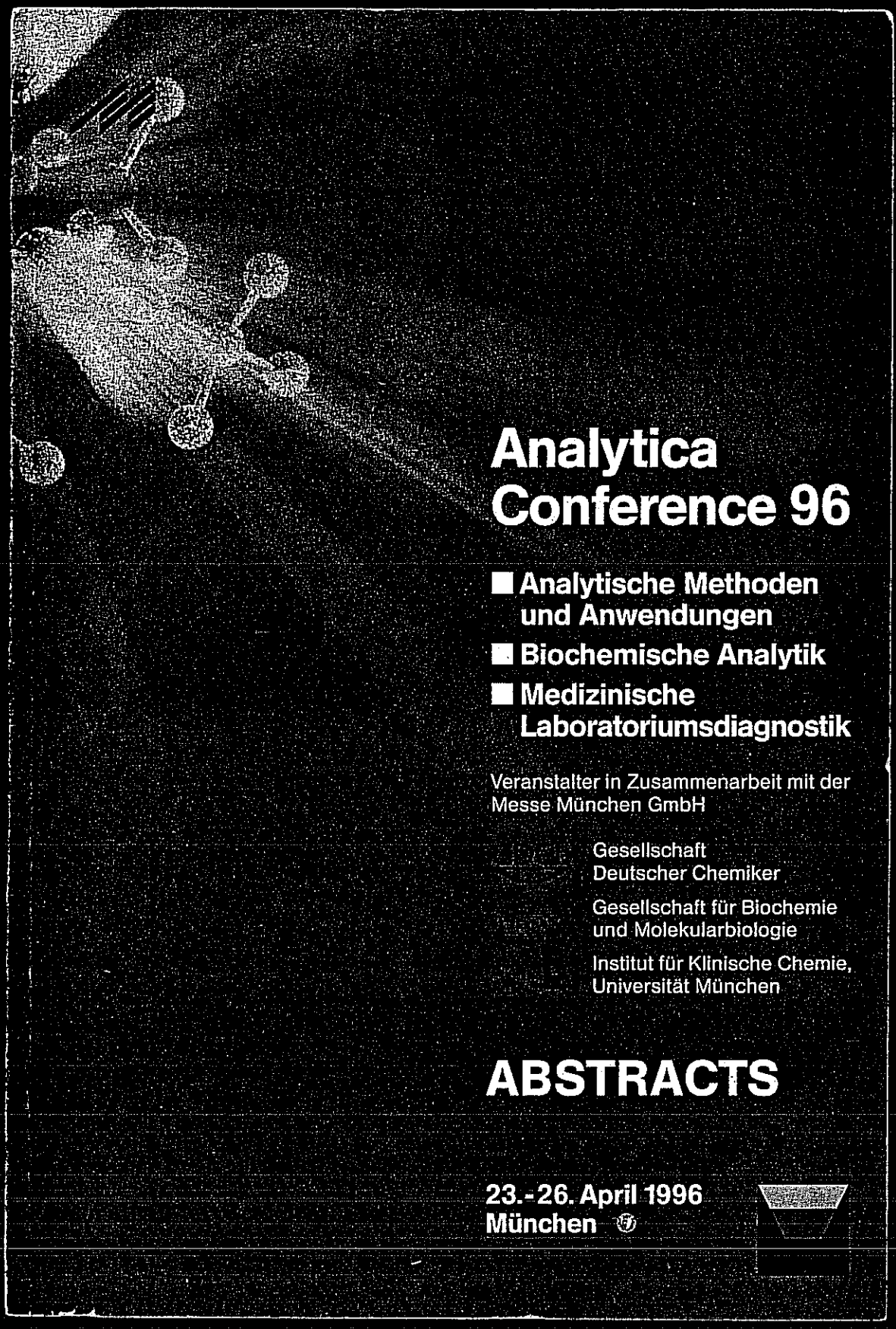


Analytica Conference 96

- Analytische Methoden und Anwendungen
- Biochemische Analytik
- Medizinische Laboratoriumsdiagnostik

Veranstalter in Zusammenarbeit mit der Messe München GmbH

Gesellschaft Deutscher Chemiker

Gesellschaft für Biochemie und Molekularbiologie

Institut für Klinische Chemie, Universität München

ABSTRACTS

23.-26. April 1996
München

P144

R. Kiehl, Furth

IGE-Regulation, Proliferation and Development of Aids: G. Interferon, Interleukins, Reactive Oxygen Species and Total IGE as Monitoring/Response Tools for Therapy

Toxic mercury or reactive oxygen species (ROS) seem to be not responsible for changes in the IgE-levels of atopic eczema (AE) patients but for activation of metalloproteases and associated glucocorticoid sensitive inflammations of the skin. ROS may be obtained by prolonged exposure of skin cells to sunlight and also responsible for development of skin carcinomas. Metalloproteases degrade gIFN. Especially the course of capillary leucocytes collagenase (and gelatinase) activity out of the skin is opposite to gIFN concentrations and in correlation with the lactoferrin activity from the same lesion. Skin Prick-testings and skin Epicutaneous-testings do not match either with the total/specific IgE-measurements. It is concluded, that the adaption of cells to stress conditions includes the gIFN and Il-4 controlled synthesis of IgE antibodies by B-cells. Environmental pollutants, including formic aldehyde, sulfite/SO_2, isocyanates and anhydrides, reacting irreversibly with the involved essential dithiol/disulfide redox state (and a coupled unknown membrane bound factor: possibly a FeS-protein but not glutathione) or CO,by binding to the NADPH oxidase, are shifting the redox state to the reduced form with enhanced probability for IgE synthesis (low for O_2^-) and development of AE or hyper-IgE syndrome. The oxidized form ist not able to synthesize IgE but O_2^- and the risk for mitogen stimulated proliferations, buildup of leukemia, carcinomas and CGD is extremely high. The first expression of, for instance, food- or inhalative allergen specific IgE and the allergical triggering of AE may purely be incidental and relate to autoimmune diseases. The pathogenesis of AE and concomitantly of leukemia relates to the development of AIDS. All factors influencing mitochondrial energy formation, are influencing IgE and O_2^--level. A pharmacological treatment of HIV-infection by nucleotide analogs should take care of this fact.

Literatur: Kiehl, R. (1994) Int Alk-Ciba Corn J Symp, Benzheim, Abstr book; Int Conf on New-Appl of Emerg Mol Diagn for Inf Dis, London, Abstr book, P11 and (1995) Ammino Acids 9 (1), 20; WASOG and BSACI J meeting, London, Proc p.54, P119, BIOspektrum, AV, Hd, in press and J.Mol.Med., submitted.

P145

B. H. Klein, J.W. D

N-Nitro-L-arginin ur

Nabelschnurblut mit

Stickstoffmonox

des L-Arginins

dauer - mit Fur

eine Rolle spie

methylester, si

diese Inhibitore

ob bei normal

unterschiedlich

Die beiden Arg

Ionenaustausch

quantitativ best

Es werden die

einzelner chron

/1/ Kurt Krej

Naunyn-S

/2/ Mohamm

Br. J. Pha

WORLD ASSOCIATION OF SARCOIDOSIS AND OTHER GRANULOMATOUS DISORDERS and BRITISH SOCIETY FOR ALLERGY AND CLINICAL IMMUNOLOGY

JOINT MEETING

15 – 20 October 1995

Kensington Town Hall, London, UK

PROCEEDINGS

TUESDAY 17 OCTOBER 1995 – continued

PARALLEL D – LOWER FOYER

16:00 – 17:00 **CLINICAL ALLERGY POSTER DISCUSSION – continued**

P/117 **A Combined Ventilation System/High Efficiency Vacuum Cleaner Approach to Allergen Avoidance in Homes**
E H Shepherd, J M Frederick, J O Warner and J A Warner
University of Southampton, UK

P/118 **Skin Tests and Allergic Symptoms in the First 2 Years of Life of Babies Born to Atopic Parents**
E A Miles, A C Jones, J A Warner, B M Colwell and J O Warner
University of Southampton, UK

