NEW STUDY CREATES UPROAR IN GERMANY

Scientists at the University of Tubingen in Germany have announced the results of a recently completed study that has received wide newspaper and television coverage. One newspaper headlined the story with "One Million Ill From Amalgam?"

The study consisted of measurements of mercury levels in the saliva, before and after chewing gum for 10 minutes, in 17,500 individuals with amalgam fillings. Saliva flow measurements were also conducted and the amount of mercury ingested daily was calculated. Saliva mercury levels directly correlated to total number of amalgam fillings and, in 40% of the subjects, exceeded by many times the World Health Organization (WHO) maximum recommended daily dose of 43 micrograms of mercury. In the subjects that exceeded the WHO limit, 65% exceeded the limit before chewing.

The leader of the study, Professor Peter Kraus, was quoted as saying: "In many test persons the level of mercury is 10 to 100 times over the acceptable limit. In Germany alone this concentration will be found in over 1 million people."

Not surprisingly, the findings were disputed by organized dentistry in Germany. The Union of German Dentists said that amalgam is thoroughly researched and that patients have no need to worry.

**BIO-PROBE NOTE:** Bio-Probe is attempting to find out if the study has been published. It should be noted that the daily mercury intake calculations did not include amalgam mercury vapor inhalation, which WHO (1991) has estimated to be 3.1-17 micrograms per day retained in the body. We would also like to point out that, in the United States, the Environmental Protection Agency's (EPA) Standard for maximum mercury content in drinking water is 2 micrograms per liter. It is our understanding that a person drinks an average of 1-2 liters of water per day, making the maximum allowable intake of mercury from water to be 2-4 micrograms per day.

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UNIVERSITY PROFESSOR FIRED OVER DENTAL AMALGAM!!

Dr. Dennis Lobstein, a tenured professor at New Mexico Highlands University in Las Vegas, New Mexico has been fired from his position as Director of the Total Health and Wellness Program that he had founded in 1992! Dr. Lobstein was removed after he had published
three articles in the program’s newsletter questioning the safety of mercury amalgam fillings.

In spite of emotional appeals and petitions from students and faculty members, the school’s Board of Regents supported the administration’s action and refused to reinstate Dr. Lobstein. The articles had enraged local dentists, one of whom was coincidentally the brother of the Chairman of the Board of Regents. According to newspaper reports, the local dentists had threatened legal action against the university, claiming that the articles hurt their businesses.

The incident has received considerable media attention in New Mexico, with headlines featuring: "Professor Fired After Bad-Mouthing Dentists"; "Wellness Director Fired After Articles Anger Las Vegas Dentists"; "Free Speech Issue Hits Hard on Highlands"; and "Ex-Wellness Director Not Reinstated."

Dr. Lobstein, not one to be easily steamrolled, has begun his counter-attack, emphasizing the issues of freedom of speech and academic freedom. His first course of action is to file a grievance with the university for appeal of the decision. In view of the issues involved and the considerable support he enjoys, hopefully no further action will be necessary.

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TRUTH DISTORTED!!

Organized dentistry has made claims that, as a result of the activities of the Amalgam Stakeholder Committee, Health Canada has rejected the risk assessment study on dental amalgam by Dr. G. Mark Richardson as being unscientific. This constitutes a blatant distortion of truth.

In response to the shameful conduct, Health Canada sent a letter to Dr. Richardson denying these claims, stating that had the report been unscientific, the Bureau would not have released it. The letter stated: "Some reports of the meeting have quoted selectively from this statement, or have paraphrased it to imply that the committee rejected the report in its entirety as being ‘unscientific’, and that Health Canada concurs with this rejection. The fact that the committee considered the report to have been ‘done in a careful and conscientious manner with methods generally appropriate for this type of risk assessment’ indicates that the report was scientific.’" The letter concluded: "I hope this letter will serve to clarify that the Medical Devices Bureau has not rejected your report and values the research you have done in the Bureau’s study of amalgam safety." The only point of the study under consideration by Health Canada is whether the existing data are sufficient for setting a Tolerable Daily Intake (TDI) of mercury for Canadian citizens. Dr. Richardson had recommended the establishment of a TDI and had calculated the number of mercury fillings in each age group that would compromise the TDI.

