## **CURRICULUM VITAE**

June, 2010

## David M. Shlaes MD Ph.D.

**PERSONAL DATA:** 

Place of Birth Chicago, IL

Married, two children

Present home address 219 Montauk Ave., Stonington, CT 06378

Telephone (home) +1-860-535-1505 (mobile) +1-617-669-8364

e-mail – <u>shlaes.david@earthlink.net</u>

Citizenship USA

**EDUCATION:** 

1965-1969 BA, Biology-Chemistry

(Magna cum laude) Lawrence University Appleton, Wisconsin

1969-1975 Ph.D., Microbiology

Case Western Reserve University

Cleveland, OH

1969-1976 MD

Case Western Reserve University

Cleveland, OH

#### **PROFESSIONAL EXPERIENCE:**

Sole Proprietor and President – Anti-Infectives Consulting, LLC. 2005-present

Independent Director, Board of Directors, Novexel S.A, Romainville, France. 2006-2010.

Senior Fellow, Idenix Pharmaceuticals, 2004-2005

Executive Vice President, Research and Development, Idenix Pharmaceuticals, Inc., 2002-4

Therapeutic Area Co-Leader for Infectious Diseases, Wyeth-Ayerst, Feb. 2000-2002

Vice President, Infectious Diseases, Wyeth Ayerst Research 1996-2002

Chief, Infectious Diseases Section VA Medical Center 1984-1991 Cleveland, OH

Chief, Clinical Microbiology UnitVA Medical Center 1980-1994 Cleveland, OH

Clinical Investigator, Department of Veterans Affairs

1990-1996

Professor of Medicine, 1991 Case Western Reserve University

School of Medicine

Award of Tenure, 1988 Case Western Reserve University

> School of Medicine Cleveland, Ohio

Associate Professor of Medicine Case Western Reserve University

1986-1991 School of Medicine

Cleveland, OH

Assistant Professor of Medicine Case Western Reserve University

1980-1986 School of Medicine

Cleveland, OH

Chief Resident (Medicine) Mt. Sinai Hospital 1979-80 Cleveland, OH

Fellow (Infectious Diseases) Cleveland Metropolitan

1978-89 General Hospital (with Dr. E. Wolinsky)

Cleveland, OH

Mt. Sinai Hospital Resident (Medicine) 1977-88 Cleveland, OH

Intern (Medicine) Mt. Sinai Hospital 1976-77 Cleveland, OH

#### MEDICAL LICENSURE:

Ohio 1976-1996 New Jersey – 1997 – 2005 Connecticut – 2006-present

## **SOCIETIES AND ASSOCIATIONS:**

Diplomate, National Board of Medical Examiners
Diplomate, American Board of Internal Medicine
American Society for Microbiology
Infectious Diseases Society of America, Fellow, 1992
Elected member, Central Society for Clinical Research, 1989.
Society of Hospital Epidemiologists of America, 1994.

**CAREER GOALS:** I still am highly motivated to bring new anti-infective therapies to the market which provide value to patients, physicians and industry, while preserving a degree of independence for myself and time for my family.

**CURRENT RESPONSIBILITIES:** I began a consulting business in the area of antiinfective discovery, development, and strategic planning. I am currently self-employed. In my new role, I have several major clients. I have been an independent director for Novexel SA headquartered in France that was just sold to Astra-Zeneca for \$505 **million.** I have a number of clients for whom I have smaller time commitments. They include both investment firms and biotechnology companies in Europe, and the US. My roles for all these clients involve some work in the drug discovery area, but mostly in translational research and strategic planning of Ph I-III clinical trials and in business development. I filled in as interim CSO for one client during a one-year recruitment effort. I have carried out a number of evaluations for investment firms, some of which have progressed to due diligence and beyond. My prior experience leading the Infectious Diseases Therapeutic Area at Wyeth and later as Executive Vice President for Research and Development at Idenix Pharmaceuticals where I was also responsible for manufacturing for a period of time provided valuable experience in both large PhRMA and biotech. The projects included anti-bacterials and anti-virals at all stages of research and development. I have had reasonably extensive experience with the FDA including work with the PhRMA Antimicrobial Working Group to bring together industry, the Infectious Diseases Society of America and the FDA around the topic of clinical trial design in anti-infectives. This breadth of experience has been invaluable to me in my current role.

