6th Dresden Symposium on Autoantibodies

Dresden, 4.-7. September 2002

Ort der Veranstaltung:
Hörsaalzentrum der TU Dresden
Bergstraße 64, 01069 Dresden

Teilnehmer: 303 aus 29 Ländern

Das 6th Dresden Symposium on Autoantibodies stand unter dem Motto „From Proteomics to Molecular Epidemiology – Relevance of Autoantibodies“. Im gleichnamigen Buch (eds. K. Conrad, M. Fritzler, M. Meurer, U. Sack, Y. Shoenfeld; Pabst Science Publishers, Lengerich 2002) wurden die Ergebnisse hierzu ausführlich vorgestellt. Die Beiträge spannten den Bogen von der Proteomforschung bis zur Epidemiologie im Rahmen der Erforschung der Mechanismen der Induktion und Wirkungsweise von Autoantikörpern sowie zur zur Suche und Identifizierung von neuen diagnostischen Markern.

Sponsoren
s. Programm

Referenten/Vorträge
s. Programm

6TH DRESDEN SYMPOSIUM ON AUTOANTIBODIES

DRESDEN, SEPTEMBER 4-7, 2002

Final Programme

WELCOME

Dear colleagues,

On behalf of the organizers it is a great pleasure to welcome you to Dresden for the 6th Dresden Symposium on Autoantibodies.

In 13 sessions, more than fifty scientists and clinicians from many European countries, Australia, Brazil, Canada, Israel, Japan, and the United States will present their latest achievements in basic and applied research on autoimmunity, especially on autoantibodies and autoantigens.

Since the first Dresden Symposium in 1990 a rapid advancement of new technologies has led to growing insights into processes of the induction, diversification and pathogenic effects of autoimmune responses as well as to the improvement of diagnostic serology. Positive interferences between genomics/ ribonomics/(transcriptomics)/ proteomics technologies and autoantigen/autoantibody research stimulate investigations on normal and pathologic cellular processes and allow the elucidation of novel autoantigenic proteins and their corresponding autoantibodies. New developments and challenges in the field of diagnostic serology have rapidly become apparent. Immunofluorescence with transfected cell substrates and "LINE" assays are successfully introduced into routine diagnosis but are only the beginning of what is becoming a rapid succession of more novel technologies such as autoantigen or peptide arrays, microfluidics and nanotechnology. The application of those novel technologies with enhanced reliability, sensitivity and cost-effectiveness may well stimulate investigations of autoantibodies in epidemiological research.

Since 1990 we have witnessed rapid developments in the town of Dresden, the capital of Saxony. The city faces change from day to day. Dresden is becoming a catalyst of economic, scientific and cultural life.

We hope this meeting will become success. May all participants have a pleasant stay in Dresden full of interesting contacts.

Karsten Conrad

WEDNESDAY
SEPTEMBER 4TH

08.30-10.15 **Registration**

10.15-10.30 **Welcome and Introductions**

10.30-12.15 **THE IMPACT OF GENOMICS/RIBONOMICS/PROTEOMICS ON AUTOANTIGEN AND AUTOANTIBODY RESEARCH**

Co-Chairs: J. Keene (Durham, USA)
M. Mann (Odense, Denmark)

Main Lectures

10.30-11.00 Autoantigens associated with messenger RNAs revealed using microarray technologies
J. Keene (Durham, USA)

11.00-11.30 Identifying proteins in genome databases using mass spectrometry
M. Mann (Odense, Denmark)

Short Lectures

11.30-11.45 The use of phage display to identify a conformational autoepitope in primary biliary cirrhosis
M. Scealy, I.R. Mackay, M.J. Rowley (Melbourne, Australia)

11.45-12.00 Anti-citrulline antibodies and citrullinating enzymes in RA
E.R. Vossenaar, T. Radstake, A. van der Heijden, P. Barrera, G. Pruijn, W. J. van Venrooij (Nijmegen, The Netherlands)

12.00-12.15 A study of overlapping epitopes recognised by antibodies to GAD65 using phage display
K.H. O'Connor, M. Scealy, M.J. Rowley (Melbourne, Australia)

LUNCH BREAK –
POSTER AND EXHIBITION VIEWING — 12.15-13.30

Poster

Epitope-fine mapping of the major C-terminal epitope of the ribosomal P-proteins — P1
M. Mahler, K. Kessenbrock, J. Raats, M. Blüthner (Freiburg, Germany)

NEW DIAGNOSTIC TECHNIQUES IN AUTOANTIGEN/AUTOANTIBODY ANALYSES — **13.30-15.15**
Co-Chairs: M. Fritzler (Calgary, Canada)
R.W. Burlingame (San Diego, USA)

Main Lectures

New technologies in the detection of autoantibodies: The present and future — 13.30-14.00
M. Fritzler (Calgary, Canada)

Systematic analyses of microbial antigens and infection induced autoimmunity — 14.00-14.30
U. Sahin (Mainz, Germany)

Short Lectures

Three multiplexed tests for extractable nuclear antigens using the Luminex 100 — 14.30-14.45
R.W. Burlingame, A.L. Piette, C. von Mühlen, K.M. Pollard, W.L. Binder (San Diego, USA)

Automatized classification of HEp-2-cell based indirect immunofluorescence patterns by a novel computerized system — 14.45-15.00
U. Sack, S. Knöchner, P. Perner, U. Pigla, M. Kamprad (Leipzig, Germany)

15.00-15.15 Line-assay with recombinant antigens for diagnosis of systemic autoimmune rheumatic diseases
T. Kattenfeld, A. Kromminga, M. Motz (Martinsried, Germany)

15.15-16.15 *COFFEE BREAK –*
POSTER AND EXHIBITION VIEWING

Poster

P2 The BIOONE® system: the new dosage of autoantibodies
L. Voorn, P. Backelandt, A. Duyckaerts, L. Zecchinon, T. Swiatkowski, A. Bosseloir (Angleur, Belgium)

P3 Rapid flow cytometric differentiation of anti-platelet antibodies with microspheres
M. Woetzel, S. Schroeder, U. Sack, F. Emmrich (Leipzig, Germany)

