

Contents

Basics of Fungal Virulence

1 From Commensal to Pathogen: <i>Candida albicans</i>	3
AMY WHITTINGTON, NEIL A.R. GOW, BERNHARD HUBE	
2 <i>Aspergillus fumigatus</i> : Saprotroph to Pathogen	19
ELAINE BIGNELL	
3 Systems Biology Approaches to Understanding and Predicting Fungal · Virulence	45
LANAY TIERNEY, KATARZYNA TYC, EDDA KLIPP, KARL KUCHLER	

Immune Response to Fungal Infections

4 Receptor–Ligand Interactions in Fungal Infections	77
SARAH E. HARDISON, GORDON D. BROWN	
5 Macrophages in the Immune Response Against <i>Cryptococcus</i>	97
ROBERT J. EVANS, ROBIN C. MAY	
6 T Cell Responses in Fungal Infections	109
CRISTINA CUNHA, FRANCO AVERSA, LUIGINA ROMANI, AGOSTINHO CARVALHO	
7 Molecular Mechanisms of <i>Histoplasma</i> Pathogenesis	129
CHAD A. RAPPLEYE	
8 Visualizing Immune Responses in Fungal Infections: Established and Novel Methods	141
MIKE HASENBERG, SVEN KRAPPMANN, MATTHIAS GUNZER	
9 Mucosal Immunology in <i>Candida albicans</i> Infection	161
GÜNTHER WEINDL, JULIAN R. NAGLIK, DAVID L. MOYES, MARTIN SCHALLER	

Clinical Presentations and Epidemiology of Fungal Infections

10 Invasive Aspergillosis in the Intensive Care Unit	179
WOUTER MEERSSEMAN	

11	Molecular Epidemiology of <i>Pneumocystis</i> Outbreaks	191
	PHILIPPE M. HAUSER, JOSEPH A. KOVACS	
12	Infections Caused by Mucorales	205
	CAROLINE B. MOORE, MALCOLM D. RICHARDSON	
13	Diagnostics of Fungal Infections	229
	BIRGIT WILLINGER, DANIELA KIENZL, OLIVER KURZAI	
Treatment of Fungal Infections		
14	Therapeutic Strategies in Fungal Infections	263
	MARIA J.G.T. VEHRCHILD, KERSTIN WAHLERS, OLIVER A. CORNELLY	
15	Antifungal Pharmacokinetics	281
	FEDJA FAROWSKI, OLIVER A. CORNELLY	
	Biosystematic Index	291
	Subject Index	293