Metals and more: crossroads between allergy, inflammation and disease

29-31 May 2009, Valencia, Spain

Friday 29 May

19.00-21.00 Registration and Welcome reception in Hotel Sidi Saler including drinks and snacks

Saturday 30 May

08:00 - 08:45 Registration, exhibits

08:45 - 09:00 Welcome addresses

Inflammation and free radicals in degenerative diseases: causes and treatment

Moderators: Dr Margareta Griesz-Brisson, Dr Birgitta Brunes

09:00 - 09:30 Free radicals, oxidized LDL and inflammation in cardiovascular and neurological diseases, Dr Timothy Guilford, MD, Advanced Integrative Medicine, Los Altos, California, USA

09:30 - 10:00 Multiple sclerosis and chronic fatigue - causes and treatment, Dr Philippe Tournesac, MD, Paris, France

10:00 - 10:30 The role of environmental factors in autoimmune thyroiditis, Dr Monika Hybenová, MD, Institute of Immunology and Microbiology, 1st Medical Faculty, Charles University, Prague, Czech Republic

10:30 - 11:00 Coffee break

In vitro tests for hypersensitivity caused by metals and infectious agents

Moderators: Dr Kurt Müller, Prof Claus Muss

11:00 - 11:30 *In vitro* tests for metal induced hypersensitivity, Dr Monika Lindemann, MD, Institute for Transfusion Medicine, University Hospital Essen, Germany

11:30 - 12:00 Metal binding to brain protein - a new clinically relevant biomarker, Prof. Vera Stejskal, PhD, University of Stockholm, Sweden and 1st Medical Faculty, Charles University, Prague, Czech Republic

12:00 - 12:30 Use of T-cell reactivity for diagnosis of active Lyme: new developments, Dr. Elizabeth Valentine-Thon, PhD, Laboratory Center, Bremen, Germany

12:30 - 13:00 Panel discussion with speakers

13:00 - 14:00 Lunch, exhibits

Possible medical consequences of dental restorative materials

Moderators: Prof Jarmila Prochazkova, Dr Elizabeth Valentine-Thon

14:00 - 14:30 Medical consequences of root fillings and intolerance to dental materials. Karin Öckert, DDS, Specialist of Periodontology, Gårdatandläkarna, Gothenburg, Sweden

14:30 - 15:00 Mercury – MELISA® and detoxification, David Hefferon, BDS, The Ella Clinic, London, United Kingdom

15:00 - 15:30 Adverse effects of dental metals - from a dermatologist's point of view, Prof. Paolo Pigatto, MD, Institute of Dermatological Sciences Magglore Hospital and R. Elena Foundation, University of Milan, Italy

15:30 - 16:00 Coffee break

Biocompatible materials are not always immune-compatible

Moderators: Mr David Hefferon, SPANISH DENTIST?

16:00 - 16:30 Metals as a risk factor in implantology, Prof Jarmila Prochazková, MD, Institute of Dental Research, 1st Medical Faculty, Charles University, and General Faculty Hospital, Prague, Czech Republic

16:30 - 17:00 Zirconium – an immuno-compatible alternative for metal- intolerant patients, Dr Ralph Lüttmann, DDS, Z-systems, Eckernförde, Germany

17.00-17.30 Panel discussion with speakers

18.00- Social program: Excursion to Albufera nature reserve and congress dinner

Sunday 31 May

The role of food and metal allergy in cardiovascular and gastrointestinal diseases

Moderators: Dr Michael Elstein, Prof Vera Stejskal

09:00 - 09:30 Clinical relevance of gold allergy in patients with gold-plated coronary systems, Dr Cecilia Svedman, PhD, Dept. of Occupational and Environmental Dermatology, Malmö University Hospital, Sweden

09:30 - 10:00 Impact of metal exposure for the intestinal immune system, Prof Claus Muss, MD, Dr. a. A.V. Augsburg, Germany and I-Gap, Vienna, Austria

10:00 - 10.30 Nutritional concepts in gastrointestinal inflammation, Prof Thomas Endler, MD, University of Vienna, Austria

10:30 - 11.00 Coffee break

The use of chelation and bioidentical hormones in treatment of chronic diseases

Moderators: Dr Timothy Guilford, Prof Thomas Endler

11:00 - 11:30	Food allergy/intolerance, gut dysbiosis and inflammation - their impact on insulin resistance, hormone function and ageing, Dr Michael Elstein, MD, Eternal Health Medical Centre, Sydney, Australia
11:30 - 12:00	Heavy metals and chronic disease, synergy with electro magnetic fields, Dr Margareta Griesz-Brisson,
12:00 - 12:30	Chelation as a treatment for chronic diseases – case reports from my clinic, Dr Cristina Sales, MD, Medicina Integrada, Porto, Portugal
12:30- 13.00	An introduction to the use of bio-identical hormones, Dr Jenny Stejskal, MD, Mörby clinic and Anti-Aging Specialist, Stockholm, Sweden
13:00 - 14:00	Lunch, exhibits
14:00 - 14:30	Politics and science: update of the amalgam situation in Europe and USA, Dr Kurt Müller, MD, European Academy for Environmental Medicine, Isny, Germany
14:30-15:00	Panel discussion with speakers
	Closing remarks and farewell

Timothy Guilford, MD

Address: Advanced Integrative Medicine
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Dr. Guilford has been in clinical practice since 1979. He had the opportunity to introduce complementary medical approaches into his practice beginning in 1985. The concept that chronic inflammation functions as a causative factor in illness became apparent while he was director of a laboratory specializing in in-vitro allergy and viral immunology testing (1982 -1992). He began using metal detoxification methods in 1995 and research into the toxicity of mercury lead to the observation that glutathione is a critical component of the defense against heavy metals. This work led to the development of ReadiSorb Liposomal Glutathione. His current interests include research on mycotoxins, and he recently published a paper on this topic.

His presentation will review research regarding the antioxidant and anti-atherogenic properties of Liposomal Glutathione. The study demonstrates the metal-related oxidation of LDL and HDL cholesterol. He will also briefly review the role oxLDL plays in vascular and neurodegenerative disease.

Undergraduate education: Johns Hopkins University
Medical School: University of Texas Medical Branch
Post-Graduate: Johns Hopkins University Hospital and the University of Michigan Hospital
Certification: American Board of Otolaryngology, American Board of Otolaryngic Allergy

Awards:
Norman C Clark Award for Innovation, 2002, American College for the Advancement of Medicine.
"Mercury, The Great Imitator: Perspectives on the Various Presentations Related to Mercury, Methods of Diagnosis and an Approach to Therapy"

Experience:
Director of a Clinical Laboratory specializing in in-vitro allergy diagnostics and viral immunologic testing
Clinical Practice from 1979 to present now emphasizing chronic illness and allergy
Heavy metal detoxification
Disorders related to the glutathione pathways
Scientific consultant to Your Energy Systems, the developer of ReadiSorb Liposomal Glutathione
Co-author of recently published: "Mycotoxin Detection in Human Samples from Patients Exposed to Environmental Molds" (*Int. J. Mol. Sci. 2009; 10(4):1465-1475.)*

Presentations: Dr. Guilford has given numerous presentations related to
Glutathione and its role in health and disease.
Mercury and its role in chronic illness.

Free radicals, oxidized LDL and inflammation in cardiovascular and neurological diseases

Free Radical oxidative stress can cause oxidative damage to both lipids and proteins in cells. Lipoprotein oxidation contributes to the progression of both atherosclerotic and neurologic diseases. Oxidation of low density lipoprotein (oxLDL) cholesterol is a marker for the progression of atherosclerotic disease and serves as a model for understanding these mechanisms. A recent study (1) demonstrating the role liposomal glutathione plays in slowing the metal catalyzed formation of oxLDL in-vitro and in an animal model of atherosclerosis will be reviewed. The role these mechanisms may play in neurodegenerative diseases will also be reviewed.

1. Rosenblat M, Volkova N, Coleman R, Aviram M. Anti-oxidant and anti-atherogenic properties of liposomal glutathione: studies in vitro, and in the atherosclerotic apolipoprotein E-deficient mice. Atherosclerosis. 2007;195(2):e61-8. Cited in PubMed; 17588583.

Philippe Tournesac, MD, PhD

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Education:

Baccalauréat 1976
MD Medical school Paris Ouest
Thesis 1987: "Polychondritis, Gougerot Sjögren disease, immunosuppressant drugs and non Hodgkin lymphomas"
Acupuncture diploma 1988
Neurocinésiology diploma (podology, osteopathy, reflex-therapy homeopathy) 1998
Diplôme Inter Universitaire de médecine manuelle ostéopathie (Osteopathy) 2000 Faculté de médecine de Saint Etienne
Diplôme Universitaire de médecine predictive (predictive medicine) Faculté de médecine de Clermont-Ferrand 2001

Professional activities:

Pain consultant at the hospital of Versailles from 1986 until 1994
Professor at the "Ecole Française d'Acupuncture" (French school of acupuncture) from 1987 until 1992
Private integrative practice in Versailles and then Paris since 1987
In charge of a post graduate diploma at the university of Dijon since 2002: Neurofunctional pathology's (fibromyalgia, CFS/ME, MCS...)

Complementary activities:

Member of the consultative committee for biomedical research in hospital of Versailles from 1995 to 2001
Member of the board of hospital of Versailles from 2001 à 2005
President of the "Association de recherche sur les troubles neurofonctionnels et la spasmophilie" (Research association for neurofunctionnal disease: fibromyalgia, CFS/ME, MCS, ADHD...) since 1997
Member of the International association for chronic fatigue syndrome

Multiple sclerosis and chronic fatigue - causes and treatment

Chronic fatigue syndrome / myalgic or minor encephalitis (CFS/ME) and multiple sclerosis (MS) are very different. For chronic disease, the comprehension of chronicity mechanism is often more important than the disease itself.

CFS/ME is a syndrome in which the main symptom is intense fatigue, over more than six month, with a typical special feature called post exercise malaise. Various symptoms are associated with fatigue: immune reaction (pseudo flu), pain, sleep and bowel disturbances, and autonomic nervous system disorders.
MS is an autoimmune disease in which the target is the nervous system and particularly myelin, oligodendrocytes and axons.

They are both considered as neurological, one is a disease with absolute characteristic, and the other is a syndrome mixture of non-specific symptoms. Mechanisms involved in the occurrence of the two diseases have a lot in common.