16.15-18.00 **NOVEL AUTOANTIBODIES OF DIAGNOSTIC AND / OR PATHOGENIC RELEVANCE**
Co-Chairs: E.K.L. Chan (Gainesville, USA)
G.J.M. Pruijn (Nijmegen, The Netherlands)

Main Lectures

16.15-16.45 Novel cytoplasmic mRNP compartment recognized by human autoantibodies
E.K.L. Chan (Gainesville, USA)

16.45-17.15 Translational regulators as autoantigens in systemic autoimmune diseases
G. Steiner (Vienna, Austria)

Short Lectures

Autoantibodies against small nucleolar ribonucleoprotein complexes and their clinical associations — 17.15-17.30
H. van Eenennaam, J.H.P. Vogelzangs, L. Bisschops, L.C.J. te Boome, H.P. Seelig, M. Renz, D.-J. de Rooij, R. Brouwer, H.P. Pluk, W.J. van Venrooij, F.H.J. van den Hoogen, G.J.M. Pruijn (Nijmegen, The Netherlands)

New antibody pattern in liver transplant patients with genetic donor-recipient incompatibility for GSTT1. Correlation with de novo-immune mediated hepatitis and monoclonal gammopathy — 17.30-17.45
I. Wichmann, I. Aguilera, J.M. Sousa, A. Bernardos, E. Franco, J.R. García-Lozano, A. Núñez-Roldán (Sevilla, Spain)

Identification and molecular characterization of two autoantibody systems associated with the indirect immunofluorescence cytoplasm discrete speckled (IIF-CDS) pattern — 17.45-18.00
C.C.F.C. Laurino, N.P. Silva, A.H. Straus, H.K. Takahashi, M. Benchimol, I.C. Almeida, R. Mortara, R. Tedesco, L.E.C. Andrade (São Paulo, Brazil)

Poster

NY-ESO1 autoantibody - a novel candidate for early diagnosis of lung cancer — P4
K. Conrad, P. Krause, O. Türeci, W. Heine, U. Luxemburger, J. Mehlhorn, U. Sahin (Dresden, Germany)

P5 Antibodies recognizing different retinal antigens are present in sera of patients with lung diseases
W.A. Gorczyca, R. Jankowska, I. Porebska, D. Witkowska, M. Kuropatwa (Wroclaw, Poland)

19.30 Get Together

INDUCTION OF AUTOANTIBODIES AND AUTOIMMUNE DISEASES I — **08.30-10.15**

Co-Chairs: W. Reeves (Gainesville, USA)
H. Scofield (Oklahoma City, USA)

Main Lectures

The pristane model of lupus — 08.30-09.00
W. Reeves (Gainesville, USA)

Infectious origin of antiphospholipid syndrome — 09.00-09.30
Y. Shoenfeld, M. Blank (Tel Hashomer, Israel)

Induction of anti-Ro/SSA and Sjogren's syndrome by immunization — 09.30-10.00
R. H. Scofield (Oklahoma City, USA)

Short Lectures

Linear epitopes of two different autoantigens (La/SSB and myelin basic protein) with molecular similarity, produce different humoral responses — 10.00-10.15
A. Terzoglou, J.G. Routsias, C. Sakarellos, M. Sakarellos-Daitsiotis, H.M. Moutsopoulos, A.G. Tzioufas (Athens, Greece)

COFFEE BREAK – POSTER AND EXHIBITION VIEWING — 10.15-11.00

11.00-12.45

INDUCTION OF AUTOANTIBODIES AND AUTOIMMUNE DISEASES II

Co-Chairs: M. Bachmann (Oklahoma City, USA)
C. Casiano (Loma Linda, USA)

Main Lectures

11.00-11.30 Apoptosis, a mechanism to break tolerance?
M. Bachmann (Oklahoma City, USA)

11.30-12.00 Apoptotic cleavage of the LEDGF/p75 autoantigen: mechanism and implications for autoimmunity in various human disorders
C. Casiano (Loma Linda, USA)

12.00-12.30 Regulation of the anti-La/SSB response via the idiotypic network: Serologic implications and clinical significance
A. Tzioufas (Athens, Greece)

Short Lecture

12.30-12.45 Rapid onset of intra- and inter-molecular epitope spreading by immunization with 4-hydroxy-2-nonenal modified 60 kDa-Ro
B.T. Kurien, S. Ganick, D. Obeso, M. McClain, Q. Pye, R. Schneider, R.H. Broyles, J.A. James, M. Bachmann, J.B. Harley, K.M. Hensley, R.H. Scofield (Oklahoma City, USA)

Poster

Mice transgenic for human La are tolerant to La antigen in the form of late apoptotic cells P6
Z. Pan, K. Davis, M.P. Bachmann, A.D. Farris (Oklahoma City, USA)

Characteristics of the anti-dsDNA autoantibody response induced by Infliximab P7
P. Charles, L. Aarden, R.N. Maini (London, UK)

Induction of autoantibodies in different mouse strains by the C-terminal peptide of SmD1 83-119 P8
G. Riemekasten, D. Langnickel, P. Enghard, A. Meine, F. Hiepe (Berlin, Germany)

Influence of Th1 and Th2 cytokines on the primary and secondary immune response in vitro P9
I. Sterzl, J. Votruba, P. Matucha, J. Sterzl (Prague, Czech Republic)

Relationship between rheumatoid factors, immune complexes and galactosylation status of IgG during humoral immune response in hyperimmunized rabbits P10
D. Ciric, N. Milosevic-Jovcic, V. Ilic, Lj. Hajdukovic-Dragojlovic (Belgrade, Yugoslavia)

Antinuclear antibody profile following infliximab treatment in rheumatoid arthritis and spondyloarthropathy P11
L. de Rycke, N. van Damme, E. Kruithof, I.E.A. Hoffman, F. van den Bosch, E.M. Veys, F. de Keyser (Ghent, Belgium)

Complexes of natural autoantibodies with histones perform role of novel autoantibodies P12
D.N. Abakushin, A.M. Poverenny (Obninsk, Russia)

