

The 11th International Symposium on the Cells of the Hepatic Sinusoid & Their Relation to Other Cells

SUNDAY -- 25 August 2002

- 15:00 **Registration -- Santa Rita Room**
- 18:00 **Welcoming Remarks -- Salon B -- Robert S. McCuskey**
- 18:10 **Opening Lecture -- Salon B: *KARL WILHELM KUPFFER AND HIS CONTRIBUTIONS TO MODERN HEPATOLOGY***
Kenjiro Wake
- 19:15 **Welcome Reception -- Poolside: *Bill's Grill and Croquet Court***

MONDAY -- 26 August 2002

7:00 -- Breakfast -- *Bill's Grill and Croquet Court*

Session I: Hepatic Stellate Cells in Fibrosis -- Salon B

Chair: Scott Friedman; Michael J.P. Arthur

- 9:00 **Tutorial:** *MOLECULAR ANALYSIS OF STELLATE CELLS ACTIVATION AND THERAPEUTIC STRATEGY FOR LIVER FIBROSIS*
Norifumi Kawada
- 9:30 *3-D STRUCTURE OF EXTRACELLULAR MATRIX REGULATES GENE EXPRESSION IN CULTURED STELLATE CELLS TO INDUCE PROCESS ELONGATION*
Sato M, Sato T, Kojima N, Imai K, Higashi N, Wang D-R, Senoo H
- 9:45 *MONOCYTE CHEMOTAXIS PROTEIN-1, DERIVED FROM HEPATOCYTES AND BILE DUCT EPITHELIAL CELLS, CAUSES RECRUITMENT OF HEPATIC STELLATE CELLS IN PEDIATRIC CHOLESTATIC LIVER DISEASE*
Ramm GA, Greco SA, Hoskins AC, Rutherford PS, Pereira TM, Stuart KA, Bridle KR, Lewindon PJ
- 10:00 *THIOREDOXIN PREVENTS THIOACETAMIDE-INDUCED ACUTE LETHAL HEPATITIS AND LIVER FIBROSIS IN MICE*
Okuyama H, Nakamura H, Shimahara Y, Kawada N, Yamaoka Y, Yodoi J
- 10:15 *PPAR γ AND HEPATIC STELLATE CELLS*

Hazra S, Krishna V, Chatterjee K, Rippe RA, Tsukamoto H

10:30 -- Coffee Break / Posters: Groups A and B poster presenters to attend posters -- Salon C

Session II: Stellate Cells in Fibrosis (Continued)

Chair: Norifumi Kawada; Michael J.P. Arthur

11:30 *N-CADHERIN CLEAVAGE DURING ACTIVATED HEPATIC STELLATE CELL APOPTOSIS IS INHIBITED BY TISSUE INHIBITOR OF METALLOPROTEINASE-1*
Murphy F, Waung J, Arthur MJP, Nagase H, Mann D, Benyon RC, Iredale JP

11:45 *AMINO ACIDS, L-CYSTEINE AND L-METHIONINE, ATTENUATE THE ACTIVATION OF RAT STELLATE CELLS IN PRIMARY CULTURE*
Matsui H, Takashima T, Maeda N, Imanishi Y, Uyama N, Okuyama H, Kawada N

12:00 *INVOLVEMENT OF GALECTIN-1 AND GALECTIN-3 IN RAT HEPATIC STELLATE CELLS PROLIFERATION AND MIGRATION IN CULTURE*
Maeda N, Kawada N, Okuyama H, Matsui H, Imanishi Y, Seki S, Arakawa T, Hirabayashi J, Kasai K, Yoshizato K

12:30 -- Lunch -- Salon A

Session III: Stellate Cells in Fibrosis (Continued) -- Salon B

Chair: Hidekazu Tsukamoto; Marcos Rojkind

14:00 **Tutorial:** *IMMUNE REGULATION OF HEPATIC FIBROSIS*
Scott L. Friedman

14:30 *SUPPRESSION OF RAT STELLATE CELL ACTIVATION AND LIVER FIBROSIS BY A JAPANESE HERBAL MEDICINE, INCHINKO-TO 9TJ135)*
Imanishi Y, Maeda N, Matsui H, Takashima T, Seki S, Arakawa T, Kawada N