Both of them are chronic diseases. On one side MS, considered as a « horrible disease » as well by patient as by physician, on the other side CFS/ME is, in the best situation, tolerated as a syndrome and most of the time ignored by physicians. For the CFS/ME patient it can though turn to a disaster because of incapacity to any exercise, to work and social isolation. Some MS will have very slow evolution and some will die in great disable. CFS/ME patient very rarely recover, some may exceptionally commit suicide.

As for all chronic disease, they can only occur after the addition of multifactor. Genetical, immunological, hormonal, psychological, environmental and nutritional factors are involved. Chronicisation cannot be explained with a linear model. Many vicious circles can be installed over time. Some new paradigm like the one exposed by Professor Martin Pall (NO/ONOO cycle), doctor Michel Geffard (chronic exposure to saprophyte bacteria antigen drives to increase oxidative stress and production of neoantigen) and Ashok Gupta (stress symptoms induced by the amygdala and encouraged by the cortex in reaction to stress symptom) help to understand these disease and the failure of the medical strategy using drugs to fight against these health disasters.

Metals intoxication is considered to be involved in 25 to 50% of CFS/ME and 90 to 100% of cases of MS. But the only treatment of this cause is rarely curative for any one. Some Evidence based medicine doctors will conclude that if the treatment of the cause is not efficient then it will demonstrate that the hypothetic cause is not the right one. This EBM reasoning is good for acute disease in which a linear reasoning is possible but it is not acceptable for chronic disease.

Evidence for the role of heavy metal in these diseases:

Many metals and especially mercury, are known to promote oxidative stress and particularly if there is an immune reaction. Mercury is very difficult to eliminate from tissues and will produce chronic immune reaction or allergy leading to chronic oxidative stress.
Heavy metals even if not absorbed modify the intestine microbiote and the whole intestine equilibrium which may lead to leaky gut syndrome or modification of production and liberation of lipopolysacharids (LPS). This will drive to the Dr Geffar paradigm.

The fright of disease attributed to heavy metals may encourage the amygdala response model which anyways leads to increase stress also cause of leaky gut syndrome (back to Geffar's model) and to oxidative stress (back to Pall's model)
An integrative treatment will need to get rid of causes and take care of the vicious circles. It should include eviction of heavy metals from the body, especially if metal allergy has been proven (Melisa test). The vicious circles care needs to work intensively on many levels of the above paradigms.

References:

Explaining 'Unexplained Illnesses': Disease Paradigm for Chronic Fatigue Syndrome, Multiple Chemical Sensitivity, Fibromyalgia, Post-Traumatic Stress Disorder, and Gulf War Syndrome. Pr Martin Pall
Une nouvelle approche biomédicale des maladies chroniques : l' Endothérapie multivalente Dr Michel Geffard, DrPatrick Theillier
Gupta Amygdala Retraining. Ashok Gupta
Nickel Allergy Is Found in a Majority of Women with Chronic Fatigue Syndrome and Muscle Pain- And May Be Triggered by Cigarette Smoke and Dietary Nickel Intake
Regland B, Zachrisson O, Stejskal V, Gottfries CG. Journal of Chronic Fatigue Syndrome, Vol. 8(1) 2001
Mercury and nickel allergy: risk factors in fatigue and in autoimmunity
Sterzl I et al. Neuroendocrinology Letters 1999; 20:221-228
The role of metals in autoimmunity
Stejskal J, Stejskal V. Neuroendocrinology Letters 1999; 20:351-364

Monika Hybenová, MD

Education:
1992 - 1999 – Faculty of Medicine, Comenius University in Bratislava, Slovakia
2003 – Attestation in internal medicine, Slovak Medical University in Bratislava, Slovakia

Employment:
1999 – 2004 Institute of Preventive and Clinical Medicine – Slovak Centre for Organ Transplantation, Bratislava, Slovakia
2000 – 2002 Institute of Preventive and Clinical Medicine – Immunology and Pharmacotherapy Clinic
2002 – 2003 Derer's University Hospital in Bratislava
From 2004 Institute of Immunology and Microbiology, 1st Faculty of Medicine, Charles University and General University Hospital in Prague, Czech Republic – assistant professor, specialist in allergology and clinical immunology (before attestation), PhD student

Participation in research projects:
2005 - 2007 – Regulation mechanisms of immune system and usage for prevention and therapy. Project supported by Grant Agency of the Czech Republic 310/03/H147.
From 2007 - Detection of specific cellular immune response to Helicobacter pylori antigens in patients with autoimmune thyroiditis. Project supported by Grant Agency of Ministry of Health of Czech Rep. NR/9414-3.

The role of environmental factors in autoimmune thyroiditis

M.Hybenová, I.Sterzl, V.Stejskalová, J.Prochazková
Institute of Immunology and Microbiology, Institute of Dental Research, Charles University in Prague, First Faculty of Medicine, Czech Republic

Background: Autoimmune thyroiditis (AT) is organ-specific autoimmune disease which represents the most frequent autoimmune endocrinopathy. Etiology of AT is multifactorial. In addition to genetic predisposition, external factors such as heavy metals and infectious agents play an important role. We studied immune reactivity to mercury and other heavy metals (present in dental amalgam) in patients with AT. Further, the effect of amalgam removal on the laboratory findings and the health of patients have been evaluated. An infectious agent, Helicobacter pylori (Hp), a gram-negative bacterium causes persistent infection with development serious gastro-duodenal diseases, and may also contribute to autoimmune thyroiditis. We have measured specific cellular immune response to Hp antigens in patients with AT and verified Hp infection. The laboratory testing was performed prior to and after eradication therapy.

Materials and methods: Modified lymphocyte transformation test (LTT-MELISA®) is used for detection of specific immune response. LTT-MELISA® is based on evaluation of memory cells proliferation after incubation with different antigens – heavy metals, bacterial antigens. Lymphocyte proliferation was measured by incorporation of radioactive thymidine and by morphology. ELISA (Enzyme-Linked Immunosorbent Assay) was used for detection of anti-thyroid antibodies in serum, anti-TPO (thyroid peroxidase), anti-Tg (thyreoglobulin).

Results: The incidence of metal allergy diagnosed by the LTT-MELISA® test was significantly higher in the group of patients with autoimmune thyroiditis as compared to healthy volunteers. This allergy is manifested by the higher proliferation activity of lymphocytes after stimulation with metal antigens such as mercury, nickel, tin and silver. After amalgam replacement, reduction of the lymphocyte reactivity to metals as well as the decrease of anti-thyroid antibodies was observed.
In the majority of patients with AT and Hp infection, the cellular response to Hp as well as the non-specific mitogen PWM was often low. After successful eradication the increase of cellular reactivity to Hp as well as PWM was detected.

Conclusion: Environmental factors such as heavy metals and Helicobacter pylori infection can play important role in autoimmune thyroiditis. The LTT-MELISA® test can be used to find out which substances (metals, bacteria) might be important in the development of AT in an individual patient. If metal allergy is found the patient should avoid all exposure to the offending substance. In the case of mercury allergy, the patient should be referred to an experienced dentist. The preliminary reports indicate that Helicobacter pylori can cause immunosuppression which can be abrogated by successful therapy.
Projects were supported by Grant Agency of Ministry of Health of Czech Rep. NJ/6775-3, NK/7722-3, NR/9414-3.

Monika Lindemann, MD, PhD

Date & Place of birth: December 16th, 1967; Aachen, Germany

Academic degrees and professional appointments:

Graduation	1994, University of Essen Medical School, Germany
Doctorate	1990 - 1992, Institute of Immunogenetics, University of Essen Medical School Topic: Molecular analysis of tumor necrosis factor gene loci in humans ("summa cum laude") 1997: "H. Behçet" award 1994 - 1995 Pre-registration house officer (AiP) at the Department of Endocrinology and at the Department of Nephrology, University Hospital Essen
1996 - 2001	Rotations to the Institute of Virology (1996 - 1999) and to the Institute of Medical Microbiology (1999 - 2000), University Hospital Essen, and to the Center of Laboratory Medicine and Microbiology at the Elisabeth Hospital Essen (2000 - 2001)
1996 - 09/2008	Supervisor of the cell culture labs, Institute of Immunology, University Hospital of Essen
2001	Specialist in Laboratory Medicine
2004	Specialist training qualification for Laboratory Medicine
Habilitation 2006	University of Duisburg-Essen Medical School, Topic: Characterization of factors influencing anti-microbial cellular in vitro responses in healthy and immunodeficient subjects
2006	Specialist in Immunogenetics (Fachimmungenetikerin DGI)
Since 2006	Chairman of the training committee of the German Society for Immunogenetics
Since 2007	Specialist in Immunology (Fachimmunologin DGfI)
Since 10/2008	Supervisor of the cell culture, autoantibody & FACS labs, Institute of Transfusion Medicine, University Hospital of Essen

Memberships:

Since 2004	German Society for Immunogenetics (DGI)
Since 2005	German Working Group for Bone Marrow and Peripheral Blood Stem Cell Transplantation (DAG-KBT)
Since 2006	German Society for Immunology (DGfI)

In vitro **tests for metal induced hypersensitivity**

Priv.-Doz. Dr. Monika Lindemann, MD, Institute for Transfusion Medicine, University Hospital Essen, Germany, e-mail: monika.lindemann@uk-essen.de

Background The standard assay for the clinical detection of hypersensitivity reactions against nickel or chromium, the most frequent contact allergens, is the patch test. Furthermore, the *in vitro* lymphocyte transformation test (LTT) which determines metal-specific lymphocyte proliferation can be applied. However, the *in vivo* application of allergens such as nickel sulphate and tri- and hexavalent chromium (chromium chloride and potassium dichromate, respectively) includes the potential of sensitization. Moreover, especially towards chromium compounds false positive reactions could occur due to irritant reactions. In addition, the patch test only indicates sensitization but does not allow the discrimination between patients with and without clinical symptoms of allergy. On the other side, the LTT demands at least six days of cell culture and radioactive labelling procedures. Thereby, it can only be performed by specialized laboratories.

Aim It was the purpose of our studies to define sensitivity and specificity of *in vitro* tests for nickel and chromium allergy and to furthermore validate enzyme-linked immunospot (ELISpot) assays to specifically detect cellular responses against metals. Therefore, anamnestic and clinical data, patch test, LTT, and ELISpot results were correlated.

