Aspergillus fumigatus and Aspergillosis
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EDITED BY
Jean-Paul Latgé
Unité des Aspergillus, Institut Pasteur
Paris, France

William J. Steinbach
Division of Pediatric Infectious Diseases and Department of Molecular Genetics and Microbiology
Duke University Medical Center
Durham, North Carolina USA

WASHINGTON, D.C.
To the patients with aspergillosis, and their families, who have been told there is little hope

To our friends, colleagues, lab members, students, and families with whom we share this simultaneous love and hatred of *Aspergillus fumigatus*

And to Michelle, who has taught us both about surviving illness with dignity
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Contributors

Barbara D. Alexander
Dept. of Medicine/Infectious Diseases and Dept. of Pathology, Duke University Medical Center, DUMC Box 3035, Durham, NC 27710

Tsunihiro Ando
Dept. of Surgical Pathology, Toho University School of Medicine, 6-11-1 Omori-Nishi, Ota-Ku, Tokyo 143-8541, Japan

David S. Askew
Dept. of Pathology and Laboratory Medicine, University of Cincinnati College of Medicine, Cincinnati, OH 45267-0529

S. Arunmozhi Balajee
Mycotic Diseases Branch, Centers for Disease Control and Prevention, Mail Stop G11, 1600 Clifton Rd., Atlanta, GA 30333

Rosemary A. Barnes
Dept. of Medical Microbiology, Cardiff University, University Hospital of Wales, Cardiff CF14 4XN, United Kingdom

Anne Beauvais
Unité des Aspergillus, Institut Pasteur, 25, Rue du Docteur Roux, 75015 Paris, France

Elaine Bignell
Dept. of Microbiology, Centre for Molecular Microbiology and Infection, Imperial College London, Armstrong Road, London SW7 2AZ, United Kingdom

Emilio Bouza
Clinical Microbiology and Infectious Diseases Dept., Hospital General Universitario Gregorio Marañón, Spanish Study Group of Infection in Transplant Patients (GESITRA), and CIBER de Enfermedades Respiratorias (CIBERES), 28007 Madrid, Spain

Gordon D. Brown
Institute of Infectious Disease and Molecular Medicine, Division of Immunology, University of Cape Town, Observatory, 7925, South Africa
José Antonio Calera
Instituto de Microbiología-Bioquímica, Centro mixto CSIC/USAL,
Departamento de Microbiología y Genética, Universidad de Salamanca, Plaza 
Doctores de la Reina s/n, 37007 Salamanca, Spain

Elio Castagnola
Infectious Diseases Unit, Dept. of Hematology and Oncology, “G. Gaslini” 
Children Hospital, 16147 Genoa, Italy

Michel Chignard
Institut Pasteur, Unité de Défense innée et Inflammation, and Inserm, U874, 
25, Rue du Dr Roux, 75015 Paris, France

Robert A. Cramer, Jr.
Dept. of Veterinary Molecular Biology, Montana State University–Bozeman, 
Bozeman, MT 59718

David W. Denning
Medicine and Medical Mycology, University of Manchester, and Education and 
Research Centre, Wythenshawe Hospital, Manchester M23 9LT, United 
Kingdom

Paul S. Dyer
School of Biology, University of Nottingham, Nottingham NG7 2RD, United 
Kingdom

Scott G. Filler
Division of Infectious Diseases, Dept. of Medicine, Los Angeles Biomedical 
Research Institute at Harbor-UCLA Medical Center, Torrance, CA, and The 
David Geffen School of Medicine at UCLA, Los Angeles, CA 90502

Thierry Fontaine
Unité des Aspergillus, Institut Pasteur, 25, Rue du Dr Roux, 75015 Paris, 
France

Amandine Gastebois
Unité des Aspergillus, Institut Pasteur, 25, Rue du Dr Roux, 75015 Paris, 
France

Lisa M. Graham
Institute of Infectious Disease and Molecular Medicine, Division of 
Immunology, University of Cape Town, Observatory, 7925, South Africa

Reginald Greene
Dept. of Radiology, Massachusetts General Hospital, Harvard Medical School, 
Boston, MA 02114