**RESPONSIBILITIES AT IDENIX 11/04 - 10/05:** I worked on a part time basis where I continued to lead the pharmacology-toxicology group in support of Idenix development programs. I also played a lead role in a naiscent biodefense effort at Idenix. I still reported directly to the CEO.

# **RESPONSIBILITIES AT IDENIX 2002-4:**

At Idenix, I led a team including biologists, chemists, process chemists, toxicologists and pharmacologists to identify and develop novel anti-infective compounds in areas of

important medical need. Idenix scientists are located in Cambridge, MA, Montpellier, France and Cagliari, Italy. For the first year at Idenix, I also had primary responsibility for API manufacturing and Drug Product manufacturing. My responsibilities at Idenix were much broader than those I had at Wyeth. At Idenix, as Executive Vice President for Research and Development, I reported directly to the CEO and interacted closely with the CFO, Business Development, Legal and Patent Counsel. During my tenure as EVP at Idenix, I:

*Led* the preparation of our IND for NM283, our nucleoside analog for the treatment of Hepatitis C virus infection for which development was halted after Ph. II.

Led the Idenix effort in **Biodefense**. This effort has led to the submission of a response to an RFP from NIAID with a budget of \$500MM which was submitted for funding. I helped prepare this submission with the Memphis Bioworks Foundation who have taken over primary responsibility for the project.

Had primary responsibility for all preclinical activities, from toxicological testing, preclinical pharmacokinetics, to API and drug product manufacturing for NM283.

*Initiated* preclinical studies to support the development of LdC-LdT combination and to support the ultimate NDA for LdT planned for 2005. The preclinical development plan for LdT-LdC, which was accepted by the FDA, was unique since it involved a fixed combination of two, as yet unapproved, drugs.

## RESPONSIBILITIES AND ACCOMPLISHMENTS AT WYETH 1996-2002:

My goal at Wyeth was to discover and lead the pre-clinical development of innovative anti-bacterial and anti-viral compounds to fill areas of clear medical need and which are of significant commercial value. To achieve this goal, I directed a team of about 70 biologists and biochemists (~50% Ph.D.s:non-Ph.D.s) and a number of multidisciplinary project teams. I also directed our Natural Products Microbiology group (~20 FTEs), a central resource within Wyeth. I reported to the SVP for Discovery who, in turn, reported to the President, R&D.

## During my tenure at Wyeth, I:

Led the strategic planning process for Infectious Diseases at Wyeth-Ayerst Research. Delivered one anti-bacterial to clinical development, tigecycline. I helped design its Ph. II and III trials. It is now launched as Tygacil. One antiviral was delivered in March, 1999 a second, in partnership with ViroPharma, was delivered early in 2000 and a third in 2002. Established a major alliance with Chem-Genics (which became part of Millennium Pharmaceuticals) for the discovery of novel, essential bacterial gene targets. Established an alliance with Dr. Vincent Fischetti of Rockefeller University, Dr. Olaf Schneewind of the University of Chicago and SIgA Pharmaceuticals for screening a protease involved in the expression of bacterial proteins on the cell surface. Inhibitors of this enzyme should lead to loss of virulence by attacking a number of virulence factors simultaneously. Established an alliance with Dr. Piet DeBoer and Case Western Reserve University for identifying inhibitors of a novel bacterial cell division protein. Established a major alliance with ViroPharma for the Discovery and Development of compounds active against Hepatitis C Virus.

Strengthened our antiviral research program, improved our level of automation for secondary assays, and reorganized the infectious disease research section to increase synergies between anti-viral and anti-bacterial research and our overall efficiency.