Methods In 60 volunteers with nickel sensitization, 56 with chromium sensitization, and 45 healthy controls cellular *in vitro* methods to detect metal sensitization were established. Here, various concentrations of the metals, various numbers of responding peripheral blood mononuclear cells (PBMC), and various duration of cell cultures were tested to optimize the conditions. *In vitro* results were correlated with anamnestic and clinical data and with patch test results.

Results Concentrations of 13.1 and 19.7 µg/mL nickel sulphate were found optimal to stimulate in the LTT 2 x 10^5 and in the ELISpot 4 x 10^5 PBMC, respectively (Figure 1 and 2). An increase in ELISpot sensitivity was reached by preincubation with nickel sulfate for 24 h prior to transfer to ELISpot plates. In nickel-allergic probands, an average precursor cell frequency of 19 : 10^5, 1.7 : 10^5, and 0.7 : 10^5 could be defined for interferon (IFN)-γ, interleukin (IL)-2, and IL-4 producing PBMC, respectively. In healthy controls IFN-γ producing cells were detectable, but with significantly lower frequency (2 : 10^5, $P = 0.004$). The prior performance of patch tests had no significant effect on lymphocyte proliferation or cytokine production. Overall, the parameters anamnestic nickel allergy, patch test, LTT, and ELISpot results were positively correlated ($P < 0.05$). Based on the anamnesis and clinical symptoms of nickel allergy, the LTT was positive in 95% (40/42) of allergic volunteers and in 12% (2/17) of healthy controls. Thus, the sensitivity of the LTT was 95% and the specificity 88%. Concerning the nickel ELISpot, the sensitivity was 87% and the specificity 90%.

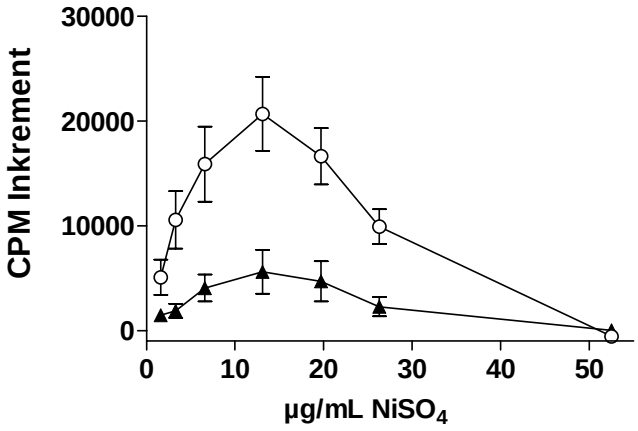

Figure 1: Dose response curves of lymphocyte transformation test (LTT) results in 45 nickel allergic and patch test positive volunteers using different concentrations of nickel sulphate ($NiSO_4$). Open circles represent 2 x 10^5, filled triangles 1 x 10^5 peripheral blood mononuclear cells/culture. Values are given as mean ± standard error of the mean (SEM). CPM Increment, counts per minute of H_3 thymidine uptake (metal-stimulated minus unstimulated cell culture).

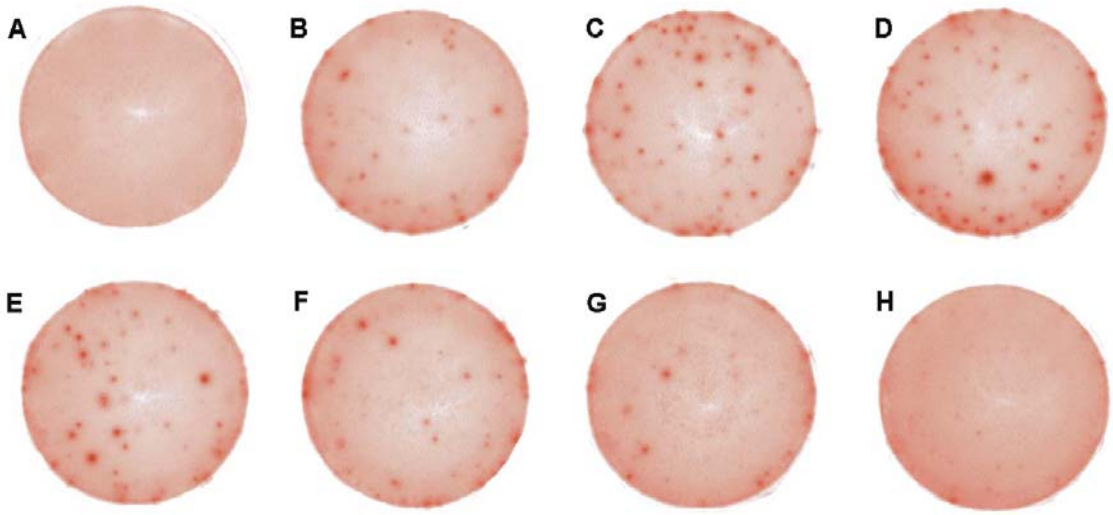

Figure 2: ELISpot results in one nickel allergic and patch test positive volunteer using seven different concentrations of nickel sulphate (A: autologous control, B: 1.6, C: 3.3, D: 6.6, E: 13.1, F: 19.7, G: 26.3, and H: 52.5 µg/mL nickel sulphate).

Chromium-sensitized volunteers with allergy (n = 33) displayed significantly higher LTT responses than sensitized volunteers without allergy (n = 16) and healthy controls (n = 25) (P

< 0.05 and *P* < 0.01, respectively). In sensitized volunteers without allergy and controls the chromium compounds appeared as toxic, i.e., LTT responses were lower after metal stimulation than in unstimulated cultures. 12.5 µg/mL of chromium chloride and 50 ng/mL of potassium dichromate were found optimal to discriminate between sensitized individuals with and without allergy (Figure 3).

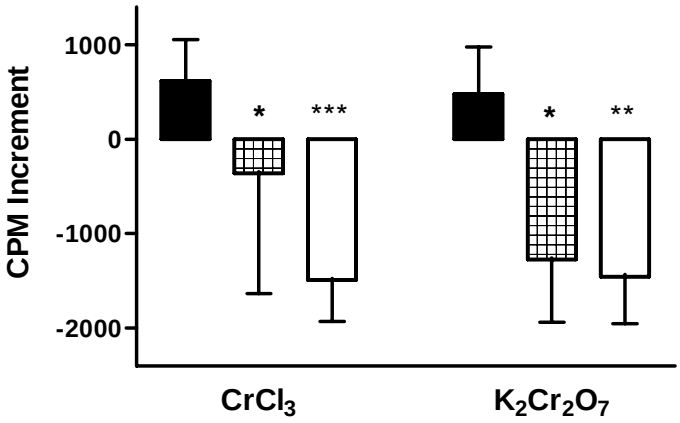

Figure 3: Lymphocyte transformation test (LTT) results in volunteers with sensitization against chromium with allergy (*n* = 33, black bars), with sensitization without allergy (*n* = 16, hatched bars), and non-sensitized healthy controls (*n* = 25, white bars). Chromium chloride ($CrCl_3$) was used at a concentration of 12.5 µg/mL and potassium dichromate ($K_2Cr_2O_7$) of 50 ng/mL in 7 day cultures. Data represent mean and standard error of the mean (SEM). **P* < 0.05, ***P* < 0.01, and ****P* < 0.001 vs. sensitized volunteers with allergy (Mann-Whitney test). CPM Increment, counts per minute of H_3 thymidine uptake (metal-stimulated minus unstimulated cell culture).

Combining results of chromium chloride and potassium dichromate LTT, a positive reaction to at least one of the stimuli was highly predictive of allergy (sensitization with vs. without allergy: Odds ratio (OR) = 6.4, *P* = 0.004; sensitization with allergy vs. controls: OR = 11.5, *P* < 0.0001). On the contrary, IFN-γ, IL-2, IL-4, IL-10, and IL-12 production to the ELISpot, patch test results, sensitization against other metals, and atopy score did not significantly discriminate between sensitization with and without allergy. However, IFN-γ responses towards chromium chloride were significantly correlated with the maximum strength of patch test reactivity (*r* = 0.49, *P* = 0.002). By IFN-γ ELISpot, the average precursor cell frequency reactive to trivalent chromium could be defined as 26, 15, and 11 : 10^6 in volunteers with sensitization and allergy, with sensitization without allergy and controls, respectively. Based on LTT results, chromium allergy could be predicted with a sensitivity of 70% and a specificity of 83%, respectively. However, ELISpot data were only marginally predictive for chromium allergy.

Conclusions The LTT appears as superior compared to the ELISpot for the *in vitro* detection of allergy against nickel and chromium. Especially in chromium allergy - where false positive reactions to the patch test are a frequent problem - the LTT appears as a valuable tool to confirm the diagnosis and to discriminate between sensitized individuals with and without clinically manifest allergy.

References

Lindemann M, Böhmer J, Zabel M, Grosse-Wilde H (2003): ELISpot: a new tool for the detection of nickel sensitization. Clin Exp Allergy 33, 992-998.
Lindemann M, Rietschel F, Zabel M, Grosse-Wilde H (2008): Detection of chromium allergy by cellular in vitro methods. Clin Exp Allergy 38, 1468-1475.
Traidl-Hoffmann C, Ring J (2008): Is there an in vitro test for type IV allergy discriminating between sensitization and allergic disease? This editorial discusses the findings of the paper in this issue by Lindemann et al. Clin Exp Allergy 38, 1412-1415.