P/119 **IGE-Regulation, Proliferation and Development of AIDS. Total IGE as Monitoring/Response Tool to Therapy**
R Kiehl
Laboratory and Research for Mol Med/Biology, Furth in Wald, Germany

P/120 **Concordance of Specific IGE and SPT Sensitivities to Aeroallergens in Families with Two Generations of Asthma**
A H Thomson, P Standring, J A Warner, A C Jones and J O Warner
University of Southampton, UK

P/121 **A Comparison of a Conventional and High Efficiency Vacuum Cleaner in the Homes of Children with House Dust Mite Sensitive Asthma**
J M Frederick, J Dahil, S Rouhbakhsh, J O Warner and J A Warner
University of Southampton, UK

P/122 **A Clinical Assessment of a Bed Covering System in Atopic Dermatitis (AD) Patients**
J M Frederick, S Bevin, J A Warner and J O Warner
University of Southampton, UK

P/123 **Domestic Allergen Exposure in Infancy in South East England**
O Lynch, J Harris, P Mills, S Moffat, C White, P Cullinan and A J Newman Taylor
National Heart and Lung Institute, London, UK

P/124 **Specific Immunotherapy to Parietaria Pollen – Open Study in Patients Monosensitized, with Bronchial Asthma and/or Rhinitis**
M Morais de Almeida, C Santa Marta, P Leiria Pinto, G Pires, J M Abreu Nogueira and J E Rosado Pinto
Hospital Dona Estefania, Lisbon, Portugal

P/125 **Correlation of Total IgE Determinations Obtained by IRMA (with TECAM 8000) and Immulite**
J M Abreu Nogueira, V Loureiro, M Morais de Almeida and J E Rosado Pinto
Hospital Dona Estefania, Lisbon, Portugal

P/126 **The Effects of Inhaled Budesonide in Asthmatic Patients**
Z Arsovski, D Dokic, M Gavrilovski and T Stefanovski
Medical Faculty Skopje, Republic of Macedonia

P/127 **Specific Intranasal Immunotherapy: Effect on Nasal and Peripheral Eosinophil Counts Eosinophil Cationic Protein and Nasal Provocation Test**
J Rodrigues, J P Moreira da Silva, L Delgado, M Miranda, L Plácido, L Cunha and M Vaz Azevedo
Hospital S Joao, Porto, Portugal

P/128 **Nasal Allergen Challenge in Suspected Allergic Skin Prick Test Negative Patients**
G K Scadding and Y C Darby
Royal National Throat, Nose and Ear Hospital, London, UK

P/117

A COMBINED VENTILATION SYSTEM/HIGH EFFICIENCY VACUUM CLEANER APPROACH TO ALLERGEN AVOIDANCE IN HOMES.

EH Shepherd, JM Frederick, JO Warner, JA Warner

Child Health, University of Southampton, UK. SO16 6YD

It has been shown in cold dry climates that mechanical ventilation systems can lower domestic humidity and reduce house dust mite (HDM) numbers. This study investigated whether domestic ventilation systems in the damp UK climate could reduce humidity and therefore improve clinical symptoms in HDM sensitive asthmatics and whether the addition of a high efficiency vacuum cleaner would augment the effect. Forty families containing HDM sensitive asthmatic subjects were assigned to 4 groups (10 families per group): 1) ventilation system and vacuum cleaner, 2) ventilation system, 3) vacuum cleaner, 4) no intervention. Bedroom temperature and humidity in the homes were logged constantly and daily symptom diary cards were kept by the asthmatic subjects. Dust was collected before intervention and at 1, 2 and 3 months after intervention for analysis of HDM numbers and Der p1 concentrations. Der p1 concentrations in the bedroom carpet correlated significantly with absolute humidity in the bedroom (p=0.04) and a trend was observed for the mattress Der p1 concentration (p=0.08). In groups 1 and 2 who had a ventilation system the absolute humidity was reduced to <7g/kg after 3 months of intervention (November 1994 to February 1995). In group 1 (with both interventions) Der p1 concentration per unit area sampled fell significantly over the 3 month period in living room carpet (p=0.009), sofa (p=0.005) and mattress (p=0.0284). This was not observed in the other groups. There was also a non significant trend for an improvement in asthma symptoms in group 1 only. This trial will continue for 12 months after intervention, however these initial results appear promising with regard to the effectiveness of a combined allergen reduction programme in a normal domestic environment.

ALLERGEN AVOIDANCE ASTHMA HUMIDITY

P/118

SKIN TESTS AND ALLERGIC SYMPTOMS IN THE FIRST 2 YEARS OF LIFE OF BABIES BORN TO ATOPIC PARENTS.

EA Miles, AC Jones, JA Warner, BM Colwell and JO Warner.

Child Health, University of Southampton, UK.

158 high risk babies were enrolled from birth into a prospective study of the development of allergic disease. The infants were clinically assessed yearly for allergic symptoms and were skin tested to common allergens. Of the 132 infants skin tested at 1 year 43% were positive (≥2mm wheal) to one or more allergens. This fell to 35% of the 133 tested at 2 years of age. At 1 year the most frequent positive skin test was cat (32 cases) followed by egg (24), house dust mite [HDM] (16), milk (10) and grass (8). The HDM was the most frequent positive skin test at 2 years (21) followed by cat (15). There was a significant relationship between HDM exposure in the home (living room) at 1 month and the development of a positive skin test to HDM at 1 and 2 years of age (p=0.0005 and p=0.01). There was also a positive relationship between exposure to cat in the first month of life and positive skin tests to cat at 2 years (p=0.0009). Clinically, 30% of the infants showed symptoms of wheeze and 26% had eczema by 1 year of age. At 2 years 39% presented with wheeze and 40% with eczema. Eczema or wheeze at 2 years of age was associated with a positive skin test to milk at 1 year (p=0.03 for both). Eczema at 2 years was also significantly associated with a positive skin test at 2 years to cat (p=0.02) and egg (p=0.02) but not milk. Positive skin tests at 1 year were much more frequent than previously suggested and may be transient. A positive skin test to milk at 1 year predicts atopic disease at 2 years. This suggests that atopy initiates allergic disease but many other factors may contribute to its persistence.

SKIN TEST ALLERGIC DISEASE PREDICTION

P/119

IGE-REGULATION, PROLIFERATION AND DEVELOPMENT OF AIDS.
A1 TOTAL IGE AS MONITORING/RESPONSE TOOL TO THERAPY

R Riehl

Laboratory and research for Mol Med/Biology, Furth im Wald, Germany

The most important direct modulating factors for synthesis of IgE in culture systems proved to be γ-IFN and Il-4. However, this fact could not be confirmed in vivo on atopic eczema patients. We decided therefore to investigate IgE-regulation directly on the blood samples of these patients. The patients involved were well characterized and avoided any steroid or antihistaminic treatment for at least one month before admission. - The assays to "in vivo" IgE-regulation were carried out the following way: patients at the beginning of their hospitalization gave their consent to participate on the study. Venous heparinized blood was taken at 9 a.m. and immediately processed. Samples of 1 ml were incubated (under shaking) at 37°C for the desired reaction time, the reactions were stopped by centrifugation and the resulting supernatant was taken for detection of total IgE. A possible influence of the used compounds/drugs on the assay system itself was not found. This has been checked on appropriate controls (standardized IgE-samples). At least 2 identical experiments were done pro blood sample by a minimum of two different patients and all measurements were performed in duplicate. The standard deviation was 2 to 5 % in all the measurements. - Recombinant γ-IFN and Il-4 were gifts from Bender (Vienna, Austria) respectively IC-Chemicals (Ismaning, FRG). - Only the assay with fresh blood samples at 37°C results in significant and reproducable differences. The best IgE-range for the experiments proved to be between 1000 and 2000 U/ml. The differences at low IgE-values are to small and at high IgE-values the variances are to big. - We tested the time dependence + protease activators and inhibitors (Hg^{2+}, EDTA, APMSF), Triton X-100, cycloheximide, NEM and Dianide; γ-IFN (+ Hg^{2+} or Zn^{2+}), Il-4; red. and ox. glutathione. We looked at the effects of collagenase and gelatinase on γ-IFN and we took the cytochrome spectra of lysed blood samples. - Our assay system is able to be used for detection of almost every blood parameter. This fact is most important for research on AIDS-patients. Pharmacologists were able to do "in vivo" experiments without the use of experimental animals. The result obtained with this new developed "in vivo assay" system will be presented. - Riehl R (1994) 11. Vortragstag. der Fachgr. Biochemie, GDCh; Abstr. P 2.6; Analytica Conference, Abstr. p. 195-196; Biol. Chem.H.-S. 375, S.61; BIOTEC 94; Int.Alk-Ciba Corning Joint Symp., FEG and (1995) Int.Conf. on New Appl of Emerg.Mol.Diagn. for Inf.Dis., Cambridge, Healthtech Inst. UK. - Abstr. B)

IGE IMMUNOSUPPRESSION- INTERLEUKIN-4

P/120

CONCORDANCE OF SPECIFIC IGE AND SPT SENSITIVITIES TO AEROALLERGENS IN FAMILIES WITH TWO GENERATIONS OF ASTHMA.