Participated in an important task force which resulted in a major alteration in our Discovery process to bring Development resources in at a very early stage. Results two years after implementation of this process indicate a reduced time to development track and a reduced Ph. 0/I drop-out rate.

Acquired responsibility for Natural Products Microbiology.

Supervised about 90 scientists.

Was instrumental in convincing the FDA that their planned increase in clinical trial design stringency, as conceived, would drive industry out of antibiotic discovery and development – they reversed their decision (temporarily) as a result.

## **BOARD OF DIRECTORS:**

Novexel, SA, Romainville, France. Independent Director.

## SCIENTIFIC ADVISORY BOARDS:

Novexel

Nabriva

J&J

Others . . .

### LANGUAGE SKILLS:

Working knowledge of written and spoken French.

## **EDITORIAL RESPONSIBILITIES:**

Editor, Antimicrobial Agents and Chemotherapy, 2010-2015.

Editorial Board, J Clin Microbiol, 1983-5

Editorial Board, Antimicrobial Agents and Chemotherapy, 1986- present, Clinical Microbiology and Infection, 1995-present, Drugs in R&D, 1998-2000.

Ad hoc reviewer for: New Engl J Med, J Infec Dis, Clin Infec Dis, Arch Intern Med, Ann Intern Med., Chest.

# NATIONAL GRANT REVIEWING RESPONSIBILITIES:

Infectious Diseases Merit Review Board, Veterans Administration Central Office - 1992-5.

Ad hoc reviewer for: American Heart Association (Northeast Ohio Branch),

National Science Foundation, National Institutes of Health.

Member, Special Study Section, Biology of Mycobacterium tuberculosis, NIAID, 1993.

Member, Special Study Section, Regional Centers for Excellence in Biodefense, 2004, 2005.

# **COMMITTEE RESPONSIBILITIES:**

**ICAAC Committee**, 1989 - 1993.

Chairman, Division L, Nosocomial Infections, of the American Society for Microbiology, 1988.

Chair-elect, Division L, Nosocomial Infections, of the Microbiology, 1987.

American Society for Microbiology, 1987.

Program Committee, Annual Meeting, American Thoracic Society, 1986.

Planning Committee, Mechanisms of Infection Teaching Committee, Case Western Reserve University School of Medicine, 1985-1994.

Chairman, Mechanisms of Infection Teaching Committee, CWRU School of Medicine, 1988-1993.

Chairman, Infection Control Committee, Cleveland VAMC, 1982-1996.

Member, Research and Development Committee, Cleveland VAMC, 1989-1990.

Chairman, Research and Development Committee, Cleveland VAMC, 1990-1992.

Member, American Society for Microbiology Task Force on Antimicrobial Resistance, 1994.

Program Committee, Annual Meeting of the Infectious Diseases Society of America - 1996-1999.

Member, Institute of Medicine Forum on Emerging Infections, National Academy of Sciences, 1996-2003.

Consultant, Multi-Agency Task Force on Combatting Antibiotic Resistance, 1999. Chairman, SHEA Antibiotics Committee, 1994 – 1996.

Member, PhRMA Antibiotics Working Group, 2001-2005.

Member, Infectious Diseases Society Taskforce on Antimicrobial Resistance, 2003-2007.

Participant, NIAID Summit, 2004.

Member, Manhattan Institute, Project for FDA Reform, 2004-2007

## **HONORS:**

Sabbatical leave to study mechanisms of resistance to glycopeptide antibiotics at the University of Paris with Dr. J. Acar, 1987-8.

Chairman, Organizing Committee, NIH Workshop to define New Research Directions in Antimicrobial Resistance, 1990. Follow-up meeting NIAID, CDC, FDA, Jan. 1992. Participant, FDA Symposium on Antimicrobial Residues in Food. June, 1992.

Visiting Professor:

U. Pittsburgh, Department of Medicine, September, 1992.

Columbia College of Medicine, November, 1992.