Vera Stejskal, PhD

Education and academic degrees:

1961-1966	Biology and chemistry studies at the Charles University in Prague, Czech Republic
1967	RNDr (PhD)
1976	Associate Professor of Immunology University of Stockholm, Sweden

Employment:

1967-1968	Research Scientist, The Institute of Experimental Biology and Genetic in Prague, Czech Republic
1969-1977	Research Scientist, Dept. of Immunology, University of Stockholm, Sweden
1977-2002	Research Adviser and Head of Dept of Immunotoxicology, ASTRA AB, Safety Assessment, Södertälje, Sweden
1996-2002	Affiliation with the Dept of Clinical Chemistry, Danderyd's Hospital and Karolinska Institute, Stockholm, Sweden
2004-	Associate Professor of Immunology at First Medical Faculty at Charles University in Prague, Czech Republic

Memberships:

Swedish Society of Toxicology
Scandinavian Society for Immunology
Swedish Society of Allergology
European Academy of Allergology and Clinical Immunology
Swedish Society of Inventors
Swedish Society of Physicians (Fellow)
European Academy of Environmental Medicine (Board of Directors)
Czech Society for Anti-Aging Medicine (A2M) (Vice President)

Related achievements:

Rescued world's #1 best-selling drug, Prilosec® for Astra by performing a study explaining the mechanisms of side-effects which occurred in one month toxicology study testing omeprazole in dogs. Necrotizing vasculitis, which was observed in omeprazole- treated animals, was caused not by the drug itself but could be traced to the use of de-worming agents. The occurrence of necrotizing vasculitis was dependent on the genotype of the animals since only dogs sharing the same sire were affected. Upon repeating the study with parasite-naive animals, no side-effects were seen. Lymphocyte transformation test MELISA®, was used for the demonstration of presence of immunological memory to worm antigens in conventional animals.

Owner of MELISA® trademark in Europe, US, and other major countries.
Founder and President of MELISA® MEDICA Foundation (1992) www.melisa.org
Recipient of EEC grant on Biotech program "In vitro Immunotoxicology"
Expert Witness on the subject of thimerosal immunotoxicity, Committee on Governmental Reform, Washington, USA, June 2002
Author of more than 100 scientific articles published in peer-reviewed journals and Keynote Speaker on the subject of immunotoxicity of heavy and transitional metals and the link to the development/aggravation of allergy and autoimmunity in man.

Board member of European Academy of Environmental Medicine and scientific member of ESAAM and I-GAP.

Increased frequency of metal allergy in neurologic disorders

Mercury and other heavy metals have been discussed as possible etiological factors in neurologic disorders such as multiple sclerosis (MS), amyotrophic lateral sclerosis and Alzheimer's. The role of the mercury-containing preservative thimerosal (merthiolate) in the etiology of ADHD and autism is also suggested.

Mercury and other metals are affecting health in many ways. Heavy metals induce free radical formation and bind to sulphur groups in enzymes and cell membranes thus upsetting their function and changing their antigenic structure.
Mercury and other metals such as nickel, gold and palladium are also strong sensitizers, giving rise to cellular hypersensitivity (type 4 allergy) and inflammation. Studies of metal allergy in patients with multiple sclerosis and in children with autistic disorders showed the increased frequency of lymphocyte reactivity to nickel as well as to other metals as compared to healthy subjects.

To further examine the possibility that metals might be important factors in neurologic diseases and autism, we studied the reactivity of lymphocytes to metals and brain protein.

The results show that significant number of patients suffering from MS and children with autistic disorders show increased reactivity to metals such as nickel, gold, palladium and mercury. In addition, they often respond to brain protein.

Three patient who replaced their metal fillings with non metallic restorations and who were monitored with MELISA® for several years, showed decreased reactivity to metals as well as to brain proteins in vitro, compared with results prior to dental intervention. All three patients showed long-term improved health which is in accord with previously published findings.

This study emphasises the possible role of metals in the etiology of MS and autistic disorders.

Elizabeth Valentine-Thon, PhD

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Place of birth

11.11.1948 in Worcester, Massachusetts, USA

Education and academic degrees

1971	Anna Maria College, Paxton, Massachusetts Bachelor of Arts (Biology, Chemistry)
1974	Boston University, Heidelberg, Germany Master of Education (Biology, Chemistry)
1976	University of Wisconsin, Madison, Wisconsin, USA Master of Science (Immunobiology)
1985	University of Essen, Essen, Germany Ph.D. (Dr.rer.nat., Biology)

Employment

1968-1971	Mason Research Institute, Worcester
1972-1974	German Cancer Research Center (DKFZ), Heidelberg
1975-1976	Immunobiology Research Center, Madison
1977-1986	Institute of Humangenetics, University Clinic, Essen
1987-1990	Department of Virology, State Hygiene Institute, Bremen, Germany
1990-2002	Head, Department of Molecular Diagnostics, Laboratory Dr Schiwara Bremen
since 2002	Head, Department of Immunology, Laboratory Center Bremen (former Laboratory Dr. Sandkamp & Partner)

Other activities

Instructor of Immunobiology at University of Bremen (1988-1989)
Instructor of Molecular Biology, Virology, and Immunology at School of Medical Technology, Bremen (since 1990)
DAAD grant recipient to teach Summer School for PCR and Immunology, Makerere University, Kampala, Uganda (1994)
Research grant recipient from DFG, Tönjes-Vagt-Stiftung
Translator from German to English: The HLA System, Bender (1991)
Member of: American Society of Microbiology (ASM)
German Association for Environmental Medicine (dbu)
European Academy for Environmental Medicine (Sci. Board) (EUROPAEM)
International Committee of Jackson Laboratory
Carl Schurz German American Club (CSDAC)
Associated Country Women of the World (ACWW)
Supervisor of Masters and PhD students, author of multiple scientific articles, lecturer internationally, listed in Who's Who in the World and Who's Who in Science and Engineering

Use of T-cell Reactivity for Diagnosis of active Lyme: New Developments

Laboratory Center Bremen, Friedrich-Karl-Str. 22, 28205 Bremen, Germany

While a possible Borrelia infection can often be clarified serologically, diagnosis of active Lyme Borreliosis remains a challenge in clinically ambiguous, serologically equivocal, and PCR-negative patients. In 2007 we published a novel approach based on T-cell reactivity in a validated lymphocyte transformation test (LTT-MELISA®) utilizing a panel of well-defined recombinant Borrelia-specific antigens: OspC (*B.afzelii*), p41-internal fragment-1 (*B.garinii*), p41-internal fragment-2 (*B.afzelii*), and p100 (*B.afzelii*) (Diag Microbiol Infect Dis 2007;57:27-34). The test showed high specificity (96.7%), reproducibility (92.6%), and clinical relevance for detecting active Lyme in predominantly European patients: 90.7% of LTT-MELISA® positive patients showed negative or markedly reduced lymphocyte reactivity after antibiotic treatment, correlating with clinical improvement. However, as all 4 antigens were derived from *B.afzelii* or *B.garinii*, the relevance of this format for detecting active Lyme in patients from countries with a low or non-existent prevalence of *B.afzelii* or *B.garinii* (e.g. USA) was unclear.

In a study performed in 2008, therefore, patients with suspicion of active Lyme either from the USA (nearly 100% *B.burgdorferi sensu stricto*), or from Europe (ca. 80% *B.afzelii* and *B.garinii,* 10-15% *sensu stricto*) but with prior residence in the USA and/or with primarily arthritic symptoms (typically caused by *sensu stricto*), were tested in LTT-MELISA® with a panel of 10 antigens: the 4 "standard" recombinant antigens listed above, 4 new recombinant antigens derived from *sensu stricto* (OspC, OspA, p41-internal fragment-3, and p100), a full antigen lysate derived from *sensu stricto*, and a Peptide Mix (16 recombinant peptides of OspA and VlsE derived from all 3 strains).

Results:

1) Among all 98 patients, only 17% responded to antigens derived from *B.afzelii* or *B.garinii* but 68% responded to antigens derived from *sensu stricto.* A few European patients responded to both groups of antigens (cross-reactivity? co-infections?), whereas several European patients responded only to *sensu stricto*-derived antigens.
2) Remarkably, among the 72 USA patients, none responded to antigens derived from *B.afzelii* or *B.garinii*, whereas 60% were positive to antigens derived from *sensu stricto*.

Data from this study now allow us to create "designer panels" for improving the sensitivity of this T-cell assay for detecting active Lyme in both the USA (by using only *sensu stricto*-derived antigens) and Europe (by using antigens derived from all three strains).

Karin Öckert, DDS

Karin Öckert has practised dentistry since 1964. While practising at her dental office she has had a position at the School of Dentistry, University of Gothenburg, Sweden, teaching periodontics and prosthodontics until 1984, when she became a specialist in periodontics.

The last 20 years she has increaingly been devoting her time to patients injured from dental materials and jaw infections. In collaboration with researchers at the Sahlgrenska hospital she has done a study on fibromyalgia patients treated with detoxification and amalgam removal. This concept of treatment was a great success for a majority of patients.

She has written articles about dental intolerance reactions and the danger of root-filled teeth for systemic health. She has also written a book aimed at helping the patients to find the reasons for their symptoms and bad health.

Medical consequences of root-fillings and intolerance to dental materials

Many dental treatments will be the cause of systemic chronic symptoms and diseases. Because of lack of collaboration between dentists and physicians the connection is mainly undiscovered. With some case reports I will show what can happen when dentists implant toxins, allergens and pathological bacteria in teeth.

According to my very long clinical experience the most common reaction to a not tolerated dental material is systemic. Local symptoms are rather rare and patch test is not a reliable diagnostic method. The symptoms vary a great deal between patients but the most frequent are muscle pain, headache, dizziness and fatigue.

The microorganisms that always live in a dead or root filled teeth are not of the kind that we call our friends. The toxins that they produce are sometimes very potent and can be the cause of many chronic conditions, like joint and muscle pain, headache, fatigue, high blood pressure, fever, dizziness, tachycardia and even temporal arthritis.

David Hefferon, BDS
Dip Hom Tox (Hons) AIAOMT

D.o.b 17.03.1966

Educated at St Patrick's Academy Dungannon in N Ireland and later at The Queens University Belfast.

1988	Graduated as a Bachelor of Dental Surgery from Queens University Belfast.
1988-1992	Associate Dental Practitioner in Dungannon N Ireland
1992 -1993	Associate Dental Practitioner Duisburg Germany
1993- 2002	Practice owner of a Private practice in Düsseldorf Germany
2002 to present	Moved to London to set up The Ella Clinic an integrated private Dental practice with a mixture of other practitioners from Cranial osteopaths, nutritionists, Homeopaths, Homotoxicologists, energy therapy, life therapists.
2006	Qualified as a Homotoxicologist
2008	Finalist for the medical futures award- Nitric oxide in the oral cavity.
2009	Qualified as a HYL Energiser practitioner based on five element Qi Gong

Professional Memberships
International Association of Oral Medicine and Toxicology
International Association of Orthodontics
American Association of Craniofacial Pain
British Society of Ecological Medicine
British Society for the Study of Craniomandibular Disorders
British Association of Cosmetic Dentistry
British Dental Association
British orthodontic Society
Royal Society of Medicine
Society of Homotoxicology

Hobbies and Interests
Five Ancestor kung fu, HYL Energiser, Rugby Football, Gaelic Football.