As a point of fact, Health Canada has made it clear that it will not be bound to the conclusions of the Amalgam Stakeholder Committee. The tremendous pressure placed on Health Canada by the pro-amalgam stakeholders notwithstanding, the government officials realize that their first responsibility is to the health of the citizens of Canada. The extensive media attention devoted to the Richardson report, and the amalgam controversy in general, has made it difficult for Health Canada to ignore the scientific findings on mercury exposure from dental amalgam. Another factor influencing the issue is the public revelation of a previous report commissioned by Health Canada in 1976. This report also condemned the use of mercury amalgam dental fillings and urged restrictions on its use.

Although a ban on the use of dental mercury should not be expected, it is possible that Health Canada may retreat from a policy of total acceptance by recommending certain restrictions on the use of amalgam, much as has been done in Germany.

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CDA ALTERS POSITION ON DENTAL AMALGAM!

The Executive Council of the Canadian Dental Association (CDA) has modified its position on the use of dental amalgam. The new information sheet will now include the following statements: "Although the scientific consensus is still strongly in support of amalgam, patients should be advised of possible concerns and provided with balanced information to help them make informed decisions about their oral health"; and "Alternatives may be considered for individuals who are immunologically compromised, or who suffer from a neurological condition or impaired kidney function. Although dental amalgam is not linked to such conditions, there is evidence that total body burden of mercury is of particular concern with these patients. Amalgam may be similarly contraindicated for workers with known occupational exposure to heavy metals or for individuals with greater than average exposure to mercury because of a diet which is primarily seafood."

The new instructions also include: "Although there is
no specific evidence of ill effects which would necessitate special precautions, mercury is known to cross the placenta and special consideration may be given to the needs and concerns of the pregnant patient; and "Dentists may also give special consideration to the restorative treatment needs of children and to concerns of parents."

CDA Associate Executive Director Brian Henderson stated: "It's a shift from where we were, but I think it will ultimately be beneficial to both dentists and patients." The document must still be approved by the CDA Board of Governors when it meets in Montreal in August.

In view of the CDA's vigorous and adamant defense of maintaining the status quo for amalgam (at great expense to its dues paying members), this alteration of position is quite surprising and dramatic. A possible explanation can be found in the same issue of the Journal of the Canadian Dental Association (May/June 1996). An announcement was made that members of the CDA's management committee met with Health Minister David Dingwall on 2 May to discuss amalgam and other concerns. It is possible that the Minister informed CDA of a change in Health Canada's position on dental amalgam and offered them the opportunity to modify their position in advance.

In any case, the new position of CDA on amalgam dramatically changes the status of mercury-free dentists in Canada. They will now be free, if not encouraged, to tell patients about exposure to mercury from amalgam fillings. As always, patients should also be told the position of organized dentistry. Further, it is apparent that Canadian dentists may now remove existing amalgam fillings in select patients without fear of reprisal.

The response of the American Dental Association (ADA) to the new event will be most interesting, especially if Health Canada announces a new position mirroring that of the CDA. Positions questioning the continued unlimited recommendation and use of dental amalgam have already been taken by the governments of Sweden, Germany, Austria and Denmark. The addition of Canada would be most uncomfortable for the ADA.

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BDA CONFERENCE ON DENTAL AMALGAM

The following report has been provided to Bio-Probe courtesy of Dr. G. Mark Richardson and represents another country's departure from the attitude and position of the American Dental Association:

On 16 May 1996, I was privileged to have participated in a special conference on "Amalgam - What is its Future?", which was organized by the British Dental Association (BDA) and held in Edinburgh, Scotland. My participation was sponsored by the BDA, I assume in order to provide their membership with an opportunity to hear about the most recent risk assessment work conducted on this dental material.

The BDA should be recognized for their open, direct and timely conference and its members should be aware that the BDA has set itself apart from other national dental associations by organizing an open and frank discourse on this topic. The methods, results and conclusions of Health Canada's "Assessment of Mercury Exposure and Risks from Dental Amalgam", which I authored, have been criticized by the dental profession internationally. I also recognize that the BDA may not agree with how the risk assessment was done or what it concluded. However, by encouraging such a dialogue, BDA members will be better prepared to answer many questions that their patients and colleagues are raising about dental amalgam.

