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CURRICULUM VITAE (short version) – chronological order

NAME: HERMINIA DE LENCASTRE

ADDRESS:

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NATIONALITY: Portuguese/ American

EDUCATION: Academic degrees, fields of study, awarding institutions, dates in reverse chronological order:
"Agregação" in Molecular Genetics, Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa (FCT/UNL), 1989; Ph.D. in Biology/Molecular Genetics, (FCT/UNL), 1981; Degree in Biology ("Licenciatura"/MSc), Faculdade de Ciências, Universidade de Lisboa, 1969

PRESENT APPOINTMENTS: **Starting date, position, institution**

1999-present: Full Professor, Instituto de Tecnologia Química e Biológica da Universidade Nova de Lisboa (ITQB/UNL)
1989-present: Head, Laboratory of Molecular Genetics, ITQB/UNL
1990-present: Senior Research Associate, The Rockefeller University, NY, USA

OTHER APPOINTMENTS/POSITIONS: **Dates in reverse chronological order, positions, institutions**
1985-1999: Associate Professor, FCT/UNL, Lisbon
1988 (3-month period) and 1989-1990 (sabbatical year): Visiting Professor, Laboratory of Microbiology, The Rockefeller University, New York, NY, USA
1986 (3-month period): Visiting Professor, Laboratory of Microbiology and Immunology, Temple University, Philadelphia, PA, USA
1981-1985: Assistant Professor FCT/UNL, Lisbon
1976-1981: Lecturer, FCT/UNL, Lisbon
1977-1979 and 1981-1984 (3-month periods): Visiting Scientist, National Institute for Medical Research, Mill Hill, London, UK
1974-1989: PhD student/Postdoctoral Fellow/Investigator, Gulbenkian Institute of Science, Oeiras
1970-1974: Lecturer, Universidade de Luanda, Angola

MAIN SCIENTIFIC AREA OF RESEARCH
Microbial genetics

OTHER SCIENTIFIC AREAS INTEREST
Genetics, biochemistry and molecular biology of Gram-Positive bacteria and phages, including mechanisms of antibiotic resistance and spread of resistance genes and clones.

SUPERVISING EXPERIENCE
Supervisor and/or Co-Supervisor of Postdoctoral fellows (>18), PhD students (38), Master Degree students (10) and Undergraduate- and Research students (150). From the 36 PhD students 36 finished their Ph. D. Thesis between 1990 and 2016; currently supervises/co-supervises 6 Ph.D. students.

PROJECTS SUPERVISION

Large experience as Principal Investigator and Co-Principal Investigator of more than **50** Projects funded either by National (JNICT, FCT, FCG) or International Grant Agencies (EU, NATO, NIH).

MEMBERSHIP IN SCIENTIFIC SOCIETIES

American Society for Microbiology (ASM)
Society of General Microbiology (SGM)
European Society of Clinical Microbiology and Infectious Diseases (ESCMID)
Portuguese Society for Microbiology (SPM)
Portuguese Society for Biochemistry (SPB)

PUBLICATIONS: [275]

Ph. D. Thesis [1]

Análise Molecular da Transdução de *Bacillus subtillis* pelo Bacteriófago SPP1. Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa. July 13 1981.

Book Chapters [8]

