

FIRST FACULTY OF MEDICINE OF CHARLES UNIVERSITY
INSTITUTE OF HISTOLOGY AND EMBRYOLOGY
LABORATORY OF HISTOCHEMISTRY
and
CZECH SOCIETY OF HISTOCHEMISTRY AND CYTOCHEMISTRY

Organize in the Framework of Celebrations of the 650th Anniversary
of Charles University

under the Auspices of

HIS MAGNIFICENCY PROF. JUDr. KARL MALÝ, Dr.Sc.
RECTOR OF CHARLES UNIVERSITY

and

HIS SPECTABILITY DOC. MUDr. PETR HACH, C.Sc.
DEAN OF THE 1st FACULTY OF MEDICINE

Symposium
WITH INTERNATIONAL PARTICIPATION

PROGRESS IN BASIC,
APPLIED AND DIAGNOSTIC
HISTOCHEMISTRY

dedicated
to the 70th birthday of
PROF. MUDr. Dr. Med. h.c. Dr. Jur. h.c. ZDENĚK LOJDA, Dr.Sc.

Prague, December 10 - 12, 1997

SCIENTIFIC PROGRAM

Wednesday, December 12, 1997

10.00

Opening ceremony and greeting addresses.

11.30 - 13.00

HISTOCHEMISTRY OF THE MYOCARDIUM

Chairmen: W.Schulze and J.Slezák

11.30

W.Schulze, M.L.X.Fu, D.Neichel, G.Wallukat (Berlin, Germany and Göteborg, Sweden):* Localization of angiotensin II subtypes AT1 and AT2 in rat and human cardiomyocytes revealed by immunocytochemistry.

11.45

J.Slezák, I.Buchwalow, W.Schulze*, J.Styk, O.Slezáková, L.Okruhlicová and N.Tribulová (Bratislava, Slovak Republic, *Berlin, Germany):* Localization of nitric oxide synthase in normal and preconditioned cardiac myocytes.

12.00

I.B.Buchwalow, N.Kang, W.Schulze, J.-K. Park, G.Alexander, Ch. Maasch, F.C.Luft, and H.Haller (Berlin, Germany): Comparative topology of protein kinase C isoforms in the rat heart and kidney.

12.15

N.Tribulová, M.Manoach, D.Varon*, S.Obino** (Bratislava, Slovak Republic, *Tel Aviv., Israel. ** Maple Grove, MN, USA):* Age-related changes of intercellular junctions in guinea pig heart can facilitate induction of severe arrhythmias.

12.30

A.Ziegelhöfner, J.Styk, T.Ravingerová, J.Čárský, A.Džurba, K.Volková, K.Wacziargová and B.Ziegelhöfner-Mihalovičová (Bratislava, Slovak Republic):

The diabetic myocardium: Principles of calcium tolerance.

12.45

D.Wittekind (Freiburg, Germany):

Tannic acid-Ferric chloride, a versatile mordanting combination to promote the phloxine-azure B dye-pair to a useful stain in diagnostic histopathology.

13.00 - 14.00

Lunch.

14.00 - 15.45

HISTOCHEMISTRY OF THE SKELETAL MUSCLE

Chairmen : R.Gossrau, T.Soukup.

14.00

R. Gossrau (Berlin, Germany):

Is caveolin-3 a new member of the nitric oxide synthase (NOS) I dystrophin complex (DC)?

14.15

Z.Lukáš, L.Fajkusová, J.Hájek (Brno, Czech Republic):

Is the aminoterminal domain of dystrophin molecule directly linked to the plasma membrane?

14.30

K.Punkt (Leipzig, Germany):

The metabolic heterogeneity of fast twitch muscle fibers.

14.45

L.Hunger, K.Punkt and K.Welt (Leipzig, Germany):

Diabetic alterations in proximal and distal rat muscles.

15.00

I.Psinia, K.Punkt and K.Welt (Leipzig, Germany):

Changes of muscle fiber properties in diabetic rat extensor digitorum longus muscle.