14:45 *EXPRESSION OF LEPTIN RECEPTORS IN HEPATIC SINUSOIDAL CELLS*
Ikejima K, Lang T, Zhang Y-J, Yamashina S, Honda H, Yoshikawa M, Hirose M, Enomoto N, Kitamura T, Takei Y, Sato N

15:00 *IDENTIFICATION OF RUNX FACTORS AS REGULATORS OF TIMP-1 GENE*
Bertrand M, Mann DA, Arthur MJP

15:15 *THE CELLULAR RETINOL BINDING PROTEIN-1 (CRBP-1): A GOOD MARKER FOR HEPATIC STELLATE CELLS IN NORMAL HUMAN LIVER*
Lepreux S, Bioulac-Sage P, Cholet E, Darby IA, Gabbiani G, Balabaud C, Rosenbaum J, Desmoulière A

15:30 -- Refreshments/Posters -- Groups A and B presenters to attend posters -- Salon C

16:30 *INTERCELLULAR ADHESIVE STRUCTURES BETWEEN STELLATE CELLS--AN ANALYSIS IN CULTURED HUMAN HEPATIC STELLATE CELLS*

Imai K, Sato M, Sato T, Kojima N, Miura M, Higashi N, Wang D-R, Suzuki S, Senoo H

- 16:45 *THE ARACHNOCYTE AND THE MYOFIBROBLAST: MORPHOLOGICAL CHARACTERIZATION AS REVEALED BY RECONSTRUCTION OF GOLGI PREPARATION FROM PIG LIVER*
Pattanapen G, Ekataksin W, Asuvapongpatana S, Masuda A, Kaneds K, Yamashita K, McCuskey RS

18:00 -- Reception -- Kiva Patio

19:00 -- Dinner -- Kiva Patio

TUESDAY -- 27 August 2002

7:00 -- Breakfast -- Bill's Grill and Croquet Court

Session IV: Functional Aspects of Sinusoidal Endothelial Cells -- Salon B

Chair: Trond Berg; Masaya Oda

- 9:00 **Tutorial:** *SCAVENGER ENDOTHELIAL CELLS OF THE VERTEBRATE HEPATIC SINUSOID*
Bård Smedsrød
- 9:30 *Fc γ -RECEPTORS IN CELLS OF THE HEPATIC SINUSOID*
Berg T, Braathen H, Mousavi SA, Kjekken R
- 9:45 *THE LIVER SINUSOIDAL ENDOTHELIAL CELL HYALURONAN RECEPTOR AND ITS HOMOLOGUE, STABILIN-1 -- THEIR ROLES (KNOWN AND UNKNOWN) IN ENDOCYTOSIS*
McCourt PAG, Hansen B, Svistunov D, Johansson S, Longati P, Schledzewski K, Kzhyshkowska J, Goerdts S, Johansson S, Smedsrød B
- 10:00 *HIGH LACTATE PRODUCTION ASSIGNS A ROLE OF VERTEBRATE SCAVENGER ENDOTHELIAL CELLS (SEC) AS CELLULAR POWER PLANTS*
Seternes T, Martin-Armas MM, Smedsrød B
- 10:15 *LIVER SINUSOIDAL ENDOTHELIAL CELLS REPRESENT AN IMPORTANT BLOOD CLEARANCE SYSTEM IN PIG*
Nedredal GI, Elvevold KH, Ytrebø LM, Smedsrød B, Revhaug A
- 10:30 -- Coffee Break/Posters -- Groups B and C poster presenters to attend posters -- Salon C**

Session V: Functional Aspects of Sinusoidal Endothelial Cells (Continued) -- Salon B