P13 The reactivity of human serum IgM antibodies with Salmonella outer membrane proteins as a potential marker of Salmonella carrier
A. Gamian, D. Witkowska, M. Staniszewska, W. Gorczyca, L. Maslowski (Wroclaw, Poland)

P14 Reactivity of antibodies against human muscle beta-enolase with bacterial outer membrane proteins
D. Witkowska, J. Pietkiewicz, B. Szostko, A. Gamian (Wroclaw, Poland)

12.45-13.45 LUNCH BREAK –
POSTER AND EXHIBITION VIEWING

13.45-16.00 **AUTOANTIBODIES IN SKIN DISEASES**
Co-Chairs: M. Meurer (Dresden, Germany)
M. Sárdy (Budapest, Hungary)

Main Lectures

13.45-14.15 Pathogenic role of anti-Ro/SS-A autoantibodies in cutaneous manifestations of SLE
F. Hiepe (Berlin, Germany)

14.15-14.45 Potential pathogenic role of anti-fibroblast autoantibodies in scleroderma
P.L. Meroni (Milan, Italy)

14.45-15.15 Autoantibody populations directed against different transglutaminase isoenzymes in dermatitis herpetiformis and coeliac disease
M. Sárdy (Budapest, Hungary)

15.15-15.45 Molecular aspects of the pathogenesis of autoimmune subepidermal skin diseases
Kromminga (Hamburg, Germany)

A highly sensitive and simple assay for the detection of circulating autoantibodies against full-length bullous pemphigoid antigen 180 — 15.45-16.00
E. Schmidt, A. Kromminga, S. Mimietz, U. Leinfelder, E.-B. Bröcker, D. Zillikens, U. Zimmermann

Poster — P15
Anti-stratum corneum antibodies in active psoriasis
M. Cojocaru, S. Popescu, A. Cimpean, D. Iordachescu, M. Costache (Bucharest, Romania)

COFFEE BREAK – 16.00-16.30
POSTER AND EXHIBITION VIEWING

AUTOANTIBODIES AGAINST RECEPTOR STRUCTURES – PATHOGENESIS AND THERAPY OF ANTI-RECEPTOR-ANTIBODY INDUCED DISEASES — **16.30-18.30**
Co-Chairs: J. Hoebeke (Strasbourg, France)
E. Wetwer (Dresden, Germany)

Main Lecture

Autoantibodies against G-protein coupled receptors — 16.30-17.00
G. Wallukat (Berlin, Germany)

Short Lectures

Autoantibodies against the beta1-adrenoceptor increase L-type Ca++ current in human atrial myocytes — 17.00-17.15
T. Christ, D. Dobrev, E. Wettwer, D. Müller, M. Knaut, G. Wallukat, U. Ravens (Dresden, Germany)

17.15-17.30 Translocation of the transcription factor NF-kappa B from cytoplasm into nucleus in cultured cells induced by TNF-alpha, and autoantibodies against alpha1-adrenergic and AT1 receptor
W. Schulze, V. Homuth, E. Nissen, D. Neichel, P.S. Leung, G. Wallukat (Berlin, Germany)

17.30-17.45 Functional monoclonal antibodies against the human beta1-adrenergic receptor
R. Mobini, A. Staudt, G. Wallukat, A. Mijares, J. Hoebeke, (Strasbourg, France)

17.45-18.00 Induction of beta1-adrenergic receptor-directed autoimmune cardiomyopathy in the rat
R. Jahns, V. Boivin, S. Triebel, L. Hein, G. Ertl, C.E. Angermann, M.J. Lohse (Würzburg, Germany)

18.00-18.15 The occurrence of autoantibodies against G-protein coupled receptors is associated with oxidative stress
I. Schimke (Berlin, Germany)

18.15.-18.30 Specific removal of autoantibodies against beta1-adrenergic receptor from patients with dilated cardiomyopathy: Results from a pilot study
J. Müller (Berlin, Germany)

P16 Agonistic antibodies targeting Angiotensin II type 1 receptor cause acute vascular rejection in the absence of immunological risk
D. Dragun (Berlin, Germany)

AUTOANTIBODIES IN LIVER AND GASTROINTESTINAL DISEASES

08.30-10.10

Co-Chairs: X. Bossuyt (Leuven, Belgium)
T. Halttunen (Tampere, Finland)

Lectures

The role of the immune response against tissue transglutaminase in the pathogenesis of coeliac disease
T. Freitag, G. Melino, H. Schulze-Koops, G. Niedobitek, E.G. Hahn, D. Schuppan (Erlangen-Nürnberg, Germany)

08.30-08.50

Biological functions of coeliac disease autoantibodies
T. Halttunen, R. Marzari, D. Sblattero, M. Mäki (Tampere, Finland)

08.50-09.05

Reactivity of mouse gliadin antibodies with deamidated gliadin
F. Kahlenberg, I. Lachmann, S. Tschiedel, J. Schneider-Mergener, A.A. Osman, U. Sack, T. Mothes (Leipzig, Germany)

09.05-09.25

Anti-tissue transglutaminase antibodies: Prevalence and clinical significance in connective tissue diseases and autoimmune gastrointestinal diseases
N. Bizzaro, D. Villalta, E. Tonutti, A. Doria, M. Tampoia, D. Bassetti, R. Tozzoli (S. Donà di Piave, Italy)

09.25-09.40

Prevalence of pancreatic autoantibodies in patients with inflammatory bowel disease (IBD), their first-degree relatives and spouses
S. Joossens, L. Godefridis, G. Claessens, S. Vermeire, M. Pierik, N. Esters, R. Aerts, X. Bossuyt, P. Rutgeerts (Leuven, Belgium)

09.40-09.55

09.55-10.10 Prevalence of anti-UDP-glucuronosyltransferase autoantibodies in patients with autoimmune hepatitis
A. Desbos, J. Magdalou, E. Benoit, F. Lapicque, J.C. Monier, S. Veber, N. Fabien (Lyon, France)

Poster

P17 Detection of antiphospholipid-antibodies in patients with primary biliary cirrhosis and autoimmune hepatitis
P. von Landenberg, R. Schlichting, J. Schölmerich, G. Lock (Regensburg, Germany)

