Original Papers

1 Detection of Merkel Cell Polyomavirus in the Human Tissues from 41 Japanese Autopsy Cases Using Polymerase Chain Reaction

6 Chikungunya Virus Induces a More Moderate Cytopathic Effect in Mosquito Cells than in Mammalian Cells
Li, Y.-G. (Osaka); Siripanyaphinyo, U.; Tumkosit, U.; Noranate, N.; A-nuegoonpipat, A. (Nonthaburi); Tao, R.; Kurosu, T.; Ikuta, K. (Osaka); Takeda, N.; Anantapreecha, S. (Nonthaburi)

13 Amino Acid Substitutions in the Hepatitis C Virus Core Region and Lipid Metabolism Are Associated with Hepatocarcinogenesis in Nonresponders to Interferon plus Ribavirin Combination Therapy

22 Molecular Characterization of Hepatitis A Virus Isolates from Nigeria
Forbi, J.C.; Esona, M.D.; Agwale, S.M. (Keffi/Abuja)

27 'a'-Position-Mutated and G4-Mutated Hemagglutinin-Neuraminidase Proteins of Newcastle Disease Virus Impair Fusion and Hemagglutinin-Neuraminidase-Fusion Interaction by Different Mechanisms
Chu, F.; Wen, H.; Zhang, W.; Lin, B.; Zhang, Y.; Sun, C.; Ren, G.; Song, Y.; Wang, Z. (Jinan)

37 Efficacy and Anticarcinogenic Activity of Ribavirin Combination Therapy for Hepatitis C Virus-Related Compensated Cirrhosis

Short Communications

46 Picobirnavirus in Captive Animals from Uruguay: Identification of New Hosts
Gillman, L.; Sánchez, A.M.; Arbiza, J. (Montevideo)

50 Pseudorabies Virus and Herpes Simplex Virus Type 1 Utilize Different Tegument-Glycoprotein Interactions to Mediate the Process of Envelopment
Omar, O.S.; Simmons, A.J.; Andre, N.M. (Farmingdale, N.Y.); Wilson, D.W. (New York, N.Y.); Gross, S.T. (Farmingdale, N.Y.)

55 Development of an Epitope-Based Competitive ELISA for the Detection of Antibodies against Tibetan Peste des Petits Ruminants Virus
Zhang, G.-R. (Shanghai/Nanjing); Yu, R.-S. (Shanghai); Zeng, J.-Y. (Lhasa); Zhu, Y.-M.; Dong, S.-J. (Shanghai); Dunzhu, L. (Linzhi); Zhu, S.; Duoji, C. (Lhasa); Lei, Z.-H. (Nanjing); Li, Z. (Shanghai)

60 Genomic Sequence and Analysis of EhV-99B1, a New Coccolithovirus from the Norwegian Fjords
Pagarete, A.; Lanzén, A.; Puntervoll, P.; Sandaa, R.A.; Larsen, A.; Larsen, J.B. (Bergen); Allen, M.J. (Plymouth); Bratbak, G. (Bergen)
Potency Testing of Veterinary Vaccines for Animals: The Way From In Vivo to In Vitro

International Scientific Workshop, Langen, December 2010: Proceedings

Editor
C. Jungbäck

Contents
Preface: Jungbäck, C.

Session I:
Use of the 3R Approach for Potency (1)
Introduction: History, Approaches, Legal Situation and Political Pressure, Outlook, Expectations: Spieser, J.-M.

Session II:
Use of the 3R Approach for Potency (2)

The Quantitative ELISA for Inactivated Newcastle Disease Virus Antigen: Development of the Test System and the Way to a Ph. Eur in Vitro Potency Test: Oei, H.L.
The Quantitative ELISA for Inactivated Newcastle Antigen: Experience Report From an OMCL: Mototschke, A.; Jungbäck, C.

Session III:
In Vivo / in Vitro, a Critical Analysis
The Validation of Potency Tests: Hurdles Identified by EMA/CVMP/IWP: Woodland, R.
In Vitro Antigen Measurement and Potency Tests: Challenges Encountered During Method Development… and Lessons Learned: Kubiak, V.
In Vitro Potency Tests: Challenges Encountered During Method Development: Yomuya, C.; Thiel, H.J.; König, M.
AlphaLISA® Assays to Improve the Vaccine Development Process: Cosentino, G.