1. Piggot, P.J., K.F. Chak, H.-M. Liu, and H. de Lencastre. 1983. Bacillus subtilis: genetics and spore formation, 163-166. In D. Schlessinger (ed), Microbiology-1983. American Society for Microbiology, Washington, D. C.
2. Tomasz, A., and H. de Lencastre. 1997. Molecular microbiology and epidemiology: coexistence or alliance? In Prevention and Control of Nosocomial Infections, 3rd edition (Wenzel, R.P., ed.). Williams & Wilkins, Baltimore, MD, 309-321.
3. De Lencastre, H., I. Santos Sanches, and A. Tomasz. 2000. CEM/NET: Clinical microbiology and molecular biology in alliance. In *Streptococcus pneumoniae* - Molecular Biology and Mechanisms of Disease - Update for the 1990s. p.451-455. A. Tomasz, editor. Mary Ann Liebert, Inc. publishers, New York.
4. Santos-Sanches I., D. C. Oliveira, M. Aires de Sousa, R. Sá-Leão, A. Tomasz, and H. de Lencastre. 2003. Molecular epidemiology of antibiotic-resistant bacteria. In Applications of Genomics and Proteomics for Analysis of Bacterial Biological Warfare Agents. p. 75-81. V. G. DelVecchio and V. Krcmery (eds.). IOS Press, Amsterdam - Netherlands.
5. Sá-Leão, R. and H. de Lencastre. 2007. Detailed protocol for pulsed-field gel electrophoresis for *Streptococcus pneumoniae*. In Molecular Biology of Streptococci. R. Hakenbeck and S. Chhatwal (eds.), Chapter 26. Horizon Scientific Press, Norwich, UK.
6. De Lencastre, H. and A. Tomasz. 2007. Multiple stages in the evolution of the methicillin resistant *Staphylococcus aureus*. In Evolutionary Biology of Bacterial and Fungal Pathogens. Chapter 28. p.333-346. F. Baquero, C. Nombela, G. H. Cassell, and J. A. Gutierrez. ASM Press, Washington D. C.
7. Oliveira, D.C., H. de Lencastre and A. Tomasz. 2012. Evolution of molecular techniques for the characterization of methicillin-resistant *Staphylococcus aureus*. Chapter 17. p. 571- 592. *In* Antibiotic Discovery and Development. T. Dougherty and M. Puci (eds). Springer Verlag.
8. Miragaia, M. and H. de Lencastre**.** 2014. *Staphylococcus aureus* e outros *Staphylococcus*. *In* Microbiologia Médica. Part IV: Bacteriologia Médica. Chapter 20. 1st Edition. LIDEL, Lisbon, Portugal.

Papers in international scientific Journals with referees [266]

1. Piggot, P.J., and H. de Lencastre. 1978. A rapid method for constructing multiply marked strains of *Bacillus subtilis*. J. Gen. Microbiol. **106**:191-4.
2. De Lencastre, H., and L.J. Archer. 1979. Transducing activity of bacteriophage SPP1. Bioch. Biophys. Res. Comm. **86**:915-9.
3. De Lencastre, H., and P.J. Piggot. 1979. Identification of different sites of expression for *spo* loci by transformation of *Bacillus subtilis*. J. Gen. Microbiol. **114**:377-89.
4. De Lencastre, H., and L. J. Archer. 1980. Characterization of bacteriophage SPP1 transducing particles. J. Gen. Microbiol. **117**:347-55.
5. De Lencastre, H., and L.J. Archer. 1981. Molecular origin of transducing DNA in bacteriophage SPP1. J. Gen. Microbiol. **122**:345-9.

6. Chak, K.F., H. de Lencastre, H.-M. Liu, and P. J. Piggot. 1982. Facile *in vivo* transfer of mutations between the *Bacillus subtilis* chromosome and a plasmid harbouring homologous DNA. J. Gen. Microbiol. **128**:2813-2816.

7. De Lencastre, H., K. F. Chak, and P.J. Piggot. 1983. Use of the *Escherichia coli* transposon Tn*1000* to generate mutations in *Bacillus subtilis* DNA. J. Gen. Microbiol. **129**:3203-10.

8. Santos, M. A., H. de Lencastre, and L. J. Archer. 1983. *Bacillus subtilis* mutation blocking irreversible binding of bacteriophage SPP1. J. Gen. Microbiol. **129**:3499-504.

9. Piggot, P.J., C.A.M. Curtis, and H. de Lencastre. 1984. Use of integrational plasmid vectors to demonstrate the polycistronic nature of a transcriptional unit (*spoIIA*) required for sporulation of *Bacillus subtilis*. J. Gen. Microbiol. **130**:2123-36.