AH Thomson, P Standring, JA Warner, AC Jones, JO Warner

Child Health, University of Southampton, UK. SO16 6YD

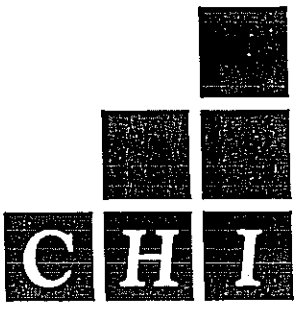
The production of immunoglobulin E (IgE) is associated with the development of atopic disease. There is a genetic influence on total IgE levels, and skin test reactivity shows significant familial concordance. This study examined the familial concordance of elevated specific IgE levels and positive skin prick tests to specific allergens. The study group of 21 families was taken from 158 in a Southampton General Hospital cohort of families at high risk of developing atopy. Selection was on the basis of having at least one member with asthma in each of the first two generations, and one member in the third generation with wheeze. In this group, presence of atopic disease was assessed by a previously validated questionnaire. 274 subjects completed the questionnaire, of whom 100 had asthma, 125 had other atopic disease and 111 were non atopic. Specific IgE levels to house dust mite (HDM), cat dander, dog dander, grass pollen, tree pollen and mixed moulds were measured using the Magic Lite SQ Specific IgE assay. Specific IgE was measured in 147 subjects. Skin prick sensitivity was also examined in 163 using the same allergens. Results showed that there was a significant familial tendency to develop raised specific IgE to HDM (p=0.0271). None of the other allergens demonstrated this relationship. There was no significant concordance for the skin prick test data using a 2mm diameter weal as positive, but at a diameter of 4mm, HDM sensitivity demonstrated significant familial concordance (p=0.0077). Therefore, in this population, there was significant familial concordance in the development of a raised IgE to HDM, and in skin sensitivity to HDM with a positive weal measured at 4mm diameter. This suggests that of these tested specific IgE to HDM is the most likely to be under genetic control and warrants further investigation.

ASTHMA SPECIFIC IGE CONCORDANCE

NEW APPLICATIONS of EMERGING MOLECULAR DIAGNOSTICS for INFECTIOUS DISEASES

June 26-27, 1995
The Regent Hotel
London, England

Please Return to : Reinhold Kiehl



Organized and sponsored by:
Cambridge Healthtech Institute
1000 Winter Street, Suite 3700
Waltham, MA 02154
tel: 617-487-7989
fax: 617-487-7937
World Wide Web: http://id.wing.net/~chi/homepg.html
E-mail: chi@world.std.com

Institute of Physico-Chemical Medicine, Ministry of Health

8. M. Yu. Brodsky: Detection and Identification of Chlamydia Trachomatis, Mycoplasma Hominis and Ureaplasma Urealiticum by Amplification of rDNA (no absract available at time of print)

Institut Pasteur, Unité d'Immunologie Microbienne

9. Jihong Meng: Interest of PCR for the Diagnosis of Hepatitis E

International Institute of Anthropology

10. G. Lucotte: Detection and Genotyping of Herpes Simplex Virus Types 1 and 2 by Polymerase Chain Reaction

Laboratory and Research for Molecular Medicine/Biology

11. R. Kiehl: IGE-Regulation, Proliferation and Development of AIDS

London School of Hygiene & Tropical Medicine, Department of Clinical Sciences

12. R. McNerney: Using Simple Colorimetric Detection for PCR of Tuberculosis

London School of Hygiene and Tropical Medicine, Department of Medical Parasitology

13. I. S. Adagu: Rapid Detection of Chloroquine Resistance in *Plasmodium Falciparum* Using Whole Blood Sample Blotted on Glass Fibre Membrane

14. Aura Aguirre: Diagnosis of Amoebiasis by Polymerase Chain Reaction-Solution Hybridization Enzyme Linked Immuno-Assay (PCR-SHELA)

Medbioservice Company

15. G. Panasenko: Combination Antisense Approach with Oligonucleotide-Directed DNA Triple Helix Formation

16. G. Panasenko: Identification of HTLV-I by PCR in Patients with Preliminary ELISA-Screening and Investigation These Genomes and Serum

Municipal Health Service of Amsterdam, Department of Public Health

17. G.J.J. Van Doornum: Detection of *Chlamydia Trachomatis* by a Ligase Chain Reaction Based Assay in Samples Collected from Various Sites in STD-Clinic Patients

IGE-REGULATION, PROLIFERATION AND DEVELOPMENT OF AIDS

R. Kiehl
Laboratory and research for Mol. Medicine/Biology,
93437 Furth, Germany

An "in vivo" test system on blood of atopic eczema patients has been developed which leads to following regulatory scheme for IgE-synthesis, proliferation and developement of AIDS: A dithiol/disulfide interchange mechanism is involved in IgE-synthesis. The associated redox state is sensitive to Hg^{2+}, Diamide, γ- IFN and Il-4. Il-4 reacts antagonistically to γ-IFN in blood samples and cell cultures, although to opposite directions. Elements involved in the signal transduction pathway from γ- IFN or Il-4 to IgE were concluded to be the cytokine receptors, (a) cytosolic G protein (s), NADPH oxidase, a yet unknown electron transfer factor (etf), redox factor (ref), nuclear transcription factors and endonuclease. These elements are presumed to build up an electron transfer chain, NADPH to DNA (IgE), which is coupled to ongoing mitochondrial energy formation. The involved reduced ref, stimulating DNA-binding, carries an essential sulfhydryl group, whereas the oxidized state, responsible for catalytic endonuclease activity, carries a catalytic disulfide: γ-IFN transduces redox signals during short time intervals (blood samples) whereas during longer intervals (e.g. cell cultures) the involved oxidized redox factor determines translational activities. The involvement of Mg^{2+}-or Ca^{2+}-sensitive serine residues in the signal transduction to IgE synthesis is suggested by APMSF/EDTA-titrations. An important role in modulating IgE concentrations play kinases, esp. protein kinase C. Toxic mercury or reactive oxygen species seem to be not responsibel for the changes in patients IgE-levels but for activation of metallo proteases and associated glucocorticoid sensitive inflammations. Metallo proteases degrade γ-IFN. Especially the course of leucocytes collagenase acitvity is opposite to γ-IFN concentration. The adaption of cells to stress conditions includes the γ-IFN and Il-4 controlled synthesis of IgE antibodies. Environmental pollutants, including formic aldehyde, sulfite/SO_2, isocyanates and anhydrides, reacting irreversibly with the involved essential dithiol/ disulfide redox state or CO, by binding to the NADPH oxidase, are shifting the redox state to the reduced form with enhanced probability for IgE synthesis (low for O_2-). The oxidized form is not able to synthesize IgE but O_2- and the risk for mitogen stimulated proliferations is extremely high. In addition, weakening of the immune system by dermal and intestinal dysbiosis (C. albicans), food (carbohydrate) as well as psychogenic stress (norepinephrine) leads in enhanced development of IgE antibodies. The total (unspecific plus specific) IgE concentrations were normally 10^2 to 10^3 times higher than the measured specific ones. The first expression of, for instance, food- or inhalative allergen specific IgE may then purely be incidental and relate to autoimmune diseases. The pathogenesis of atopic eczema and of leukemia (proliferation) relates to development of AIDS.