Chair: Bård Smedsrød; E. Wisse

- 11:30 *CAVEOLIN-1 EXPRESSIONS ON HEPATIC SINUSOIDAL ENDOTHELIAL FENESTRAE ARE ENHANCED BY VEGF -- A POSSIBLE MECHANISM FOR HYPERPERMEABILITY OF HEPATIC SINUSOID*
Oda M, Yokomori H, Ogi M, Han J-Y
- 11:45 *MALONDIALDEHYDE-ACETALDEHYDE (MAA) MODIFIED PROTEINS INDUCE PRO-INFLAMMATORY AND PRO-FIBROTIC RESPONSES BY LIVER ENDOTHELIAL CELLS*
Thiele GM, Duryee MJ, Willis MS, Sorrell MF, Tuma DJ, Klassen LW
- 12:00 *INHIBITION OF TNF α -INDUCED ICAM-1 EXPRESSION IN SINUSOIDAL ENDOTHELIAL CELLS BY A DOUBLE-STRAND DNA OLIGOMER HAVING A CONSENSUS SEQUENCE FOR NF- κ B (DECOY)*
Takei Y, Shibuya T, Hirose M, Ikejima K, Enomoto N, Kitamura T, Maruyama A, Akaike T, Sato N
- 12:15 *AGE-RELATED PSEUDOCAPILLARIZATION OF THE BABOON SINUSOIDAL ENDOTHELIUM AND SPACE OF DISSE*
Cogger VC, Warren A, Fraser R, Ngu M, McLean AJ, LeCouteur DG

12:30 -- Lunch -- Salon A

14:00 -- Free afternoon to enjoy facilities at the Resort, e.g., swimming, tennis, golf, hiking, desert jeep excursions, etc.

18:00 -- Reception -- Coyote Corral

19:00 -- Dinner/Western BBQ -- Coyote Corral

WEDNESDAY -- 28 August 2002

7:00 -- Breakfast -- Bill's Grill and Croquet Court

Session VI: Development and Regeneration -- Salon B

Chair: Yasushi Shiratori; Robert S. McCuskey

- 9:00 **Tutorial:** *REVASCULARIZATION OF THE REGENERATING RAT LIVER*
Stolz DB

9:15 *ROLE OF HEPATIC STELLATE CELLS IN THE EARLY PHASE OF LIVER REGENERATION IN RAT: FORMATION OF TIGHT ADHESIONS TO PARENCHYMAL CELLS*
Mabuchi A, Mullaney I, Sheard PW, Hessian PA, Zimmermann A, Senoo H, Wheatley AM

9:45 *IMAGING LIVER DEVELOPMENT/REMODELING IN THE SEE-THROUGH MEDAKA FISH*
Hinton DE, Wakamatsu Y, Ozato K

10:00 -- Coffee Break/Posters -- Groups C and D presenters to attend posters -- Salon C

11:00 -- Business Meeting

12:15 -- Lunch -- Salon A

Session VII: Non-Parenchymal Cells and Liver Injury -- Salon B

Chair: Peter Dieter; Hartmut Jaeschke

13:30 **Tutorial:** *NON-PARENCHYMAL CELLS AND LIVER INJURY*
Hartmut Jaeschke

13:45 *IMMUNOMODULATORY ROLE OF KUPFFER CELL IN LIVER ALLOGRAFTS*
Sun Z, Wada T, Hoshino S, Uchikura K, Klein AS

14:00 *ALCOHOL BINGEING PRIMES LIVER SINUSOIDAL ENDOTHELIAL CELLS TO INCREASED INJURY FROM A PHARMACOLOGICAL DOSE OF ACETAMINOPHEN*
Abril ER, Machen N, Ito Y, McCuskey RS

14:15 *EFFECTS OF ACETAMINOPHEN ON HEPATIC MICROCIRCULATION IN MICE*
Ito Y, Machen NW, Abril ER, McCuskey RS

14:30 *ALDOSE REDUCTASE IS EXPRESSED BY KUPFFER CELLS OF HUMAN LIVER AND IS INCREASED IN CHRONIC LIVER DISEASE*
Brown KE, Broadhurst KA, Kladney RD, Fimmel CJ, Brunt EM

14:45 *PHAGOCYTOSIS, TNF- α SECRETION AND NITRIC OXIDE FORMATION BY PERIportal AND PERIVENOUS KUPFFER CELLS SEPARATED BY DIGITONIN-COLLAGENASE PERFUSION*
Bykov I, Ylipaasto P, Lindros KO

15:00 -- Coffee Break/Posters -- Groups D and E presenters to attend posters -- Salon C