P18 The frequency and pattern of autoantibodies and immunoglobulin levels in chronic hepatitis
A. Pituch-Noworolska, A. Macura-Biegun (Kraków, Poland)

P19 ANCA and inflammatory bowel disease: antigenic specificity
E. Mainardi, L. Cresci, M.T. Romagnoli, A. Vagni, P. Galli, A. Montanelli (Crema, Italy)

P20 Assay of coeliac disease autoantibodies applying an ELISA with human tissue transglutaminase
A.A. Osman, T. Richter, M. Stern, K. Conrad, J. Henker, C. Brandsch, K.-P. Zimmer, T. Mothes (Leipzig, Germany)

P21 ANCA target antigen(s) in patients with autoimmune hepatitis
A. Kozmar, R. Ostojic, Z. Krznaric, B. Vucelic, B. Malenica (Zagreb, Croatia)

P22 Prevalence of various autoantibodies in patients infected with hepatitis C virus
V. Tabor, M. Fucek, I. Hrstic, Z. Krznaric, B. Vucelic, B. Malenica (Zagreb, Croatia)

Laboratory findings in autoimmune liver diseases patients — P23
V.V. Bazarny, E.N. Bessonova, D.A. Mazein, O.M. Lesnyak (Ekaterinburg, Russia)

COFFEE BREAK – POSTER AND EXHIBITION VIEWING — 10.10-11.00

AUTOANTIBODIES IN NEUROLOGICAL AND ENDOCRINE DISEASES — **11.00-12.30**
Co-Chairs: B. Lang (Oxford, UK)
J. Honnorat (Lyon, France)

Main Lectures

Autoimmune disorders of the neuromuscular junction — 11.00-11.30
B. Lang (Oxford, UK)

Diversity of neurologic disorders with anti-GAD antibodies — 11.30-12.00
J. Honnorat (Lyon, France)

Short Lectures

Autoantibody findings in patients with paraneoplastic neuropathies — 12.00-12.15
F. Blaes, M. Klotz, M. Tschernatsch, J. Kraus, I. Krasenbrink, M. Kaps (Giessen, Germany)

Clinical outcome of paraneoplastic cerebellar degeneration associated with antineuronal antibodies in 48 patients — 12.15-12.30
S. Shams-Ili, J. Grefkens, B. de Leeuw, H. Hooijkaas, P. Sillevis Smitt (Rotterdam, The Netherlands)

Poster

P24 Autoantibodies in children and adults with paraneoplastic opsoclonus-myoclonus syndrome
V. Fühlhuber, I. Krasenbrink, I. Juhasz-Böss, M. Klotz, M. Kaps, F. Blaes (Giessen, Germany)

P25 EUROLINE-WB allows reliable differentiation of autoantibodies against neural antigens in patients with paraneoplastic neurological syndrome.
T. Scheper, M. Klotz, W. Meyer, W. Schlumberger, W. Stöcker (Lübeck, Germany)

P26 Autoantibodies to gangliosides in patients with multiple sclerosis and normal healthy controls
C. Wehrend, U. Sack, F. Emmrich, M. Kamprad (Leipzig, Germany)

P27 Analytical and clinical evaluation of second generation assays for thyrotropin receptor antibodies.
D. Villalta, R. Tozzoli, E. Orunesu; P. Montagna, G. Pesce, N. Bizzaro, M. Bagnasco (Pordenone, Italy)

P28 Cytofluorimetric evaluation of antigen regions of thyroid peroxidase in patients with graves' disease and non-toxic nodular goiter
A. Bossowski, A. Stasiak-Barmuta, B. Czarnocka, M. Urban, J. Dadan (Bialystok, Poland)

P29 Reactivity of anti-liver-kidney microsome type 1 (LKM-1) antibodies in the sera of patients with type 1 diabetes mellitus
O. Neacsu, M. Cojocaru, I. Cojocaru, D. Cheta (Bucharest, Romania)

P30 Study of anti-actin and anti-myosin antibodies in myasthenia gravis
I. Cojocaru, M. Cojocaru, R. Tanasescu, C. Musuroi (Bucharest, Romania)

Autoantibodies in Hashimoto's encephalitis
J. Abu-Isa, M. Bodemer, S. Poser, A. Schlüter, I. Zerr (Goettingen, Germany)

P31

HLA association with autoimmune endocrinopathies
P. Hrdá, F. Korioth, P. Matucha, I. Sterzl, A. Kromminga (Prague, Czech Republic)

P32

Prevalence of antitransglutaminase antibodies in a pediatric population with type 1 diabetes
F. Bienvenu, N. Peretti, A. Lachaux, M. Nicolino, G. Tanzilli, C. Bouvet, R. Bouvier, S. Veber, J. Bienvenu, N. Fabien (Lyon, France)

P33

Multiple and high-titer single autoantibodies in schoolchildren reflecting the genetic predisposition for type 1 diabetes
M. Schlosser, R. Wassmuth, M. Strebelow, I. Rjasanowski, B. Ziegler, M. Ziegler (Karlsburg, Germany)

P34

Autoantibody profile in acute inner ear diseases
M. Kamprad, K. Donaubauer, K. Conrad, U. Fickweiler, H. Müller, U. Sack (Leipzig, Germany)

P35

LUNCH BREAK –
POSTER AND EXHIBITON VIEWING

12.30-13.30

AUTOANTIBODIES AND EPIDEMIOLOGY
Chair: D. Germolec (Research Triangle Park, USA)

13.30-15.00

Main Lectures

The epidemiology of autoimmune diseases: contribution of previous studies and opportunities for future research
G. Cooper (Research Triangle Park, USA)

13.30-14.00

14.00-14.30 Relevance of exogeneous factors in the development of autoimmune diseases
D. Germolec (Research Triangle Park, USA)

Short Lectures

14.30-14.45 Iodine prophylaxis and risk of arising autoimmune thyroid diseases in children
V. Aranovich, M. Svinarev (Saratov, Russia)

14.45-15.00 Autoantibodies in risk groups for autoimmune diseases
K. Conrad (Dresden, Germany)