Our system is able to be used for detection of almost every blood parameter. This fact is most important for research on AIDS-patients. Pharmacologists were able to do "in vivo" experiments without the use of experimental animals.

References:
Kiehl, R (1994) 13.Vortragstagung der Fachgruppe Biochemie in der GDCh, Abstr.P 2.6; Analytica Conference, Abstr. p.195-196; Biol. Chem.H.-S.375,S.61; BIOTEC 94 and Int. Alk-Ciba Corning Joint Symp.

GDCh

Gesellschaft Deutscher Chemiker

Fachgruppe Biochemie

13. Vortragstagung

Molekulare Mechanismen der Signaltransduktion

Institut für Biochemie
im Fachbereich Chemie der
Technischen Hochschule
Darmstadt

Darmstadt
16. - 18. März 1994

Postersitzung II: **Zelluläre Physiologie**

Leitung: Prof. Dr. P. Friedl

Raum: Hörsaal A

Termin: Donnerstag, 16.00 - 17.30 h

P-II-1

GGT - KATALYSIERTE ENTGIFTUNGSPROZESSE IN DER BLUT - HIRN - SCHRANKE DES SCHWEINES

Aigner, A., Frey, A., Wolf, S. und Gassen, H. G.

P-II-2

PEKTINABBAUENDE ENZYME AUS FILAMENTÖSEN PILZEN UND IHRE BEDEUTUNG ALS PATHOGENITÄTSFAKTOREN AM BEISPIEL VON *MYCOSPHAERELLA PINODES* DSM 62763

Pierre Helm und Edeltraud Ruttkowski

P-II-3

SEQUENZIELLE UND STRUKTURELLE CHARAKTERISIERUNG VON SEHPIGMENTEN VERSCHIEDENER INSEKTEN UND IHRE PHYLOGENETISCHE ZUORDNUNG

Wolfgang Gärtner

P-II-4

EXPRESSION VON PHYTOCHROM-PROTEINFRAGMENTEN IN *E. COLI* UND REKONSTITUTION ZU CHROMOPROTEINEN DURCH EINBAU VON PHYCOCYANOBILIN

Wolfgang Gärtner, Christiane Hill, Silvia E. Braslavsky and Kurt Schaffner

P-II-5

GLUTAMAT AKTIVIERT DIE PHOSPHOLIPASE D IM HIPPOKAMPUS

T. Holler, J. Klein und K. Löffelholz

P-II-6

IGE-REGULATION BY DITHIOL/ DISULFIDE INTERCHANGE: IN "VIVO" STUDY ON BLOOD OF ATOPIC ECZEMA PATIENTS SUPERIOR TO CELL CULTURE SYSTEMS

R. Kiehl

P-II-7

SUITABILITY OF DIFFERENT TYPES OF MICROCARRIERS FOR MASS CULTIVATION OF HUMAN VASCULAR ENDOTHELIAL CELLS

Gangolf Schilmpf and Peter Friedl

P-II-8

PROTEIN DESIGN *IN MACHINA*
KÜNSTLICHE NEURONALE NETZE UND SIMULIERTE MOLEKULARE EVOLUTION

Paul Wrede, Gisbert Schneider, Felix Pahl, Tilman Todt und Sylvia Röhlk

ZUSAMMENFASSUNG

Thema:
(in Großbuchstaben)

IGE-REGULATION BY DITHIOL/ DISULFIDE INTERCHANGE: IN "VIVO" STUDY ON BLOOD OF ATOPIC ECZEMA PATIENTS SUPERIOR TO CELL CULTURE SYSTEMS

Autor(en):
(Vortragende unterstreichen)

R. Kiehl

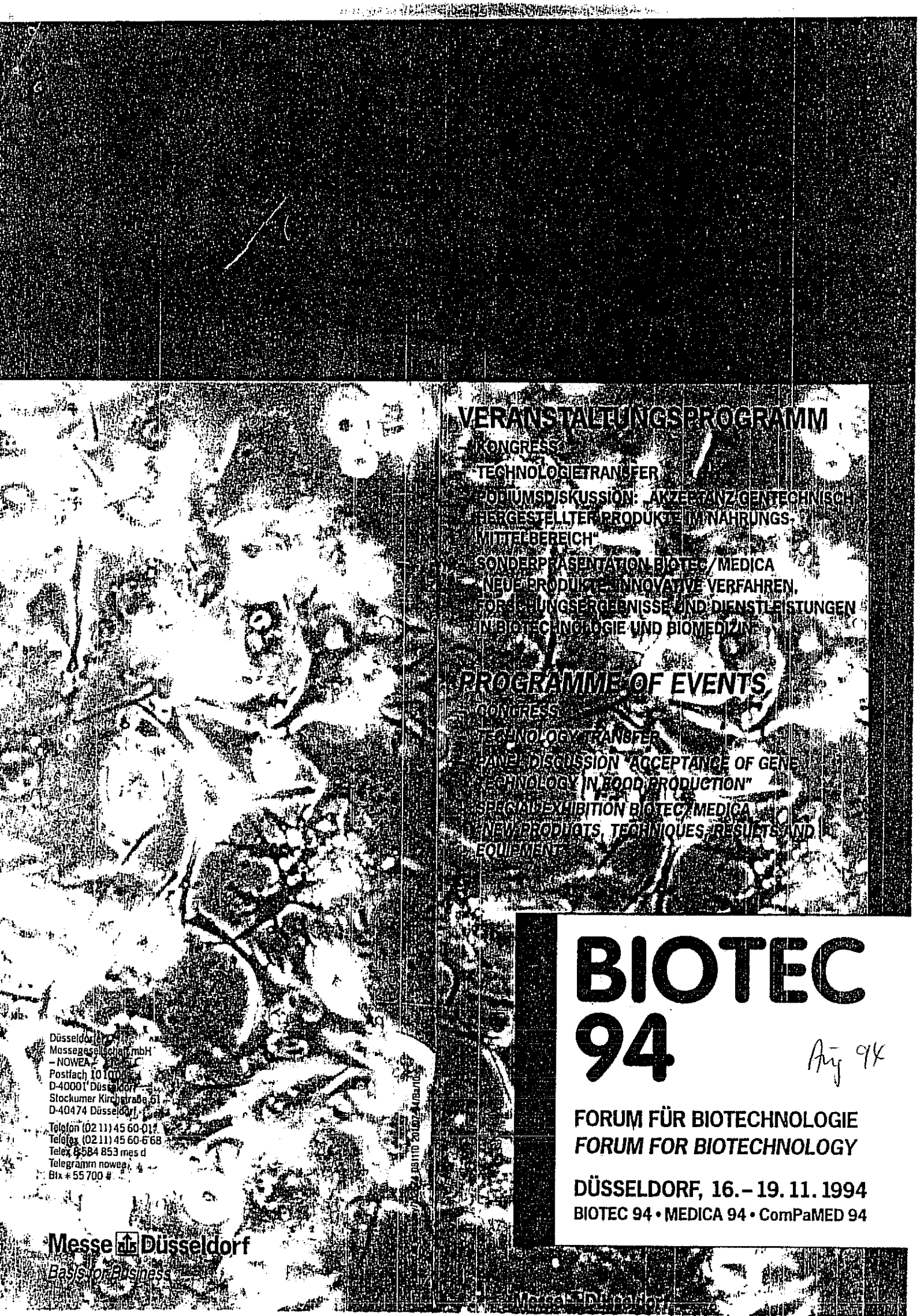
Institut bzw. Firma und Ort:

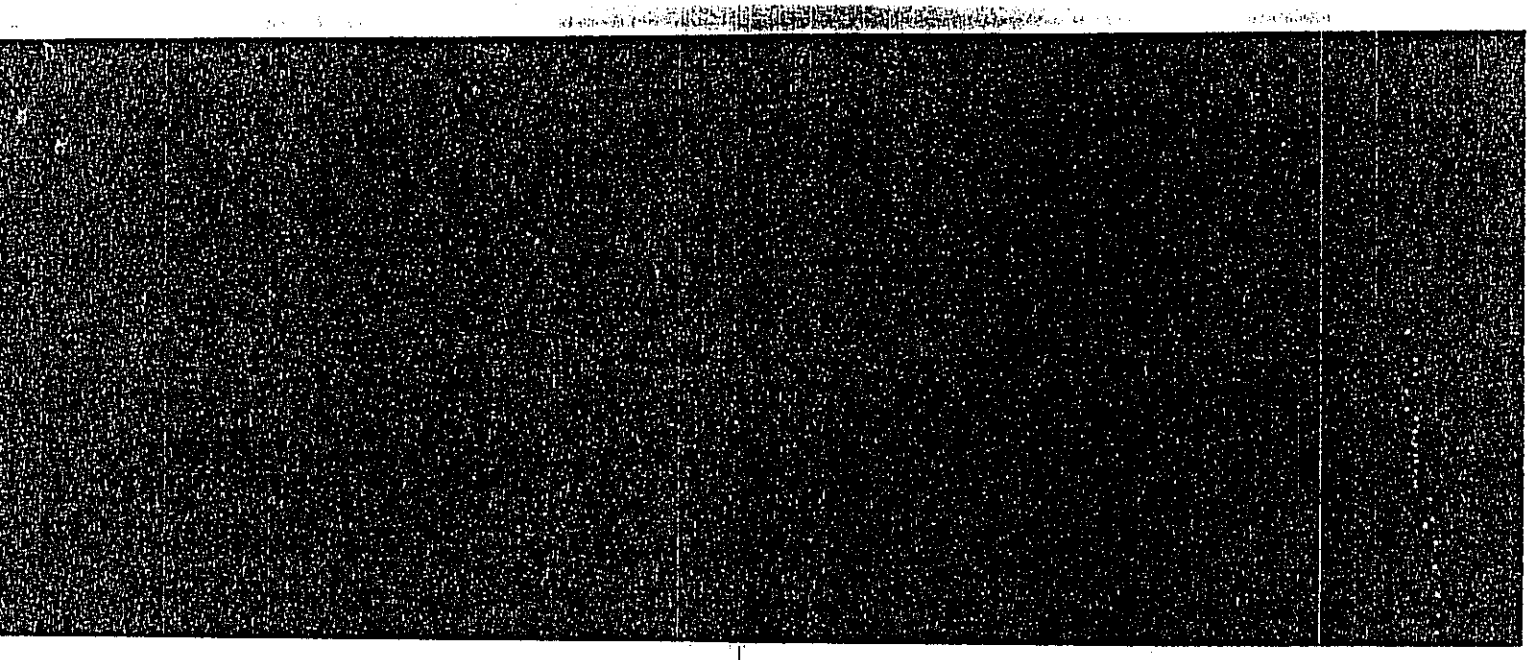
Research Department, Spezialklinik Neukirchen, 93453 Neukirchen, FRG

Zusammenfassung

A dithiol/ disulfide interchange mechanism is involved in IgE-synthesis. The associated redox state is sensitive to Hg^{2+}, Diamide, γ-IFN and Il-4. Il-4 reacts antagonistically to γ-IFN in blood samples and cell cultures, although to opposite directions. Elements involved in the signal transduction pathway from γ-IFN or Il-4 to IgE are their receptors, (a) cytosolic G protein(s), NADPH oxidase, a yet unknown electron transfer factor (etf), redox factor (ref), nuclear transcription factors and endonuclease. This electron transfer chain, NADPH to IgE, is coupled to ongoing mitochondrial energy formation. The involved reduced ref, stimulating DNA-binding, carries an essential sulfhydryl group, whereas the oxidized state, responsible for catalytic endonuclease activity, carries a catalytic disulfide: in analogy to the mitochondrial transport and ATP synthesis, where activated disulfides were performing phosphoryl transfer or transport activities. The involvement of Mg^{2+}- or Ca^{2+}-sensitive serine residues in the signal transduction to IgE synthesis is suggested by APMSF/ EDTA-titrations. An important role in modulating IgE concentrations play kinases, esp. protein kinase C. Toxic mercury or reactive oxygen species seem to be not responsible for the changes in patients IgE-levels but for activation of metallo proteases and associated glucocorticoid sensitive inflammations. Metallo proteases degrade γ-IFN. Especially the course of leucocytes collagenase activity is opposite to γ-IFN concentration. Environmental pollutants, including formic aldehyde, sulfite/SO_2, isocyanates and anhydrides, reacting irreversibly with the involved essential dithiol/disulfide redox state or CO, by binding to the NADPH oxidase, are shifting the redox state to the reduced form with enhanced probability for IgE synthesis. In addition, weakening of the immune system by dermal and intestinal dysbiosis (C.albicans), food (carbohydrate) as well as psychogenic stress (norepinephrine) leads in enhanced development of IgE antibodies. The first expression of, for instance, food- or inhalative allergen specific IgE may purely be incidental and relate to autoimmune diseases. The described pathogenese of atopic eczema should be compared with development of cancer or AIDS.

Institut für Biochemie der Technischen Hochschule,
Petersenstr. 22, 64287 Darmstadt,
Tel. 06151 - 163657 - Fax 06151 - 165399 u. 166768


VERANSTALTUNGSPROGRAMM
KONGRESS
TECHNOLOGIETRANSFER
PODIUMSDISKUSSION: AKZEPTANZ GENTECHNISCH HERGESTELLTER PRODUKTE IM NAHRUNGSMITTELBEREICH"
SONDERPRÄSENTATION BIOTEC/MEDICA
NEUE PRODUKTE, INNOVATIVE VERFAHREN, FORSCHUNGSERGEBNISSE UND DIENSTLEISTUNGEN IN BIOTECHNOLOGIE UND BIOMEDIZIN
PROGRAMME OF EVENTS
CONGRESS
TECHNOLOGY TRANSFER
PANEL DISCUSSION "ACCEPTANCE OF GENE TECHNOLOGY IN FOOD PRODUCTION"
SPECIAL EXHIBITION BIOTEC/MEDICA
NEW PRODUCTS, TECHNIQUES, RESULTS AND EQUIPMENT
BIOTEC 94
FORUM FÜR BIOTECHNOLOGIE
FORUM FOR BIOTECHNOLOGY
DÜSSELDORF, 16.–19.11.1994
BIOTEC 94 • MEDICA 94 • ComPaMED 94
Messe Düsseldorf GmbH
– NOWEA –
Postfach 10 10 06
D-40001 Düsseldorf
Stockumer Kirchstraße 61
D-40474 Düsseldorf
Telefon (02 11) 45 60-01
Telefax (02 11) 45 60-668
Telex 8 584 853 mes d
Telegramm nowea
Btx * 55 700 #
Messe Düsseldorf
Basis for Business



Programm-Nr. **402** Messe-Kongress-Center Ost (MKC Ost)

Donnerstag, 17.11.1994

Thema der Vorträge und Poster: **Anwendung neuer diagnostischer Methoden in Forschung und Praxis**

In den vergangenen 10 Jahren hat die Entwicklung diagnostischer Verfahren zum Nachweis von Krankheiten, besonders aber von Infektionskrankheiten, einen großen Fortschritt zu verzeichnen. Diese Entwicklung hat viele wissenschaftliche Teilbereiche erfaßt und stützt sich vor allem auf den schnellen technischen Fortschritt in der Computertechnologie, die zu einer eminenten Verbesserung von Instrumenten und Geräten geführt hat und die heute geprägt wird durch die Verfügbarkeit einer hochspezialisierten Software.

Gegenwärtig beobachtet man daher, daß die mit menschlicher Arbeit stets verbundenen Unzulänglichkeiten bei der Durchführung diagnostischer oder analytischer Aufgaben mehr und mehr durch den Einsatz eines höchst "intelligenten Equipments" kompensiert und damit von Geräten übernommen wird, die Genauigkeit und hohe Effektivität auszeichnet.