Session IV:
Consistency as an Alternative to Potency
Consistency as Tool to Support in Vitro Batch Potency Testing in GMP Production: Stirling, C.
Consistency as an Alternative to Potency Testing: Duchow, K.
Sirota, L.A.
Appropriateness of in Vitro Potency Tests or Consistency Tests for Vaccine Stability Studies: Pfannenstiel, M.A.; Inman, M.

Workshop Summary
Workshop presentations not in this publication
Participants
Index of Authors
Developments in Biological Standardization
Developments in Biologicals

KARGER

Potency Testing of Veterinary Vaccines for Animals: The Way From in Vivo to in Vitro
International Scientific Workshop, Langen, December 2010: Proceedings

Editor
C. Jungbäck
Submission
Only original papers written in English are considered and should be submitted online at:

www.karger.com/int

You should experience problems with your submission, please contact:

S. Karger AG
Editorial Office 'Interivirology'
PO Box
CH–4009 Basel (Switzerland)
Tel. +41 61 306 1344
Fax +41 61 306 1434
E-Mail int@karger.ch

Names, postal and e-mail addresses of three experts in the appropriate area of research should accompany each manuscript. Selected scientist(s) will be invited to act as referee(s). Referees suggested should not be from the same institution as the author and should have expert knowledge of the subject.

Conditions
All manuscripts are subject to editorial review. Manuscripts are received with the explicit understanding that they are not under simultaneous consideration by any other publisher. Submission of an article for publication implies the transfer of the copyright from the author to the publisher upon acceptance. Accepted papers become the permanent property of 'Interivirology' and may not be reproduced by any means, in whole or in part, without the written consent of the publisher. It is the author’s responsibility to obtain permission to reproduce illustrations, tables, etc. from other publications.

Studies involving human subjects: Authors of articles based on trials in humans must first obtain approval from an independent national ethics committee. In addition, a statement that research has been carried out in accordance with the Helsinki Declaration, signed by all authors, must be submitted to the Editorial Office along with the submitted paper.

Consent of patients: If there is any chance that a patient may be identified from an illustration, we ask for the written consent of the patient for publication (or where appropriate, from his/her relatives or guardian). Data relating to anonymized tissue and other samples will not be published without the written consent of the patient. It is the author’s responsibility to obtain permission to reproduce illustrations, tables, etc. from other publications.

Studies involving animals: An article based on trials performed on animals requires a statement that approval from an independent ethics committee has been obtained, signed by all authors.

The Editor-in-Chief recommends that approvals and informed consent, where appropriate, are also declared in the article itself, preferably in the Materials and Methods section.

Arrangement
Lines should be numbered in the margin.

Title page: The first page of each paper should indicate the title, the authors' names, the institute where the work was conducted, and a short title for use as running head.

Full address: The exact postal address of the corresponding author complete with postal code must be given at the bottom of the title page. Please also supply phone and fax numbers, as well as e-mail address.

Key words: Please supply 3–10 key words in English that reflect the content of the paper.

Abstract: Each paper needs an abstract of up to 200 words structured with subheadings as follows: Objective(s), Methods, Results, Conclusion(s).

Footnotes: Avoid footnotes. When essential, they may be numbered consecutively and typed at the foot of the appropriate page.

Body of the paper: Manuscripts should then be divided into the following subdivisions: Introduction, Materials and Methods (as brief as possible), Results, Discussion, Acknowledgments and References.

Tables and illustrations: Tables and illustrations (both numbered in Arabic numerals) should be prepared on separate sheets. Tables require a heading and figures a legend, also prepared on a separate sheet. Due to technical reasons, figures with a screen background should not be submitted. When possible, present several illustrations en bloc for reproduction (max. size 180 × 223 mm) or provide crop marks. B/w half-tone and color illustrations must have a final resolution of 300 dpi after scaling, line drawings in 800–1200 dpi.

Color illustrations

Online edition: Color illustrations are reproduced free of charge. In the print version, the illustrations are reproduced in black and white. Please avoid referring to the colors in the text and figure legends.