Session VIII: Non-Parenchymal Cells and Liver Injury (Continued) -- Salon B

Chair: Yoshiyuki Takei; Laura E. Nagy

- 16:00 **Tutorial:** *LIPOPOLYSACCHARIDE-MEDIATED SIGNAL TRANSDUCTION*
Laura E. Nagy
- 16:15 *PROSTAGLANDIN (PG) E2 IN LIVER (PATHO)PHYSIOLOGY; THE REGULATORY ROLE OF PGE2 IS CONTROLLED AT THE SITE OF ITS SYNTHESIS AND ITS ACTION ON THE RECEPTORS IN DIFFERENT LIVER SINUSOIDAL CELLS*
Dieter P, Scheibe R, Bezugla Y, Matthé, Schuch S, Treffkorn L, Schuch S, Bernard B, Kamionka S, Kolada A
- 16:30 *SIGNALING ROLE OF IRON IN IKK AND NF- κ B ACTIVATION IN KUPFFER CELLS*
Xiong S, Takeuchi H, She Hongyun, Zandi E, Giulivi C, Engelhardt JF, Tsukamoto H
- 16:45 *THALIDOMIDE PREVENTS ALCOHOLIC LIVER INJURY IN RATS THROUGH INHIBITION OF KUPFFER CELL SENSITIZATION*
Enomoto N, Takei Y, Hirose M, Ikejima K, Kitamura T, Sato N

18:00 -- Reception -- Foyer

19:00 -- Banquet -- Salon A

THURSDAY -- August 29, 2002

7:00 -- Breakfast -- Bill's Grill and Croquet Court

Session IX: Role of Sinusoidal Cells in Tumor Progression -- Salon B

Chair: Fernando Vidal-Vanaclocha; Charles P. Balabaud

- 9:00 **Tutorial:** *PROINFLAMMATORY AND PROANGIOGENIC ACTIVATION OF TUMOR-ACTIVATED SINUSOIDAL CELLS: IMPLICATIONS FOR TUMOR PREVENTION AND TREATMENT*
F. Vidal-Vanaclocha
- 9:30 *CC531s COLON CARCINOMA CELLS INDUCE APOPTOSIS IN CULTURED RAT LIVER SINUSOIDAL ENDOTHELIAL CELLS BY USING THE FAS/FASL PATHWAY*
Vekemans K, Vermijlen D, Timmers M, Wisse E, Braet F
- 9:45 *CONFOCAL MICROSCOPIC STUDY OF THE KILLING OF METASTATIC COLON CARCINOMA CELLS BY KUPFFER CELLS IN THE EARLY ONSET OF HEPATIC METASTASIS*
Timmers M, Vermijlen D, Vekemans K, Wisse E, Braet F

- 10:00 *ELEVATED LEVELS OF TISSUE INHIBITOR OF METALLOPROTEINASES (TIMPS) IN HUMAN HEPATOCELLULAR CARCINOMAS*
Matsumoto E, Nakatsukasa H, Nouse K, Nakamura S, Suzuki M, Kobayashi Y, Uemura M, Sato S, Yumoto E, Yokoyama J, Tsuboi S, Tanaka H, Takuma Y, Fujikawa T, Shiratori Y
- 10:15 *EXPRESSION OF GROWTH FACTORS IN COLORECTAL CARCINOMA LIVER METASTATIC PATIENTS AFTER PARTIAL HEPATECTOMY: IMPLICATIONS FOR A FUNCTIONAL ROLE IN CELL PROLIFERATION DURING LIVER REGENERATION*
Lukomska B, Dluzniewska J, Polanski J, Zajac L, Sitkiewicz D

10:30am - 11:30am -- Coffee Break/Posters -- Group E poster presenters to attend posters -- Salon C