Mercury – MELISA® and detoxification

Allergic reactions to heavy metals are becoming more prominent in today's polluted environment. The toxic effects of metals are well known and reported in the literature but still the dental authorities refuse to acknowledge their toxic effects. However, the allergic reactions to heavy metals cannot be ignored. The Melisa test now provides a scientifically recognised and independently validated test. This makes it an essential tool for the dental practitioner in a patient's treatment plan.

Periodontal disease, Mercury toxicity, Temporomandibular joint problems and jaw bone Osteonecrosis are now being shown to have systemic consequences and not just localised dental effects. I will present a few clinical cases to illustrate the usefulness of the Melisa test in the link between oral and systemic problems.

I will also present a few clinical cases, gathered over the last twenty years, to look at different ways of detoxification and what detoxification means from a homotoxicological viewpoint. Is Chelation therapy and detoxicification the same thing or different aspects of a patient's treatment plan? I will be putting forward the case for practitioners to start treating patients in a more integrated way and working together in a team to aid in a patients detoxification.

Paolo Daniele Pigatto, MD

Place and date of birth:
Milano, Italy, March the10th 1952
Citizenship: Italian

Address:
Department of Technology for Health, IRCCS
Ospedale Galeazzi & University of Milan
Via R Galeazzi 4 – 20166, Milano, Italy

Education
1971 Scientific Diploma at the secondary school
1977 Medical Doctor Graduation at the University of Milano Italy
1980 Specialist in dermatology and venerology at the University of Milano
1983 Specialist in allergology and clinical immunology at the University of Milano

Honors
1977 Medical doctor degree SUMMA CUM LAUDE
1980 Specialist in Dermatology SUMMA CUM LAUDE

Professional Experience
1977 Visiting fellow at the Department of Dermatology of the University of Milano
1982 Assistant at the same Department
1984 Professor sine portfolio at the Speciality School in Dermatology
1991 Senior Assistant at the same Department
1992 Chief Lab in photodermatology
2001 Degree of associate professor at University of Bologna
2006 Associate professor at the University of Milan
He is now the head of the Allergology Unit of the Department of Technology for Health at the University of Milan Italy

Scientific societies
SIDEV from 1978 Società Italiana di Dermatologia e Venereologia
ESDR from 1982 European Society for Dermatological Research
SIAIC from 1986 Società Italiana di Allergologia e Immunologia Clinica
ESCD from 1990 European Society of Contact Dermatitis
EADV from 1994 European Academy of Dermatology and Venereology
EAACI from 1994 European Academy of Allergology and Clinical Immunology
SIDAPA from 2000 Società Italiana di Dermatologia Allergologica Professionale Ambientale

Scientific Journals: Editorial board of
-Bollettino Italiano di Dermatologia Allergologica e Professionale
-Dermotime
-Referee of various Italian and foreign dermatological scientific journals

Research interest:
He has published **356** papers in national (125) and international (151) and other (80) journals getting an high Impact Factor These papers have dealt with the fields of Clinical Dermatology, Immunology, Psoriasis on both clinical and basic aspects Skin Metabolism. Clinical Allergology , Pharmacology and Photobiology and Odontostomatology. In past he has been involved in several clinical trials according to GCP.

Adverse effects of dental metals - from a dermatologist's point of view

Paolo D Pigatto[1], Gianpaolo Guzzi[2]
1. Department of Technology for Health, Dermatological Clinic, IRCCS Galeazzi Hospital, University of Milan, Milan, Italy
2. Italian Association for Metals and Biocompatibility Research – A.I.R.M.E.B., Milan, Italy

Some dermatologic disorders are causally associated with dental amalgams. Mercury based fillings are considered to be the most preferred restorative material in the history of dentistry. However, mercury-containing amalgam tooth filling is not a stable alloy. There is evidence that elemental mercury is emitted from amalgam restorations continuously, therefore it may induce an immunologic sensitization.

Allergy to mercury is responsible for some of the clinical mucocutaneous manifestations of adverse events to amalgam. Others metallic components of amalgam may trigger allergic sensitization, involving skin and oral mucosa. Cutaneous disorders associated with amalgams are: contact dermatitis, systemic contact dermatitis, discoid eczema, nummular lichenoid dermatitis, urticaria and angioedema, cutaneous lichen planus, acrodinia or pink-disease, cheilitis, baboon syndrome, orofacial granulomatosis. Oral pathologies include oral lichen planus, lichenoid contact stomatitis, oral aphtous ulcers, amalgam tattoo, burning mouth syndrome, atypical neuralgia.

The treatment in patients with allergy to dental amalgam mainly consists of total amalgam removal with accurate and safe mercury-based fillings removal.

Much remains to be investigated, but our and others clinical series document the efficacy of mercury amalgam removal in patients with immune or non-immune adverse effects to amalgams.

Jarmila Procházková, MD, PhD

Ass. Professor of Dentistry

Education:

Faculty of Medicine, Charles University, School of Dentistry in Prague 1976-1981
M.D. 1981
Ph.D. 1988
1st degree examination in dentistry 1991
2nd degree examination in dentistry 1998

Employment and research projects:

1981 – 1990	Research fellow in the Institute of Experimental Medicine, Dept. of Clinical Genetics, Prague
1990-	Research fellow in the Institute of Dental Research, Dept. of Immunology, Prague Head of the department of Experimental and Clinical Dentistry in the Institute of Dental Research 1st Medical Faculty and GFH, Charles University 2001 – Assistant Professor on the 1st Medical Faculty, Charles University 2006 -

Leading research work

1993-1995	Genetic and immunological factors in patients with juvenile periodontitis. Grant IGA 1503-3 Final report was appreciated by „A“
1996-1998	Biologically active compounds in dental materials and their negative influence on the human organism. Grant IGA 3472-3
1998-2000	Immunomodulatory effect of bacterial proteins in patients with oral diseases. Grant IGA 5015-3 Final report was appreciated by „A“
2001-2003	Presence of heavy metals in dental materials as a risk factor for autoimmunity. Grant IGA NJ 6775-3. Final report was appreciated by „A“
2003-2005	Galvanic features in the oral cavity. Experimental model and its practical improvement. Study in vitro and in vivo. Grant IGA NK 7722-3. Final report was appreciated by „A“
2005-2007	Metal intolerance as a risk factor in implantology. Grant IGA NR-8324-3.
2006-2007	A study on efficiency of protective dental preparation techniques of amalgam removal. Grant of the Foundation for Metal Biology, Uppsala, Sweden.

Co-worker: Since 1981 14 projects supported by grants. (9 appreciated by „A“)

Publication activity: 119 publications, 37 abroad

Procházková J., Tolarová M.: Craniofacial morphology in parents of children with isolated cleft palate. Acta chir plast 28: 194-203, 1986

Procházková J., Bártová J., Krejsa O., Šmausová R., Dušková J., Mrklas L.: Changes in neutrophil function in patients with early onset periodontitis according to the family occurrence of the disease.Advances in Mucosal Immunology, Part B , Plenum Publishing Corporation, New York, 1995, 1127-1129

Procházková J., Vinšová J.: Craniofacial morphology as a marker of predisposition to isolated cleft palate. J.Craniofac.Genet.Dev.Biol. 1995, 15,162-168.

Procházková J., Bártová J., Bílková A., Kružík P., Krejsa O., Dušková J., Mrklas L.: Expression of the LFA-1• Moleculeon Peripheral Blood Leukocytes of Patients with Early-Onset Periodontitis: Effects of Dental Plaque Microbes. Folia microbiologica, 1996, 41, 441-443.

Procházková J., Bártová J., Ivašková E., Kupková L., Šterzl I., Stejskal V.D.M.: HLA-Association in patients with intolerance to mercury and other metals in dental materials. Disease Markers 16, 135-138,2000
Procházková J., Bártová J., Benetková K., Krátká Z., Kučerová H., Rožcová L.: Nový pohled na etiologické faktory u onemocnění recidivujícími aftami. Prakt.zub.lék. Vol.49, No.5, 2001, 162-174 3rd best research work in 2001, the honour awarded by the Stomatological Society of the Czech Medical Society JEP
Procházková J., Kučerová H., Bártová J., Venclíková Z.: Nežádoucí účinky kovů v dentálních materiálech. Progresdent,Vol.7, No.3,2001,34-36
Prochazkova J., Sterzl I., Kucerova H., Bartova J., Stejskal V.D.M.: The beneficial effect of amalgam replacement on health in patients with autoimmunity. Neuroendocrinol.Lett. Vol.25, No.3, 2004, 211-218.
Prochazkova J., Podzimek S., Tomka M., Kucerova H., Mihaljevic M., Hána K., Miksovsky M., Sterzl I., Vinsova J. Metal alloys in the oral cavity as a cause of oral discomfort in sensitive patients. Neuroendocrinology Lett., vol.27, 2006, Suppl.1, p. 53-58.
Prochazkova J., Podzimek S.,Bartova J., Tomka M., Németh T. Lymphocyte activity stimulated by titanium, nickel and mercury in patients with eliminated dental titanium implants. „MATERIALS FOR SCAFFOLDING OF BIOLOGICALLY ENGINEERED SYSTEMS: INTERFACES AND INTERACTIONS ON A NANOSCALE“. Editors: A. Ravaglioli and A.Krajewski. Editions of ISTEC-CNR, Consiglio Nazionale delle ricerche, 2006, 83-90.

Pedagogic activities:

Pre gradual lectures for students in Preventive Dentistry and Cariology
Papers for post gradual courses of ILF Prague
Procházková J.: Inherited defects of tooth tissues
Introduction to immunegenetics
Genetic aspects in the diagnostics of periodontal diseases
Diagnostic and therapeutic possibilities in patients with metal intolerance
Strategy of dental caries treatment
Phylogenetic and oncogenetic progress of the orofacial region

Society memberships:

Czech Immunologic society
Dental society JEP
Society for Clinical Genetics JEP
Society for Research and Use of Connective Tissues
Society for Mucosal Immunology
European Group for Mucosal Immunology
International Group for MELISA®
The investigation of the genetic factor and its signs from the dental (inherited defects in the orofacial region, of tooth tissues, juvenile periodontitis, problematic of metal dental materials) and immunological (function of immune competent cells, influence of bacterial antigens, influence of metal ions on lymphocyte function) points of view were the main research circuit. The research had ever possibilities of application in practise - prevention and therapy of disorders in the oral cavity and orofacial region.