- 15.15 *S.Matolin, V.Horák* *(*Praha, *Liběchov, Czech Republic*):
Distribution of muscle fiber types in gluteus medius muscle of thorough-breds.
- 15.30 *T.Soukup, I.Jirmanová, G.Zachařová, R.Vejsada, P.Hník* (*Praha, C2R*):
Regeneration of soleus muscle grafted into EDL muscle of adult inbred hypothyroid rats.

15.45 - 17.15

NEUROSCIENCES. VARIA I.

Chairmen: V.Mareš , P.Dubový.

- 15.45 *V.Mareš, V.Lisá, H.Kozáková, J.Marek, F.Tovaryš* (*Praha, C2R*):
 γ -Glutamyl transpeptidase in human brain tumor biopsies.
- 16.00 *A.Šedo, R.Malik, J.Křepela* (*Praha, Czech Republic*):
Dipeptidyl peptidase IV in C6 rat glioma cell line differentiation.
- 16.15 *P.Dubový, R.Jančálek, I.Klusáková, *P.Haninec, I.Šviženská, L.Houšťava* (*Brno, *Praha, Czech Republic*):
Wallerian degeneration in the dorsal spinal root. Non-specific cholinesterase histochemistry.
- 16.30 *J.Kunz* (*Potsdam, Germany*):
Neurofibromatosis type 1 associated arteriopathy.
- 16.45 *H.Brichová, J.Zima* (*Praha, Czech Republic*):
Fetal alcohol syndrome in the prenatal and postnatal period of the rat.
- 17.00 *J.Porubský, M.Zavřáčič, J.Jakubovský, B.Geryk, F.Horn, Š.Galbavý, L. Danihel, E.Kubíková* (*Bratislava, Slovak Republic*):
Normal appendix and acute experimental appendicitis in rabbits.

18.00

RECEPTION IN THE DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY

Thursday , December 13, 1997.

8.30 - 10.30

**INVITED LECTURES.
ENZYME HISTOCHEMISTRY.
Chairmen : Z.Ložda, P.J.Stoward.**

- 8.30 *R.Gossrau, O.Baum* (*Berlin, Germany*):
NOS/NO and COS/CO signaling system in skeletal muscle.
- 9.00 *S.Goldfischer* (*Bronx, N.Y. USA*):
The histochemical genesis of diseases of peroxisomal biogenesis.
- 9.30 *P.J.Stoward, Y.Nakae**, *C.J.F.van Noorden*** (*Dundee, U.K., *Tukushima, Japan, **Amsterdam, The Netherlands*):
Properties of enzymes in living cells.
- 9.55 *Cornelis J.F.van Noorden* (*Amsterdam, The Netherlands*):
Cresyl violet - based synthetic fluorogenic substrates for quantitative enzyme histochemistry in living cells.
- 10.15 *Cornelis J.F.van Noorden* (*Amsterdam, The Netherlands*):
The histochemical insensitivity assay of G6PDH activity in human cancer pathology.
- 10.30 *Z.Ložda, J.Šmídová., J.Pácha, M.Jirkovská* (*Praha, Czech Republic*):
New reliable histochemical method for Na⁺K⁺-ATP-ase.

10.45 *J.Štátná, M.Sedláčková (Brno, Czech Republic):*
Ultrastructural localization of peroxidatic activity of catalase in the mouse cumulus-oocyte complex.

11.00 - 11.20 Coffee brake.

11.20 - 13.20

IMMUNOHISTOCHEMISTRY

Chairmen: W.Storch , Z.Lukáš.