Parallel dazu hat die kontinuierliche Entwicklung in der molekularen Biologie und Genetik zur Verfügbarkeit innovativer Methoden und Techniken geführt, die sowohl den Bereich der Forschung, wie den der Routineapplikation revolutionieren. In diesem Zusammenhang werden auf der BIOTEC'94 aktuelle Themen vorgestellt, die sich mit den derzeitigen Problemen des Nachweises von Krankheitserregern oder innovativen analytischen Techniken befassen, für die es bisher noch keine praktische Anwendung gibt. Die Beiträge werden einerseits den Einsatz der PCR-Technik auf verschiedenen Gebieten vorstellen und sich ferner mit neueren Entwicklungen auf dem Gebiet der Fourier Transform Infrarot Spektroskopie und ihrem zukünftigen Trend befassen.

Tagungsleiter: Prof. Dr. F. J. Fehrenbach, Berlin,
Prof. Dr. U. Hadding, Düsseldorf
in Zusammenarbeit mit der Deutschen Gesellschaft für Hygiene und Mikrobiologie, Abt. für diagnostische Methoden

Vorträge

9.00 - 12.50 Uhr P.D. Dr. D. Naumann, Berlin
Infrarot Spektroskopie und Infrarot Mikroskopie - neue diagnostische Möglichkeiten für die mikrobiologische Analyse

Dr. H. Fabian, Winnipeg (Kanada)
Anwendung der Fourier Transform Infrarot Spektroskopie in der Neurobiologie und Krebsforschung

Dr. E. Schreier, Berlin
Diagnostik und Epidemiologie der Hepatitis C

Dr. A. Rolfs, Rostock
Bedeutung der PCR für die Welt des Mikrobiologen

Dr. P. Lens, Tiemhout (Belgien)
Qualitativer und quantitativer Nachweis von HIV-RNA durch NASBA

Dr. R. Wallich, Heidelberg
Identifizierung von Borrelia burgdorferi mittels PCR

Dr. E. Böttger, Hannover
PCR-Diagnostik von Mykobakterien

12.50 - 13.50 Uhr "Round-table"-Diskussion

14.00 - 17.00 Uhr Posterpräsentationen

14.00 - 18.00 Uhr Technologieforum
Forschungs- und Entwicklungsstandort Deutschland
(Programm-Nr. 406)

Kurzkurse
Moderatorin: Dr. Martina Bielefeld, Düsseldorf

14.30 - 17.30 Uhr **Neue Verfahren in der molekularen Diagnostik**

Dr. C. Wolff, Bad Oeynhausen
Multiplex PCR-Assay - ein Ansatz für transfusionsrelevante Viren und Plasmodium falciparum

Dr. Rolf Kaiser, Bonn
HIV, über molekularbiologische Forschung zur Diagnostik

Dr. Barbara Dockhorn Dvorniczak, Münster
Molekularpathologie - Ergänzung zu klinischen Pathologie. Neue Perspektiven?

Dr. Hans-Joachim Grundmann, Freiburg
Neue Methoden zur Bakterientypisierung

Dr. Anke Hinney, Düsseldorf
Molekulargenetische Methoden zur Knochenmarks-Fremdspenderauswahl. Heute schon Routine?

Dr. Harald Funke, Münster
Sequencing of candidate genes

Prof. Dr. med. F. J. Fehrenbach
Leiter der Abteilung für Mikrobiologie
Robert Koch-Institut

Nordufer 20
D-13353 Berlin
Tel.: (030) 4547-2250
Fax: (030) 4547-2608

Herrn
Dr. R. **K i e h l**
Spezialklinik Neukirchen
Krankenhausstraße 9

93453 Neukirchen b. Hl. Blut

Ihre Zeichen und Nachricht vom	Gesch.-Z.: Bitte bei Antwort angeben	Telefon: (030) 4547-	Berlin
- 23.08.1994	Fe/S.	2250/2466	23.08.1994

Sehr geehrter Herr Kollege Kiehl,

hiermit bestätigen wir Ihnen, daß Ihr Poster "In vivo study in blood ..... and cell cultures" zur Präsentation am

Donnerstag, dem **17.11.1994**

(und nicht wie telefonisch fälschlicherweise mitgeteilt am Samstag, dem 19.11.94) in der Zeit zwischen **14.00 und 17.00 Uhr** vorgesehen ist.

Mit den besten kollegialen Grüßen und Empfehlungen

Prof. F. J. Fehrenbach

IN "VIVO" STUDY ON BLOOD OF HUMANS RELIABLE FOR PHARMACOLOGISTS AND OTHER APPLICANTS: SPARE OF ANIMALS AND CELL CULTURES

Reinhold Kiehl

Research Department, Spezialklinik Neukirchen, 93453 Neukirchen, FRG

The "in vivo" assay system we used to explore the IgE regulation in atopic eczema patients proved to be very powerful. IgE regulation is supported by a dithiol/disulfide interchange mechanism. The associated dithiol/ disulfide redox state is sensitive to Hg^{2+}, Diamide, γ-IFN and Il-4. Il-4 reacts antagonistically to γ-IFN in blood samples and in cell cultures, although to opposite directions. γ-IFN transduces redox signals during short time intervals (blood samples) whereas during longer intervals (e.g. cell cultures) the involved oxidized redox factor determines translational activities. The developed system is able to be used for detection of almost every blood parameter. The system is fast and to compare with "life" conditions, by this way cell culture systems with artificial "in vitro" conditions are to spare. This fact is most important for research on AIDS-patients. Pharmacologists were able to do "in vivo" experiments without the use of experimental animals.

R. Kiehl (1994) 13. Vortragstagung Fachgruppe Biochemie GDCh, 03/16th to 18th, Darmstadt, Abstract P 2.6; Analytica Conference, 04/19th to 21st, München, Abstract-book p.195 - 196; J. of Immunology, subm. and Meeting of the Gesellschaft für Biologische Chemie, 09/19th to 21st, Würzburg.

SUPPLEMENT

Number 12
Volume 47
1992

Abstracts
XVth Congress of the
European Academy of
Allergology and
Clinical Immunology
Paris, France, 10-15 May 1992

Editor:
Jean Bousquet

Munksgaard, Copenhagen

ALLERGY
EUROPEAN JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY

Contents

	Page
Monday May 11	1
Tuesday May 12	127
Thursday May 14	212
Abstract author index	327
Satellite-Symposium	339
Satellite-Symposium author index	354

This special supplement of *Allergy* contains abstracts of the scientific papers to be presented at the 1992 Triennal Congress of the European Academy of Allergology and Clinical Immunology. The abstracts are classified by topic and appear from Monday May 11 through Thursday May 14 and are identified as:

FC: Free Communication
PS : Poster Session Discussion
PP : Poster Presentation

To assist in planning a personal schedule at the congress, the time and place of each presentation is also provided.

THE ALLERGY INFORMATION SYSTEM: A COMPUTER-BASED EDUCATIONAL PROGRAM FOR ALLERGISTS AND GENERAL PRACTITIONER.

K.-Ch. Bergmann (1), L. Kolsi (2), H. Müsken (1), I. Termer (2), B.R. Tigges (2)
(1) Allergy and Asthma Clinic, Bad Lippspringe
(2) Physis Software GmbH, Lünen, FRG

The Allergy Information System (AIS) is an educational software with teaching and practical informations for allergists and general practitioners.

IBM-PC or compatible hardware using MS-DOS (version 3.0) and a minimum of 400 KB free RAM may be used. A microsoft-compatible mouse and a VGA color monitor are recommended for easier use of the 7 MB-program. The menu-supported AIS-software can be used without any pre-existing knowledge of computers.