Metals as a risk factor in implantology

Jarmila Procházková, Milan Tomka, Štěpán Podzimek, Lucie Himmlová, Tibor Nemetu

There exist various reasons for failure of dental implant therapy and the possibility of implant material intolerance is not often discussed. But the choice of optimal implant material is of the same importance for the implant healing process as other factors e.g. the health condition of the patient, the anatomic structure of the bone in the implantation place, bite type, way of chewing etc.

The aim of the study is to specify the influence of concrete metals on the healing process using special clinical and immunological parameters.

By the evaluation of examinations focused on the enlarged exposition to metals in the oral cavity and the lymphocyte reaction to metals in 25 patients with succesfully healed and 32 patients with eliminated implants the influence of higher exposition and altered tolerance to metals as factors that coact on the implant elimination process was confirmed. The removal of untolerated metals from the oral cavity of the patients with eliminated implants lead to the possitive changes in the immune reaction.

The procedure of presurgical patient's care for the placement of dental implants lowering the risk of failure was performed.

On the base of these new findings the preventive procedures against implant elimination are discussed.

The study was suppored by the Grant of the Czech Ministry of Health No. NR 8324-3.

Ralf Lüttmann, DDS

Born 1962 in Bremerhaven
Studies of dentistry in Hamburg
1991 State examination dentistry
1992 doctorate
1992 Training Implantoloy Branemark
1993 established in Eckernfoerde, Germany:
Practice for Metal-Free Dentistry
Dr. Lüttmann & Partner

Specialisation:

1993 Works amalgam-free
1996 Bio-esthetic total metal-free dentistry by providing ceramic crowns and bridge prostheses
1998 Metal-free implantology
Periodontology
Gnathologic reconstructions under cranio-mandibulary control
Laser Dentistry

Memberships:

DGZI, ICCMO
GZM, DGZMK

Why do we need ceramics now?

Metals in the mouth can cause problems within the human body.

Numerous diseases of the nervous systems and other symptoms (like hair loss and memory loss), chronic diseases, such as neuralgia, allergies, chronic sinusitis, headache, back problems, may be due to deposits of metals in the body.

Heavy metals enter the body by nutrition or by dental materials and will slowly accumulate.

Unfortunately, there is no other medical discipline which doesn't care about this heavy metal in our body, although their reaction and interaction in the oral milieu has been tested.

Two different metals can build an electrogalvanic cell.

What is the meaning of dental galvanism?

Production of galvanic current in the oral cavity due to the presence of two or more dissimilar metals in dental restorations that are bathed in saliva, or a single metal restoration and two electrolytes, saliva and pulp tissue fluid, thus producing an electrolytic cell and an electric current. When such restorations touch each other, the current may be high enough to irritate the dental pulp and cause sharp pain. The anodic restoration or areas of a restoration are subject to electrolytic corrosion.

These factors put a strain on the body and among other things it can destroy the healthy.

To provide problems by metals we have to consider which materials for best biological function and compatibility we use for making new restorations by fillings, crowns, bridges and dental implants.

The best known material for dental restorations to avoid all this is Zirconia.

Dr. Ralf Lüttmann
Z-Systems AG, Oensingen, Switzerland

Cecilia Svedman, MD, PhD

Dermatologist, MD PhD, Associate professor in the Department of Occupational and Environmental Dermatology in Malmö, Sweden

Has performed research especially in the field of contact allergy to metals and fragrances.

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Publications

1. Skin suction blister wounds exposed to UV irradiation a burn wound model for use in humans. **Svedman C**, Hammarlund C, Kutlu N, Svedman P.*Burns* 1991; 17: 42-46.
2. Epithelialization and blood flow in suction blister wounds on healthy volunteers. Njalsson, **Svedman C**, Svedman P. *J Invest Surg* 1991; 4: 175-89.
3. Hyperbaric oxygen treatment of healthy volunteers with UV irradiated blister wounds. Hammarlund C, **Svedman C**, Svedman P. *Burns*; 1991: 17; 296-301.
4. The veno-arteriolar reflex in venous leg ulcer patients studied by laser doppler imaging, **Svedman C**, Cherry G, Ryan T. *Acta Derm Venereol* 1998; 78: 258-61.
5. Laser Doppler imaging of skin microcirculation . **Svedman C**, Cherry G, Strigini E, Ryan T. *Acta Derm et Venereol* 1998; 78: 114-118.
6. Ulcus vulvae acutum. A rare diagnosis to keep in mind. **Svedman C**, Holst R, Johnsson A. Eur J Obstet Gynecol Reprod Biol 2004;115:104-105.
7. Delayed healing after CO2 laser resurfacing. **Svedman C**, Agner T, Esmann J. *J Cosmet Laser Ther*. 2003;5:183-184.
8. Traumatic fat necrosis: a case report. Tillman C, Holst R, **Svedman C**. *Acta Derm et Venereol*. 2003: 83: 227-8.
9. Occupational contact dermatitis from a grease. **Svedman C**, Isaksson M, Zimerson E, Bruze M. *Am J of Contact Dermatitis* 2004;15:41-4.
10. Unexpected sensitization routes and general frequency of contact allergies in an elderly stented Swedish population. **Svedman C**, Ekqvist S, Möller H, Björk J, Bruze M . Contact Dermatitis;2007;56:338-343.
11. Occupational airbonre allergic contact dermatitis from methacrylates in a dental nurse. Iskasson M, Zimerson E, **Svedman C**, subm for publication 2007
12. Deodorants: an experimental provocation study with hydroxycitronellal. **Svedman C**, Bruze M, JD Johansen JD, Andersen KE, Goossens A, Frosch P, Lepoittevin JP, Rastogi S, White IR, Menné T, *Contact Dermatitis* 2003:48:217-223.
13. Hydroxyisohexyl 3-cyclohexene carboxaldehyde-known as Lyral: quantitative aspects and risk assessment of an important fragrance allergen. Johansen JD, Frosch PJ, **Svedman C**, Andersen KE, Bruze M, Pirker, Menné T. *Contact Dermatitis*. 2003; 48: 310-316.
14. Fragrance allergy in patients with hand eczema-a clinical study. Heydorn S, Johansen JD, Andersen KE, Bruze M, **Svedman C**, White IR, Basketter DA, Menné T. *Contact Dermatitis*. 2003; 48: 317-323.
15. The fragrance hand immersion study- an experimental model simulating real-life exposure for allergic contact dermatitis of the hands. Heydorn S, Menné T, Andersen KE, Bruze M, **Svedman C**, Basketter DA, Johansen JD. *Contact Dermatitis*, 2003;48:324-330.
16. Citral a fragrance allergen and irritant. Heydorn S, Menné,

T, Andersen KE, Bruze M, **Svedman C**, I White, D Basketter. *Contact Dermatitis*, 2003; 49;32-56.
17. Contact allergy to isoeugenol and its derivates; problems with allergen substitution. Tanaka S, Royds C, Buckley D, Basketter DA; Goossens A, Bruze M, **Svedman C**, Menne T, Johansen JD, White IR, McFadden JP. *Contact Dermatitis* 2004; 51; 288-91.
18. Chloroatranol, an extremely potent allergen hidden in perfumes; a dose response elicitation study. Johansen JD, Andersen KE, **Svedman C**, Bruze M, Bernard G, Gimenez-Arnau E, Rastogi SC, Lepoittevin JP, Menne T. *Contact Dermatitis* 2003; 49:180-184
19. Patch testing with a new fragrance mix- reactivity to the individual constituents and chemical detection in relevant cosmetic products. Frosch P, Rastogi S, Brinkmeier T, Andersen KE, Bruze M, **Svedman C**, Goossens A, White I, Uter W, Gimez Arnau E, Lepoittevin J-P, Duus Johansen J, Menné T. *Contact Dermatitis* 2005; 52:216-225.
20. Patch testing with a new fragrance mix detects additional patients sensitive to perfumes and missed by the current fragrance mix. Frosch P, Pirker C, Rastogi S, Andersen KE Bruze M, **Svedman C**, Goossens A, White I, Uter W, Gimez Arnau E, Lepoittevin J-P, Menné T, Duus Johansen J. *Contact Dermatitis* 2005; 52: 207-215.
21. Selected oxidized fragrance terpenes are common contact allergens. Matura M, Sköld M, Börje A, Andersen KE, Bruze M, Frosch P, Goossens A, Duus Johansen J, **Svedman C**, White I, Karlberg AT. *Contact Dermatitis* 2005;52:320-8.
22. Not only oxidized R-(+)-,but also S-(-)-limonene is a common cause of contact allergy in dermatitis patients in Europe. Matura M, Sköld M, Börje A, Andersen KE, Bruze M, Frosch P, Goossens A, Johansen JD, **Svedman C**, White IR, Karlberg AT. *Contact Dermatitis* 2006,55:274-9.
23. Contact allergy to gold in patients with gold-coated intracoronary stents. **Svedman C**, Tillman C, Gustavsson CG, Möller H, Frennby B, Bruze M. *Contact Dermatitis 2005; 52:192-196.*
Contact allergy to gold in patients with gold-plated intracoronary stents. **Svedman C**, Tillman C, Gustavsson CG, Möller H, Frennby B, Bruze M. Contact Dermatitis 2005. Letter to the Editor.
24. Gold concentration in blood in patients with gold-plated stents. **Svedman C**, Lundh T, Tillman C, Möller H, Gustavsson CG, Bruze M. *Contact Dermatitis* 2006;54:221-2.
25. Lichenoid reactions to gold from dental restorations and exposure to gold through intracoronary implant of a gold-plated stent. **Svedman C**, Dunér K, Kehler M, Möller H, Gruvberger B, Bruze M. *Clin Res Cardiol* 2006 (case report)
26. A correlation found between contact allergy to stent material and restenosis. **Svedman C**, Ekqvist S, Möller H, Kehler M, Björk J, Pripp CM, Gruvberger B, Holmström E, Gustavsson CG, Bruze M. Acc for publication in Contact Dermatitis nov 2008
27. High frequency of contact allergy to gold in patients with endovascular coronary. Ekqvist S, **Svedman C**, Möller H, Kehler M, Pripp CM, Björk J, Gruvberger B, Holmström E, Gustavsson CG, Bruze M. Br J Dermatol 2007;157:730-738.
28. A Correlation found between gold concentration in blood and patch test reactions in patients with coronary stents. Ekqvist S, **Svedman C**, Lundh T, Möller H, Björk J, Bruze M. Contact Dermatitis 2008;59:137-42.

