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Signaling Pathways in Liver Diseases

Jean-François Dufour (Ed.)
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Signaling Pathways in Liver Diseases

With  Figures and  Tables

 Springer

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Preface

Over the past two decades very few areas in medicine have seen as many changes as the field of liver diseases. While these new developments have led to dramatic improvements in many therapeutic strategies, clinicians have also been overwhelmed by the complexity of novel cellular and extracellular pathways. New frontiers have been reached in our understanding of many liver diseases thanks to the efforts of many fundamental liver research groups, which have identified new key molecules and pathways. We are still far from being able to grasp the intricate network of interactions governing the liver and its functions, but important pieces of this puzzle are now coming together. For example, convincing evidence has now linked the STAT pathway with liver regeneration, telomere shortening with chromosomal instability and tumor initiation, the Fas ligand/Fas pathway with apoptosis, and heme-oxygenase with protection against ischemia. This novel understanding has led to exciting new concepts and opportunities for innovative treatments.

Signaling Pathways in Liver Diseases intends to summarize this fascinating knowledge. The book is constructed in three parts. In the first part, the different cell types found in the liver are introduced from a signal transduction perspective for

those not already versed in this field. The second part includes comprehensive and concise chapters on a selection of pathways involved in the pathophysiology of liver diseases. Finally, a closing section focuses on the advances in genomic technologies to promote the identification of new factors and polymorphisms contributing to liver diseases. We have made a special effort to prevent excessive overlapping of data; we have also tried to highlight cross-references among chapters. We would like to express our deepest thanks to the associate editors and all authors who agreed to contribute to this ambitious project.

We hope that *Signaling Pathways in Liver Diseases* will serve as a credible source of information to facilitate the reading of the literature and the planning of trials. Translational medicine implies insight into the molecular networks to identify targets for novel therapeutic strategies. We also hope that this book will satisfy the curiosity of those readers who are interested in learning more about an unfamiliar topic. It is our goal to stimulate more research that can lead to an intensified exchange between the laboratory and the clinical ward.

J.-F. Dufour, P.-A. Clavien

Contents

Part I:

Cell Types and Matrix 1

Chapter 1

Hepatocytes 3

GIULIANO RAMADORI, BERNHARD SAILE

Chapter 2

Signaling Pathways in Biliary Epithelial Cells 17

M. FATIMA LEITE, MICHAEL H. NATHANSON

Chapter 3

Stellate Cells 27

MASSIMO PINZANI, FABIO MARRA

Chapter 4

Signaling Pathways in Liver Diseases: Kupffer Cells 45

MANFRED BILZER, ALEXANDER L. GERBES

Chapter 5

Hepatic Sinusoidal Endothelial Cells 53

ROMAN E. PERRI, VIJAY SHAH

Chapter 6

Extracellular Matrix 63

ALEX Y. HUI, SCOTT L. FRIEDMAN

Part II:

Specific Signaling Pathways 73

Chapter 7

Signaling Pathways in Liver Diseases: IL-6/gp130/Stat3 77

REBECCA TAUB

Chapter 8

Vascular Endothelial Growth Factor Signaling 91

DAVID SEMELA, JEAN-FRANÇOIS DUFOUR

Chapter 9

Insulin Pathway 105

MIRAN KIM, JACK R. WANDS

Chapter 10

Nature and Function of Hepatic Tumor Necrosis Factor- α Signaling 115

JÖRN M. SCHATTENBERG, MARK J. CZAJA

Chapter 11

The Fas/FasL Signaling Pathway 129

MARIA EUGENIA GUICCIARDI,
GREGORY J. GORES

Chapter 12

TGF- β and the Smad Pathway in Liver Fibrogenesis 139

AXEL M. GRESSNER, STEVEN DOOLEY,
RALF WEISKIRCHEN

Chapter 13

Interferon Signaling 151

MASSIMO LEVRERO

Chapter 14

CD14 and Toll Receptor 165

ALLAN TSUNG, DAVID A. GELLER

Chapter 15

The Wnt/ β -Catenin Pathway 173

SATDARSHAN P.S. MONGA,
GEORGE K. MICHALOPOULOS

Chapter 16

Notch Signaling in Liver Disease 193

SARBJIT NIJJAR, ALASTAIR STRAIN

Chapter 17

Extracellular ATP: Emerging Roles of Purinergic Signaling 201

DAVID GATOF, J. GREGORY FITZ

- Chapter 18
Calcium Signaling 211
LAWRENCE D. GASPERS, NICOLA PIEROBON,
ANDREW P. THOMAS
- Chapter 19
**MAP Kinase Pathways in the Control
of Hepatocyte Growth, Metabolism and Survival** 223
PAUL DENT
- Chapter 20
PI3K, PTEN and Akt 239
THOMAS F. FRANKE, DANIEL C. BERWICK
- Chapter 21
TOR Signaling and Cell Growth Control 259
LISA M. BALLOU, RICHARD Z. LIN
- Chapter 22
Peroxisome Proliferator Activated Receptors 267
RAPHAËL GENOLET, LILIANE MICHALIK,
WALTER WAHLI
- Chapter 23
Transcriptional Response to cAMP in the Liver 281
MARIA AGNESE DELLA FAZIA,
GIUSEPPE SERVILLO, PAOLO SASSONE-CORSI
- Chapter 24
Heme Oxygenase System 291
SEI-ICHIRO TSUCHIHASHI,
JERZY W. KUPIEC-WEGLINSKI
- Chapter 25
Nitric Oxide 299
JOSE M. PRINCE, TIMOTHY R. BILLIAR
- Chapter 26
Hypoxia-Inducible Factor-1 Signaling System 311
DEBORAH STROKA, DANIEL CANDINAS
- Chapter 27
Cyclins and CDKs in Liver Diseases 325
SIU TIM CHEUNG, RONNIE T. POON
- Chapter 28
**Telomeres and Telomerase:
Distinctive Roles in Liver Regeneration,
Cirrhosis and Carcinogenesis** 333
ANDE SATYANARAYANA, K. LENHARD RUDOLPH
- Chapter 29
NF- κ B 341
TOM LÜDDE, CHRISTIAN TRAUTWEIN
- Chapter 30
**Ceramide: Cell Regulation
from a Lipid Perspective** 353
JEFFREY A. JONES, YUSUF A. HANNUN
- Chapter 31
Apoptosis and Mitochondria 367
JOSE C. FERNÁNDEZ-CHECA, CARMEN GARCIA-RUIZ
- Chapter 32
**Ubiquitin-Proteasome Pathway
in the Pathogenesis of Liver Disease** 377
SAMUEL W. FRENCH, FAWZIA BARDAG-GORCE
- Chapter 33
Biological Clock in the Liver 391
HITOSHI OKAMURA
- Part III:
Horizons** 405
- Chapter 34
Pharmacogenomics of Cholestatic Liver Disease 407
CHRISTIANE PAULI-MAGNUS,
MARIE V. ST-PIERRE, PETER J. MEIER
- Chapter 35
Proteomics of Signal Transduction Pathways 417
OLIVER KLEINER,
JASMINKA GODOVAC-ZIMMERMANN
- Subject Index** 433

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