deliveries to India sometimes take longer and the table below is a guide about when to enquire about non delivery.

ENQUIRIES ABOUT NON-DELIVERY: To help minimize the time spent on administration, which is being given on a voluntary basis, enquiries about non-delivery should not be made until two months have passed since the end of the publication period to allow time for publication or delivery delays.

<table>
<thead>
<tr>
<th>Issue No.</th>
<th>Period covered by issue</th>
<th>Month to wait for before enquiring about nondelivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>January-March</td>
<td>June</td>
</tr>
<tr>
<td>2</td>
<td>April-June</td>
<td>September</td>
</tr>
<tr>
<td>3</td>
<td>July-September</td>
<td>December</td>
</tr>
<tr>
<td>4</td>
<td>October-December</td>
<td>March</td>
</tr>
</tbody>
</table>

INSTRUCTIONS TO AUTHORS: Manuscripts, including reports of original research, papers presented at ISFR conferences, research reviews, discussion papers, and letters to the Editor, are accepted for publication after appropriate evaluation and recommendation by qualified reviewers. The initial version of the manuscript, double-spaced throughout with wide margins, should be submitted, as a Word attachment by E-mail, to Prof Emeritus AW Burgstahler, Editor, Fluoride, 1620 Massachusetts Street, Lawrence, KS 66044-4254, USA (E-mail: awburg@ku.edu). Do not send manuscripts to the Managing Editor. If submission is by post, please send two copies, with a computer disc. Detailed instructions for preparing papers are at www.fluorideresearch.org and in Fluoride 2007;40(1):77-88. As noted in Fluoride 2008;41(1)196 these instructions should be followed meticulously to avoid publication delays.

The Editorial Officers of Fluoride strongly support the maintenance of the highest standards of animal care and the control of dissection in research. Authors must indicate whether their institutional and national guidelines for the care and use of laboratory animals were followed. When reporting experiments on human subjects, authors should indicate whether the procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000 (World Medical Association Declaration of Helsinki: ethical principles for medical research involving human subjects. JAMA 2000 Dec 20;284(23):3024-5).

COMPLIMENTARY COPIES: Donors wishing to fund gift copies, which will be suitably inscribed, are invited to contact Dr Spittle.

MEMBERSHIP OF THE INTERNATIONAL SOCIETY FOR FLUORIDE RESEARCH. Membership in the ISFR is invited from bona fide fluoride researchers. Membership allows participating in the activities of the Society and voting at business meetings. No membership fee is payable. Application for membership may be made by letter to Dr Spittle, E-mail: spittle@es.co.nz, including name, postal address, E-mail address, and the area of fluoride research the applicant is involved in.

CO-SECRETARIES: Enquiries about ISFR membership, ISFR conferences and meetings, and other matters under their jurisdiction may be made to the co-secretaries:
Professor Dariusz Chlubek, Department of Biochemistry and Chemistry, Pomeranian Medical University, al. Powstancow Wlkp. 72, 70-111 Szczecin, Poland. E-mail: dchiubek@pam.szczecin.pl
Associate Professor Masashi Tsunoda, Department of Preventive Medicine and Public Health, Kitasato University School of Medicine, Kitasato 1-15-1, Sagamihara, Kanagawa, 228-8555, Japan. E-mail: mtsunoda@med.kitasato-u.ac.jp