SUNY Buffalo, 1996.

Distinguished Lecturer, MD-Ph.D. Program, University of Cincinnati School of Medicine, 1998.

Interviewed by Science, April, 1994.

Television interviews on Antimicrobial Resistance, ABC News, 1994.

Professeur Associé, Université de Paris VI, Année sabbatique, 1994-5.

American Society for Microbiology Foundation Lecturer 1996-98.

Cover story and photograph - Business Week, April 6, 1998.

Discover Magazine Interview - 1998.

Fortune Magazine Interview – July, 2002

PhRMA presentation to FDA at Workshop on clinical trial design in infectious diseases 2000, 2001.

**2006** – Gordon Research Conference on New Antibacterial Discovery and Development, ASM annual Meeting, ICAAC.

## **RESEARCH SUPPORT:**

Continuous funding by the NIH or the VA Central Office 1984 - 1996.

## **BIBLIOGRAPHY:**

#### Ph.D. Thesis

**Shlaes** DM. Recombination repair in *Escherichia coli* K12. Case Western Reserve University School of Medicine, Department of Microbiology, September, 1975.

#### **Books**

**Shlaes, DM.** Antibiotics – The Perfect Storm. Springer-Verlag, In Press, 2010.

# **PUBLICATIONS (In Refereed Journals):**

- 1. **Shlaes** DM, Anderson JA and Barbour SD. Excision repair properties of isogenic *rec* mutants of *Escherichia coli* K12. J. Bacteriol 111:723-730, 1972.
- 2. **Shlaes** DM and Barbour SD. Repair of UV damaged DNA in *sbcA* strains of *Escherichia coli* K12. J Bacteriol 138:105-8, 1979.
- 3. **Shlaes** DM, Levy J and Wolinsky E. Enterococcal bacteremia without endocarditis. Arch Intern Med 141:578-581, 1981.
- 4. **Shlaes** DM, Lerner PI, Wolinsky E and Gopalakrishna KV. Infections due to Lancefield group F and related streptococci (*S. milleri* and *S. anginosus*). Medicine 60:197-207, 1981.
- 5. **Shlaes** DM, Dul MJ and Lerner PI. *Anaerobiospirilum* bacteremia. Ann Intern Med 97:63-4, 1982.
- 6. **Shlaes** DM, Dul MJ and Lerner PI. *Capnocytophaga* bacteremia in the compromised host. Am J Clin Pathol 77:359-361, 1982.
- 7. **Shlaes** DM, Mandell R, Bass SN and Spagnuolo PJ. Bacteremia due to *Streptococcus pneumoniae* of non-vaccine serotypes. Am Rev Resp Dis 126:712-3, 1982.
- 8. Knight RG and **Shlaes** DM. Rapid identification of *Staphylococcus aureus* and *Streptococcus pneumoniae* from blood cultures. J Clin Microbiol 17:97-9, 1983.
- 9. **Shlaes** DM, Lederman M, Chmielwski R et. al. Elastin fibers in the sputum of patients with necrotizing pneumonia. Chest 83:885-9, 1983.