Print edition: Up to 6 color illustrations per page can be integrated within the text at CHF 800.– per page.

References: In the text identify references by Arabic numerals [in square brackets]. Material submitted for publication but not yet accepted should be noted as ‘unpublished data’ and not be included in the reference list. The list of references should include only those publications which are cited in the text. Do not alphabetize; number references in the order in which they are first mentioned in the text. The surnames of the authors followed by initials should be given. There should be no punctuation other than a comma to separate the authors. Preferably, please cite all authors. Abbreviate journal names according to the Index Medicus system. Also see International Committee of Medical Journal Editors: Uniform requirements for manuscripts submitted to biomedical journals (www.icmje.org).

Examples:
(b) Papers published only with DOI numbers: Theoharis GC, Boucher W, Spear K: Serum interleukin-6 reflects disease severity and osteoporosis in mastocytosis patients. Int Arch Allergy Immunol DOI: 10.1159/000063858.

Reference Management Software: Use of EndNote is recommended for easy management and formatting of citations and reference lists.

Digital Object Identifier (DOI)
S. Karger Publishers supports DOIs as unique identifiers for articles. A DOI number will be printed on the title page of each article. DOIs can be useful in the future for identifying and citing articles published online without volume or issue information. More information can be found at www.doi.org.

Supplementary Material
Supplementary material is restricted to additional data that are not necessary for the scientific integrity and conclusions of the paper. Please note that all supplementary files will undergo editorial review and should be submitted together with the original manuscript. The Editors reserve the right to limit the scope and length of the supplementary material. Supplementary material must meet production quality standards for Web publication without the need for any modification or editing. In general, supplementary files should not exceed 10 MB in size. All figures and tables should have titles and legends, and all files should be supplied separately and named clearly. Acceptable files and formats are: Word or PDF files, Excel spreadsheets (only if the data cannot be converted properly to a PDF file), and video files (.mov, .avi, .mpeg).

Nomenclature of viruses
Names used for viruses should be those approved by the International Committee on Taxonomy of Viruses (ICTV) and published in Fauci CM, Mayo MA, Nash H, Desselberger U, Ball LA (eds): Virus Taxonomy, VIIIth Report of the International Committee on Taxonomy of Viruses, ed 2, revised (New York, Academic Press, 2005). If desired, synonyms may be added in parentheses when the name is first mentioned. Approved generic (or group) and family names should also be used.

Short Communications
In addition to regular papers, a section of the journal will publish brief communications of important findings, in which illustrative material should be limited. Such notes should include a brief summary and key words, the body of the report (without any subdivisions), brief acknowledgments, and a few selected references. The general style and submission procedures outlined above apply to the short communication.

Commentaries
Short commentaries of an editorial nature may be submitted to the journal. In these communications, usual manuscript subdivisions do not apply, and a summary statement is not needed; however, a very brief reference list may be included.

Letters to the Editor
This section provides readers with a forum in which to exchange ideas and comments on papers published in the journal. Letters should be no longer than 1–1½ double-spaced pages, including a maximum of six references, and do not require abstracts or formal section headings.

Page Charges
There are no page charges for papers of 6 or fewer printed pages (including tables, illustrations and references). Each additional complete or partial page is charged to the author at CHF 325.–. The allotted size of a page is equal to approx. 16 manuscript pages (including tables, illustrations and references).

E-publish First
All articles are published electronically ahead of print with a DOI number and are supplemented later with the definitive reference of the printed version. The articles become available immediately after the authors’ approval to publication, with the added advantage of being citable much earlier than in print. Authors can influence the time of appearance by promptly returning the proofs.
that punctuation is not needed. When using other authors, Karger submits the final version of your article and gives all users worldwide free and full access into the different branches of medicine. A valuable new perspective on how to incorporate gender issues in your behalf to PubMed Central. For those selecting our premium Author’s Choice service, we will send your article immediately upon publishing, accelerating the accessibility of your work without the usual embargo. More details on NIH’s Public Access Policy is available at http://publicaccess.nih.gov/policy.htm

Self-Archiving
Karger permits authors to archive their pre-prints (i.e. pre-refereeing) or post-prints (i.e. final draft post-refereeing) on their personal or institution’s servers, provided the following conditions are met: Articles may not be used for commercial purposes, must be linked to the publisher’s version, and must acknowledge the publisher’s copyright. Authors selecting Karger’s Author’s Choice service, however, are also permitted to archive the final, published version of their article, which includes editing and design improvements as well as citation links.