The program gives informations (text, pictures) on 4 main topics: Basic knowledge of the allergic reactions: regulation of IgE synthesis, cells and mediators, allergens, immediate and late reactions, characterization of allergic diseases. Allergy diagnosis: anamnesis, skin and provocation tests, in vitro-tests. Therapeutic management: allergen avoidence, medicaments, immunotherapy, rehabilitation. Useful informations for the allergic patient: addresses of patient-self organisations, pollen information service and allergy-specific advices which may be printed as personalized letters. The development of AIS was sponsored by UCB Chemie GmbH.

AUTOGENIC TRAINING AND NOREPINEPHRINE LEVELS IN ATOPIC ECZEMA, ALLERGIC ASTHMA AND PSORIASIS.

G. Ionescu, R. Kiehl, J. Müller-Steinwachs
Research Department, Spezialklinik Neukirchen, 8497 Neukirchen, FRG.

Free plasma norepinephrine (NE) levels were measured by means of a standardized HPLC method (Waters, FRG) in 41 adult patients with severe atopic eczema (401±164 pg/ml), in 12 adult patients with allergic asthma (577±208 pg/ml), in 50 adult patients with psoriasis (305±95) and in 18 healthy volunteers (174±56). The circulating NE-levels were significantly higher in the disease subsets ($p<0.005$), by contrast only slight differences were found in the epinephrine and dopamine concentrations. Neither elevated dopamine-ß-hydroxylase activity nor decreased catechol-O-methyl-transferase- and phenylethanolamine-methyltransferase activities were found in patients plasma. We previously concluded that MAO activities are also not responsible for the abnormal NE-levels. However, we cannot rule out the possibility that the elevated transmitter may be released from and/or taken up by the sympathicus via a disturbed regulatory mechanism. Psychogenic stress, biogenic amines, food additives or other environmental agents are possible triggering factors. Autogenic training (AT) prescribed to relieve psychogenic stress significantly lowers NE-concentrations in relaxing patients (194±33 vs 424±114, $p<0.001$). However, in contrast to controls, the NE-circulating levels in patients are rising back towards initial values 1/2 hr after AT suggesting an uncontrolled release from the sympathicus. It is concluded that repeated autogenic training positively influences the disturbed sympathetic activity and the abnormal distribution of α- and ß-receptors (Acta Dermatovener Suppl. 92: 19-21, 1980).

A COMPLEX MATRIX FOR THE DIAGNOSIS, THERAPY, AND PATIENT MONITORING IN FOOD ALLERGIES AND INTOLERANCES

NEKAM, Kristof Natl.Inst.of Rheumatology, Dept.Autoimmune Diseases H-1525 Budapest 114, POB 54. Hungary

The increasing number of patients with diseases finally diagnosed as food allergy/intolerance, the expanding variety of additives in every-day foods, and therefore, the multipling number of data make imperative the use of computers in this field of allergy, too. In the presentation we introduce one possible version of a complex "questionnaire" including questions for: A/family and patient history, B/clinical symptomes and changes in their activities of the often involved organs, C/dietary effects, and D/therapeutic procedures and patient information. The structure of the matrix is built up with special care of recent observations like the OAS, or possible links between pollinosis+food allergy, or portprandial immunecomplexemia. While constructing the matrix based on observations made on about 100 patients in this field, the baroque complexity was preferred to simplicity, for the sake of full scale data - acquisition.

QUALITY OF LIFE (QoL) AND NON-SPECIFIC BRONCHIAL RESPONSIVENESS IN ADULT ASTHMATICS.

G Cocco; F D'Agostino; M Schiano; A Mattiello. Div. of Pneumology and Allergological Center - "A. Cardarelli" Hospital - Naples - Italy.

In this study a 72-items scale for assessing QoL in adult asthmatics ("Living with Asthma · Questionnaire") has been administered to 35 consecutive subjects (14 males; 16 - 61 years old, mean age 31 yrs; 17 skin positive to one or more allergens) referred by GP because of possible asthma. The questionnaire covers 11 domains of life experience, and has been previously validated. During the routine asthma assessment, a methacholine bronchial challenge (BPT) has been administered to the same subjects. The results of the two tests have been statistically compared. All applied statistical tests have been inconclusive for any correlation between QoL score (both as total score and as single domains score) and BPT results. Therefore bronchial hyper-responsiveness, a pathophysiological condition related to the development of asthma, cannot measure patients' perceived health. An assessment of QoL score will be needed in addition to laboratory tests in evaluating the results of trials on asthma management.

SUPPLEMENT

Number 12
Volume 47
1992

Abstracts XVth Congress of the European Academy of Allergology and Clinical Immunology Paris, France, 10-15 May 1992

Editor:
Jean Bousquet

Munksgaard, Copenhagen

EUROPEAN JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY

ALLERGY

EOSINOPHILES AS A CRITERION OF CRAB ALLERGY

N.S.Dubnyak

Medical Institute, Vladivostok,USSR

Different clinical manifestations of allergy were observed in crab-processing workers: dermatitis, bronchitis with asthmatoid component, laringitis (combined form). Total procentage of patients with allergy working on floatating base is 40%.

Diagnosis of crab allergy was varified according to the clinical picture and laborotory results: patients blood was investigated in specific with crab allergen and nonspecific tests.

A marked eosinophilia was observed in patients with crab allergen. Procentage of eosinophiles in patients with allergic bronchths was 15+ 2 %, allergic dermatitis -7,1± 0,9 %, laringitis - 8+± 1,6%.

A FAST WAY TO SEPARATE WHITE BLOOD CELLS FOR DETECTION OF CELLULAR COMPONENTS

R. Kiehl and G. Ionescu,
Research Department, Spezialklinik Neukirchen,
8497 Neukirchen, FRG.

The mostly used Percoll or Ficoll leucocyte separation techniques need special laboratory equipment, are not easy to handle and do not supply the actual concentrations of cellular components. We therefore decided to look for an easier alternative way to separate blood leukocytes. We tested 2 different approaches: 1) Separation by erythrocyte lysis and 2) Separation by natural sedimentation. 1: Starting with 2 ml fresh EDTA-blood, lysis for 1 min with 5 ml Immunoprep A (formic acid, 1.2 ml/l and stabilizing agent) from Coulter, FRG, 3 min spin at 1600 rpm/min, 3x washing with PBS-buffer (KP_i, 0.01 M, NaCl, 0.15 M, pH 7.2), resuspension and cell counting, Trypan blue vitality test and cAMP determination (RIA with Triton extract). As result emerge 13-24 pmol cAMP/10^7 cells, a value similar to that obtained on skin cells (Brit. J. of Derm. 101: 413-419, 1979). The vitality test on these cells is not reliable because of the membran glycocalix impairment by formic acid treatment. 2: Starting with 7 ml fresh EDTA-blood, 3 1/2 hrs sedimentation at 20°C, supernatant spin 3 min at 1600 rpm/min, supernatant removed, pellet washed once with PBS, resuspended in 0.5 ml PBS, cell counting, vitality test and cAMP determination. As result emerge 6-9 pmol cAMP/10^7 cells, a value too low as compared with the above data. The vitality test shows 98 to 99% intact cells. The conclusion: The first method is fast (15 min) and supplies reliable concentrations of actual cellular components like cAMP, cytokines, prostaglandines, etc. .

UNIVERSITY OF NAPLES-1stMEDICAL SCHOOL-INSTITUTE OF RESPIRATORY DISEASES-DIR.PROF.E.CATENA
(*)LAB. RIA HOSP. MONALDI NAPLES
G.MAZZARELLA, A.CAMMARATA,E.GRELLA,(*)S.ZOFRA
A.BIANCO,C.CALABRESE,G.LICCARDO.

CORRELATION BETWEEN IMMUNE CELLS AND INFLAMMATORY MEDIATORS IN BAL OF PATIENTS WITH ASTHMA.

It is know that the pathogenesis of asthma is due to the production of inflammatory mediators secreted, at least in part, by immune cells present in the bal. Aim of our study is to correlate the number and the type of immunological cells with the amount of inflammatory molecules in the respiratory fluids.
The results show that the levels of inflammatory mediators (TxB2;PGF1α ; LTB4 etc.) in BAL of patients with asthma were significantly higher ($p = <0.05$) than those in BAL from healthy subjects. This increase could be correlated with a migratory of activates macrophages, as observed for neutrophils and eosinophils.