15.00-16.00 COFFEE BREAK –
POSTER AND EXHIBITION VIEWING

16.00-18.15 **AUTOANTIBODIES IN RHEUMATIC DISEASES**
Co-Chairs: W.J. van Venrooij (Nijmegen, The Netherlands)
F. Hiepe (Berlin, Germany)

Main Lectures

16.00-16.30 Autoimmune response to glyceraldehyde-3-phosphatase dehydrogenase (GAPDH) is strongly associated with its cellular function in lupus patients
Y. Takasaki (Tokyo, Japan)

16.30-17.00 Anti-CCP antibodies in (early) rheumatoid arthritis
W.J. van Venrooij (Nijmegen, The Netherlands)

17.00-17.30 Citrullinated antigens as targets of rheumatoid arthritis specific autoimmune responses
G. Serre (Toulouse, France)

Short Lectures

Identity of the RNase MRP and RNase P associated Th/To-autoantigen — 17.30-17.45
H. van Eenennaam, J.H.P. Vogelzangs, D. Lugtenberg, F.H.J. van den Hoogen, W.J. van Venrooij, G.J.M. Pruijn (Nijmegen, The Netherlands)

Prevalence of antibodies against alpha-fodrin in Sjögren´s syndrome: Comparison of two sets of classification criteria — 17.45-18.00
T. Witte, T. Matthias, M. Oppermann, K. Helmke, H.H. Peter, R.E. Schmidt, M. Tishler (Hannover, Germany)

Evidence for immunity to type II collagen in the pathogenesis of rheumatoid arthritis: high frequency of antibodies to collagen fragment CB10 — 18.00-18.15
M.J. Rowley, A.D. Cook, A. Stockman (Melbourne, Australia)

Poster

Anti-citrullinated peptides autoantibodies or anti-filagrin autoantibodies: what is the best for diagnosis of RA ? — P36
C. Ferraro-Peyret, J. Tebib, S. Veber, N. Fabien (Lyon, France)

Detection of anti-CCP and diagnosis of rheumatoid arthritis — P37
R.W. Burlingame, R. Morris, A. Metzger, C. von Muhlen, M.H. Wener, C.L. Peebles, A.L. Piette (San Diego, USA)

Comparison of anti-CCP (cyclic citrullinated peptide) assays in rheumatoid arthritis — P38
A. Mustila, A.M. Haapala (Tampere, Finland)

P39 Antibodies to cyclic citrullinated peptide in RA: a sensitive and specific diagnostic marker
P.J. Charles, R.N. Maini (London, UK)

P40 The diagnostic significance of autoantibodies in patients with very early rheumatoid arthritis
V.P.K. Nell, K.P. Machold, W. Hueber, G. Eberl, H. Hiesberger, E. Hoefler, J.S. Smolen, G. Steiner (Vienna, Austria)

P41 Anti-keratin and anti-cyclic citrullinated peptide autoantibodies in patients with juvenile idiopathic arthritis
I. Hromadnikova, K. Stechova, P. Vavrincova, D. Hridelova, H. Nekvasilova, H. Reitzova, J. Vavrinec (Prague, Czech Republic)

P42 Juvenile idiopathic arthritis and anti-keratin/anti-CCP antibodies
K. Conrad, J. Oppermann, D. Möbius, M. Borte, G. Heubner (Dresden, Germany)

P43 Antineutrophil cytoplasmic antibodies in connective tissue diseases
G. Kirdaite, J. Dadonien, E. Redaitiene (Vilnius, Lithuania)

P44 Antineutrophil cytoplasmic antibodies in patients with Buerger's disease
I.M. Manolova, D.P. Petkov, M. Gulubova (Stara Zagora, Bulgaria)

P45 Binding properties of a sequence-specific pathogenic Lupus anti-ssDNA autoantibody
J. Cleary, J. Beckingham, R. Glick, G.D. Glick (Ann Arbor, USA)

Anti beta-2 glycoprotein 1 antibodies and 17 beta-estradiol serum levels in female rheumatoid arthritis patients — P46
R. Sokolik, A. Durazinska, M. Szmyrka, J. Szechinski (Wroclaw, Poland)

Antibodies against beta-2 glycoprotein 1 and cardiolipin in rheumatoid arthritis patients with cardiovascular diseases — P47
A. Durazinska, M. Szmyrka, B. Jazwiec, J. Szechinski (Wroclaw, Poland)

Relationship between autoantibodies against oxidised LDL, lipid peroxidation products and cytokine profile in diabetic type 2 patients — P48
H. Donica, M. Koziol-Montewka, E. Staroslawska (Lublin, Poland)

Anti-cholesterol antibodies in atherosclerosis — P49
A. Horváth, G. Füst, P. Antal-Szalmas, I. Csipö, I. Karádi (Budapest, Hungary)

Serum anti-glomerular basement membrane antibodies in patients with renopulmonary syndrome — P50
D. Iordanescu, M. Cojocaru, I. Cojocaru, O. Neacsu (Bucharest, Romania)

Social Dinner (Moritzburg Castle) — 19.30

08.30-10.30 **PATHOGENIC EFFECTS OF AUTOANTIBODIES**

Co-Chairs: E. Csernok (Lübeck, Germany)
S. Kaveri (Paris, France)

Main Lectures

08.30-09.00 Understanding the pathogenesis of ANCA: were are we today?
E. Csernok (Lübeck, Germany)

09.00-09.30 Catalytic activity of anti-Factor VIII antibodies in hemophilia
S. Kaveri (Paris, France)

Short Lectures

09.30-09.45 GM1-specific antibodies trigger leukocyte inflammatory functions via IgG receptors
N.M. van Sorge, W.-L. van der Pol, P.A. van Doorn, J. van Strijp, J.G.J. van de Winkel, L.H. van den Berg (Utrecht, The Netherlands)

09.45-10.00 Pathogenic effects of anti-retinal autoantibodies of autoimmune retinopathy
G. Ren, S. Shiraga, G. Adamus (Portland, USA)

10.00-10.15 The effects of pathogenic antibodies to type II collagen on cartilage synthesis in vitro
S.F. Amirahmadi, M.-P. van Damme, M.J. Rowley (Melbourne, Australia)