10. Santos, M. A., H. de Lencastre, and L. J. Archer. 1984. Homology between phages SPP1, 41c, 22a, p15 and SP6 of *Bacillus subtilis*. J. Gen. Virol. **65**:2067-72.

11. Estrela, A.I., H. de Lencastre, and L.J.Archer. 1986. Resistance of a *Bacillus subtilis* mutant to a group of temperate bacteriophages. J. Gen. Microbiol. **132**:411-5.

12. Fernandes, R.M., H. de Lencastre, and L.J. Archer. 1986. Three new temperate phages of *Bacillus subtilis*. J. Gen. Microbiol. **132**:661-8.

13. Santos, M.A., J. Almeida, H. de Lencastre, G. Morelli, M. Kamke, and T.A. Trautner. 1986. Genomic organization of the related *Bacillus subtilis* bacteriophages SPP1, 41c, p15 and SF6. J. Virol. **60**:702-7.

14. Sá-Nogueira, I., H. Paveia, and H. de Lencastre. 1988. Isolation of constitutive mutants for L-arabinose utilization in *Bacillus subtilis*. J. Bacteriol. **170**:2855-7.

15. Fernandes, R.M., H. de Lencastre, and L.J. Archer. 1989. Specialized transduction in *Bacillus subtilis* by the phages IG1, IG3 and IG4. Arch. Virol. **105**:137-40

16. Vieira, G., H. de Lencastre, and L.J. Archer. 1989. Restriction analysis of PBS1-related phages. Arch. Virol. **106**:121-6.

17. Sá-Nogueira, I., and H. de Lencastre. 1989. Cloning and characterization of *araA*, *araB* and *araD*, the structural genes for L-arabinose utilization in *Bacillus subtilis*. J. Bacteriol. **171**:4088-91.

18. De Lencastre, H., and P.J. Piggot. 1988. The *Bacillus subtilis spoIIA* locus is expressed at two times during sporulation. FEMS Microbiol. Lett. **51**:109-12.

19. Tomasz, A., H. B. Drugeon, H.M. de Lencastre, D. Jabes, L. McDougal, and J. Bille. 1989. New mechanism for methicillin resistance in *Staphylococcus aureus*: clinical isolates that lack the PBP2A gene and contain normal penicillin-binding proteins with modified penicillin-binding capacity. Antimicrob. Agents Chemother. **33**:1869-74.

20. Fernandes, R.M., H. de Lencastre, and L.J. Archer. 1990. Action of 6-(p-hydroxyphenylazo)-uracil on bacteriophage IG1. Arch. Virol. **113**:177-81.

21. De Jonge, B., H. de Lencastre, and A. Tomasz. 1991. Suppression of autolysis and cell wall turnover in heterogeneous Tn*551* mutants of a methicillin resistant *Staphylococcus aureus* strain. J. Bacteriol. **173**:1105-10.

22. Estrela, A.I., H.M. Pooley, H. de Lencastre, and D. Karamata. 1991. Genetic and biochemical characterization of *Bacillus subtilis* 168 mutants specifically blocked in the synthesis of the teichoic acid, poly (3-0-b-D-glucopyranosyl-N-acetyl-galactosamine-1-phosphate) *gneA*, a new locus, is associated with UDP-N-acetylglucosamine 4-epimerase activity. J. Gen. Microbiol. **137**:943-50.

23. De Lencastre, H., A. Figueiredo, C. Urban, J. Rahal, and A. Tomasz. 1991. Multiple mechanisms of methicillin resistance and improved methods for detection in clinical isolates of *Staphylococcus aureus*. Antimicrob. Agents Chemother. **35**:632-9.

