

FLUORIDE

QUARTERLY JOURNAL OF THE INTERNATIONAL SOCIETY FOR FLUORIDE RESEARCH

<http://www.fluoride-journal.com> Email: isfr@fluoride-journal.com

Managing Editor: Editor:
Dr Bruce Spittle Prof A W Burgstahler
Dunedin, New Zealand Lawrence, Kansas, USA

Associate Editors:
Prof G W Miller Logan, Utah, USA
Dr J R Lee Sebastopol, California, USA
Prof Ming-Ho Yu Bellingham, Washington, USA

CONTENTS

GUEST EDITORIAL

Waterborne fluoride and bone fractures
Paul Connett.....91-94

RESEARCH REPORTS

Skeletal metabolism and bone mineral density in fluoride-exposed rats
Beata Urbańska, Wojciech Czarnowski, Jerzy Krechniak, Iwona Inkielewicz,
Katarzyna Stolarska. Gdańsk, Poland95-102

Oxidative stress in children with endemic skeletal fluorosis
YM Shivarajashankara, AR Shivashankara, S Hanumanth Rao,
P Gopalakrishna Bhatc. Karnataka, India..... 103-107

Effect of fluoride intoxication on lipid peroxidation and
antioxidant systems in rats
YM Shivarajashankara, AR Shivashankara,
P Gopalakrishna Bhat, S Hanumanth Rao. Karnataka, India 108-113

Developments in the analysis of fluoride 1997-1999
F Yin, Y Yao, CC Liu, ML Wen. Kunming, China 114-125

Blood biochemical constituents in calves following subclinical
levels of fluoride toxicosis
V Kapoor, T Prasad, VK Paliwal. Hisar and Karnal, India..... 126-131

Glutathione metabolism in rats exposed to high-fluoride
water and effect of spirulina treatment
Toshi Kaushik, Radhey Shyam, Praveen Vats, Shoba Suri,
MML Kumria, PC Sharma, Som Nath Singh. Meerut and Delhi, India 132-138

Well water fluoride, dental fluorosis, and bone fractures
in the Guadiana valley of Mexico
M Teresa Alarcón-Herrera, Ignacio R Martín-Domínguez,
Rodolfo Trejo-Vázquez, Sandra Rodríguez-Dozal.
Chihuahua, Aguascalientes, and Durango, México..... 139-149

ABSTRACTS 150-156**HEALTH/BIOLOGICAL EFFECTS**

Systematic review of water fluoridation

McDonagh MS; Whiting PF; Wilson PM; Sutton AJ; Chestnutt I;
Cooper J; Misso K; Bradley M; Treasure E; Kleijnen J 150

Association of silicofluoride treated water with elevated blood lead

Masters RD, Coplan MJ, Hone BT, Dykes JE 150-151

Community water fluoridation, bone mineral density, and fractures:
prospective study of effects in older women

Phipps KR; Orwoll ES; Mason JD; Cauley JA 151-152

Fluoride deposition in the aged human pineal gland

Luke J 152

Tooth-surface progression and reversal changes in fluoridated and no-
longer- fluoridated communities over a 3-year period

Maupome G, Shulman JD, Clark DC, Levy SM, Berkowitz J 152-153

An attempt to explain why Tanzanian children drinking water containing
0.2 or 3.6 mg fluoride per liter exhibit a similar level of dental fluorosis

Awadia AK, Birkeland JM, Haugejorden O, Bjorvatn K 153-154

Calcium preventing locomotor behavioral and dental toxicities of fluoride
by decreasing serum fluoride level in rats

Ekambaram P, Paul V 154

Effect of long-term exposure to fluoride in drinking water
on risks of bone fractures

Li Y, Liang C, Slemenda CW, Ji R, Sun S, Cao J, Emsley CL, Ma F, Wu Y, Ying
P, Zhang Y, Gao S, Zhang W, Katz BP, Niu S, Cao S, Johnston CC Jr 155

DIETARY FLUORIDE

Fluoride levels in breast milk and infant foods

Koparal E, Ertugrul F, Oztekin K 155-156

BIOCHEMICAL EFFECTSCompensatory hyperparathyroidism following high fluoride ingestion - A
clinico - biochemical Correlation

Gupta SK, Khan TI, Gupta RC, Gupta AB, Gupta KC, Jain P, Gupta A 156

ANNOUNCEMENT

XXIVth Conference of the International Society for Fluoride Research

September 4-7, 2001, Otsu, Japan 157-158

TRIBUTE TO DR. JOHN YIAMOUIANNIS

Tohru Murakami 159-160

CORRECTION 160

INTERNATIONAL SOCIETY FOR FLUORIDE RESEARCH

OFFICERS AND BOARD FOR 2001

President:

Professor Zygmunt Machoy, Pomeranian Medical Academy, Szczecin, Poland

Vice President:

Professor Koichi Kono, Osaka Medical College, Osaka, Japan

Second Vice President:

Professor NJ Chinoy, Gujarat University, Ahmedabad, India

Secretary:

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

Treasurer:

Dr Bruce Spittle, University of Otago Medical School, Dunedin, New Zealand

Editorial Board:

Dr DJ Ballantyne, University of Victoria, Victoria, BC, Canada

Dr Miklos Bély, National Institute of Rheumatology, Budapest, Hungary

Prof AW Burgstahler, University of Kansas, Lawrence, KS, USA

Prof Shouren Cao, Chinese Academy of Preventive Medicine, Beijing, China

Dr M Chikuma, Osaka University of Pharmaceutical Sciences, Osaka, Japan

Prof NJ Chinoy, Gujarat University, Ahmedabad, India

Dr Edward Czerwinski, Kraków Academy of Medicine, Kraków, Poland

Prof Mark Diesendorf, University of Technology, Sydney, NSW, Australia

Dr Richard G Foulkes, Abbotsford, BC, Canada

Prof J Franke, Heinrich Mann Hospital, Bad Liebenstein, Germany

Prof G Neil Jenkins, Newcastle-upon-Tyne, England, UK

Prof Rongdi Ji, Chinese Academy of Preventive Medicine, Beijing, China

Prof K Kono, Osaka Medical College, Osaka, Japan

Prof Jerzy Krechniak, Medical University, Gdańsk, Poland

Dr KAVR Krishnamachari, National Institute of Nutrition, Hyderabad, India

Dr Lennart Krook, Professor Emeritus, Cornell University, Ithaca, NY, USA

Dr John R Lee, 9620 Bodega Hwy, Sebastopol, CA, USA

Prof C James Lovelace, Humbolt State University, Arcata, CA, USA

Dr Zygmunt Machoy, Pomeranian Medical Academy, Szczecin, Poland

Dr GW Miller, Professor Emeritus, Utah State University, Logan, UT, USA

Prof F Murray, Murdoch University, Murdoch, WA, Australia

Dr James C Pushnik, California State University, Chico, CA, USA

Dr BP Rajan, Madras Dental College, Madras, India

Dr Bruce Spittle, University of Otago Medical School, Dunedin, New Zealand

Dr Jörg Spitz, Dept. of Nuclear Medicine, Wiesbaden, Germany

Prof Guifan Sun, China Medical University, Shenyang, China

Prof AK Susheela, Fluorosis Res & Rural Develop Foundation, New Delhi, India

Prof SPS Teotia, LLRM Medical College, Meerut, India

Prof H Tsunoda, Iwate Medical University, Morioka, Japan

Prof Zan-Dao Wei, Guiyang Medical College, Guizhou, China

Dr Sally Wheeler, Hawkesbury Agricultural Res. Unit, Richmond, NSW, Australia

Prof Y Yoshida, Osaka Medical College, Osaka, Japan

Prof NBK Yoshitake, Shiga University of Medical Science, Shiga-Ken, Japan

Prof Ming-Ho Yu, Western Washington University, Bellingham, WA, USA

FLUORIDE, official journal of the International Society for Fluoride Research (ISFR), publishes quarterly reports on biological, chemical, ecological, industrial, toxicological and clinical aspects of inorganic and organic fluoride compounds. The International Standard Serial Number (ISSN) is 0015-4725.

SUBSCRIPTION: For the year 2001, payable in advance, US\$40, £25 or ¥4000, with a subscription agency discount of 12.5%. For residents of Australia and New Zealand only, A\$40 and NZ\$40, respectively. Send to ISFR Treasurer: Dr. B. Spittle, 727 Brighton Road, Ocean View, Dunedin 9051, New Zealand.

COPIES of articles in *Fluoride* are available 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.

MANUSCRIPTS: including papers presented at ISFR conferences, are accepted for publication after appropriate evaluation and recommendation by qualified reviewers. Send to Prof A W Burgstahler, Editor, *Fluoride*, 1620 Massachusetts Street, Lawrence, KS 66044-4254, USA. Fax (USA) 785-843-0736. For more detailed instructions for submitting papers, please refer to *Fluoride* 2001;34(1):85-90, or our website: <http://www.fluoride-journal.com/papers.htm>

The following instructions apply to original research reports. Research reviews and discussion papers, with appropriate variations in format, may also be accepted.

INSTRUCTIONS TO AUTHORS:

The following is only a brief summary. For detailed instructions, see the Notice to Authors in the February 2001 issue of *Fluoride* 34(1), pages 85-90. Two copies of an initial version of the manuscript, typed double space with wide margins, should be submitted (*without* a computer disc at this initial stage) to the Editor, Dr AW Burgstahler, at the address given above.

Membership: Researchers and others interested in fluoride research are invited to join the ISFR. Applications for membership should be sent to the Secretary: Professor Emeritus Gene W Miller, P.O. Box 725, Logan, UT 84321, USA (E-mail: plants@baicor.com). For the year 2001 the membership fee, which includes subscription to the journal, is the same as the subscription schedule above.