Another presenter at this BDA conference was Dr. Anders Berglund of Sweden. Based on recent statistics, Dr. Berglund reported that 20% of fillings now placed in Swedish dental patients are of amalgam. Assuming that the maximum number of filled teeth that an individual might receive over his/her lifetime is 25 (based on Canadian data), then 20% of these would equate to 5 filled teeth. It is interesting that the policies now in place in Sweden have basically achieved a population average number of amalgam-filled teeth very close to the average of 4 amalgam-filled teeth suggested to compromise the TDI in the Health Canada report on amalgam.

[signed by G. Mark Richardson, Ph.D. Senior Risk Assessment Specialist, O'Connor Associates Environmental Inc.]

BIO-PROBE COMMENT: Dr. Anthony Newbury, President of the United Kingdom Chapter of the International Academy of Oral Medicine and Toxicology (IAOMT) was another speaker at the meeting. We have been informed that the meeting was so well attended that many had to be turned away for lack of room. We were also told that many in attendance complimented Dr. Richardson and Dr. Newbury for the quality of their presentations. The BDA should be commended for
sponsoring this program in a manner that allowed presentation of both sides of the controversy, thereby providing dentists with balanced information. Hopefully, other dental associations will take note.

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COMPLAINT FILED WITH ATTORNEY GENERAL IN MINNESOTA

On Wednesday, 15 May 1996, a consumer group filed a complaint with the Consumer Protection Division of the Minnesota Attorney General’s Office and Ramsey County Attorney asking both offices to prevent false advertising of silver-mercury amalgam fillings. The complaint states: "Representatives of the ADA (American Dental Association), the MDA (Minnesota Dental Association, and the Minnesota Board of Dentistry routinely make false or deceptive statements to the public about amalgams in violation of Minnesota Law. These statements lead consumers to believe that amalgams are safe when in fact there is no evidence to support these statements. Minnesota law clearly prohibits 'untrue, deceptive or misleading' statements to the public about any merchandise or service offered for sale to the public."

The complaint was filed by Dental Mercury Awareness (DMA), a group representing 400 citizens in Minnesota to educate the public about the dangers of amalgams. Although DMA believes mercury escaping from amalgams harms many and perhaps all people, DMA’s complaint does not require the AG and the Ramsey County Attorney to agree. The complaint states: "One can debate whether enough evidence has accumulated to limit amalgam use or ban it altogether, but there can be no debate about the accuracy of the claim that amalgam is safe. That claim is false."

The MDA provided copies of public statements that were clearly false, such as: "Dental amalgams are safe"; "Mercury can be quite toxic in the environment and still be used safely in the mouth"; "The daily dosage from food, water and air exceeds the minuscule amount released from dental amalgam fillings"; and many more, including misrepresentations of government reports on amalgam.

The Minnesota AG (Hubert H. Humphrey, III) and the County Attorney declined to file the requested charges. However, the die has been cast. False statements, detrimental to the public health, cannot be allowed, according to Law. Sooner or later, a State or County Attorney will place the public interest over that of a special interest group (and its Political Action Committee funds). The Minnesota Dental Mercury Awareness group is to be congratulated for its thoughtful and dedicated effort. They have also managed to provide numerous members of the Minnesota Legislature with information on the amalgam controversy and have engendered media interest in the topic. Determined citizens cannot, and will not, be stopped. The success of their initial effort is phenomenal; they will succeed in future efforts and will show the way for others.

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MICHIGAN REPORT URGES MERCURY REDUCTION

The new "Mercury Pollution Prevention in Michigan" study had been released by a Mercury Pollution Task Force. Mercury pollution has been a concern in Michigan for decades, according to the Director of the State Department of Environmental Quality. The department estimated that 8,400-10,400 pounds of mercury per year is released into the atmosphere in Michigan; between 200 and 1,800 pounds is discharged into state waters, and about 3,800 pounds is discarded in municipal and commercial waste.

The report provides a plan to confront the challenge of the environmental pollution. Amongst the recommendations of the plan are: 1) Phasing out mercury containing products at health care facilities; 2) Eliminating the use of mercury in dental offices; and 3) Developing national labeling requirements to help consumers and businesses make informed choices and support pollution prevention.

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SCIENCE

Estrogenicity of Resin-Based Composites and Sealants Used in Dentistry.

Olea, NR; Pulgar, R; Peñez, P; et al.