11:30 Closing Remarks -- Robin Fraser; Robert S. McCuskey

12:30pm -- Conclusion of Symposium

POSTERS

Group A

1. *ACTIVATION OF STELLATE CELLS BEFORE INDUCTION OF HEPATIC FIBROSIS -- PRECISE TIMING IN CHOLINE-DEFICIENT DIET-FED RAT MODEL --*
Besshi K, Fujiwara M, Senoo H, Kondou Y, Ohsugi Y, Hayashi T, Ishidate K
2. *PERIPORTAL STELLATE CELLS IN SUBJECTS WITH CHRONIC HEPATITIS C WITH A VARIED SERUM ALANINE AMINOTRANSFERASE LEVEL*
Fujiwara M, Besshi K, Takemura T, Itoh Y, Tsujino T, Minagawa N, Nakata R, Yoshitsugu M, Kato Y, Ihori M, Okayasu I, Senoo H, Wake K
3. *INTRALOBULAR DISTRIBUTION OF VITAMIN A-STORING LIPID DROPLETS IN HEPATIC STELLATE CELLS WITH SPECIAL REFERENCE TO POLAR BEAR AND ARCTIC FOX*
Higashi N, Imai K, Sato M, Sato T, Kojima N, Miura M, Wold HL, Moskaug J, Berg T, Norum KR, Roos N, Wake K, Blomhoff R, Senoo H
4. *EXPRESSION OF THE PEROXISOME PROLIFERATOR-ACTIVATED RECEPTORS (PPARs) IN THE HEPATIC STELLATE CELLS*
Sato T, Sato M, Miura M, Higashi N, Da-Ren W, Suzuki S, Imai K, Kojima N, Senoo H
5. *DECREASED CAPACITY FOR VITAMIN A STORAGE IN HEPATIC STELLATE CELLS IN ARCTIC ANIMALS*
Senoo H, Wake K, Wold H, Higashi N, Imai K, Moskaug JO, Kojima N, Miura M, Sato T, Sato M, Roos N, Berg T, Norum KR, Blomhoff R

6. *5-LIPOXYGENASE (5-LO) IS INVOLVED IN KUPFFER CELL SURVIVAL. POSSIBLE ROLE OF 5-LO PRODUCTS IN THE PATHOGENESIS OF LIVER FIBROSIS*
Titos E, Clària J, Planagumà A, López-Parra M, Villamor N, Miquel R, Jiménez W, Arroyo V, Rivera F, Rodés J
7. *REGULATION OF MATRIX METALLOPROTEINASE EXPRESSION BY EXTRACELLULAR MATRIX COMPONENTS IN CULTURED HEPATIC STELLATE CELLS*
Wang DR, Sato M, Sato T, Kojima N, Imai K, Higashi N, Senoo H
8. *HMG-COA REDUCTASE INHIBITOR MODULATES COLLAGEN-GEL CONTRACTION BY HEPATIC MYOFIBROBLAST-LIKE STELLATE CELL LINE: INVOLVEMENT OF GERANYLGERANYLATED PROTEINS*
Yanase M, Ikeda H, Matsui A, Noiri E, Tomiya T, Arai M, Inoue Y, Tejima K, Nagashima K, Nishikawa T, Fujiwara K, Rojkind M, Ogata I

Group B

9. *THE EFFECT OF CYTOCHALASIN B-LOADED LIPOSOMES ON THE ULTRASTRUCTURE OF THE LIVER SIEVE*
Braet F, Vekemans K, Morselt H, Wisse E, Scherphof G, Kamps J
10. *CULTURE MEDIUM FOR LONG TERM PRESERVATION OF HIGH ENDOCYTOSIS ACTIVITY IN PRIMARY CULTURES OF PIG LIVER SCAVENGER ENDOTHELIAL CELLS*
Elvevold K, Nedredal GI, Revhaug A, Bertheussen K, Smedsrød B
11. *STUDY OF THE REAPPEARANCE OF SIEVE PLATE-PORES IN IMMORTALIZED SINUSOIDAL ENDOTHELIAL CELLS: EFFECT OF ACTIN INHIBITOR IN MIXED PERFUSION CO-CULTURES*
Saito M, Matsuura T, Masaki T, Braet F
12. *HYDROGEN PEROXIDE AS A DIRECT PARACRINE MEDIATOR OF VASCULAR CELL ADHESION MOLECULE-1 EXPRESSION BY HEPATIC SINUSOIDAL ENDOTHELIUM*
Mendoza L, Carrascal T, Salado C, Egilegor E, Gallot N, Vidal-Vanaclocha F

Group C

13. *ETHANOL ADMINISTRATION ALTERS ENDOSOMAL DISTRIBUTION OF LIGAND IN RAT LIVER*
Dalton SR, Wiegert RL, Casey CA
14. *THE INTERFERON- α/β - 2',5'-OLIGO(A)SYNTHETASE - RNAse L SYSTEM DURING TRANSITION PERIOD IN REGENERATING RAT LIVER*
Obolenskaya M, Sazonova L, Rubalko S, Bisbal C
15. *ULTRASTRUCTURAL CHARACTERIZATION OF THE DEATH PROCESS OF HEPATOCYTES IN NEONATAL MOUSE LIVER*
Sasaki K, Sonoda Y, Kumano I, Suda M
16. *USE OF FLOW CYTOMETRIC ANALYSIS TO EXAMINE THE EFFECT OF ETHANOL ADMINISTRATION ON THE UPTAKE OF APOPTOTIC BODIES BY HEALTHY HEPATOCYTES*
Casey C, Baldwin C, Kubik J, McVicker B