- 10. King CH, **Shlaes** DM and Dul MJ. Infection due to thymidine-requiring trimethoprim-resistant bacteria. J Clin Microbiol 18:79-83, 1983.
- 11. **Shlaes** DM, Currie CA, Rotter G, Eanes M and Floyd R. The epidemiology of gentamicin-resistant Gram negative bacilli on a spinal cord injury unit. J Clin Microbiol 18:227-235, 1983.
- 12. **Shlaes** DM and Currie CA. Endemic gentamicin-resistance R-factors on a spinal cord injury unit. J Clin Microbiol 18:236-241, 1983.
- 13. Vartian CV and **Shlaes** DM. Intravenous acyclovir and neurologic effects. (Letter). Ann Intern Med 99:568, 1983.
- 14. Dul MJ, **Shlaes** DM and Lerner PI. EF-4 bacteremia in a patient with hepatic carcinoid. J Clin Microbiol 18:1260-1261, 1983.
- 15. **Shlaes** DM, Vartian CV and Currie CA. Variability in DNA sequence of closely related nosocomial gentamicin-resistance plasmids. J Infect Dis 148:1013-8, 1983.
- 16. Barbour SD, **Shlaes** DM and Guertin SR. Toxic shock syndrome associated with nasal packing: analogy to tampon-associated illness. Pediat 73:163-5, 1984.
- 17. Knight RG and **Shlaes** DM. One hour litmus milk test for identification of Streptococcus faecalis from blood cultures. Lab Med 15:417-8, 1984.
- 18. **Shlaes** DM, Marino J and Jacobs MR. Infection caused by a vancomycin-resistant *Streptococcus sanguis II*. Antimicrobial Agents and Chemother 25:527-8, 1984.
- 19. **Shlaes** DM, Lederman MM, Chmielewski R, et. al. Sputum elastin fibers in the diagnosis of necrotizing pneumonia. Chest 85:763-6, 1984.
- 20. Knight RG, **Shlaes** DM and Mesineo L. DNA relatedness of some human enterococci. Internat J Systemat Bacteriol 34:327-331, 1984.
- 21. **Shlaes** DM, Toosii Z and A. Patel. Direct Lancefield grouping of streptococci from blood cultures: Comparison of latex agglutination and immunofluorescence. J Clin Microbiol 20:195-198, 1984.
- 22. Vartian CV, Lerner PI, **Shlaes** DM, and Gopalakrishna KV. Infections due to Lancefield group G streptococci. Medicine 64:75-88,1985.
- 23. Vartian CV, **Shlaes** DM, Padhye AA and Ajello L. *Wangiella dermatidis* endocarditis in an intravenous drug user. Am J Med 78:703-7, 1985.

- 24. Knight RG and **Shlaes** DM. Physiologic and deoxyribonucleic acid relatedness of *Streptococcus bovis* and *Streptococcus bovis* (variant). Internat J Systemat Bacteriol 35:357-361, 1985.
- 25. Knight RG and **Shlaes** DM. DNA relatedness of *Enterococcus hirae* and "*Streptococcus durans*" (homology group II). Internat J Systemat Bacteriol 36:111-113, 1986.
- 26. Kasmer RJ, Walker N, Hurlburt F, Rotter G, **Shlaes** DM and Hostetler C. Sterility of preloaded insulin syringes. Am J Infec Cont, 14:180-3, 1986.
- 27. **Shlaes** DM, Medeiros AA, Kron MA, Currie-McCumber CA and Vartian CV. A novel plasmid-mediated β-lactamase in *Enterobacteriaceae* from Ohio. Antimicrob Agents and Chemother, 30:220-224, 1986.
- 28. Jacobs MR, Aronoff SC, Johenning S, **Shlaes** DM and Yamabe T. Comparison of the  $\beta$ -lactamase inhibitors YTR-830, clavulanic acid and sulbactam combined with  $\beta$ -lactams against Gram negative bacilli with defined - $\beta$ -lactamases. Antimicrob Agents and Chemother 29:980-5, 1986.
- 29. **Shlaes** DM, Currie-McCumber CA, Eanes M et. al. Gentamicin-resistance plasmids in an intensive care unit. Infec Cont 7:355-361,1986.
- 30. **Shlaes** DM and Currie-McCumber CA. Dissemination of a plasmid determining multiple antibiotic resistance between two Veterans Administration Medical Centers. Infec Cont 7:362-4, 1986.
- 31. **Shlaes** DM, Lehman MH, Currie-McCumber CA and Kim CH. Endemic multiply antibiotic resistant *Enterobacteriaceae* on a nursing home care unit: The importance of cross-infection as determined by plasmid analysis. Infec Cont, 7:538-545, 1986.
- 32. Rhinehart E, **Shlaes** DM, Serkey J, Keys T, et. al. Clonal dissemination of methicillinresistant *Staphylococcus aureus* (MRSA) identified by plasmid analysis. Arch Intern Med 147:521-4, 1987.
- 33. Salata R, Lederman M, **Shlaes** DM et. al. Nosocomial pneumonia: A prospective study of intubated patients. Am Rev Resp Dis 135:426-432, 1987.
- 34. Aronoff SC and **Shlaes** DM. Factors which influence the development of β-lactam resistance in -lactamase inducible strains of *Enterobacter cloacae* and *Pseudomonas aeruginosa*. J Infec Dis, 155:936-941, 1987.
- 35. Catto B, **Shlaes** DM, Jacobs MR. *Streptococcus mitis*: A cause of serious infection in adults. Arch Intern Med, 147:885-888, 1987.
- 36. Sliman R, Rehm S and **Shlaes** DM. Serious infections caused by *Bacillus species*. Medicine 66:218-223, 1987.

