

Table of Contents

Global Analysis of <i>Agrobacterium</i> –Plant Interactions.....	1
<i>Eugene Nester, Derek Wood, and Pu Liu</i>	
Functional Genomic Analysis of <i>Pseudomonas syringae</i> –Plant Interactions	11
<i>Alan Collmer, Philip A. Bronstein, Lisa M. Schechter, and Rena Shimizu</i>	
Bacterial Genes Involved in Interactions with Plants.....	20
<i>Shinji Tsuyumu, Hiroyuki Matsumoto, Takashi Fujikawa, Hiromichi Ishihara, and Tomonori Shiraishi</i>	
Molecular Basis of Virulence in <i>Ustilago maydis</i>	30
<i>Scott E. Gold, María D. Garcia-Pedrajas, David L. Andrews, Steven J. Klosterman, María E. Mayorga, John D. Egan, Alfredo D. Martinez-Espinoza, David Smith, and Michael H. Perlin</i>	
Conditionally Dispensable Chromosomes Controlling Pathogenicity of <i>Alternaria alternata</i>	50
<i>Takashi Tsuge, Rieko Hatta, Kaoru Ito, Takayoshi Tanaka, Sheila R. Ruswandi, Keiji Kitani, Yoshiaki Harimoto, Shinya Takaoka, Akira Masunaka, Hajime Akamatsu, Kazuya Akimitsu, Motoichiro Kodama, Mikihiro Yamamoto, and Hiroshi Otani</i>	
Genetic Analysis of Fungal Pathogenesis: Penetration and Establishment.....	61
<i>Yasuyuki Kubo, Satoshi Fujii, Naoki Fujihara, Seiji Tsuge, and Gento Tsuji</i>	
Bacterial Virulence Factors: Strategies for Disrupting Plant Defense.....	73
<i>Carol L. Bender</i>	
Bacterial Flagellins as Elicitors of the Defense Response	83
<i>Yuki Ichinose, Fumiko Taguchi, Kasumi Takeuchi, Mizuri Marutani, Yasuhiro Ishiga, Yoshishige Inagaki, Kazuhiro Toyoda, and Tomonori Shiraishi</i>	

Molecular Genetic Analysis of AvrRpt2 Activity in Promoting Virulence of <i>Pseudomonas syringae</i>	92
<i>Barbara N. Kunkel, Jennifer Agnew, James J. Collins, Jerry Cohen, and Zhongying Chen</i>	
Recognition of the Bacterial Effector Protein AvrPto in Soybean— A Case of HR-Independent Resistance.....	103
<i>Li Wang, A. Assibi Mahama, Lalitree L. Darnielle, Alan L. Eggenberger, John Hill, and Adam J. Bogdanove</i>	
Defense Signaling and the Plant Cell Wall—A New Signaling Pathway Dependent upon Inorganic Phosphate	114
<i>T. Shiraishi, K. Toyoda, A. Kiba, T. Kawahara, H. Takahashi, Y. Inagaki, and Y. Ichinose</i>	
Use of Expression Profiling in Studies of Gene-for-Gene Resistance	126
<i>Fumiaki Katagiri</i>	
Evolution of Disease Resistance Genes	137
<i>Shavannor Smith and Scot Hulbert</i>	
The Extracellular Matrix of Conidia of Powdery Mildew Fungi: Its Functions and Involvement in Information Exchange with Host Cells	150
<i>Hitoshi Kunoh, Timothy L. W. Carver, Barry J. Thomas, Keiko Fujita, Akane Meguro, and Alison J. Wright</i>	
Dissection of Durable Resistance in Rice	164
<i>Jan E. Leach, Bin Liu, Patricia Manosalva, Changjian Wu, Jianli Wu, Alicia Bordeos, Jianfa Bai, SeWeon Lee, Marietta Ryba-White, Myron Bruce, Scot Hulbert, Christopher Hopkins, Casiana Vera Cruz, and Hei Leung</i>	
Analysis of Rice–Blast Interactions Focused on Chitinolytic Enzymes and Chitin Elicitors	174
<i>Yoko Nishizawa, Eiichi Minami, Chiharu Akimoto-Tomiyama, Ritsuko Mizobuchi, Akemi Tagiri, Yoshikane Ito, and Takeshi Watanabe</i>	
Signal Transduction Pathways Governing Resistance to Cucumber mosaic virus	185
<i>Hideki Takahashi, Ken-Taro Sekine, Takeaki Ishihara, Shu Hase, Masato Ikegami, and Jyoti Shah</i>	
The Superoxide-Generating NADPH Oxidase in Plants: Its Molecular Basis and Role in Induction of Local and Systemic Induced Resistance Against Pathogens	195
<i>N. Doke, H. Yoshioka, K. Sugie, N. Numata, K. Nakajima, H.-J. Park, N. Sunazaki, M. Yamashita, K. Kawakita, and S. Katou</i>	
Programmed Cell Death in the Disease Response.....	207
<i>T. J. Wolpert, J. M. Lorang, M. J. Curtis, W. C. Coffeen, N. Carkaci-Salli, and T. A. Sweat</i>	

Telomerase Functions in Plant Pathogenesis	219
<i>Katsunori Tamura, Keiko Oguchi, and Hideo Takahashi</i>	
Apoptotic Response During Pathogen Attack in Oats.....	230
<i>Shigeyuki Mayama, Nan Yao, Ko Kusaka, Yasuomi Tada,</i> <i>Qian Yang, Teppei Shigemi, Satoshi Imai, Hitoshi Nakayashiki,</i> <i>Yukio Tosa, and Pyoyun Park</i>	
Use of Expression Profiling to Explore Disease Resistance	
Signaling in Plants	238
<i>Jane Glazebrook</i>	
Signal Transduction in TMV-Infected and Wounded	
Tobacco Plants.....	249
<i>Y. Ohashi, S. Seo, I. Mitsuhashi, H. Yamakawa,</i> <i>and R. Takabatake</i>	
Role of a Mitochondrial Gene in Controlling Specificity	
in Plant Disease	258
<i>Kazuya Akimitsu, Kouhei Ohtani, Akira Masunaka,</i> <i>Yumiko Yamasaki, Hiroshi Katoh, and Hiroyuki Yamamoto</i>	
The Effects of Deoxynivalenol on Barley Leaf Tissues.....	270
<i>W. R. Bushnell, T. M. Seeland, P. Perkins-Veazie,</i> <i>D. E. Krueger, J. Collins, and V. M. Russo</i>	
Abstracts.....	285
Synopsis	295
<i>Seiji Ouchi and Dallice Mills</i>	