24. Figueiredo, A.M.S., E. Ha, B.N. Kreiswirth, H. de Lencastre, G.J. Noel, L. Senterfit, and A. Tomasz. 1991. *In vivo* stability of heterogeneous expression classes in clinical isolates of methicillin resistant staphylococci. J. Infect. Dis. **164**:883-7.

25. Santos, I., and H. de Lencastre. 1992. Cloning of the thymidylate synthetase gene (*thy*PIG3) from the *Bacillus subtilis* temperate phage IG3. Arch. Virol. **127**:65-74.

26. Noel, G.J., B.N. Kreiswirth, P.J. Edelson, M. Nesin, S. Projan, W. Eisner, D.J. Bauer, H. de Lencastre, A.M.S. Figueiredo, and A. Tomasz. 1992. Multiple methicillin-resistant *Staphylococcus aureus* strains as a cause for a single outbreak of severe disease in hospitalized neonates. Ped. Inf. Dis. J. **11**:184-8.

27. Tavares, P., M.A. Santos, R. Lurz, G. Morelli, H. de Lencastre, and T.A. Trautner. 1992. Identification of a gene in *Bacillus subtilis* bacteriophage SPP1 determining the amount of packaged DNA. J. Molec. Biol. **225**:81-92.

28. Henriques, A. O., H. de Lencastre, and P.J. Piggot. 1992. A *Bacillus subtilis* morphogene cluster that includes *spoVE* is homologous to the mra region of *Escherichia coli*. Biochimie **74**:735-48.

29. De Lencastre, H., A.M.S. Figueiredo, and A. Tomasz. 1993. Genetic control of population structure in heterogeneous strains of methicillin resistant *Staphylococcus aureus*. Eur. J. Clin. Microbiol. Infect. Dis. **12** (Suppl. 1):S13-18.

30. Ornelas-Soares, A., H. de Lencastre, B. de Jonge, D. Gage, Y.-S. Chang, and A. Tomasz. 1993. The peptidoglycan composition of a *Staphylococcus aureus* mutant selected for reduced methicillin resistance. J. Biol. Chem. **268**:26268-72.

31. De Lencastre, H., B.L.M. de Jonge, P.R. Matthews, and A. Tomasz. 1994. Molecular aspects of methicillin resistance in *Staphylococcus aureus*. J. Antimicrob. Chemother. **33**:7-24.

32. De Lencastre, H., I. Couto, I. Santos, J. Melo-Cristino, A. Torres-Pereira, and A. Tomasz. 1994. Methicillin-resistant *Staphylococcus aureus* disease in a Portuguese hospital: characterization of clonal types by a combination of DNA typing methods. Eur. J. Clin. Microbiol. Infect. Dis. **13**:64-73.

33. Dominguez, M.A., H. de Lencastre, J. Linares, and A. Tomasz. 1994. Spread and maintenance of a dominant methicillin resistant *Staphylococcus aureus* (MRSA) clone during an outbreak of MRSA disease in a Spanish hospital. J. Clin. Microbiol. **32**:2081-7.

34. De Lencastre, H., and A. Tomasz. 1994. Reassessment of the number of auxiliary genes essential for the expression of high-level methicillin resistance in *Staphylococcus aureus*. Antimicrob. Agents Chemother. **38**:2590-8.

35. Ornelas-Soares, A., H. de Lencastre, B.L.M. de Jonge, and A. Tomasz. 1994. Reduced methicillin resistance in a new *Staphylococcus aureus* transposon mutant that incorporates muramyldipeptides into the cell wall peptidoglycan. J. Biol. Chem. **269**:27246-50.

36. Santos Sanches, I., M. Aires de Sousa, L. Sobral, I. Calheiros, L. Felicio, I. Pedra, and H. de Lencastre. 1995. Multidrug-resistant Iberian epidemic clone of methicillin-resistant *Staphylococcus aureus* endemic in a hospital in northern Portugal. Microb. Drug Resist. **1**:299-306.