- 37. **Shlaes** DM, Yessayan A and Currie-McCumber CA. The VA ANT(2") plasmid found in Dallas, Texas. Letter to the editor, Antimicrob Agents and Chemother, 31:1155, 1987.
- 38. Kron MA, Currie-McCumber CA, Medeiros AA and **Shlaes** DM. The molecular epidemiology of the OHIO-1 β-lactamase. Antimicrob Agents and Chemother, 31:2007-9, 1987.
- 39. Knight RG and **Shlaes** DM. Physiological Characteristics and Deoxyribonucleic Acid relatedness of *Streptococcus intermedius* strains. Internat J Systemat Bacteriol, 38:19-24, 1987.
- 40. Fry DE, Fry RV and **Shlaes** DM. Serratia bacteremia in the surgical patient. Am Surg 53:438-441, 1987.
- 41. MacArthur R, Lehman MH, Currie-McCumber CA and **Shlaes** DM. The epidemiology of gentamicin resistant *Pseudomonas aeruginosa* on an intermediate care ward. Am J Epidemiology 128:821-827, 1988.
- 42. **Shlaes** DM and Little J. Cefoxitin-aztreonam antagonism does not correlate with induction of β-lactamase. J Antimicrob Chemother 21:673-675, 1988.
- 43. **Shlaes** DM, Lehman MH and Currie-McCumber CA. Endemic plasmid encoding the OHIO-1 β-lactamase on an intermediate care ward. Infection Control and Hospital Epidemiology 9:317-319, 1988.
- 44. **Shlaes** DM, Bouvet A, Devine C, Shlaes JH, Al-Obeid S and Williamson R. Inducible, transferable resistance to vancomycin in *Enterococcus faecalis* A256. Antimicrobial Agents and Chemother, 33:198-203, 1989.
- 45. Williamson R, Al-Obeid S, Shlaes JH, Goldstein FW and **Shlaes** DM. Inducible resistance to vancomycin in *Enterococcus faecium* D366. J. Infect Dis 159:1095-1104, 1989.
- 46. **Shlaes** DM, Al-Obeid S, Shlaes JH and Williamson, R. Activity of glycopeptides against a glycopeptide resistant strain of *Enterococcus faecium*, D366. J. Infect Dis 159:1132-1135, 1989.
- 47. **Shlaes** DM, Shlaes JH, Davies JD and Williamson R. *Escherichia coli* susceptible to some glycopeptides. Antimicrob Agents and Chemother, 33:192-197, 1989.
- 48. **Shlaes** DM, Al-Obeid S, Shlaes JH, Boisivon H and Williamson R. Inducible, transferable resistance to vancomycin in *Enterococcus faecium* D399. J Antimicrob Chemother, 32:503-508, 1989.