Proofs
Unless indicated otherwise, proofs are sent to the corresponding author and should be returned with the least possible delay. Alterations other than the correction of printer’s errors are charged to the author.

Reprints
Order forms and a price list are sent to the author with the proofs. Orders submitted after the issue is printed are subject to considerably higher prices.

Standard forms of abbreviations: The standard abbreviations used for measurements of weight, length, volume, and time (i.e., mg, cm, ml, and min) are acceptable and may be used without definition. The abbreviations listed also require no preliminary definition. Please note that punctuation is not needed. When using other abbreviations, the name should be spelled out in full at the first mention, and followed with the abbreviation in parentheses.

- ° centigrade
- (Fahrenheit will not be used)
- A, C, G, T, U
- adenine, cytosine, guanine, thymine, uracil
- AMP
- 5’-monophosphates of adenosine
- CMP
- – cytidine
- GMP
- – guanosine
- TMP
- – thymidine
- UMP
- – uridine
- ADP, etc.
- adenosine 5’-diphosphate, etc.
- ATP, etc.
- adenosine 5’-triphosphate, etc.
- CPE
- cytoplastic effect
- DEAE-cellulose
- diethylaminoethylcellulose
- DNA
- deoxyribonucleic acid
- DNase
- deoxyribonuclease
- EDTA
- ethylenediaminetetra-acetate
- EOP
- efficiency of plating
- g
- acceleration of gravity
- ID₅₀
- median infective dose
- LD₅₀
- median lethal dose
- m
- molar
- MEM
- minimum essential medium
- MOI
- multiplicity of infection
- N
- normal
- ng
- nanogram
- nm
- nanometer (10⁻⁹ m)
- PAGE
- polyacrylamide gel electrophoresis
- PFU
- plaque forming units
- RNA
- ribonucleic acid
- RNAse
- ribonuclease
- rpm
- revolutions per minute
- SD
- standard deviation
- SDS
- sodium dodecyl sulfate
- sp gr
- specific gravity
- TCD₅₀
- median tissue culture infective dose
- Tris
- (hydroxymethyl)
- aminomethane (2-amino-2-hydroxymethylpropane-1,3-diol)
- UV
- ultraviolet
- V
- volt
- W
- watt
Contents

See the journal website for contents
Nobel Prize Laureate Professor Harald zur Hausen (German Cancer Research Center, Heidelberg, Germany) “HPV and cervical cancer - how it was discovered? HPV challenges”

Professor Mario Milco D’Elios (University of Florence, Italy) “Are vaccines useful to prevent both infection and cancer?”

Professor Robin Bailey (London School of Hygiene and Tropical Medicine, UK) “Recent advances in Chlamydia research”

Professor Johannes H. Hegemann (Heinrich Heine University Duseldorf, Germany) “Chlamydial adhesion and adhesins – paving the way for improved diagnostics & vaccination?”

Professor Peter Timms (Queensland University of Technology, Australia) “Development of vaccines to control chlamydial disease sequela: Are we making any progress?”

Professor Chris J. L. M. Meijer (VU University, Amsterdam, The Netherlands) “What do we know about HPV-mediated transformation of the lesions?”

Professor Margaret Stanley (University of Cambridge, UK) “Advances in HPV vaccination and immunology”

Associate Professor Torvald Ripa (The County Hospital of Halmstad, Sweden) “Influence on, or control of? What happened to gonorrhoea and genital chlamydial infection in Sweden?”

Associate Professor Karin Stenqvist (University of Gothenburg, Sweden) “The non-random distribution of Chlamydia infections in the population and the split organisation of sexual health care are issues that need to be considered when we develop new preventive strategies”

Associate Professor Jane Hocking (University of Melbourne, Australia) “Australian Chlamydia Control Effectiveness Pilot: an update of preliminary results from a randomised trial of annual chlamydia screening in general practice. Chlamydia treatment failure - is it cause for concern? Early results from a chlamydia treatment cohort study”

Helena Carre (Umea University, Sweden) “Who’s at risk of catching Chlamydia trachomatis?”