37. Santos Sanches, I., M. Ramirez, H. Troni, M. Abecassis, M. Padua, A. Tomasz, and H. de Lencastre. 1995. Evidence for the geographic spread of a methicillin-resistant *Staphylococcus aureus* clone between Portugal and Spain. J. Clin. Microbiol. **33**:1243-6.

38. Couto, I., J. Melo-Cristino, M.L. Fernandes, T. Garcia, N. Serrano, M.J. Salgado, A. Torres-Pereira, I. Santos Sanches, and H. de Lencastre. 1995. Unusually large number of methicillin-resistant *Staphylococcus aureus* clones in a Portuguese hospital. J. Clin. Microbiol. **33**:2032-5.

39. Teixeira, L., C.A. Resende, L.R. Ormonde, R. Rosenbaum, A.M.S. Figueiredo, H. de Lencastre, and A. Tomasz. 1995. Geographic spread of epidemic multiresistant *Staphylococcus aureus* clone in Brazil. J. Clin. Microbiol. **33**:2400-4.

40. Montecalvo, M.A., H. de Lencastre, M. Carraher, C. Gedris, M. Chung, K. van Horn, and G.P. Wormser. 1995. Natural history of colonization with vancomycin-resistant *Enterococcus faecium.* Infect. Control Hosp. Epidemiol. **16**:680-5.

41. Couto, I., H. de Lencastre, E. Severina, W. Kloos, J.A. Webster, R.J. Hubner, I. Santos Sanches, and A. Tomasz. 1996. Ubiquitous presence of a *mecA* homologue in natural isolates of *Staphylococcus sciuri*. Microb. Drug Resist. **2**:377-91.

42. Dominguez, M.A., J. Linares, A. Pulido, J.L. Perez, and H. de Lencastre. 1996. Molecular tracking of coagulase-negative staphylococcal isolates from catheter-related infections. Microb. Drug Resist. **2**:423-7.

43. Wu, S., C. Piscitelli, H. de Lencastre, and A. Tomasz. 1996. Tracking the evolutionary origin of the methicillin resistance gene: cloning and sequencing of a homologue of *mecA* from a methicillin-susceptible strain of *Staphylococcus sciuri*. Microb. Drug Resist. **2**:435-41.

44. Wu, S., H. de Lencastre, A. Sali, and A. Tomasz. 1996. A phosphoglucomutase-like gene essential for the optimal expression of methicillin resistance in *Staphylococcus aureus*: Molecular cloning and DNA sequencing. Microb. Drug Resist. **2**:277-86.

45. De Lencastre, H., A. de Lencastre, and A. Tomasz. 1996. Methicillin resistant *Staphylococcus aureus* isolates recovered from a New York City hospital: analysis by molecular fingerprinting techniques. J. Clin. Microbiol. **34**: 2121-4.

46. Wu, S., H. de Lencastre, and A. Tomasz. 1996. *Sigma-B*, a putative operon encoding alternate sigma factor of *Staphylococcus aureus* RNA polymerase: molecular cloning and DNA sequencing. J. Bacteriol. **178**: 6036-42

47. Mato, R., H. de Lencastre, R.B. Roberts, and A. Tomasz. 1996. Multiplicity of genetic backgrounds among vancomycin-resistant *Enterococcus faecium* isolates recovered from an outbreak in a New York City hospital. Microb. Drug Resist. **2**:309-17.

48. Santos Sanches, I., M. Aires de Sousa, L. Cleto, M. Baeta de Campos, and H. de Lencastre. 1996. Tracing the origin of an outbreak of methicillin-resistant *Staphylococcus aureus* infections in a Portuguese hospital by molecular fingerprinting methods. Microb. Drug Resist. **2**:319-29

49. Aires de Sousa, M., I. Santos Sanches, A. van Belkum, W. van Leeuwen, H. Verbrugh, and H. de Lencastre. 1996.

Characterization of methicillin-resistant *Staphylococcus aureus* isolates from Portuguese hospitals by multiple genotyping techniques. Microb. Drug Resist. **2**:331-41.