Book chapters

In vivo testing of the protective effect of gloves, C Svedman and Magnus Bruze, In Protective gloves for occupational use, Eds: CRC Press,2004.
Allergic contact dermatitis. C Svedman and Magnus Bruze. In Krieg/Bickers/Miyachi: Therapy of Skin Disease. Springer Verlag, Heidelberg. To be published 2008.

Clinical relevance of gold allergy in patients with gold-plated coronary systems

Cecilia Svedman, MD, PhD, Department of Occupational and Environmental Dermatology, University Hospital Malmö, University of Lund, Sweden

It is becoming increasingly common to use foreign material in our bodies, within ortophedic surgery, in surgery and in cardiology. Surprisingly few cases of problems where contact allergy turns out to be the explanation are reported.

Percutaneous coronary intervention (PCI) and stenting are today almost routinely used to treat patients with cardiac ischemia. This means that the stenotic cardiac vessel is dilated and a stent is put in place to keep the vessel dilated. There is a huge market for different stent materials and new materials are continuously being tried to improve the clinical outcome. Some of the treated patients nevertheless get a new stenosis in the dilated vessel.

In Malmö we have performed a large retrospective study to investigate if there is a correlation between stent material, contact allergy and restenosis. Our material indicate that it is possible to become contact allergic to the stent material used and that at least for gold coated stents there is a correlation between contact allergy to gold, stent material and restenosis.

Claus Muss, DVM, MD

Personal data:
Born in Hamburg, Germany
Nationality German
Practicing in Augsburg/Germany & Vienna Austria
Married with three children

Education:
Primary and secondary school, Indonesia Djarkarta
Graduate of School of Biochemistry and Veterinary Medicine University/ Munich and Berlin/Germany 1984
Internships tropical medicine at the Medical College Pertanian Kula Lumpur/Malaysia
Diploma of Tropical Medicine Institute of Tropical Medicine Hamburg/Germany 1984
Graduate of University Munich/ Germany School of Medicine in 1991

Research activity:
Tropical Institute Hamburg, immunological and parasitological field studies, Ivory Coast, Guinea and Liberia (West Africa). Research activities in the Institute of Toxicology LMU Munich. Various immunological publications in toxicology and immunology. Awarded by the International Society of Immunology Hamburg, Germany in the year 2000.

Publications and scientific work:
Over 50 scientific medical publications in international periodicals such as Biological Trace Elements June, 2000 & NEL. Author of different medical books.
Board of editors different scientific journals
Chief lecturer of Nutritional medicine & Preventive medicine & Environmental medicine at the Institut of Biomedizinische Technology Donau-University Krems/Austria since 2002.
Associate Professor in Public Health
Associate Professor St. Elisabeth College of Public Health and Social Science Bratislava, SK
Affiliations
Head of the European Academy for Nutritional Medicine since 2004
Head of the International scientific Group for applied Prevention in Vienna Austria since 2005 (www.i-gap.org). Nutritional consultant of different European companies.

Impact of environmental burden on the intestinal immune system

We studied the impact of environmental burden from dental amalgam and noble metal restorations on the intestinal immunity. It is hypothesized that at least 80 % of our immune system is related to the integrity of the intestinal mucous membrane. To contribute more evidence to this we investigated in a set of controlled clinical studies

1. The number and statistical correlation of dental amalgam and gold fillings with the corresponding concentration in saliva.
2. The correlation of this saliva burden with the concentration of metals in fece samples (gold and mercury).
3. The immunological effects of patients with heavy metal load in saliva and gut by analysing biomarkers of the intestinal gut flora.
4. Further implications of this metal contact in the gut such as neurological effects and neurotransmitter production in effected patients.

We were able to demonstrate a positive correlation between the number of amalgam fillings with concentrations in the saliva before and after chewing a gum. Daily concentrations of mercury in saliva were significantly correlated with the number of amalgam fillings ($p<0,05$). This also applied to the findings in patients with dental gold restorations. It was shown by these results, that the chewing gum test is valid enough discern metal burden from noble and heavy metal restorations. Our patients were strictly screened for any other source of gold burden. Only patients fulfilling strictly the selection criteria were included in our trial. However in the saliva of our cohort the average amount of gold was found almost in the range of the dosage of medical gold for treatment of rheumatism (auranofin™).

Patients with high mercury or gold load in their saliva also showed high metal burden in their feces. In contrast, the control group without any metal restorations had significantly lower mean gold and mercury levels in their feces ($p<0,05$).

Patients with high gold excretion had a significantly higher concentration of Candida colonies and significantly lower secretory IGA levels ($p<0,05$). It is resumed therefore that a high amount of gold restorations contributes to an immune deficiency in the lower gut area. From previous results we know that even low gold expositions may contribute to autoimmunity and a higher extent of burden may have an immune suppressive effect.

We conclude therefore, that metals which are not resolved in the upper parts of the intestine may excreted through the lower intestine. This natural way of exposition may contribute to inflammation in the lower gut in sensitive patients. A cascade of further reactions also regarded as leaky gut may evolve. Intestinal permeability in turn may increase the risk of food intolerances on account of such immunological reactions.

It is also presumed that such metal burden can contribute to neurological symptoms in patients as a further impact of this metal exposition. In our further studies we were able to detect a number of our patients with inflammatory reactions in the CNS exposed to metals. We hypothesize that metals may either cause direct inflammatory reactions in the myelin associate protein fraction of the CNS. However inflammatory reactions in the gut may also contribute to a lack in neurotransmitter synthesis. Tryptophane hydoxylase 2 activity was

decreased in case of heavy oxidative stress. The reabsorbtion of Serotonin and Melatonin precursor Trypophane precursor depends actually on the hydroxylation enzyme activity.

We therefore finally conclude that patients have to undergo an intense program of immunological diagnosis including LTT-MELISA® for the immune response on metals such as gold and mercury when suffering from food intolerance, chronic fatigue syndrome and depression. According to our results we believe that metal exposed patients tend to develop a metabolic syndrome on this basis of constant irritable inflammation. Results from this study as well as case reports will be presented.

Claus Muss MD,DVM, Dr.Sci. Ph.D.
Assoc. Professor in Public Health

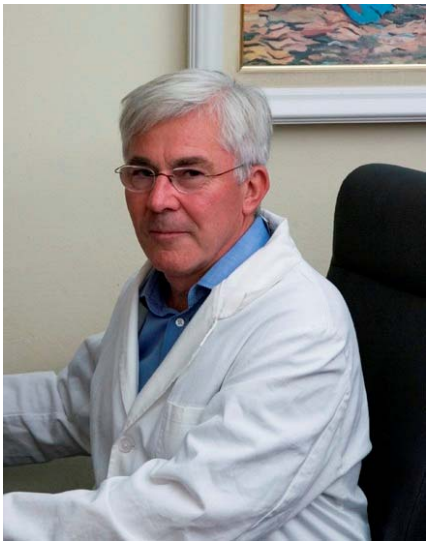
Michael Elstein, MD

Dr Michael Elstein is a physician practising at the Eternal Health Medical Centre in Bondi junction, Sydney, Australia. His areas of specialty include anti-ageing medicine, allergy testing, counselling and psychotherapy, nutritional and dietary therapy, sexual health, and weight-loss.
Dr Michael Elstein is one of Australia's premier Anti-ageing experts. He is the clinical director of the first Anti-ageing programme to be instituted in Sydney, Australia and is a Fellow of the American Academy of Anti-ageing Medicine. He is one of an elite band of physicians in Australia who are board certified with the Academy.
He has appeared on radio and television with regard to matters of health and well-being and is currently a regular features writer for Universal Well-being magazine.
Dr Elstein is the CEO of Neozest a vitamin company, which has released the first of their Anti-ageing formulations entitled Memozeal which is a memory boosting and cognitive enhancing product also utilised to help manage tinnitus.
Anti-ageing medicine is his current passion and he has written and released ETERNAL HEALTH the comprehensive guide to anti-ageing medicine for the new millennium. He has just completed his third book 'YOU HAVE THE POWER. WHY DIDN'T MY DOCTOR TELL ME ABOUT THIS? This book has now been published and offers a complete guide to healthy ageing, boosting energy, enhancing sexual vitality, preventing cancer and effective weight loss to name just a few issues covered extensively.
Dr Elstein has presented talks and seminars to doctors and the lay public around Australia on matters of health and well-being and has been the keynote speaker at a health Expo held in Sydney during late April 2006 as well as the invited Keynote speaker at the SpaAsia conference held in Thailand in August 2006. He also lectures regularly internationally to medical and allied professionals on anti-ageing medicine and is currently a speaker for the Australian Academy of Anti-ageing Medicine lecturing in Australia and throughout Asia.

Gut health, dysbiosis, candidiasis, food reactivity, inflammation and their impact on hormone function, insulin resistance, systemic disease and ageing

Gut health is the foundation for systemic health. Dysbiosis is associated with weight gain, neurological dysfunction and even cardiovascular disease. With ageing dysbioisis is a common phenomenon. Research points to candidiasis being the cause of coeliac disease. Candidiasis has been invoked as the cause of fatigue, anxiety, depression and a host of medical disorders. Dysbiosis and food allergy/intolerance leads to inflammation and inflammation compromises hormone function, especially that of insulin, testosterone, thyroid hormone and cortisol. This presentation will explore the candida hypothesis including the latest research which looks at ways to identify candida overgrowth in the gut and the relationship between candidiasis, coeliac disease and systemic illness. The connection between dysbiosis, obesity, insulin resistance, neurological and cardiovascular health will also be evaluated. Dysbiosis and food allergy/intolerance and the connection between these, inflammation, and hormonal dysfunction will also be examined. Hormone dysfunction, inflammation and insulin resistance often go hand in hand with ageing and together with the accumulation of advanced glycosylation end products as well as free radical stress are seen as the primary cause of ageing. This presentation will explore how gut health and dysbiosis impact these and how the primary causes of ageing can be targeted and prevented to optimise hormone function, prevent inflammation and limit insulin resistance.