SUMMARY: A study recently conducted in Spain has demonstrated the release of bisphenol-A (BPA) from dental sealants one hour after placement of the sealants. The study, conducted on 18 subjects, was published in the March 1996 issue of "Environmental Health Perspectives." The monomer BA-dimethacrylate, and its precursor Bisphenol-A, are contained in dental sealants and have been shown to have estrogen-like properties, which may indicate an encouragement to the formation of breast cancer. An hour after curing the sealants, the researchers found a range of 90-931 micrograms of leached BPA in the saliva of the subjects. Traces of
dimethacrylate were found in three of the subjects. Neither compound was found in the saliva prior to sealant placement. One subject had detectable levels of the two compounds in saliva from sealants that had been placed two years previous to placement of the new sealants.

Three composite resins were also tested in an in vitro cell assay and found to not be estrogenic, as neither of the compounds were found to be released from the composite within limits of detection. The authors pointed out that these composites were 50-85% inorganic filler, thereby diluting the constituent bis-GMA resin.

BIO-PROBE COMMENT: The study did not determine if the two compounds were absorbed into the body or if they would be metabolically degraded. Nor were they shown to initiate adverse changes in the body. However, this evidence should not be ignored. It is now imperative that these potentials be investigated. A serious problem is that reference doses for the two compounds have yet to be established, making it difficult to determine what levels in the body will be harmful.

Demonstration of Mercury in the Human Brain and Other Organs 17 Years After Metallic Mercury Exposure.

Opitz, H; Schweinsberg, F; Grossman, T; Wendi-Gallitelli, MF; Meyermann, R.

ABSTRACT: A male subject became exposed to metallic mercury vapor at work in 1973. He excreted 1,850 mg Hg/L urine initially. Controls of urine mercury excretion after d-penicillamine administration led to the assumption of a total body clearance of mercury latest since 1976. Subsequently he developed an organic psychosyndrome without detectable signs of classical mercurialism. He never returned to work again and died of lung cancer in 1990.

In different organs (brain, kidney, and lung) which were sampled at autopsy elevated levels of mercury were documented by atomic absorption analysis. Histological examination of the tissue by the Danscher and Schrodern method, which is specific for mercury, showed a highly positive staining in the majority of nerve cells of other organs. Ultrastructurally mercury could be demonstrated by elemental x-ray analysis within lipofuscin deposits. The lipofuscin content was increased in the mercury positive nerve cells as demonstrated by a strong positive autofluorescence.

BIO-PROBE COMMENT: The authors concluded with: "Medical certificates cannot be based on the assumption that the absence of a detectable increase in urine mercury excretion after treatment with complexing agents signals a completed elimination of accumulated body mercury."

D-penicillamine is a mercury chelating agent (similar to DMPS and DMSA). It is widely believed that these chelating agents remove mercury only from the kidneys and bloodstream. This study confirms that belief and demonstrates that exposures to mercury vapor, especially high doses, results in significant concentrations of mercury in CNS and other body tissues many years later. This accentuates the vital importance of proper procedures (such as the amalgam removal Standard of Care developed by the IAOMT) to protect the patient any time a mercury amalgam filling is removed or ground upon.

Prolonged Oral Treatment with Two Monoesters of Meso-2,3-Dimercaptosuccinic Acid for Depleting Inorganic Mercury Retention in Suckling Rats.

Kostial, K; Blanusa, M; Piasek, M; Jones, MM; Singh, PK.

ABSTRACT: Two monoesters of meso-2,3-dimercaptosuccinic acid (DMSA), monoisoamyl meso-2,3-dimercaptosuccinate (Mi-ADMS) and monot-butyl meso-2,3-dimercaptosuccinate (Mn-HDMS) were compared to DMSA in their efficiency to mobilize 203Hg in mercury laden suckling rats. Seven-day-old pups were given 203Hg (18.5 KBq) with a dose of 0.5 mg Hg/kg/day as HgCl2 for five days. Seven days after the beginning of Hg loading a ten-day oral treatment with DMSA, Mi-ADMS, or Mn-HDMS was administered at a dose of 0.25 mmol/kg/day. At the end of experiment, radioactivity was measured in the whole body, liver, both kidneys, and brain.

Monoesters of DMSA were superior to DMSA in decreasing body and organ Hg retention. The highest reduction in comparison to controls in groups treated with DMSA, Mi-ADMS, or Mn-HDMS occurred in the kidneys (48%, 97%, and 96%), followed by reduction in the liver (24%, 84%, and 83%), and in the brain (8%, 23%, and 23%, respectively). For both, Mi-ADMS and Mn-HDMS, the reductions in the whole body and organs were significantly greater than in controls or DMSA-treated rats. No difference between the efficiency of the two DMSA-monoesters was found.