Andreas H. Groll
Infectious Disease Research Program, Center for Bone Marrow Transplantation 
and Dept. of Pediatric Hematology/Oncology, University Children’s Hospital, 
48149 Muenster, Germany

Hubertus Haas
Biocenter, Division of Molecular Biology, Innsbruck Medical University, Fritz- 
Pregl-Str. 3, A-6020 Innsbruck, Austria

Raoul Herbrecht
Dept. of Oncology and Hematology, Hôpital de Hautepierre, 67098 
Strasbourg, France
Yainitza Hernández-Rodríguez  
Dept. of Plant Biology, University of Georgia, Athens, GA 30602

William W. Hope  
School of Translational Medicine, The University of Manchester, Manchester, United Kingdom

Wenqi Hu  
Merck Frosst Center for Fungal Genetics, Merck & Co., Inc., Montreal, Quebec, H2X 3Y8, Canada

Bo Jiang  
GlycoFi, Inc., Lebanon, NH 03766

Olivier Jousson  
Centre for Integrative Biology, University of Trento, 38100 Trento, Italy

Nancy P. Keller  
Dept. of Plant Pathology and Dept. of Medical Microbiology and Immunology, University of Wisconsin–Madison, Madison, WI 53706

Corné H. W. Klaassen  
Dept. of Medical Microbiology and Infectious Diseases, Canisius Wilhelmina Hospital, Weg door Jonkerbos 100, 6532 SZ Nijmegen, The Netherlands

Dimitrios P. Kontoyiannis  
Dept. of Infectious Diseases, Infection Control and Employee Health and Dept. of Bone Marrow Transplantation, The University of Texas M. D. Anderson Cancer Center, Houston, TX 77030

Sven Krappmann  
Research Center for Infectious Diseases, Julius-Maximilians-University Würzburg, Würzburg, Germany

Karine Lambou  
Unité des Aspergillus, Institut Pasteur, 25, Rue du Dr Roux, 75015 Paris, France

Jean-Paul Latgé  
Unité des Aspergillus, Institut Pasteur, 25, Rue du Dr Roux, 75015 Paris, France

Russell E. Lewis  
Dept. of Clinical Sciences and Administration, The University of Houston College of Pharmacy, and The University of Texas M. D. Anderson Cancer Center, 1441 Moursund St., #424, Houston, TX 77030

Johan Maertens  
Dept. of Haematology, Acute Leukaemia and Hematopoietic Stem Cell Transplantation Unit, University Hospitals Leuven, Campus Gasthuisberg, Herestraat 49, B-3000 Leuven, Belgium

Vincent Maertens  
Dept. of Haematology, Acute Leukaemia and Hematopoietic Stem Cell Transplantation Unit, University Hospitals Leuven, Campus Gasthuisberg, Herestraat 49, B-3000 Leuven, Belgium

Kieren A. Marr  
Comprehensive Transplant and Oncology Infectious Diseases Program, Dept. of Medicine, Johns Hopkins University, Baltimore, MD 21205
Gregory S. May
Division of Pathology and Laboratory Medicine, Dept. of Laboratory Medicine, Research, The University of Texas, M. D. Anderson Cancer Center, Houston, TX 77030

Emilia Mellado
Servicio de Micologia, Centro Nacional de Microbiologia, Instituto de Salud Carlos III, Carretera Majadahonda-Pozuleo Km2, (28.220) Majadahonda, Madrid, Spain

Michelle Momany
Dept. of Plant Biology, University of Georgia, Athens, GA 30602

Michel Monod
Service de Dermatologie, Laboratoire de Mycologie, Centre Hospitalier Universitaire Vaudois, 1011 Lausanne, Switzerland

Richard B. Moss
Center for Excellence in Pulmonary Biology, Dept. of Pediatrics, Stanford University, Palo Alto, CA 94304

Isabelle Mouyna
Unité des Aspergillus, Institut Pasteur, 25, Rue du Dr Roux, 75015 Paris, France