Viviane Bremer (Robert Koch Institute, Berlin, Germany) “Chlamydia trachomatis in Germany - what do we know and what should we know?”

AUSPICES International Federation of Clinical Chemistry and Laboratory Medicine; European Federation of Clinical Chemistry and Laboratory Medicine; World Association of Societies of Pathology & Laboratory Medicine

Please visit www.iecclm.com for further details
Keystone Symposia 2013
Immunology Conferences

Type 2 Immunity: Initiation, Maintenance, Homeostasis and Pathology
joint with Pathogenic Processes in Asthma and COPD
January 10–15, 2013 • Santa Fe, New Mexico, USA
Organizers: Richard M. Locksley and Judith E. Allen
Asthma and COPD Organizers: Marsha Wills-Karp, Jay K. Kolls and Sebastian L. Johnston
www.keystonesymposia.org/13J1 and www.keystonesymposia.org/13J2

Emerging Topics in Immune System Plasticity
January 15–20, 2013 • Santa Fe, New Mexico, USA
Organizers: Steven L. Reiner, Erika L. Pearce and Yasmine Belkaid
www.keystonesymposia.org/13A5

Metabolic Control of Inflammation and Immunity
January 21–26, 2013 • Breckenridge, Colorado, USA
Organizers: Vishva M. Dixit, Douglas R. Green and Maya Saleh
www.keystonesymposia.org/13A9

Autophagy, Inflammation and Immunity
February 17–22, 2013 • Montreal, Quebec, Canada
Organizers: Herbert (Skip) W. Virgin IV, Beth Levine and Gökhan S. Hotamisligil
www.keystonesymposia.org/13B4

Myeloid Cells: Regulation and Inflammation
February 19–24, 2013 • Keystone, Colorado, USA
Organizers: Vincenzo Cerundolo, Gwendalyn J. Randolph and David M. Mosser
www.keystonesymposia.org/13B6

Understanding Dendritic Cell Biology to Advance Disease Therapies
March 3–8, 2013 • Keystone, Colorado, USA
Organizers: Miriam Merad and Bart N. Lambrecht
www.keystonesymposia.org/13C2

Immune Activation in HIV Infection: Basic Mechanisms and Clinical Implications
April 3–8, 2013 • Breckenridge, Colorado, USA
Organizers: Irini Sereti, Michaela Müller-Trutwin, Damian F. Purcell and Mauro Schechter
www.keystonesymposia.org/13D2

Keystone Symposia on Molecular and Cellular Biology
Accelerating Life Science Discovery
Keystone Symposia on Molecular and Cellular Biology is a 501(c)(3) nonprofit organization headquartered in Colorado, USA that is directed and supported by the scientific community.
www.keystonesymposia.org/immunology • 1.970.262.1230 • 1.800.253.0685 (in US & Canada)
11th European Meeting on HIV and Hepatitis
Treatment Strategies and Antiviral Drug Resistance

Rome, March 20–22, 2013

Meeting venue
The meeting will be held at the Trevi Fountain Conference Centre. Housed in the monumental palace of the Pontifical Gregorian University, the conference centre is located in the very heart of Rome, a stone’s throw from its namesake the Trevi Fountain and many other world-famous monuments.

Meeting objectives
• To gather professionals in the field of infectious diseases in an interactive workshop setting
• To provide a platform for presentation and discussion of the latest developments in the field
• To map all current studies and results
• To translate new data to treatment guidelines
• To educate clinicians on how to best implement current and new drugs

Target audience
The target audience of the 11th European Meeting on HIV and Hepatitis consists of clinicians involved in daily care for infectious disease patients, scientists involved in antiviral drug resistance, researchers and postdocs active in this field.

Abstract submission
We invite you to submit abstracts for a poster or oral presentation. Please visit the Virology Education website for abstract topics and instructions. Accepted abstracts will be published in the journal Reviews in Antiviral Therapy & Infectious Diseases.

