

NOVA ACTA LEOPOLDINA

Abhandlungen der Deutschen Akademie der Naturforscher Leopoldina

Im Auftrage des Präsidiums herausgegeben von

WERNER KÖHLER

Vizepräsident der Akademie

NEUE FOLGE

NUMMER 312

BAND 80

Bacterial Pathogenesis – Modern Approaches

Leopoldina Symposium

January 20, 1999 to January 22, 1999
in Wrocław, Poland

Organizers:

Werner KÖHLER (Jena)
Vice-President of the Academy

Anna PRZONDO-MORDARSKA (Wrocław)

Gerhard PULVERER (Köln)
Member of the Academy

With 50 Figures und 47 Tables

Technische Universität Darmstadt
FACHBEREICH 10 — BIOLOGIE
— Bibliothek —
Schnittspahnstraße 10
D-64287 Darmstadt



Inv.-Nr. 15083

Deutsche Akademie der Naturforscher Leopoldina, Halle (Saale) 1999

Geschenk d. Leopoldina

Contents

| | |
|---|----|
| PRZONDO-MORDARSKA, Anna: Introduction | 7 |
| PARTHIER, Benno: Opening Address | 9 |
| DREWS, Gerhart: Ferdinand Cohn: a Promoter of Modern Microbiology | 13 |

Taxonomy of Microorganisms

| | |
|--|-----|
| GOODFELLOW, Michael, ISIK, Kamil, and YATES, Emma: Actinomycete Systematics: An Unfinished Synthesis | 47 |
| SCHAAL, Klaus P., CRECELIUS, Anke, SCHUMACHER, Gabi, and YASSIN, Atteyet A.: Towards a New Taxonomic Structure of the Genus <i>Actinomyces</i> and Related Bacteria .. | 83 |
| GRAEVENITZ, Alexander von: Taxonomy of Medically Relevant Coryneform Bacteria .. | 93 |
| STACKEBRANDT, Erko: The Phylogenetic Diversity of Cultured and as-yet Uncultured Prokaryotes | 99 |
| ZAKRZEWSKA-CZERWIŃSKA, Jolanta, and MORDARSKI, Marian: Molecular Identification of Staphylococci | 117 |
| KÖHLER, Werner: The Taxonomy of Streptococci | 125 |

Microbial Pathogenesis

| | |
|--|-----|
| ALOUF, Joseph E., and MÜLLER-ALOUF, Heide: Bacterial Superantigenic Toxins in Human Pathogenesis | 143 |
| JELJASZEWICZ, Janusz, SZMIGIELSKI, Stanislaw, SOBICZEWSKA, Elżbieta, and PULVERER, Gerhard: Staphylococcal Leukocidal Proteins | 159 |
| BRADE, Helmut, BRADE, Lore, and HOLST, Otto: Structure, Biosynthesis and Immunoactivity of Chlamydial Lipopolysaccharide and its Biomedical Application in the Diagnosis of Chlamydial Infections (<i>Extended Abstract</i>) | 179 |
| AEPFELBACHER, Martin, ZUMBIHL, Robert, RUCKDESCHEL, Klaus, und HEESEMANN, Juergen: Pathogenicity of <i>Yersinia</i> or How to Find an Extracellular Niche | 181 |
| HACKER, Jörg, DOBRINDT, Ulrich, JANKE, Britta, NAGY, Gabor, PIECHACZEK, Katharine, BLUM-OEHLER, Gabriele, and ÖLSCHLÄGER, Tobias: Virulence Factors of Pathogenic <i>Escherichia coli</i> : Structure, Function and Impact on Microbial Evolution | 193 |

| | |
|---|-----|
| MEISEL-MIKOŁAJCZYK, Felicja: Anaerobes Today | 207 |
| HYRNIEWICZ, Waleria: Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA): Forty Years On..... | 219 |
| SCHÜTT-GEROWITT, Heidi, SCHAAL, Klaus P., and PULVERER, Gerhard: The Role of Actinomycetes in the Etiology of Lacrimal Canalicularis and other Eye Infections | 227 |
| LACHOWICZ, Tadeusz M., DOROSZKIEWICZ, Włodzimierz, and NIEDBACH, Joanna: Environment Implication of Lipopolysaccharide Dependent Normal Serum Sensitivity of <i>Shigella flexneri</i> Serotypes | 235 |

New Aspects of Vaccine Development

| | |
|--|-----|
| KAUFMANN, Stefan H. E.: A Personal View on the Development of Novel Vaccines against Tuberculosis | 247 |
| ŁUGOWSKI, Czesław, NIEDZIELA, Tomasz, JACHYMEK, Wojciech, CZAJA, Jolanta, and ŁĘTOWSKA, Iwona: The Acellular Pertussis Vaccine | 259 |
| GAMIAN, Andrzej, WITKOWSKA, Danuta, MIESZAŁA, Małgorzata, STANISZEWSKA, Magdalena, and PRZONDO-MORDARSKA, Anna: Fimbriae as a Carrier for Antibacterial Vaccines | 265 |