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REFERENCES

1. Ackermann, H.-W. 1999. Tailed bacteriophages: the order *Caudovirales*. *Adv. Virus Res.* **51**:135-201.
2. Alonso, J. C., G. Lüder, and T. A. Trautner. 1986. Requirements for the formation of plasmid-transducing particles of *Bacillus subtilis* bacteriophage SPP1. *EMBO J.* **5**:3723-3728.
3. Alonso, J. C., G. Lüder, A. C. Stiege, S. Chai, F. Weise, and T. A., Trautner. 1997. Analysis of the complete nucleotide sequence and functional organisation of *Bacillus subtilis* bacteriophage SPP1. *Gene* **204**:201-212.
4. Amann, E. P., and J. N. Reeve. 1981. Expression of lambda/SPP1 hybrid phages in *E. coli* minicells. *Mol. Gen. Genet.* **182**:299-303.
5. Amann, E. P., J. N. Reeve, G. Morelli, B., Behrens, and T. A. Trautner. 1981. Cloning and expression of the *Bacillus subtilis* phage SPP1 in *Escherichia coli*. I. Construction and characterization of lambda/SPP1 hybrids. *Mol. Gen. Genet.* **182**:293-298.
6. Ayora, S., U. Langer, and J. C. Alonso. 1998. *Bacillus subtilis* DnaG primase stabilises the SPP1 G40P helicase-ssDNA complex. *FEBS Lett.* **439**:59-62.
7. Ayora, S., A. Stasiak, and J. C. Alonso. 1999. The *Bacillus subtilis* bacteriophage SPP1 G39P delivers and activates the G40P DNA helicase upon interacting with the G38P-bound replication origin. *J. Mol. Biol.* **288**:71-85.
8. Ayora, S., R. Missich, P. Mesa, R. Lurz, X. Yang, E. H. Egelman, and J. C. Alonso. 2002. The replication protein G35P of *Bacillus subtilis* bacteriophage SPP1 mediates homologous DNA pairing. *J. Biol. Chem.* **277**:35969-35979.

9. Bailey, S., S. E. Sedelnikova, P. Mesa, S. Ayora, J. P. Waltho, A. E. Ashcroft, A. J. Baron, J. C. Alonso, and J. B. Rafferty. 2003. Structural Analysis of *Bacillus subtilis* SPP1 Phage Helicase Loader Protein G39P. *J. Biol. Chem.* 278, 15304-15312.
10. Bárcena, M., C. San Martin, F. Weise, S. Ayora, J. C. Alonso, and J. M. Carazo. 1998. Polymorphic quaternary organization of the *Bacillus subtilis* bacteriophage SPP1 replicative helicase. *J. Mol. Biol.* **283**:809-819.
11. Bastia, D., and N. Sueoka. 1975. Studies on the late replication of phage lambda: Rolling circle replication of the wild type and a partially suppressed strain, Oam29 Pam80. *J. Mol. Biol.* **98**:305-320.
12. Becker, B., N. de la Fuente, M. Gassel, D. Günther, P. Tavares, R. Lurz, T. A. Trautner, and J. C. Alonso. 1997. Head morphogenesis genes of the *Bacillus subtilis* bacteriophage SPP1. *J. Mol. Biol.* **268**:822-839.
13. Behrens, B., G. Lüder, M. Behnke, and T. A. Trautner. 1979. The genome of *B. subtilis* phage SPP1, physical arrangement of phage genes. *Mol. Gen. Genet.* **175**:351-357.
14. Behrens, B., B. Pawlek, G. Morelli, and T. A. Trautner. 1983. Restriction and modification in *B. subtilis*: construction of hybrid lambda and SPP1 phages containing a DNA methyltransferase gene from *B. subtilis* phage SPR. *Mol. Gen. Genet.* **189**:10-16.
15. Biswal, N., A. K. Kleinschmidt, H. Ch. Spatz, and T. A. Trautner. 1967. Physical properties of the DNA of bacteriophage SP 50. *Mol. Gen. Genet.* **100**:39-55.
16. Black, L. W. 1989. DNA packaging in dsDNA bacteriophages. *Annu. Rev. Microbiol.* **43**:267-292.
17. Black, L. W. 1995. DNA packaging and cutting by phage terminases: control in phage T4 by a synaptic mechanism. *BioEssays* **17**:1025-1030.