Abstract submission deadline: 18 January 2013

Program committee
Andrea De Luca, MD (chair 2013)
Catholic University, Rome and Siena University, Hospital, Siena, Italy

Carlo Federico Perno, MD, PhD (chair 2013)
University of Rome ‘Tor Vergata’, Rome, Italy

Charles Boucher, MD, PhD
Erasmus Medical Centre, Rotterdam, The Netherlands

François Brun-Vézinet, MD, PhD
Hôpital Bichat-Claude Bernard, Paris, France

Stéphane Chevaliez, PharmD, PhD (guest member 2013)
Hôpital Henri Mondor, Creteil, France

Anne-Mieke Vandamme, PhD
Katholieke Universiteit Leuven, Leuven, Belgium

Registration:
www.virology-education.com
23rd Annual Meeting of the Society for Virology

Gesellschaft für Virologie e. V. (GfV) und Deutsche Vereinigung zur Bekämpfung der Viruskrankheiten e. V. (DVV)

6–9 March 2013, Kiel • Germany

Christian-Albrechts-Universität zu Kiel
Main Auditorium • Audimax

Abstract Topics
Adaptive Immunity
Antiviral Therapy and Resistance
Cell Biology of Virus Infections
Clinical Virology
Diagnostic Methods
Emerging Infections
Epidemiology and Public Health
Gene Regulation
Host Cell Factors and Modulation
Immunobiology of Virus Infections
Infectiology
Innate Immunity

Signal Transduction
Structure and Assembly
Susceptibility to Virus Infections
 Trafficking
Tumor Viruses
Vaccines
Viral Pathogenesis
Viral Replication
Viromics and Virus Discovery
Virus Receptors and Entry
Virus Vectors and Gene Therapy
Zoonoses

www.virology-meeting.de
PAPILLOMAVIRUS CONFERENCE
& Clinical and Public Health Workshops

NOVEMBER 30 - DECEMBER 6, 2012
November 30 - December 2, 2012
Clinical & Public Health Workshops
December 2 - 6, 2012
Main Conference

ABSTRACT SUBMISSIONS
Closes August 1, 2012

ONLINE REGISTRATION
Closes November 12, 2012

www.hpv2012pr.org
registration@hpv2012pr.org

PUERTO RICO CONVENTION CENTER  SAN JUAN, PUERTO RICO
Sepsis is a serious condition that is associated with high mortality despite advanced modern medical treatment. Recent years have witnessed novel paradigms describing host responses in sepsis. In particular, the delicate balance between pro- and anti-inflammatory reactions has been subject to intense research. This volume in the book series 'Contributions to Microbiology' presents the state of the art in this rapidly expanding field of research. Leading international experts have contributed with reviews on the most relevant topics in the field such as clinical aspects, pathways of sepsis and pro- and anti-inflammatory mechanisms as well as their regulation. The book will be a valuable source of up-to-date information for clinicians, microbiologists, immunologists, and students with an interest in the complex regulation of host responses during microbial sepsis.

Contents

Foreword: Herwald, H.; Egesten, A.
Roger C. Bone, MD and the Evolving Paradigms of Sepsis: Balk, R.
Clinical Aspects of Sepsis: Holub, M.; Závada, J.
Virulence Factors of Gram-Negative Bacteria in Sepsis with a Focus on Neisseria meningitidis: Livorsi, D.J.; Stenehjem, E.; Stephens, D.S.
Pro-Inflammatory Mechanisms in Sepsis: Chong, D.L.W.; Sriskandan, S.
Anti-Inflammatory Mechanisms of Sepsis: Shubin, N.J.; Monaghan, S.F.; Ayala, A.
Regulation of Pro- and Anti-Inflammatory Host Responses: van der Poll, T.; van Zoelen, M.A.D.; Wiersinga, W.J.
Future Perspectives on Regulating Pro- and Anti-Inflammatory Responses in Sepsis: Delsesto, D.; Opal, S.M.
Author Index / Subject Index
Tailor-Made Therapy for Viral Hepatitis

Editors
Masatoshi Kudo, Okio Hino, Soo Ryang Kim, Hyo Suk Lee, Kwang Hyub Han, Young Hwa Chung


Hepatitis B Virus Serology to Predict Antiviral Response in Chronic Hepatitis B: Kim, B.K.; Han, K.-H.; Ahn, S.H.