- 11.20 *W.Storch (Essen,Germany)*
Autoantibodies against the plexus myentericus Auerbachii detected by laser scanning fluorescence microscopy in achalasia.
- 11.35 *J.Mokrý (Hradec Králové, Czech Republic):*
Getting the strongest signal in immunohistochemistry.
- 11.50 *D.Iványi, E.Groeneweld, D.Major , W.J.Mooi* (Amsterdam,*Rotterdam , The Netherlands):*
A novel anti-keratin monoclonal antibody recognizes squamous type of differentiation in routine pathological specimens.Use in the differential diagnosis of lung carcinomas.
- 12.05 *M.Gellee, D.Majoor, *W.J.Mooi (Amsterdam, *Rotterdam,The Netherlands):*
New cytokeratin monoclonal antibody. DE-SQ : a valuable contribution to the accurate diagnosis of lung carcinomas.
- 12.20 *E.Maňáková, Z.Zemanová (Praha, Czech Republic):*
Immunohistochemical analysis of structural and functional proteins in the chick amnion.
- 12.35 *H.-G.Bernstein, G.Keilhoff ,B.Seidel, P-L.Huang* , A.Stanarius, M.Reiser, B.Bogrts, G.Wolf (Magdeburg,Germany, *Charleston ,S.C. USA):*
The hypothalamo-hypophyscal pro-opiomelanocortin / β -endorphin system is selectively altered in mice lacking neuronal nitric oxide synthase.
- 12.50 *J.Martínek, J.Madar, D.Nováková, J.Hořejší (Praha, Czech Republic):*
Ovarian antibodies and cytokines in the follicular fluid.
- 13.05 *V.Mamčys, R.Kodet, V.Viklický (Praha, Czech Republic):*
Expression of class III B tubulin in human tumours of neuronal origin.

13.20 - 14.30 Lunch.

15.00 Guided visite of Carolinum .

Friday, December 12, 1997.

8.30 - 10.30

HISTOCHEMISTRY IN EMBRYOLOGY

HISTOCHEMISTRY IN HEMATOLOGY

Chairmen: J.Martínek, K.Smetana Sen.

- 8.30 *J.E.Flechon (Jouy-en-Josas,France):*
Markers for the cells of the embryonic disc in the pig blastocyst.
- 8.45 *Z.Zemanová,E.Maňáková,Z.Lojda (Praha ,Czech Republic):*
Development of structural and functional proteins related to transport processes in thee embryonic kidney.

- 9.00 *Z.Jirsová, Z.Zemanová (Praha, Czech Republic):*
Structural and functional specialization of plasma membranes in the mesonephric tubular epithelia.
- 9.15 *D.Pavlíková (Bratislava, Slovak Republic):*
Alkaline phosphatase as an indicator of growth and calcification of chick embryonic cartilage.
- 9.30 *M.Grim, Z.Halata* (Praha, Czech Republic *Hamburg, Germany):*
Avian Merkel cells are derived from the neural crest.
- 9.45 *K.Smetana Sen., J.Jirásková, M.Sedláčková (Praha, Czech Republic):*
The preferential staining of nucleolar regions adjacent to fibrillar centers in human leukemic lymphocytes
- 10.00 *M.Klobošická, O.Babušíková (Bratislava, Slovak Republic):*
DPP IV activity and proliferation markers in T acute lymphoblastic leukemia.
- 10.15 *P.Lemež, J.Gálíková (*Praha, *Jihlava, Czech Republic):*
Erythroid and/or megakaryocytic dysplasia in de novo acute myeloid leukemia is a valuable indicator for inclusion of high doses of cytosine arabinoside in induction chemotherapy.

10.30 - 10.50 Coffee break.

10.50 - 12.30

POSTER SESSION

Chairmen: C.J.F.van Noorden, V.Mandys

L.Bačáková, V.Mareš, V.Škvorčík (Praha, Czech Republic):
The enhanced expression of cytoskeletal and plasma membrane proteins in cells cultured on ion implanted polystyrene.

V.Lichnovský, K.Punkt, B.Erdosová, M.Zapletal (Olomouc, Czech Rep., *Leipzig, Germany):*
Expression of BCL-2 in the developing kidney of human embryos. Qualitative and quantitative study.

V.Lichnovský, L.Macháčková, A.Hlobílková, Z.Kolář, D.Černochová, E.Pospíšilová, D.Nepožítková (Olomouc, Czech Republic):
Apoptosis and BCL-2 expression during human embryogenesis.