Group D

17. *PHAGOCYTOSIS OF TREPONEMA PALLIDUM AND REACTIVE OXYGEN SPECIES PRODUCTION BY ISOLATED RAT KUPFFER CELLS*
Aldini R, Marangoni A, Sambri V, Guardigli M, Giacani L, Montagnani M, Roda A, Cevenini R
18. *HEMOXYGENASE-1 (HO-1) PROTECTS AGAINST ENDOTOXIN-INDUCED APOPTOSIS AND ONCOTIC NECROSIS IN NONPARENCHYMAL CELLS AND HEPATOCYTES*
Bajt ML, Dorman RB, Mayes J, Farhood A, Jaeschke H
19. *β_2 -GLYCOPROTEIN I DEACTIVATION OF THE MOUSE KUPFFER CELL RESPIRATORY BURST*
Gomes LF, Simon-Giavarotti KA, Sans J, Junqueira VBC, Videla LA
20. *AIM EXPRESSION AND CORYNEBACTERIUM-INDUCED GRANULOMA FORMATION IN MICE*
Kuwata K, Watanabe H, Jiang S-Y, Yamamoto T, Abo T, Miyazaki T, Naito M
21. *ALTERATION OF LOCAL AND SYSTEMIC EFFECT OF BACTERIAL ENDOTOXIN BY KUPFFER CELL BLOCKADE IN RATS WITH OBSTRUCTIVE JAUNDICE*
Lázár G, Paszt A, Kaszaki J, Duda E, Szakács J, Tiszlavicz L, Boros M, Balogh A, Lázár G
22. *PRECISION-CUT LIVER SLICES IN CULTURE AS A TOOL TO ASSESS THE PHYSIOLOGICAL INVOLVMENT OF KUPFFER CELLS IN HEPATIC METABOLISM*
Neyrinck AM, Gomez C, Delzenne NM
23. *FAS LIGAND-DEPENDENT KUPFFER CELL IMMUNOMODULATION IS MEDIATED UPSTREAM BY REACTIVE OXYGEN SPECIES*
Uchikura K, Sun Z, Wada T, Hoshino S, Takao S, AikoT, Klein AS
24. *PRODUCTION OF HEPATIC INFLAMMATORY MEDIATORS ARE CORRELATED WITH INTESTINAL DAMAGE DURING NECROTIZING ENTEROCOLITIS*
Halpern MD, Holubec H, Meza YG, Dominguez JA, Williams CS, Ruth M, McCuskey RS, Dvorak B
25. *VASCULAR PEROXYNITRITE FORMATION AND SINUSOIDAL CELL INJURY AFTER ACETAMINOPHEN OVERDOSE*
Knight TR, Jaeschke H
26. *MOLECULAR MECHANISMS OF KUPFFER CELLS INVOLVEMENT IN REGULATING THE GENE EXPRESSION IN HEPATOCYTES*
Panin LE
27. *MICROSCOPIC LANDMARKS IN EVALUATING ISCHEMIA-REPERFUSION INJURY OF THE LIVER: PROPOSING THE CRITERIA FOR ROUTINE ADOPTION*
Ekataksin W, Hanboonkunupakarn B, Alsfasser G, Golling M, Urbaschek B, McCuskey RS, Klar E
28. *KUPFFER AND STELLATE CELL PROTEOGLYCANS MEDIATE MALARIA SPOROZOITE TARGETING TO THE LIVER*
Pradel G, Garapaty S, **Frevert U**