10.15-10.30 Molecular dissection of the Goodpasture epitope
T. Hellmark, K. Bolton, J.Wieslander (Lund, Sweden)

Poster

The TNF-alpha induced upregulation of 52kD Ro/SSA autoantigen expression in human keratinocytes is mediated via TNF-alpha receptor I (TNF-RI) — P51
B. Hostmann, V. Ruppert, M. Gerl, A. Waka, C. Johnen, F. Hiepe (Berlin, Germany)

COFFEE BREAK – POSTER AND EXHIBITION VIEWING — 10.30-11.30

Special Lecture

Anti-prothrombin antibodies: pathogenesis and specificity — 11.30-12.00
T. Koike (Sapporo, Japan)

PATHOGENIC AUTOANTIBODIES IN PREGNANCY — **12.00-13.20**
Co-Chairs: J. Buyon (New York, USA)
Y. Shoenfeld (Tel Hashomer, Israel)

Main Lectures

Autoantibodies in reproductive failure — 12.00-12.30
M. Blank, Y. Shoenfeld (Tel Hashomer, Israel)

Anti-SSA/Ro-SSB/La antibodies and the cascade pathogenesis of congenital heart block: An overview — 12.30-13.00
J. Buyon (New York, USA)

Peptide display library to identify mimotopes of autoantigens associated with neonatal lupus — 13.00-13.20
R.M. Clancy, F. Di Donato, E.K.L. Chan, J.P. Buyon (New York, USA)

METHODICAL ASPECTS AND DIAGNOSTIC STRATEGIES

Poster

P52 The benefit of anti-deoxyribonucleoprotein (anti-DNP) antibodies determination in the laboratory of clinical immunology
I. Lochman, L. Cebecauer, V. Novák, H. Tomásková, A. Kloudová, A. Lochmanová (Ostrava, Czech Republic)

P53 Comparison of several laboratory tests used in diagnostics of rheumatic diseases
I. Lochman, V. Novák, A. Kloudová, A. Lochmanová (Ostrava, Czech Republic)

P54 A comparative study of the diagnostic efficiency of anti-dsDNA antibody tests in systemic lupus erythematosus
B. Schlüter, L. Kaucikaite, H. Schotte, P. Willeke, H. Becker, A. Dyong, J. Haier, R. Gellner, G. Bonsmann, M. Gaubitz (Münster, Germany)

P55 Performance of a new automated fluorescence immunoassay (EliA™ dsDNA) for the follow-up of anti-ds DNA antibodies in SLE patients
A. Lakaf, C. Sapin, V. Moal, J.R. Harlé, M. Sanmarco (Marseille, France)

P56 Clinical evaluation of a new dsDNA-RIA
R. Wöhrle, P. von Landenberg, M. Oppermann, K. Helmke, T. Witte (Munich, Germany)

P57 Detection of dsDNA antibodies in SLE: efficiency of the automated EliA-immunoassay in comparison with non-automated systems.
D. Kuhn, S. Kadler, E. Boehme, M. Linnemann (Ingelheim, Germany)

P58 Detection of dsDNA antibodies in SLE: a case report based evaluation of discrepant results between the automated EliA immunoassay and an established non-automated assay
D. Kuhn, S. Kadler, E. Boehme, M. Linnemann (Ingelheim,Germany)

P59 Comparison of two different methods for detection of dsDNA antibodies related to SLE patients at different disease status
M. Rodriguez-Mahou, F.J. López-Longo, J.L. Ruiz-Tiscar, E.F. dez-Cruz, (Madrid, Spain)

P60 Autoantibodies against nucleosomes are pathognomonic for SLE - a 2nd generation ELISA shows no reactivity with sera from scleroderma patients
W. Schlumberger, C. Daehnrich, W. Suer, S. Frahm, W. Stoecker (Lübeck, Germany)

P61 Clinical and laboratory evalution of an ELISA, indirect immunofluorescence and a new automated fluorescence immunoassay for detection on antinuclear antibodies
A.M. Haapala, A. Mustila, M. Pertovaara (Tampere, Finland)

P62 Comparison of screening by IIF (HEp 2) and an ANA ELISA vs a new automated ANA/ENA screening (EliA) in patients from routine
M.I. Casas, F. Cava, F.J. Fernandez, S. Valor, J.M. Gonzalez-Buitrago, C. Gonzalez, B. Garcia, J.A. Navajo, W. Papisch (Salamanca, Spain)

P63 Comparison of screening by IIF (HEp 2) vs a new automated ANA/ENA screening (EliA) in defined patients
C. Gonzalez, J.M. Buitrago, M.L. Casas, F. Cava, B. Garcia, J.A. Navajo, W. Papisch, S. Valor (Salamanca, Spain)

P64 Evaluation of the detection of anti-dsDNA and -ENA by a new automated fluorescence immunoassay
M. López-Hoyos, H. López-Escribano, M. Peña, M.J. Bartolomé (Santander, Spain)

P65 Evaluation of EliA™ screening and detection of antibodies directed against extractable nuclear antigens
E. Oris, C. Bunn, G. Godefridis, N. Kolbus, W. Papisch, X. Bossuyt (Leuven, Belgium)

P66 A new fluorescence immunoassay (EliA™ Sm) for the detection of anti-Sm antibodies
M. Mahler, R.C. Williams (Freiburg, Germany)

P67 Antibodies against SS-A can only be precisely detected using the native antigen: Results of a study using the EUROLINE-WB
W. Meyer, T. Scheper, K. Wilhelm, M. Jarzabek-Chorzelska, Z. Kolacinska-Strasz, W. Schlumberger, W. Stoecker (Lübeck, Germany)

P68 A new LINE immunoassay for the detection of myositis-specific autoantibodies
B. Hentschel, J. Schulte-Pelkum, W. Schößler, F. Hiepe, R. Mierau, K. Conrad (Berlin, Germany)

P69 Evaluation of a renewed cardiolipin antibody assay – requirements of GMP confirm production
W. Papisch, T. Frey, B. Berg (Freiburg, Germany)