H.-G. Bernstein, B.Wiederanders, H.Kirschko**, H.Lippa***, A.Rinne**** (Magdeburg, *Jena, **Halle, ***Leipzig, Germany, ****Tromsø, Norway):*
Further immunohistochemical evidence for an active involvement of the endosomal-lysosomal system in the pathology of Alzheimer's disease.

J.Petr, J.Rožinek, F.Jílek, M.Holubová, Z.Vaňourková (Praha, Czech Republic):
Depletion of intracellular calcium stores in pig oocytes after their liberation from follicle.

D.Černochová, E.Pospíšilová, V.Lichnovský, P.Havelka (Olomouc, Cz.R.):
Expression of PCNA and Ki 67 in orofacial region of human embryonic and fetal material.

E.Pospíšilová, D.Černochová, V.Lichnovský, D.Nepožítková (Olomouc, Czech Republic):
PCNA and Ki-67 expression in the developing CNS.

V.Horák, P.Dvořák (Liběchov, Czech Republic):

The rabbit inner cell mass cultured in serum-free medium.

R.Vagnerová, Z.Zemanová, J.Pácha (Praha, Czech Republic):

Distribution of K⁺-dependent p-nitrophenyl phosphatase in enterocytes of weanling rats colon.

P.Dubový, R.Jančálek, I.Klusáková, I.Sviženská (Brno, Czech Republic):

Changes in the expression of laminins and some integrins in the satellite cells of the dorsal root ganglia after peripheral and central axotomy.

J.Mokřý, D.Šubrtová, S.Němeček (Hradec Králové, Czech Republic):

Histological structure of three-dimensional neurospheres.

12.30 - 14.45

VARIA II.

Chairmen : K.Beneš , S. Čech

12.30

K.Smetana Jr., J.Fischer , F.-T. Liu **J.Bartůňková , J.Slavík, H.-J. Gabius*** (Praha, Czech Republic, * Szeged, Hungary, ** San Diego, Calif. USA, *** München, Germany):*

Expression of galectin-reactive glycoligands in the inflammatory macrophages.

12.45

F.Bendjelloul, P.Malý, M.Jirkovská, V.Mandys, L.Prokešová, L.Tučková, H.Tlaskalová:

Experimental model of acute and chronic colitis in $\alpha(1,3)$ fucosyl transferase Fuc-T VII deficient mice.

13.00

D.Staněk, J.Vencovský, J.Kaňková, I.Raška (Praha, Czech Republic):

Human autoantibodies to heterogenous nuclear RNP (hnRNP) C1 and C2.

13.15

J.Velický, M.Titlbach, J.Dušková, Z.Lojda, M.Vobecký, V.Štrbák, I.Raška (Praha, Czech Republic, * Bratislava, Slovak Republic):*

Changes in the rat thyroid gland after bromide administration.

13.30

J.Kolinská, J.Kraml, J.Šinkora, L.Kalderová, D.Hiršová, M.Zákostelecká:

Effect of hydrocortisone and its antagonists onapristone and mifepristone on the expression of thymocyte membrane markers of suckling rats.

13.45

J.Voříšek (Praha, Czech Republic):

Advantages of ultrastructural localization over immunogold detection of yeast proteinases: carboxypeptidase Y and Kex 2.

14.00

K.Beneš , J.Kvadrlova (České Budějovice, Czech Republic):

In toto staining of plant tissues.

14.15

S.Čech (Brno, Czech Republic):

Ultrastructural visualization of glycogen in the corneal epithelium by means of the periodic acid-thiosemicarbazide-silver proteinatate method.

14.30

*P.Benoist * , R.Antonelli**, J.Voříšek***, A.Pliss***, P.Feau**, I.Raška***, M.Denis-Duphil** (* Madrid, Spain, ** Toulouse, France, ***Praha, Czech Republic):*

The cytoplasmic localization of the yeast Ura 2 multifunctional protein.

14.45

Closing ceremony.