BIO-PROBE COMMENT: There has been consid-
erable question over the ability of DMSA (and DMPS) to remove mercury from non-renal body tissues, especially the CNS. This study demonstrates that DMPS can remove mercury from the liver and, to a small degree, the brain. The two monoesters are obviously more effective, but the following study demonstrates concern over their use in pregnant females.

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Assessment of the Protective Activity of Monoisomyl Meso-2,3-Dimercaptosuccinate Against Methylmercury-Induced maternal and Embryo/Fetal Toxicity in Mice.

Belles, M; Sanchez, DJ; G’omez, M; Domingo, JL; Jones, MM; Singh, PK.
Toxicology, 106(1-3):93-7, 1996.
ABSTRACT: The protective activity of monoisomyl meso-2,3-dimercaptosuccinate (Mi-ADMS), a new monester of 2,3-dimercaptosuccinic acid (DMSA), on methylmercury-induced maternal and developmental toxicity was assessed in mice. A series of four Mi-ADMS injections was given s.c. at 0.25, 6, 24, and 48 h after oral administration of 25 mg/kg of methylmercury chloride (MMC) given on day 10 of gestation. Mi-ADMS effectiveness was tested at 0, 23.8, 47.6 and 95 mg/kg. Cesarean sections were performed on gestation day 18. All live fetuses were examined for external, internal, and skeletal abnormalities.

Oral MMC administration resulted in an increase in the number of resorptions, and a decrease in fetal body weight, whereas the incidence of cleft palate, micrognathia, and skeletal variations was also increased in the fetuses of the MMC-treated groups. Although significant amelioration of MMC-induced embryolethality by Mi-ADMS was not noted at any dose, MMC-induced fetotoxicity was reduced by administration of this agent at 23.8, 47.6, and 95 mg/kg. However, the intrinsic toxicity of Mi-ADMS would be a restrictive factor for the possible therapeutic use of this chelator in pregnant women exposed to organic mercury.

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Pathological Changes in the Brown Norway Rat Cerebellum after Mercury Vapour Exposure.
Hua, J; Brun, A; Berlin, M.
ABSTRACT: Our previous studies have demonstrated that mercury vapour exposure of Brown Norway rats induced an autoimmune response with development of glomerulonephritis and resulted in mercury deposition in the central nervous system, particularly in the neurons.

The aim of this study was to investigate the effect on the central nervous system.

A loss of Purkinje cells accompanied by Bergmann glial cell proliferation was found at a brain mercury level of 0.71 micrograms/g and became even more pronounced as the exposure dose increased. At a brain mercury level of 5.0 micrograms/g, a heavy gliosis was present in the brain stem, particularly around the pontine nuclei.

In comparison with our previous study, the pathological changes in the brain appeared at the same mercury exposure dose as the glomerulonephritis. However, the location of pathological changes at the mercury level of 0.71 micrograms/g was not completely in accordance with the mercury distribution in the brain, which might be due to the sequence of mercury deposition, its amount or the vulnerability of the various cell classes.

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A Pilot Study of the Effect of Low Level Exposure to Mercury on the Health of Dental Surgeons.
Ritchie, KA; Macdonald, EB; Hammersley, R; O’Neil, JM; McGowan, DA; Dale, IM; Wesnes, K.
OBJECTIVES: This project was conducted to examine whether the computerized analysis of psychomotor responses available from Cognitive Drug Research is appropriate for measuring an effect of low level exposure to mercury in dentists.

METHODS: A computerized battery of psychomotor tests was given to two groups of dentists (older dentists and trainees) and to two age matched control groups. As well as the psychomotor tests, volunteers were required to complete a questionnaire to identify potential influences on psychomotor performance and to provide a sample for analysis of urinary mercury.

RESULTS: Statistical analysis of the results showed that the older dentists had slightly higher concentrations of urinary mercury although most were around background levels and they were all within occupational limits. Five of the psychomotor tests showed no differences between the performance of the four groups. The older dentists showed significantly better performance on the simple reaction time test and significantly poorer performance in the immediate word recall and delayed word recall tests.