50. De Lencastre, H., E.P. Severina, R.B. Roberts, B.N. Kreiswirth, A. Tomasz, and The BARG Initiative Pilot Study Group. 1996. Testing the efficacy of a molecular surveillance network: methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant *Enterococcus faecium* (VREF) genotypes in six hospitals in the metropolitan New York City area. Microb. Drug Resist. **2**:343-51.

51. Struelens, M.J., and the Members of the European Study Group on Epidemiological Markers (ESGEM), of the European Society for Clinical Microbiology and Infectious Diseases (ESCMID). 1996. Consensus guidelines for appropriate use and evaluation of microbial typing systems. Clin. Microbiol. and Infect. **2**: 2-11.

52. Henning, K.J., H. de Lencastre, J. Eagan, N. Boone, A. Brown, M. Chung, N. Wollner, and D. Armstrong. 1996. Vancomycin-resistant *Enterococcus faecium* on a pediatric oncology ward: duration of stool shedding and incidence of clinical infection. Ped. Infect. Dis. J. **15**:848-54.

53. . Pinho, M., A.M. Ludovice, S. Wu, and H. de Lencastre. 1997. Massive reduction in methicillin resistance by transposon inactivation of the normal PBP2 in a methicillin resistant strain of *Staphylococcus aureus*. Microb. Drug Resist. **3**:409-13.

54. Sá-Nogueira, I., T.V. Nogueira, S. Soares, and H. de Lencastre. 1997. The *Bacillus subtilis* L-arabinose (*ara*) operon: nucleotide sequence, genetic organization and expression. Microbiol. **143:**957-66.

55. Kloos, W.E., D.N. Ballard, J.A. Webster, R.J. Hubner, A. Tomasz, I. Couto, G.L. Sloan, H. P. Dehart, F. Fiedler, K. Schubert, H. de Lencastre, I. S. Sanches, H.E. Heath, P.A. Leblanc, and A. Ljungh. 1997. Ribotype delineation and description of *Staphylococcus sciuri* subspecies and their potential as reservoirs of methicillin resistance and staphylolytic enzyme genes. Int. J. Syst. Bacteriol. **47**:313-23.

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58. Wu, S., H. de Lencastre, and A. Tomasz. 1998. Genetic organization of the *mecA* region in methicillin-susceptible and methicillin-resistant strains of *Staphylococcus sciuri*. J. Bacteriol. **180**:236-42.

59. McNeeley, D.F., A E. Brown, G.J. Noel, M. Chung, and H. de Lencastre. 1998. An investigation of vancomycin-resistant *Enterococcus faecium* within the pediatric service of a large urban medical center. Pediatr. Infect. Dis. J. **17**:184-8.

60. Ludovice, A.M., S. Wu, and H. de Lencastre. 1998. Molecular cloning and DNA sequencing of the *Staphylococcus aureus* UDP-*N*-acetylmuramyl tripeptide synthetase (*murE*) gene, essential for the optimal expression of methicillin resistance. Microb. Drug Resist. **4**:85-90.

61. Mato, R., I. Santos Sanches, M. Venditti, D.J. Platt, A. Brown, and H. de Lencastre. 1998. Spread of the multiresistant Iberian clone of methicillin-resistant *Staphylococcus aureus* (MRSA) to Italy and Scotland. Microb. Drug Resist. **4**:107-12.

62. Aires de Sousa, M., I. Santos-Sanches, M.L. Ferro, M.J. Vaz, Z. Saraiva, T. Tendeiro, J. Serra, and H. de Lencastre. 1998. Intercontinental spread of a multidrug resistant methicillin-resistant *Staphylococcus aureus* clone. J. Clin. Microbiol. **36**:2590-6.