Thomas Endler, MD



Medical school in Vienna, Austria

Immunology and laboratory medicine at the University of Vienna, Austria

Research fellow at the Mayo Clinic and University of Pennsylvania

Since 1978 venia leendi at the university of Vienna and chairmen of the institute for laboratory medicine at the Kaiserin Elisabethspital in Vienna.

Nutritional concepts in gastrointestinal inflammation

Dr. A. Thomas Endler, Kaiserin Elisabethspital of the city of Vienna, Austria

Disturbances of the intestinal mucosa have a large impact on the well being of every individual. This includes slight signs of colon irritabile up to skin rushes, myalgies, skin affections, etc. Due to the fact of the main functions of the gut – tolerance for the resorption of food, defence against pathogens and parasites, bacterial symbiosis – it is the largest immunological organ in the human body.

With different diagnostic parameters (calprotectin, lysozym, alpha 1 antitrypsin) the stool and in the blood leaky gut and inflammation can be diagnosed. For the reasons causing inflammation we investigate classical allergy parameters, IgG4 antibodies against food antigens, stool bacterial dysbiosis, gliadin antibodies and carbohydrate intolerances.Main research areas are rheumatoid arthritis, protein chemistry, high resolution two-dimensional electrophoresis, standardisation in laboratory medicine.

Cristina Sales, MD

Cristina Sales, born in 1956, graduated from the School of Medicine in the Classic University of Lisbon in 1982. She specialized in Familiar Medicine in 1996 and has the degree of Consultant of Familiar Medicine. As a Family MD, she integrated the permanent group of the National Health Service from 1986 to 2006 in the ARS of O'Porto. Always interested in promoting the larger therapeutics approaches in preventive and healing medicine, specially directed for chronic and degenerative diseases, she is constantly implementing her formation on multiple medical areas. On 2005, she became an expert on Clinical Metal Toxicology by IBMCT – International Board of Clinical Metal Toxicology. On 2006, Dr.ª Cristina acquired the title of Master in Nutrition by the University of Cadiz, Spain. She attended the course of Climatology and Hydrology in the School of Medicine in the University of O'Porto in 1995. In 2008/09 she is attending the post-graduation course of Anti-Aging Medicine, at the Faculty of Medicine of the University of Seville, Spain. In April 2009 she attended the medical formation on the biomedical approach to autism-spectrum diseases "DAN! – Defeat Autism Now!", in Atlanta, GE, USA.

In her medical office in the O'Porto area, she develops, since 1989 a private practise, a medical work specially vocationed for chronic and degenerative diseases, where she applies her academic classic knowledge and the potentialities of Nutritherapy and also all of the complementary therapeutics with distinction for Acupuncture, Homeopathy and Chelation Therapy. It's been ten years since Dr.ª Cristina Sales created, leads and is Clinical Director in her medical office of a multidisciplinary team of Functional and Integrative Medicine with 20 professionals, which includes the Dental Medicine Mercury Free, Nutritionist, Physiotherapy / Homeopathy, Personal Trainer of Movement Therapy and a nurse nucleus specially formed on Integrative Medicine. In the academic years of 2003/04, 2004/05, 2006/07 and 2007/08, she is a doctor of reference for Orientation of Investigation in Complementary Integrative Medicine in the School of Medicine of the University of Minho, Portugal. In the academic year of 2007/08, she is invited by the Biomedical School of the University of O'Porto (ICBAS) to teach "Complementary Medicine", an optional class of the 6th year of the degree course of Medicine. Here she is responsible for the following themes: "Homeopathy" and "Orthomolecular Medicine". Between 2004 and 2007 she has done more than 20 actions of formation for chemists, all credited by the "Chemists Order" with the following title: "Prevention of the Modern Life and of the Obesity diseases with Nutritional Therapeutics". On February of 2006 she pronounced the closing conference of the XV International Journeys of Atherosclerosis on the Portuguese Hospital of Coimbra University with the title: "Cardiovascular Prevention by less conventional ways". In May 2008 she presented a lecture **"**Metal toxicology - Diagnostic and Therapy – a value added in Anti-Aging Medicine" in the Congress of A4M Iberia, in Estoril, Portugal. She is also a member of Medical Portuguese Society of Acupuncture, an organism that belongs to the Medical Order and in 2004-05 she was the editor of the Official Informative Magazine; of SPCNA – Portuguese Society of Alimentation and Nutrition Sciences; of ACAM – American College for Advancement in Medicine, USA; of IBCMT – International Board of Clinical Metal Toxicology – USA; of the Life Extension Foundation – USA; of IFM - The Institute for Functional Medicine - USA; of ISOM - International Society for Orthomolecular Medicine and of International Academy of Homotoxicology, Germany. Prizes: On 1996, Dr.ª Cristina Sales receives the first place of "Azevedos Prize" - "Medicine Humanization" with the work "Born Well". On 1998, she's the first classified of the contest "Sea Medicines" organized by INFARMED in the context of the commemoration of the International year of the oceans.

Chelation as a treatment for chronic diseases – case reports from my clinic

Intoxication by metals and lymphocyte reactivity to metals – toxic or used in medical devices – is a serious health problem of our societies, not very well known by the medical community, under diagnosed and not treated in the convenient way.
This is an important reason for the evolution and maintenance of chronic inflammatory diseases – auto-immune, allergic or degenerative – which do not respond satisfactorily to the established doctors' medication.
The systematic diagnosis of intoxication by metals or of lymphocyte reactivity to metals and its well established therapy is, according to our clinical experience, an important added-value with very satisfactory results in the treatment of chronic inflammatory diseases of unexplained aetiology.

Jenny Stejskal, MD

Place of Birth: Stockholm
Citizenship: Swedish

Education and Academic Degrees:
1989-1990 High School, Connecticut, USA
1990-1993 International Baccalaureate, Stockholm
1995-2001 Medical School, Linköping Health University

Employment:
1993-1994 ASTRA pharmaceuticals, Toxicology Dept, performing MELISA® assay
2000 Employed as MD at Psychiatric Dept, Danderyd Hospital, Stockholm
2000-2001 Employed as MD at Geriatric Dept, Danderyd Hospital, Stockholm
2001-2003 Internship Danderyd Hospital
2004-2009 Residency in Family Medicine, 5-yr programme
2005 Specialized in Anti-Aging Medicine (Euromedicom's 2 yr programme, exam in Monaco 2005)
2009- Senior physician, Family medicine

Research Affiliations:
Endocrinology Dept, Karolinska Hospital, Stockholm, research on human growth hormone and clinical trials. MELISA® MEDICA foundation, research on the role of heavy metals in the pathogenesis of chronic degenerative diseases.

Publications:
Stejskal J, Stejskal V. The role of metals in autoimmunity and the link to endocrinology. Neuroendocrinology Letters 1999; 20:351-364.
Stejskal V, Hudecek R, Stejskal J, Sterzl I. Diagnosis and treatment of metal-induced side-effects. Neuroendocrinology Letters 2006; 27 (suppl): 7-16.

Introduction to the use of bio-identical hormones

Jenny Stejskal M.D. Sweden

We all want to live long healthy lives, to be able to play tennis in old age, run on the beach and interact with our grandchildren. Up to early middle age, proper nutrition and exercise may suffice to keep us fit and feeling well. For some individuals, the gradual decline of our anabolic hormones may express itself as tiredness, weight gain, insomnia and a lack of vitality. By replacing our declining hormones with exact replicas of our own, in doses that keep them at physiological levels, we may keep our tissues youthful, preserving bone, skin, muscle and brain tissue, keeping us feeling young and energetic with an improved quality of life.

Suggested reading:

Brownstein, D: Overcoming Thyroid Disorders
Hertoghe, T: The Hormone Handbook
Hertoghe, T: The Hormone Solution
Platt, M: The Miracle of Bio-Identical Hormones
Reiss, U: The Natural Superwoman

Websites:

www.drplatt.com
www.hertoghe.eu
www.thewileyprotocol.com rhythmic dosing of estrogen and progesterone
www.euromedicom.com for seminars on anti-aging

Kurt E. Müller, MD

Dr. Kurt E. Müller, MD
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born August 3, 1947

1966 – 1972	Studies of Medicine, University of Cologne and Würzburg
1972 – 1976	Internal Medicine and Oncology
1977 – 1981	Specialization for Dermatology and Venerology
1981 – now	Practicing Dermatology and Venerology
1985 – 1991	Specialization for Environmental Medicine
1992 – now	Lecturer for Environmental Medicine in Germany, Austria and Luxembourg
1996 – now	Member of the board of „Deutscher Berufsverband der Umweltmediziner e.V.“, for ten years president of the organisation
1998 – 2002	Member of the scientific board of „Zeitschrift für Umweltmedizin“
1999 – 2002	Member of the scientific board of „MCS-Study“, Robert Koch-Institut, Berlin
2002 – 2004	Memember of the Commission for Quality Control in Environmental Medicine of german goverment/ Umweltbundesamt
2002 – 2004	Member of the Commission for Immune Diagnostic in Environmental Medicine, Landesgesundheitsamt Stuttgart
2003	Expert at the „National Action Plan Environment and Health“ Belgium.
2003 - now	Chairman of the European Academy for Environmental Medicine (EUROPAEM), actual president of the organisation Member of the Environment & Health Action Plan, Egmond aan Zee, Netherlands Participant of the 4th Ministerial Conference on Environment and Health, Budapest
2004 – 2005	Member of the „Groupe stratégique: formation continue en médicine de l´environement“ der Universität Liège (Lüttich) Member of the Environment & Health Action Plan, Luxembourg Occupational Dermatology

Special fields of scientific work:

Identification of sources of emission of dioxins, furanes and PCB.
Modulation of immune function by xenobiotics.
Interaction of immune, endocrine and nervous system.
Immune toxicology of metals.
Disturbance of membrane function by xenobiotics.
Effects on dopamin receptors by xenobiotics.
Resistance to leptin in hypothalamus caused by xenobiotics.
Food intolerance

More than 50 publications and over 180 lectures.