CONCLUSIONS: Poorer performance in memory recall tests confirms previously reported studies. This together with the confirmation that this test system is a
practical tool in the occupational setting suggests that a larger study of the effects of mercury exposure on dentists would be appropriate.

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Oral Lichenoid Lesions, Mercury Hypersensitivity and Combined Histologically-Proven Reproduction of the Reaction by Patch Testing With Metal Salts.

Koch, P; Bahmer, FA.


ABSTRACT: We report 11 patients seen between 1991 and 1994 with oral lichenoid lesions (OLL). In 10 cases, there was contact with dental amalgam fillings, and in patient no. 10 with both amalgam restorations and a gold crown. The last patient had, in addition to her OLL, lichen planus of the skin and genital mucosa.

In 5 cases, combined sensitization to mercury and other metal salts, particularly gold sodium thiosulfate (GST) and palladium chloride (PDC), was observed. In 10 patients, the lesions considerably improved or totally cleared within 1 to 9 months of replacement of restoration materials. Histological examination of biopsies from the test sites of amalgam, mercuric chloride, GST and PDC, taken 10 or 17 days after application of patch tests, showed lichenoid changes in 7 patients with at least 1 of the allergens.

As at least 2 patients had inflammatory lesions of the oral mucosa related to both amalgam and gold restorations, combined sensitization to inorganic and organic mercury derivatives, GST and, in 1 case, PDC, a "dental restoration metal intolerance syndrome" is proposed.

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Comparative Studies on the Toxicity of Mercury, Cadmium, and Copper Toward the Isolated Perfused Rat Liver.

Strubelt, O; Kremer, J; Tilse, A; Keough, J; Pentz, R; Younes M.


ABSTRACT: The toxic effects of cadmium, mercury, and copper were compared over the range 0.01, 0.03, and 0.1 mM using the isolated perfused rat liver preparation. All metals caused similar changes in various parameters used to describe general toxicity. Thus reductions in oxygen consumption, perfusion flow, and biliary secretion were found, while lactate dehydrogenase release into the perfusate, as well as liver weight, increased also in a dose-dependent fashion. Each metal caused similar magnitudes of changes and exerted similar potency.

Measurement of other parameters indicating more specific injury revealed a number of differences. Although all metals reduced hepatic ATP concentration, mercury and cadmium were more potent than copper in this respect. Cadmium was the most potent at decreasing reduced glutathione levels. Mercury was most effective at increasing tissue calcium content, while copper was less so, and cadmium ineffective. Only copper significantly increased tissue malondialdehyde (MDA) content, while all metals increased its release into perfusate. Furthermore, whereas cadmium seemed the most potent metal in increasing MDA release, it was least efficacious, while copper was the most.

Antioxidants such as superoxide dismutase, catalase, and Trolox C only reduced cadmium's influence on MDA in perfusate; however, they did not affect cadmium's ability to alter most other parameters of vitality. Albumin reversed the toxic effects of copper and mercury, but not cadmium. While metal-induced reductions in perfusion flow accounted for some of the toxic effects of the metals investigated, the results as a whole supported the suggestion that all metals exerted toxicity at the mitochondria, since ATP levels were reduced in a manner that could not be reproduced by perfusion flow reduction alone.

Lipid peroxidation appears to play little role in determining toxicity induced by any of these metals. Furthermore, albumin may play an important physiological role in preventing hepatic injury that might otherwise be induced through acute metal intoxication.

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FORUM
IAOMT 1996 ANNUAL MEETING

DATE: Friday-Sunday, 27-29 September 1996.

SITE: Houston, Texas.

HOTEL: The Woodlands Executive Conference Center and Resort, 2301 North Millbend Drive, The Woodlands, TX 77380. Phone: (713) 367-1100 or (800) 433-2624; Fax: (713) 354-6338. Room rate: $119 single, $134 double, specify code "IAOMT". A beautiful facility, with golf course, close to big malls, 20 minutes from airport.

HOST: Dr. William P. Glaros, 17222 Red Oak Dr., #101, Houston, TX 77090. T: (713) 440-1190; F: (713) 440-1258.

REGISTRATION: IAOMT members = $395.00; non-members = $495.00 [Professional registration in-
includes spouse or one staff member; additional staff member=$150.00. Pre-registration deadline =2 September 1996; fees are $445.00 and $545.00 thereafter. Registration fees are sent to Meeting Host.