P70 Increased specificity for systemic vasculitis with capture ELISA for MPO-ANCA?
M. Carlsson, J. Wieslander, M. Segelmark (Lund, Sweden)

P71 Evaluation of a new sensitive ELISA for the detection of PR3 Antibodies
M. Mahler, P. Höpfl, E. Mummert (Freiburg, Germany)

Pattern of humoral autoimmunity in patients with breast cancer P72
M. Volkmann, Y. Hajjar, J. Huober, D. Gaugel, J. Ludwig, S. Hänsel, G. Bastert, H. Zentgraf, D. Wallwiener, W. Fiehn (Heidelberg, Germany)

Increased blood plasma concentrations of TGF-ß in patients with multiple sclerosis after treatment with IVIG P73
D. Reinhold, K. Schrecke, E. Perlov, H.-J. Heinze, M. Sailer (Magdeburg, Germany)

Immune response to neo- or recall antigens is not altered by alefacept P74
A. Gottlieb, A. Vaishnaw, K. Gordon (New Brunswick, USA)

Alefacept (human LFA-3/IgG1) is well tolerated and non-immunogenic: results of two randomized, placebo-controlled phase III trials P75
G. Krueger, A. Vaishnaw, K. Gordon (Salt Lake City, USA)

Venue

The modern Lecture Hall Centre of the Technical University of Dresden is located in the South of the city, about 15 minutes walk away from the Central Railway Station.

Hörsaalzentrum der Technischen Universität
Dresden, Bergstraße 64, D-01069 Dresden

Registration office

September 4: 07.30 - 18.30
September 5: 08.30 - 18.30
September 6: 08.30 - 18.30
September 7: 08.30 - 14.00

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Language

English, no simultaneous translation

City map

see http://www.tu-dresden.de/medifi/autoimmunity

Organization (Registration, Reservation, Exhibition)

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Registration fee

Participants	EUR 300
Students/Residents	EUR 150
One day ticket	EUR 100

(includes unlimited access to all scientific sessions, welcome reception, industrial exhibition, second and third volume of the book series "Autoantigens, Autoantibodies, Autoimmunity", coffee and lunch breaks)

Social programme

Wednesday, September 4, 2002, 19.30
Welcome reception in the Lecture Hall Centre of the Technical University of Dresden

Friday, September 6, 2002, 19.30
Social Dinner in Schloss Moritzburg, the hunting lodge and summer residence of August the Strong (1670-1733), king of Saxony and Poland. A guided

tour through the baroque museum will be offered. In the rooms of the Moritzburg castle you can see the largest collection of ornamental leather tapestries in the world, Saxon and French furniture, Oriental and Meissen porcelain and paintings of the 17th and 18th century.
(19.00 Departure by bus)

The following companies participate in the industrial exhibition and have made a generous sponsoring (in alphabetical order):

Aesku.lab Diagnostika, Wendelsheim (Germany)

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c/o BIOZOL Diagnostica Vertrieb GmbH, München (Germany)

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We thank these companies for helping to make this symposium successful.

From Proteomics to Molecular Epidemiology: Relevance of Autoantibodies

Short summary on the 6th Dresden Symposium on Autoantibodies, September 4-7, 2002

Karsten Conrad[1], Ulrich Sack[2], Yehuda Shoenfeld[3]

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Autoimmune phenomena are a central pathogenetic principle involved in the induction, progression and perpetuation of a wide range of diseases. The progress made in understanding associations between diseases and autoantibodies was a main emphasis of the 6th Dresden Symposium on Autoantibodies, which was entitled „From Proteomics to Molecular Epidemiology: Relevance of Autoantibodies". The contributions of the meeting drew the bridge between the impact of ribonomics/proteomics on autoantigen and autoantibody research and the implications of autoantibodies in epidemiological research (G.S Cooper and D.R. Germolec, Research Triangle Park, USA; K. Conrad, Dresden, Germany).

The impact of the post-genomic stage on autoantigen and autoantibody research was enlightened by the ribonomics (J.D. Keene, Durham, USA) and proteomics approaches (M. Mann, Odense, Denmark). Ribonomics offers a new approach to gene expression analysis that assesses the organization of gene transcripts within the mRNP (messenger ribonucleoprotein) infrastructure of cells. Using autoantibodies to specific RNA-binding proteins, specific populations of mRNAs can be monitored, solely allowing cell type specific expression profiling. Autoimmune sera of SLE and cancer patients were used for ribonomic gene expression profiling. Novel mRNA-binding proteins reactive with the autoimmune sera represent new targets for ribonomic analysis of cells, tissue and tumors. Furthermore, understanding the functions of defined mRNA-binding proteins (e.g. ELAV/Hu and IMP2 proteins) during growth, differentiation and oncogenesis may provide clues for understanding both autoimmunity and cancer. Using proteomics technology, a large scale protein-protein interaction mapping, large scale mapping of phosphorylation sites and cloning of key signaling molecules were accomplished. M. Mann et al. (Odense, Denmark) concentrated on the mapping of multiprotein complexes such as spliceosome and nucleolus. More than 300 proteins have been mapped to each of these complexes.

Phage display peptide library technologies were used to identify new target epitopes for anti-mitochondrial and glutamic acid decarboxylase autoantibodies (M.J. Rowley et al., Clayton, Australia) and mimotopes of autoantigens associated with neonatal lupus (R.M. Clancy, New York, USA). A potential approach to the prevention of neonatal lupus may be the use of disease-specific mimotopes to identify - and potentially block - pathogenic antibody responses.

New developments and challenges in the field of diagnostic serology have rapidly become apparent (reviewed by M. Fritzler, Calgary, Canada; see picture). Novel technical solutions for routine diagnostics such as immunofluorescence with transfected

***M. Fritzler**, Calgary, Canada*

cell substrates, multiplexed bead array tests, „LINE" assays, or autoantigen/peptide arrays improve the possibilities of patient care and clinical research. For example, transfected HEp-2 cells with paraneoplastic Hu-D and Yo cDNAs may be used as alternative to cryopreserved cerebellum sections to detect the respective autoantibodies. Rapid flow cytometric differentiation of anti-platelet antibodies with microspheres was proposed by M. Woetzel et al (Leipzig, Germany) as an advanced method to detect allo- and autoantibodies against membrane structures of human platelets found in different types of immune thrombocytopenic disorders.