HLA-DRB1*010101 Allele Is Closely Associated with Poor Virological Response to Lamivudine Therapy in Patients with Chronic Hepatitis B: Jin, Y.-J.; Shim, J.H.; Chung, Y.-H.; Kim, J.A.; Choi, J.G.; Park, W.H.; Lee, D.B.; Kim, S.E.; Lee, Y.S.; Kim, S.H.; Yang, S.H.


Interleukin-28B and Inosine Triphosphatase Help to Personalize Hepatitis C Treatment: Tanaka, Y.


Other:
Okio Hino, Soo Ryang Kim, Hyo Suk Lee, Kwang Hyub Han, Young Hwa Chung

Contents

Introduction
Tailor-Made Therapy for Viral Hepatitis: Recent Advances: Kudo, M.


Digestion

84

44

www.karger.com/dig

Please send: copies

Postage and handling free with prepayment

Payment:

Please charge to my credit card

☐ American Express ☐ Diners
☐ MasterCard ☐ Visa

Card No.

Exp. date:

CVV/CVC

(3 digits in the signature field on the back of Visa and MasterCard)

☐ Check enclosed ☐ Please bill me

Orders may be placed with any bookshop, subscription agency, directly with the publisher or through a Karger distributor.

KARGER

Tailor-Made Therapy for Viral Hepatitis
Editors: Kudo, M. (Osaka); Hino, O. (Tokyo); Kim, S.R. (Kobe); Lee, H.S.; Han, K.H.; Chung, Y.H. (Seoul) IV + 62 p., 15 fig., 22 tabs, soft cover, 2011 CHF 29.– / EUR 24.– / USD 34.00


CHF 29.– / EUR 24.– / USD 34.00

IV + 62 p., 15 fig., 22 tabs., soft cover, 2011

Included in subscription

Order information

E-Subscription

www.karger.com/dig

Please send: copies

Postage and handling free with prepayment

Payment:

Please charge to my credit card

☐ American Express ☐ Diners
☐ MasterCard ☐ Visa

Card No.

Exp. date:

CVV/CVC

(3 digits in the signature field on the back of Visa and MasterCard)

☐ Check enclosed ☐ Please bill me

Orders may be placed with any bookshop, subscription agency, directly with the publisher or through a Karger distributor.

KARGER

www.karger.com/dig

Tailor-Made Therapy for Viral Hepatitis

Editors: Kudo, M. (Osaka); Hino, O. (Tokyo); Kim, S.R. (Kobe); Lee, H.S.; Han, K.H.; Chung, Y.H. (Seoul) IV + 62 p., 15 fig., 22 tabs, soft cover, 2011 CHF 29.– / EUR 24.– / USD 34.00


CHF 29.– / EUR 24.– / USD 34.00

IV + 62 p., 15 fig., 22 tabs., soft cover, 2011

Included in subscription

Order information

E-Subscription

www.karger.com/dig

Please send: copies

Postage and handling free with prepayment

Payment:

Please charge to my credit card

☐ American Express ☐ Diners
☐ MasterCard ☐ Visa

Card No.

Exp. date:

CVV/CVC

(3 digits in the signature field on the back of Visa and MasterCard)

☐ Check enclosed ☐ Please bill me

Orders may be placed with any bookshop, subscription agency, directly with the publisher or through a Karger distributor.

KARGER

www.karger.com/dig

Tailor-Made Therapy for Viral Hepatitis

Editors: Kudo, M. (Osaka); Hino, O. (Tokyo); Kim, S.R. (Kobe); Lee, H.S.; Han, K.H.; Chung, Y.H. (Seoul) IV + 62 p., 15 fig., 22 tabs, soft cover, 2011 CHF 29.– / EUR 24.– / USD 34.00


CHF 29.– / EUR 24.– / USD 34.00

IV + 62 p., 15 fig., 22 tabs., soft cover, 2011

Included in subscription

Order information

E-Subscription

www.karger.com/dig

Please send: copies

Postage and handling free with prepayment

Payment:

Please charge to my credit card

☐ American Express ☐ Diners
☐ MasterCard ☐ Visa

Card No.