PROGRAM: Saturday morning will feature a risk assessment of mercury vapor exposure and its relationship to dental mercury amalgam. A presentations will be given by G. Mark Richardson, Ph.D. who is formally of Health Canada, followed by a panel discussion with Dr. Richardson joined by Dr. Richard A. Canady, Dr. Murray J. Vimy and Dr. Michael F. Ziff of IAOMT. Dr. Canady is with the United States Public Health Service Agency for Toxic Substances and Disease Registry (ATSDR) and was lead author of the May 1994 ATSDR "Toxicological Profile for Mercury (Update)" that established the USPHS Minimal Risk Level (MRL) standard for the general population in the United States. Dr. Richardson is author of the Health Canada risk assessment for Dental Amalgam that recommended a Tolerable Daily Intake (TDI) of mercury vapor for Canadian citizens.

Other feature speakers include Paula Bickle, Ph.D. who will discuss the IRB study on mercury detoxification, Stanislaw Burzynski, M.D., who's highly successful cancer therapy has been under severe attack by the Food and Drug Administration, and attorney James M. Love, J.D. who will address a number of legal matters involved with dental amalgam mercury exposure and the practice of mercury-free dentistry, including Dental Board disciplinary actions. Scientific update and fundamental scientific information on amalgam mercury will be provided on Friday morning by Dr. Murray J. Vimy and Dr. Michael F. Ziff.

There will be two groups of IAOMT workshops on Friday afternoon with a choice from three workshops in each time slot. These workshops focus on application of numerous subjects in clinical practice. Workshop topics are: "Board Protecting Your Dental Practice", by Dr. Phillip Sukel and Dr. Richard Fischer; "Applications and Interpretation of Materials Reactivity Testing Results", by Walter J. Clifford; "Indirect Composites", by Dr. David Kennedy; "Microbial Dental Practice", by Dr. David Ganong; "The Use of Biocalex in Endodontic Therapy", by Dr. Scott Loman; and "Corrosive Chemistry 101", by Dr. David Regiani.

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MERCURY DETOX SEMINAR

PROGRAM: Dr. Paula R. Bickle, Ph.D., chief investigator for the IRB granted by GLACM will be presenting "The Effects of a Total Mercury Detoxification Program", an excellent seminar for those wishing to update on the latest information on mercury toxicity and to learn a coordinated, complete detoxification program, 17-19 September at the Milwaukee Hilton, Milwaukee, WI. The fee is $695.00 if received by 1 September; $770.00 at the door; $350.00 for staff and repeat attendees. Dedicated professionals from 26 states are now taking part in this program. The only way to become part of the research team is to attend the seminar, which will also show you how to turn existing patients into a research project. MD's and biological dentists are needed. This is the largest research project on mercury detoxification in the U.S.

CONTACT: For further information contact Bob, research co-ordinator, (503) 256-9666. Fax: (503) 256-0053. Cascade Consultants, 9310 SE Stark St., Portland, OR 97216-2151.

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19th NATIONAL DENTAL SEMINAR IN HOMEOPATHY

DATE: Friday-Sunday, 18-20 October 1996.

SPONSOR: The Holistic Dental Association. P.O. Box 123, Marenga, IL 60152. Fees: Basic Course = $395; Advance Course = $375; Spouses/Auxiliaries = $125 (Reduced to $375, $350, $100 if prior to 1 Sep 1996). Checks payable to: National Dental Seminar.

HOTEL: The Oak Brook Hills Hotel and Conference Center, 3500 Midwest Road, Oak Brook, IL 60522-7010. Room Rate: $102.00/nite, single or double (includes continental breakfast and evening Hors d'oeuvres). Tel: (800) 445-3315.

COURSE COORDINATORS: Dr. Craig A. Zunka, Dr. Daniel Dieska, Dr. Harris M. Kimbrough, Jr.

If you are a mercury-free dentist or are contemplating going mercury-free, you need to join the IAOMT. The IAOMT has helped fund or has been the catalyst for much of the current scientific research demonstrating that dental amalgam is not the benign dental material that 150 years of use and the ADA would like you to believe. Furthermore, the IAOMT is doing something about Standards of Care and Protocols that protect you, your staff and the patient.

For membership information contact Dr. Ronald M. Dressler, D.D.S. FIAOMT, 3071 Campbellton Rd. SW, Atlanta, GA 30311. (404) 349-2088 or FAX (404) 349-2090