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65. Oliveira, D., I. Santos-Sanches, R. Mato, M. Tamayo, G. Ribeiro, D. Costa, and H. de Lencastre. 1998. Virtually all methicillin-resistant *Staphylococcus aureus* (MRSA) infections in the largest Portuguese teaching hospital are caused by two internationally spread multiresistant strains: the “Iberian” and the “Brazilian” clones of MRSA. Clin. Microbiol. Infec. **4**:373-84.

66. Santos Sanches, I., Z. Saraiva, T. Tendeiro, J. Serra, D. Dias, and H. de Lencastre. 1998. Extensive intra-hospital spread of a multiresistant staphylococcal clone. Int J Infect Dis **3**:26-31.

67. Corso, A., I. Santos Sanches, M. Aires de Sousa, A. Rossi, and H. de Lencastre. 1998. Spread of a methicillin-resistant and multiresistant epidemic clone of *Staphylococcus aureus* in Argentina. Microb. Drug Resist. **4**:277-88.

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71. De Lencastre, H., K. Kristinsson, A. Brito-Avô, I. Santos Sanches, R. Sá-Leão, J. Saldanha, E. Sigvaldadottir, S. Karlsson, D. Oliveira, R. Mato, M.A. de Sousa, and A. Tomasz. 1999. Carriage of respiratory tract pathogens and molecular epidemiology of *Streptococcus pneumoniae* colonization in healthy children attending day care centers in Lisbon, Portugal. Microb. Drug Resist. 5:19-29.

72. Tamayo, M., R. Sá-Leão, I.S. Sanches, E. Castañeda, and H. de Lencastre. 1999. Dissemination of a chloramphenicol- and tetracycline-resistant but penicillin-susceptible invasive clone of serotype 5 *Streptococcus pneumoniae* in Colombia. J. Clin. Microbiol. **37**:2337-42.

73. De Lencastre, H., A.E. Brown, D. Armstrong, M. Chung, and A. Tomasz. 1999. Role of transposon Tn*5482* in the epidemiology of vancomycin-resistant *Enterococcus faecium* in the Pediatric Oncology Unit of a New York City hospital. Microb. Drug Resist. **5**:113-29.

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75. De Lencastre, H., S. W. Wu, M. G. Pinho, A. M. Ludovice, S. R. Filipe, S. Gardete, R. Sobral, S. Gill, M. Chung, and A. Tomasz. 1999. Antibiotic resistance as a stress response: complete sequencing of a large number of chromosomal loci in *Staphylococcus aureus* strain COL that impact on the expression of resistance to methicillin. Microb. Drug Resist. **5**:163-75.

76. De Lencastre, H, I. Santos Sanches, A. Brito-Avô, R. Sá-Leão, J. Saldanha, K.G. Kristinsson, and A. Tomasz. 1999. Carriage and antibiotic resistance of respiratory pathogens and molecular epidemiology of antibiotic resistant *Streptococcus pneumoniae* colonizing children in day care centers in Lisbon: The Portuguese day-care center initiative. Clin. Microbiol. Infect. **5 Suppl. 4**:4S55-4S63.

77. Pinho, M.G., H. de Lencastre, and A. Tomasz. 2000. Cloning, characterization and inactivation of the gene *pbpC* encoding penicillin-binding protein PBP3 of *Staphylococcus aureus* J. Bacteriol. **182**:1074-9.

78. Couto, I., I. Santos Sanches, R. Sá-Leão and H. de Lencastre, 2000. Molecular characterization of *Staphylococcus sciuri* strains isolated from humans. J. Clin. Microbiol. **38**:1136-43.

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Notes: Discrepancies with PUBMED

In Pubmed reference #65 and #76 appear out of order. Reference #52 (Henning KJ 1996), 51 (Struelens et al) and #18 (De Lencastre & Piggot, 1988) do not show up. In reference 51 Marc Struelens did not insert our names correctly. In reference #52, my name appears as DELENCASTRE. In reference 18, I could not find the reason. I wrote to NLM Customer Service to clarify these two last issues.