- 49. Salata R, Lerner PI, **Shlaes** DM and Wolinsky E. Serious infections caused by group C streptococci. Medicine, 68:225-239, 1989.
- 50. Wiest PM, Flanigan T, Salata RA, **Shlaes** DM et. al. Serious infectious complications of corticosteroid therapy for COPD. Chest, 95:1180-1184, 1989.
- 51. Cooper G, Havlir D, **Shlaes** DM, Salata R. Polymicrobial Bacteremia. Medicine 69:114-123,1990.
- 52. **Shlaes** DM, Currie-McCumber CA, Hull A and Kron M. The OHIO-1 β–lactamase is related to SHV-1, LEN-1 and TEM. Antimicrob Agents and Chemother, 34:1570-1576,1990.
- 53. Al-Obeid S, Gutmann L, **Shlaes** DM, Williamson R and Collatz E. Comparison of vancomycin-inducible proteins from four strains of enterococci. FEMS Microbiol Lett, 70:101-106, 1990.
- 54. **Shlaes** DM, Etter LM and Gutmann L. Synergistic killing of vancomycin-resistant enterococci of phenotypic classes A, B and C by combinations of vancomycin, penicillin and gentamicin. Antimicrob Agents and Chemother, 35:776-9, 1991.
- 55. Chow JW, Fine MJ, **Shlaes** DM, et. al. *Enterobacter* Bacteremia: Clinical features and emergence of antibiotic resistance during therapy. Ann Int Med, 115:585-590, 1991.
- 56. Chow JW and **Shlaes** M. Imipenem resistance associated with the loss of a 40 kDa outer membrane protein in *Enterobacter aerogenes*. J Antimicrob Chemother, 28:499-504, 1991.
- 57. Vincent S, Knight RG, Green M, Sahm DF, and **Shlaes** DM. Vancomycin susceptibility and Identification of Motile Enterococci. J Clin Microbiol, 29:2335-2337, 1991.
- 58. **Shlaes** DM and Currie-McCumber CA. Mutations altering substrate specificity in OHIO-1, a SHV family β-lactamase. Biochem J 284:411-415, 1992.
- 59. Vincent S, Minkler, P., Bincziewski B., Etter L. and **Shlaes** DM. Vancomycin resistance in *E. gallinarum*. Antimicrob Agents and Chemother 36:1392-1399, 1992.
- 60. Bonomo RA, Currie-McCumber CA and **Shlaes** DM. OHIO-1 β-lactamase resistant to mechanism-based inactivators. FEMS Microbiol Lett 92:79-82, 1992
- 61. Wingart E, Shlaes JH, Mortimer EA and **Shlaes** DM. Evidence for nursing hand mediated transmission of trimethoprim-resistant Gram negative bacilli on a nursing home. Clinical Infect Dis, 16:75-81, 1993.