Group E

29. *SHEDDING OF THE LIVER-ASSOCIATED LYMPHOCYTE CELL MEMBRANE IN CHRONIC DELTA HEPATITIS (AN ELECTRON MICROSCOPIC STUDY)*
Aliev B, Hodjaev Sh
30. *MIGRATION OF LIVER SINUSOIDAL LEUKOCYTES TO THE LIVER COLON ADENOCARCINOMA METASTASES*
Durowicz S, Lukomska B, Dluzniewska J, Laszuk D, Olszewski WL
31. *RECONSTITUTION OF ORAL AND PORTAL VENOUS TOLERANCE BY ADOPTIVE TRANSFER OF HEPATIC NK1.1+T CELLS*
Margenthaler JA, Landeros K, Kataoka M, Ku G, Eilers M, Flye MW
32. *THE EFFECTS OF rhGM-CSF ON IMMUNE CELLS OF THE LIVER OF COLORECTAL CARCINOMA PATIENTS*
Mels AK, Tuk CW, Vuylsteke RJCLM, van Egmond M, van Leeuwen PAM, Beelen RHJ, Meijer S
33. *PROTECTION FROM LIVER METASTASES BY TUMOUR ANTIGEN-PULSED DENDRITIC CELL VACCINATION*
Mels AK, Mayen I, van Egmond M, Kamperdijk EWA, Beelen RHJ, Meijer S, Richters CD
34. *CORRELATION BETWEEN THE IN VIVO ACCUMULATION AND IN VITRO ADHESION OF LIVER ASSOCIATED LYMPHOCYTES IN AND AROUND LIVER ADENOCARCINOMA METASTASES*
Stanczyk M, Olszewski WL, Wesolowska A, Maruszynski M
35. *HISTOPATHOLOGICAL CHARACTERIZATION OF HEPATOCELLULAR CARCINOMAS WHICH ARE UNDETECTED BY DYNAMIC COMPUTED TOMOGRAPHY*
Yamamoto T, Hirohashi K, Sakabe K, Shuto T, Uenishi M, Ogawa M, Tanaka S, Tanaka H, Kubo S, Kaneda K, Sakurai M
36. *EXPRESSION OF FIBRILLIN-1 IS INCREASED IN FOCAL NODULAR HYPERPLASIA OF THE LIVER: A ROLE IN ADAPTATION OF THE MICROCIRCULATION*
Lepreux S, Desmoulière A, Rosenbaum J, Balabaud C, Bioulac-Sage P
37. *MORPHOLOGICAL INVESTIGATIONS OF SINUSOIDS IN MULTIPLE TELANGIECTATIC HEPATOCELLULAR NODULES*
Lepreux S, Laurent C, Blanc JF, Rosenbaum J, Balabaud C, Desmoulière A, Bioulac-Sage P
38. *CHITOTRIOSIDASE ACTIVITY AS A MARKER OF MACROPHAGE STIMULATION*
Korolenko T, Falameyeva O, Djanayeva S, Paul G, Wevers R, Sandula J
39. *MACROPHAGE LYSOSOMAL CYSTEINE PROTEINASES AND INHIBITORS CYSTATIN C AND STEFIN A: ROLE IN MURINE TUMOR DEVELOPMENT*
Korolenko T, Falameyeva O, Poteryaeva O, Djanayeva S, Levina O, Kaledin V

40. *HEPATIC NATURAL KILLER CELLS EXCLUSIVELY KILL SPLENIC/BLOOD NATURAL KILLER-RESISTANT TUMOR CELLS BY THE PERFORIN/GRANZYME PATHWAY*
Vermijlen D, Luo D, Froelich CJ, Medema JP, Kummer JA, Braet F, Wisse E
41. *CONTRIBUTION OF TUMOR MICROENVIRONMENT TO THE HEPATIC STELLATE CELL PRODUCTION OF VASCULAR ENDOTHELIAL GROWTH FACTOR*
Olaso E, Salado C, Egilegor E, Gutierrez V, Friedman SL, Vidal-Vanaclocha F
42. *VASCULAR ENDOTHELIAL GROWTH FACTOR INDUCES EXPRESSION OF VASCULAR CELL ADHESION MOLECULE-1 IN HEPATIC SINUSOIDAL ENDOTHELIUM VIA SOLUBLE INTERCELLULAR CELL ADHESION MOLECULE-1 (sICAM-1)-INDUCED PROINFLAMMATORY CYTOKINES*
Mendoza L, Carrascal T, Gutierrez V, Egilegor E, Salada C, Vidal-Vanaclocha F