Novel autoantibodies of potential diagnostic and/or pathogenic relevance against cytoplasmic mRNP (E.K.L. Chan, Gainesville, USA), glyceraldehyde-3-phosphatase dehydrogenase (Y. Takasaki, Tokyo, Japan), translational regulators (G. Steiner, Vienna, Austria), small nucleolar ribonucleoprotein complexes (G.J.M Pruijn, Nijmegen, The Netherlands; see picture), glutation-S-transferase T1 (I. Wichmann, Sevilla, Spain), and yet unidentified antibody patterns (L.E.C. Andrade, Sao Paulo, Brazil) give cause for hope to improve the diagnosis of autoimmune diseases, cancer, hepatitis and other diseases.

***G.J.M Pruijn,** Nijmegen, The Netherlands*

Infection and autoimmunity:

U. Sahin (Mainz, Germany) presented the systematic analysis of microbial antigens and infection-induced autoimmunity. Using the SEREX approach (SErological identification of Recombinantly EXpressed antigens), they systematically dissected the autoantibody repertoire of mice after infection with cytopathic or non-cytopathic viruses. The data presented indicate that virus infections are responsible for a significant fraction of the autoantibody repertoire and that individual viruses may trigger specific „autoantibody fingerprint". Y. Shoenfeld et al (Tel-Hashomer, Isreal) revealed the infection origin of antiphospholipid syndrome (APS), proven by molecular mimicry between common bacteria, tetanus toxoid and epitopes on the main antigen beta-2-glycoprotein-I (β2-GPI). The group used a peptide phage display library to identify target epitopes on the β2-GPI molecule for anti-β2GPI antibodies. Using the protein database they found the amino acid sequences homology (one mis-match) to a panel of bacteria, viruses and yeasts. Immunization of naïve mice with the pathogen, purification of anti-β2GPI peptide antibodies and infusion to naïve mice, revealed that two bacteria and tetanus toxoid were able to induce anti-peptide antibodies which caused experimental APS by passive transfer into naïve mice.

Induction of autoantibodies and autoimmune diseases:

W.H. Reeves (Gainesville, FL, USA) presented a pristane model of lupus which closely mimics many of the features of SLE. Since the earliest cells which encounter pristane or other hydrocarbons are cells of the monocyte/ macrophage/dendritic cell lineages, their data seem to imply the possibility that primary defects at the level of the antigen-presenting cell may be capable of stimulating an immunological pathway that culminates in lupus. C.A. Casiano (Loma Linda, CA, USA) referred to the role of apoptotic cleavage of the lens epithelial derived growth factor LEDGF/p75 in the induction of autoantibodies. The researchers propose that the cleavage of LEDGF/p75 during cell death may generate potentially immunostimulatory forms of the protein that could trigger autoantibody production if presented to autoreactive lymphocytes in a pro-inflammatory environment. Apoptosis as a mechanism of breaking tolerance to self antigens was discussed by M.P. Bachman (Oklahoma City, USA). The presented data support the important role of somatic mutation in the La gene of an autoimmune patient in the initiation of an autoimmune response, especially if the mutant form of the La antigen is presented to the immune system in the form of late apoptotic cells. A. Thioufas et al. (Athens, Greece) studied the immunogenicity and antigenicity of the MBP peptide and the mimicking La/SSB epitope. Despite the fact that these two peptides show molecular similarity they induce different immune responses.

Pathogenic effects of autoantibodies are illustrated by investigations on ANCA (E. Csernok, Lübeck, Germany), catalytic antibodies (S. Kaveri, Paris, France), autoantibodies against gangliosides (N.M. van Sorge, Utrecht, The Netherlands) and retinal antigens (G. Adamus, Portland, USA), phospholipids and phospholipid-binding proteins (M. Blank et al., Tel-Hashomer, Israel; T. Koike, Sapporo, Japan), Ro and La antigens (J. Buyon, New York, USA; F. Hiepe, Berlin, Germany), ion channel proteins (B. Lang, Oxford, UK), and G-protein coupled receptors (G. Wallukat et al., Berlin, Germany). Such basic research may lead to the development of innovative therapeutic technologies as has been shown for the treatment of dilated cardiomyopathy with specific immunoadsorption (J. Müller, Berlin, Germany). Fascinating work was presented by P.L. Meroni (Milan, Italy), characterizing the role of anti-fibroblast antibodies (AFA) in systemic sclerosis. The molecular pathomechanisms of autoimmune subepidermal bullous skin diseases were reviewed by A. Kromminga (Hamburg, Germany).

Autoantibodies against citrullinated antigens:

Following a tradition of presenting and discussing the latest results on highly specific disease markers (4th Symposium: tissue transglutaminase antibodies; 5th Symposium: ASCA) the highlights of this meeting regarding improvement of autoimmune diagnosis were reviews on anti-CCP antibodies (W.J. van Venrooij, Nijmegen, The Netherlands) and on „citrullinated" antigens as targets of rheumatoid arthritis (RA) specific autoimmune responses (G. Serre, Toulouse, France). Antibodies directed against cyclic citrullinated proteins (CCP) are extremely specific for RA. The sensitivity of the anti-CCP test is comparable to that of the RF test. Anti-CCP autoantibodies are present at a very early stage of the disease and have a prognostic value because they are predominantly present in patients with an erosive form of the disease.

Closing this short report, the presentation of reviews and new results in basic (ribonomics and proteomics approaches, induction and pathogenic effects of autoantibodies) and applied research (disease-associated autoantibodies, methods of autoantibody determination, autoantibodies in epidemiological research) as well as fruitful discussions (see picture) made this meeting as successful as the previous Dresden symposia. The 7th Dresden Symposium on Autoantibodies entitled "From Animal Models to Human Genetics: Research on the Induction and Pathogenicity of Autoantibodies" is scheduled for September 1-4, 2004. For further information regarding autoimmune symposia see www.advidx.com.

Fruitful discussions