Exp. date:

CVV/CVC

(3 digits in the signature field on the back of Visa and MasterCard)

☐ Check enclosed ☐ Please bill me

Orders may be placed with any bookshop, subscription agency, directly with the publisher or through a Karger distributor.

KARGER

Tailor-Made Therapy for Viral Hepatitis

Editors: Kudo, M. (Osaka); Hino, O. (Tokyo); Kim, S.R. (Kobe); Lee, H.S.; Han, K.H.; Chung, Y.H. (Seoul) IV + 62 p., 15 fig., 22 tabs, soft cover, 2011 CHF 29.– / EUR 24.– / USD 34.00


CHF 29.– / EUR 24.– / USD 34.00

IV + 62 p., 15 fig., 22 tabs., soft cover, 2011

Included in subscription

Order information

E-Subscription

www.karger.com/dig

Please send: copies

Postage and handling free with prepayment

Payment:

Please charge to my credit card

☐ American Express ☐ Diners
☐ MasterCard ☐ Visa

Card No.

Exp. date:

CVV/CVC

(3 digits in the signature field on the back of Visa and MasterCard)

☐ Check enclosed ☐ Please bill me

Orders may be placed with any bookshop, subscription agency, directly with the publisher or through a Karger distributor.

KARGER

www.karger.com/dig

Tailor-Made Therapy for Viral Hepatitis

Editors: Kudo, M. (Osaka); Hino, O. (Tokyo); Kim, S.R. (Kobe); Lee, H.S.; Han, K.H.; Chung, Y.H. (Seoul) IV + 62 p., 15 fig., 22 tabs, soft cover, 2011 CHF 29.– / EUR 24.– / USD 34.00


CHF 29.– / EUR 24.– / USD 34.00

IV + 62 p., 15 fig., 22 tabs., soft cover, 2011

Included in subscription

Order information

E-Subscription

www.karger.com/dig

Please send: copies

Postage and handling free with prepayment

Payment:

Please charge to my credit card

☐ American Express ☐ Diners
☐ MasterCard ☐ Visa

Card No.

Exp. date:

CVV/CVC

(3 digits in the signature field on the back of Visa and MasterCard)

☐ Check enclosed ☐ Please bill me

Orders may be placed with any bookshop, subscription agency, directly with the publisher or through a Karger distributor.
A collection of extraordinary essays on key issues in the natural sciences

GOTTFRID SCHATZ

A MATTER OF WONDER

WHAT BIOLOGY REVEALS ABOUT US, OUR WORLD, AND OUR DREAMS

Where do we come from? Is our destiny determined by the genes we inherit? Do we all see the same blue color when we look at the sky? In this book Gottfried (Jeff) Schatz, the world-renowned biochemist, gives lucid – albeit often surprising – answers to universal questions and takes the reader on a fascinating journey of discovery across the boundaries of scientific disciplines. With passion and a keen sense of wonder he draws on philosophy, cultural history and art to formulate his reflections on the mystery of life. The key to understanding life is to be found in its chemistry, and he proves that this is no dry endeavor and certainly not devoid of beauty. The result is a collection of eloquently and poetically written essays dealing with key issues in the natural sciences. It will appeal not only to scientists, but also to all inquisitive minds, regardless of educational and professional background.

Schatz, G. (Basel)
A Matter of Wonder
What Biology Reveals about Us, Our World, and Our Dreams
XII + 190 p., 2 color fig., hard cover, 2011
CHF 29.– / EUR 21.50 / USD 29.00
Prices subject to change
EUR price for Germany, USD price for USA only

More information and sample essays at
www.karger.com/schatz

Orders can be placed at agencies, bookstores or directly with the publisher.
Also available through Amazon.com.

“A collection of extraordinary essays, reminiscent in many ways – scope, erudition, clarity, occasional whimsicality and sassiness – of Stephen Jay Gould’s essays for Natural History”
Herbert Deinert (Cornell University, Ithaca, N.Y.)

“A remarkable fusion of science and humanism”
Eugene P. Kennedy (Harvard University, Boston, Mass.)