UNIVERSITY OF NAPLES - 1st MEDICAL SCHOOL - INSTITUTE OF RESPIRATORY DISEASES - Dir.Prof.E.CATENA -

GRELLA E.;CAMMARATA A.;BIANCO A.;LICCARDO G.; MAZZARELLA G.

Increased generation of inflammatory mediators and cells in BAL and in peripheral blood in patients with asthma : protective effects of nedocromil sodium.

Some evidence suggests that bronchial hyperreactivity, a main feature of asthma,is caused by airway inflammation - Bronchial inflammatory cells,and the mediators they release,play a central role in the pathophysiology of asthma.We evaluated the level in the BAL and in the blood of more important mediators and cells before and after treatment with nedocromil sodium.
The results showed a decrease of level of ECP TxB_2,PGF1α ,LTB_4 ($p<0,01$) in the BAL related to decrease of IGE and eosinophyls in the peripheral blood after treatment.

Schweizerische Medizinische Wochenschrift

Supplementum 40/II

European Academy of Allergology and Clinical Immunology

Annual meeting, Zurich, May 26–29, 1991
in collaboration with the
Swiss Society for Allergology and Immunology

Europäische Akademie für Allergologie und klinische Immunologie

Jahresversammlung, Zürich, 26.–29. Mai 1991
in Zusammenarbeit mit der
Schweizerischen Gesellschaft für Allergologie und Immunologie

Académie Européenne d'Allergologie et d'Immunologie Clinique

Assemblée annuelle, Zurich, du 26 au 29 mai 1991
en collaboration avec la
Société Suisse d'Allergologie et d'Immunologie

EAACI

Zürich 1991

Abstracts / Abstraits

Ed./Hrsg./Ed.: B. Wüthrich, Zurich

1991

Schwabe & Co. AG · Verlag · Basel

P2 213

Brizzi, F. Pavesi, A. Nume, L. Antonucci, Crespa

liclinico San Matteo, Pavia, Italy

OPIC DERMATITIS: UTILITY OF ALLERGOLOGICAL IVESTIGATION.

tients with atopic dermatitis according to nifin and Rajka criteria and no other associed allergic disease have been investigated a routine protocol which includes prick st, RAST, exclusion diet and exposition test the food allergens with the aim to identicate the allergens responsible of the cutaneis disease. Test performed were negative in % of the affected patients. Our data agree th the literature. However, tests are often pensive and of limited utility, as for RAST, ich is reported to about 30% false negatis. Other reactions, such as delayed reactions th involvement of other classes of immunobulins (IgG4) or of basophils and linphotes as in cell-mediated (Type IV) reactivir, are involved in atopic dermatitis. We think at the actual diagnostic approach is of very mited use and that a new one, better investiting the etiology of atopic dermatitis, ould be discussed.

P2 214

G. Ionescu and R.Kiehl
Spezialklinik Neukirchen, 8497 Neukirchen, FRG.

SYMPATHETIC ACTIVITY AND IMMUNE RESPONSE IN ATOPIC ECZEMA

Intact noradrenergic innervation in lymphoid tissue is necessary for normal primary antibody and cell-mediated (delayed hypersensitivity and cytotoxic T-cell) immune response in vivo. This implies that physiological norepinephrine (NE) release and availability may be obligatory for normal T-cell (and possibly B-cell) function. Total IgE and specific IgE in serum, B-cells, CD4- and CD8-T-cells, the CD4/CD8 ratio and natural killer (NK-) cells in peripheral blood as well as NE-levels in EDTA-plasma have been investigated in 31 atopic eczema (AE-) patients (aged 16-53 years) using standard enzyme immuno assays (Pharmacia, FRG, Pasteur, FRG), nephelometric assay (Atlantic Antibodies, USA), flow cytometry (Coulter, FRG) and HPLC (Waters, FRG), respectively. Total IgE varied from 120 to 8100 U/ml and in 92% of the cases specific IgE antibodies were found. CD4-and CD8-T-cells showed no unique pattern, however CD4/CD8 ratio in 33% of the patients exceeded 2.1 - the upper value of the normal range. B-cell counts in 30 of 31 patients were in the normal range. On the other side NK-cell numbers in the atopic group were significantly lowered, when compared to controls (220±80 vs 82±57, $p<0.001$). Our earlier report on elevated NE-levels in severe AE could be confirmed in 69% of the present patients (371±169 vs 174±56, $p<0.01$), but we could not find a direct relationship between the NE-levels and most of the immunological values described above. However, 72% of the atopic subjects with lowered NK-cells showed significantly elevated NE-concentrations. Autogenic training significantly lowers the NE-concentrations in AE-patients (194±33 vs 424±114, $p<0.001$) but the circulating levels are rising back towards initial counts within 1/2 hr after this therapy.

P2 215

.Verri[1], M.Mosca[2], S.Ubezio[2], M.Gatti[2], .Zeccara[2], A.Di Silverio[2].

Neurological Institute-"C.Mondino"
Department of Dermatology-University of Pavia-IRCCS Policlinic S.Matteo

TOPIC DERMATITIS:PSYCHOLOGICAL, IMMUNOOGICAL AND NEUROPHYSIOLOGICAL HARACTERISTICS.

0 patients(20 females,10 males,mean ge 24 years,range 15-40 years) were tudied. All patients were affected y atopic dermatitis of medium-high eriousness and were subjected to llergological investigation by Prick ests and RAST for food,inhalants and ollens. 75% of patients showed a athological personality picture, with eurotic area alterations and contact ifficulty in interpersonal relations; urthermore we noticed an increase of rait anxiety and poor and/or not very tructured self-image.
le correlated psychological picture personality profile,affective state, self-image) to disease seriousness and lenght and IgE specific presence.

P2 216

M.Mosca, S.Ubezio, G.Albani-Rocchetti, M.Vignini, C.Zeccara, A.Di Silverio.

Department of Dermatology-University of Pavia IRCCS Policlinic S.Matteo-Pavia-Italy.

IS INFANTILE SEBORRHEIC DERMATITIS A MARKER OF ATOPY?

179 patients affected by Infantile Seborrheic Dermatitis (ISD) were re-examined after 5-15 years in order to evaluate the evolution towards recovery,atopy or psoriasis.
The patients were classified in four groups clinically: patients suffering from craddle, from craddle and flexural eczema, from diaper dermatitis and from napkin psoriasis.
By means of questionnaire, dermatological examination and allergological investigation, we were able to subdivide the initial popula=tion into three groups:
1) recovered patients (65.4%);
2) atopic symptomatic patients (25.1%: 14.5% affected by atopic dermatitis, 20.7% by respiratory atopy);
3) psoriasic patients (4.5%).
These data suggest that an high percentage of patients diagnosed as having ISD develops an atopic form.

Table 1 Immunological values of atopic eczema patients and controls related to norepinephrine levels

	Controls (n=30)	Atopic eczema (n=31)		
total IgE	60 ± 40	4120 ± 4000	U/ml	(hs)
specific IgE	negative	positive		(hs)
gammaglobulins	1.3 ± 0.5	0.87 ± 0.56	mg/dl	(NS)
B-cells	305 ± 125	320 ± 138	cells/µl	(NS)
CD4-helper-cells	995 ± 295	1229 ± 908	cells/µl	(NS)
CD8-cytotoxic-cells	600 ± 230	649 ± 500	cells/µl	(NS)
CD4/CD8	1.63 ± 0.48	2.44 ± 1.3		(NS)
NK-cells	220 ± 80	82 ± 57	cells/µl	(hs)
Monocytes (Macrophages)	5 ± 3	9.5 ± 2.5	%	(hs)
Norepinephrine	174 ± 56	371 ± 169	pg/ml	(hs)

s = significant, hs = highly significant, NS = not significant

FIG. 1 CIRCULATING NORADRENALINE LEVELS IN ATOPIC ECZEMA PATIENTS AND HEALTHY CONTROLS BEFORE AND AFTER AUTOGENIC TRAINING