Frank-Michael Müller
Päd. Pneumologie & Speziale Infektiologie, Zentrum für Kinder- u. Jugendmedizin, INF 153, D-69120 Heidelberg, Germany

Patricia Muñoz
Clinical Microbiology and Infectious Diseases Dept., Hospital General Universitario Gregorio Marañón, Spanish Study Group of Infection in Transplant Patients (GESITRA), and CIBER de Enfermedades Respiratorias (CIBERES), 28007 Madrid, Spain

Yasmine Nivoix
Dept. of Pharmacy and Pharmacology, Hôpital de Hautepierre, 67098 Strasbourg, France

Nir Osherov
Dept. of Human Microbiology, Sackler School of Medicine, Tel-Aviv University, Ramat Aviv, Tel-Aviv 69978, Israel

Eric G. Pamer
Infectious Disease Service, Immunology Program, Memorial Sloan Kettering Cancer Center, New York, NY 10021

Paraskevi Panagopoulou
Dept. of Pediatric Oncology, Hippokration Hospital, Thessaloniki 54642, Greece

David S. Perlin
Public Health Research Institute, New Jersey Medical School-UMDNJ at the International Center for Public Health, 225 Warren St., Newark, NJ 07103

Utz Reichard
Dept. of Medical Microbiology and National Reference Center for Systemic Mycoses, University Hospital of Goettingen, 37075 Goettingen, Germany

Judith C. Rhodes
Dept. of Pathology and Laboratory Medicine, University of Cincinnati College of Medicine, Cincinnati, OH 45267-0529
Amariliz Rivera  
Immunology Program, Memorial Sloan Kettering Cancer Center, New York, NY 10021

Geoffrey D. Robson  
Faculty of Life Sciences, 1.800 Stopford Building, University of Manchester, Manchester M13 9PT, United Kingdom

Terry Roemer  
Dept. of Infectious Disease, Merck & Co. Inc., 126 East Lincoln Ave., Rahway, NJ 07065

Emmanuel Roilides  
3rd Dept. of Pediatrics, Aristotle University Medical School, Hippokration Hospital, Thessaloniki 54642, Greece

Luigina Romani  
Microbiology Section, Dept. of Experimental Medicine and Biochemical Sciences, and Fondazione “Istituto di Ricovero e Cura per le Biotecnologie Trapiantologiche” I.B.i.T., Perugia, Italy

Markus Ruhnke  
Medizinische Klinik und Poliklinik II, Charité – Universitätsmedizin Berlin, Campus Mitte, 10117 Berlin, Germany

Robert A. Samson  
CBS Fungal Biodiversity Centre, Uppsalalaan 8, 3584 CT, Utrecht, The Netherlands

Taylor Schoberle  
Division of Pathology and Laboratory Medicine, Dept. of Laboratory Medicine, Research, The University of Texas, M. D. Anderson Cancer Center, Houston, TX 77030

E. Keats Schwab  
Dept. of Plant Pathology and Dept. of Medical Microbiology and Immunology, University of Wisconsin–Madison, Madison, WI 53706

Stefan Schwartz  
Medizinische Klinik III, Charité – Universitätsmedizin Berlin, Campus Benjamin Franklin, 12200 Berlin, Germany

Brahm H. Segal  
Dept. of Medicine and Dept. of Immunology, Roswell Park Cancer Institute, Buffalo, NY 14263

Kazutoshi Shibuya  
Dept. of Surgical Pathology, Toho University School of Medicine, 6-11-1 Omori-Nishi, Ota-Ku, Tokyo 143-8541, Japan

Nina Singh  
Dept. of Medicine, Division of Infectious Diseases, University of Pittsburgh, Pittsburgh, PA

William J. Steinbach  
Division of Pediatric Infectious Diseases and Department of Molecular Genetics and Microbiology, Duke University Medical Center, Durham, NC 27710

David A. Stevens  
Dept. of Medicine, Division of Infectious Diseases, Santa Clara Valley Medical Center, and Stanford University Medical School, San Jose, CA 95128-2699
Hsin-Yun Sun  
Dept. of Internal Medicine, National Taiwan University Hospital and National  
Taiwan University College of Medicine, Taipei, Taiwan