- 62. Cooper GS, **Shlaes** DM, Jacobs MR and Salata RA. The role of enterococcus in intraabdominal infections: A case control analysis. Infect Dis in Clin Pract 2:332-339, 1993
- 63. Green M, Binczewski B, Pasculle AW, Edmund M, Barbadora K, Kusne S and **Shlaes** DM. Constitutively vancomycin-resistant *Enterococcus faecium* resistant to synergy with Beta-lactams. Antimicrobial Agents and Chemother, 37:1238-1242, 1993.
- 64. Rice LB, **Shlaes** DM and Carias L. Efficacy of ampicillin/sulbactam versus cefoxitin in the treatment of *Escherichia coli* infections in the rat intra-abdominal abscess model. Antimicrobial Agents and Chemother. 37:610-612, 1993.
- 65. Rice LB, Carias L and **Shlaes** DM. Resistance to cefoperazone-sulbactam in *Klebsiella pneumoniae*: Evidence for enhanced resistance resulting from the coexistence of two different resistance mechanisms. Antimicrobial Agents and Chemother. 37:1061-1064, 1993.
- 66. Chow JW, Kuritza A, **Shlaes** DM, Green M, Sahm DF and Zervos MJ. Clonal spread of vancomycin-resistant *Enterococcus faecium* between patients in three hospitals in two states. J Clin Microbiol, 31:1609-11, 1993.
- 67. **Shlaes** DM, Shlaes JH, Vincent S, Fey PD and Goering RV. Teicoplanin-resistant *Staphylococcus aureus* expresses a novel membrane protein and increases expression of Penicillin-Binding Protein 2 complex. Antimicrobial Agents and Chemother 37:2432-2437, 1993.
- 68. Chow JW, Yu VL, and **Shlaes** DM. Epidemiologic Perspectives on <u>Enterobacter</u> for the Infection Control Practioner. American Journal of Infection Control, 22:195-201, 1994.
- 69. Higashi J, Wang I-W, **Shlaes** DM and Marchant RE. The adhesion of *Staphylococcus epidermidis* and transposon mutant strains to hydrophobic NHLBI polyethylene. Trans Soc Biomater 20:366, 1994.
- 70. **Shlaes** DM, Norden C., et. al. Piperacillin-tazobactam versus Ticarcillin-clavulanate in the treatment of community-acquired lower respriatory infection. J. Antimicrob Chemother. 34:565-577, 1994.
- 71. Cooper GS, **Shlaes** DM and Salata RA. Intraabdominal infections in the elderly: Differences in presentation and outcome. Clin Infect Dis. 19:146-8, 1994.
- 72. Rice LB, Carias LL and **Shlaes** DM. In vivo efficacy of β-lactam/β-lactamase inhibitor combinations against a TEM-26 producing strain of *Klebsiella pneumoniae*. Antimicrob Agents and Chemother, 38:2663-4, 1994.

- 73. Donabedian S, Chow JW, **Shlaes** DM, Green M, and Zervos MJ. DNA Hybridization and contour clamped homogeneous Electric Field (CHEF) Electrophoresis for Speciation of Enterococci. J Clin Microbiol, 33:141-5, 1995.
- 74. Bonomo RA, Knox JR, Dawes C and **Shlaes** DM. The role of M69 and G242 in OHIO-1, a class A beta lactamase of the SHV family. Biochim Biophys Acta, 1247:113-120, 1995.
- 75. Bonomo RA, Knox JR, Dawes, C and **Shlaes** DM. β-lactamase mutations far from the active site influence inhibitor binding. Biochim Biophys Acta, 1247:121-125, 1995.
- 76. Green, Shlaes JH, Barbadora K and **Shlaes** DM. Bacteremia due to Vancomycin-dependent *Enterococcus faecium*. Clin Infec Dis 20:712-714, 1995.
- 77. Mainardi, JL, **Shlaes** DM, Goering RV, Shlaes JH, Acar JF, Goldstein FW. Decreased teicoplanin susceptibilty of Methicillin-Resistant Strains of *Staphylococcus aureus*. J Infect Dis. 171:646-50, 1995.
- 78. **Shlaes** DM and Shlaes JH. Teicoplanin selects *Staphylococcus aureus* resistant to vancomycin. Clinical Infect Dis, 20:1071-1073, 1995.
- 79. Rice LB, Carias LL, Bonomo RA and **Shlaes** DM. Ceftazidime-resistant *Klebseilla penumoniae* at a Department of Veterans Affairs Medical Center II: Genetic analysis and response to therapy of strains resistant to both ceftazidime and β–lactam-β–lactamase inhibitor combinations. J Infec Dis. 173:151-8, 1996.
- 80. Rice LB, Eckstein E, DeVente J and **Shlaes** DM. Ceftazidime-resistant *Klebseilla penumoniae* at a Department of Veterans Affairs Medical Center I: Description of the outbreak, clinical significance and response to replacement of ceftazidime with piperacillin-tazobactam. Clin Infect Dis 23:118-124, 1996.
- 81. Billot-Klein D, **Shlaes** DM., Bryant D, Bell D, van Heijenoort J and Gutmann L. Peptidoglycan structure of *E. faecium* expressing resistance of the VanB type. Biochem J., 313:711-715, 1996.
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