Fredj Tekaia  
Unité de Génétique Moléculaire des Levures (URA 2171 CNRS and UFR927  
Univ. P. et M. Curie), Institut Pasteur, 25, Rue du Dr Roux, 75724 Paris  
Cedex 15, France

János Varga  
CBS Fungal Biodiversity Centre, Uppsalalaan 8, 3584 CT, Utrecht, The  
Netherlands

Paul E. Verweij  
Dept. of Medical Microbiology, University Medical Center St. Radboud, and  
Nijmegen University Center for Infectious Diseases, Inflammation and  
Immunity, Nijmegen, The Netherlands

Claudio Viscoli  
Division of Infectious Disease, University of Genoa, San Martino University  
Hospital, 16132 Genoa, Italy

Thomas J. Walsh  
Immunocompromised Host Section, Pediatric Oncology Branch, National  
Cancer Institute, National Institutes of Health, Bethesda, MD 20892

P. Lewis White  
NPHS Microbiology Cardiff, University Hospital of Wales, Cardiff CF14 4XN,  
United Kingdom

Joanne Wong Sak Hoi  
Unité des Aspergillus, Institut Pasteur, 25, Rue du Dr Roux, 75015 Paris,  
France

Jo-Anne H. Young  
Division of Infectious Disease and International Medicine, Dept. of Medicine,  
University of Minnesota, MMC 250, 420 Delaware St. S.E., Minneapolis, MN  
55455

Aimee K. Zaas  
Dept. of Medicine/Infectious Diseases, Duke University Medical Center,  
DUMC Box 3355, Durham, NC 27710
Medicine has advanced astonishingly fast in the past several decades. As newer medical technologies are repairing the human body in ways never imagined only a few years ago, infectious diseases are emerging as a leading cause of morbidity and mortality among these newly susceptible patients. Invasive and chronic fungal infections have become a formidable clinical opponent, and foremost among them is *Aspergillus fumigatus*.

This volume has been carefully engineered to offer the latest insights into the fundamental biology and pathogenesis of this organism and how it establishes disease, as well as the newest strategies for characterizing, diagnosing, and treating its spectrum of clinical infection. Other great textbooks have been published which address general fungal physiology, overall medical mycology, the biology of the aspergilli specifically, or antifungal therapy, yet this is the first volume which specifically merges the newest scientific knowledge with the latest clinical experience and data to yield a combined synopsis of this organism and its diseases.

Here we have assembled chapters from a large and international contingent of experts in the field to explore every major aspect of *A. fumigatus* and how it kills so many patients. This includes chapters on the species itself, including morphology and unique essential genes. We also discuss the importance of growth and germination as well as the organism’s response to environmental stress by moving from a saprophyte to a pathogen. The interface with the host immune system is paramount to disease phenotype, and this is outlined, as are the many faces of disease created by *A. fumigatus*. Newer diagnostic strategies are covered, including advances from the molecular age, the optimal timing of antifungal therapy, and the strategic choice of which agent to use.

It is our intent that *Aspergillus fumigatus and Aspergillosis* will encompass the current state of knowledge to serve as a resource guide for the next decade of study on this organism and the many diseases it causes. We hope that this volume will also serve as a catalyst for future young investigators to begin their own explorations in this field, to challenge the unproven dogmas and define the mechanisms of disease. This textbook is purposefully designed to unify the world’s *Aspergillus* experts and collaborate toward our common goal. Here we outline today’s state of the art and propose tomorrow’s difficult and unanswered questions.

It has been our pleasure to serve as the coeditors, and also as authors, for this exciting new book merging science and medicine. We thank the many con-
tributors to this new voyage; their expertise and efforts have forged a complete volume summarizing the many facets of *A. fumigatus*. We are also grateful to Gregory Payne, our editor at ASM Press, for his tireless energy and dedication to producing such an excellent book. We hope that our effort not only outlines the best thinking, but inspires creative solutions to the growing problem of *A. fumigatus* and aspergillosis.

Jean-Paul Latgé  
*Institut Pasteur*

William J. Steinbach  
*Duke University*
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