18. Bradley, D.E. 1967. Ultrastructure of bacteriophages and bacteriocins. *Bacteriol. Rev.* **31**:230-314.
19. Bravo, A., and J. C. Alonso. 1990. The generation of concatemeric plasmid DNA in *Bacillus subtilis* as a consequence of bacteriophage SPP1 infection. *Nucleic Acids Res.* **18**:4651-4657.
20. Bravo, A., J. C. Alonso, and T. A. Trautner. 1990. Functional analysis of the *Bacillus subtilis* bacteriophage SPP1 *pac* site. *Nucleic Acids Res.* **18**:2881-2886.
21. Brøndsted, L., S. Østergaard, M. Pedersen, K. Hammer, and F. K. Vogensen. 2001. Analysis of the complete DNA sequence of the temperate bacteriophage TP901-1: evolution, structure, and genome organization of lactococcal bacteriophages. *Virology* **283**:93-109.
22. Brüssow, H., and F. Desiere 2001. Comparative phage genomics and the evolution of *Siphoviridae*: insights from dairy phages. *Mol. Microbiol.* **39**:213-222.
23. Brüssow, H., and R. W. Hendrix. 2002. Phage genomics: small is beautiful. *Cell* **108**:13-16.
24. Burger, K. J., and T. A. Trautner. 1978. Specific labelling of replicating SPP1 DNA: analysis of viral DNA synthesis and identification of phage DNA-genes. *Mol. Gen. Genet.* **166**:277-285.
25. Camacho, A. G., A. Gual, R. Lurz, P. Tavares, and J. C. Alonso. 2003. *Bacillus subtilis* bacteriophage SPP1 DNA packaging motor requires terminase and portal proteins. *J. Biol. Chem.* **278**: 23251-23259.
26. Canosi, U., G. Lüder, and T. A. Trautner. 1982. SPP1-mediated plasmid transduction. *J. Virol.* **44**:431-436.
27. Casjens, S., E. Wyckoff, M. Hayden, L. Sampson, K. Eppler, S. Randall, E. T. Moreno, and P. Serwer. 1992. Bacteriophage P22 portal protein is part of the gauge that regulates packing density of intravirion DNA. *J. Mol. Biol.* **224**:1055-1074.

28. Chai, S., and J. C. Alonso. 1996. Distamycin-induced inhibition of formation of a nucleoprotein complex between the terminase small subunit GIP and the non-encapsidated end (*pacL* site) of *Bacillus subtilis* bacteriophage SPP1. *Nucleic Acids Res.* **24**:282-288.
29. Chai, S., V. Kruft, and J. C. Alonso. 1994. Analysis of the *Bacillus subtilis* bacteriophages SPP1 and SF6 gene 1 product: a protein involved in the initiation of headful packaging. *Virology* **202**:930-939.
30. Chai, S., R. Lurz, and J. C., Alonso. 1995. The small subunit of the terminase enzyme of *Bacillus subtilis* bacteriophage SPP1 forms a specialized nucleoprotein complex with the packaging initiation region. *J Mol. Biol.* **252**:386-398.
31. Chai, S., U. Szepan, and J. C. Alonso. 1997. *Bacillus subtilis* bacteriophage SPP1 terminase has a dual activity: it is required for the packaging initiation and represses its own synthesis. *Gene* **184**:251-256.
32. Chai, S., A. Bravo, G. Lüder, A. Nedlin, T. A. Trautner, and J. C. Alonso. 1992. Molecular analysis of the *Bacillus subtilis* bacteriophage SPP1 region encompassing genes 1 to 6. The products of gene 1 and gene 2 are required for *pac* cleavage. *J. Mol. Biol.* **224**:87-102.
33. Chai, S., U. Szepan, G. Lüder, T. A. Trautner, and J. C. Alonso. 1993. Sequence analysis of the left end of the *Bacillus subtilis* bacteriophage SPP1 genome. *Gene* **129**:41-49.
34. Cohen, A., and A. J. Clark. 1986. Synthesis of linear plasmid multimers in *Escherichia coli* K-12, *J. Bacteriol.* **167**:327-335.
35. Cox , M. M. 2001. Historical overview: Searching for replication help in all of the *rec* places. *Proc. Natl. Acad. Sci. USA* **98**:8173-8180.
36. Daniels, D.L., J.L. Schroeders, W. Szybalski, F. Sanger, A. R. Coulson, G. F. Hong, D. F. Hill, G. B. Petersen, and R. F. Blattner. 1983. Complete annotated lambda sequence, in

Lambda II, p. 519-677. In R. W. Hendrix, J. W. Roberts, F.W Stahl, and R.A. Weisberg, (ed.), Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY.

37. Deichelbohrer, I., W. Messer, and T. A. Trautner. 1982. Genome of *Bacillus subtilis* bacteriophage SPP1: structure and nucleotide sequence of *pac*, the origin of DNA packaging. *J. Virol.* **42**:83-90.
38. Deichelbohrer, I., J. C. Alonso, G. Lüder, and T.A. Trautner. 1985. Plasmid transduction by *Bacillus subtilis* bacteriophage SPP1: effects of DNA homology between plasmid and bacteriophages. *J Bacteriol.*, **162**:1238-1242.
39. de Lencastre, H., L. J. Archer. 1980. Characterization of bacteriophage SPP1 transducing particles. *J. Gen. Microbiol.* **117**:347-355.
40. de Lencastre, H. , L. J. Archer. 1981. Molecular origin of transducing DNA in bacteriophage SPP1. *J. Gen. Microbiol.* **122**:345-349.
41. Desmyter, A., J. N. Reeve, G. Morelli, and T. A., Trautner. 1985. Inversion and deletion mutant in *Bacillus subtilis* bacteriophage SPP1 as a consequence of cloning. *Mol. Gen. Genet.* **198**:537.
42. Dodson, M., H. Echols, S. Wickner, C. Alfano, K. Mensa-Wilmot, B. Gomes, J. LeBowitz, J. D. Roberts, and R. McMacken. 1986. Specialized nucleoprotein structures at the origin of replication of bacteriophage λ: localized unwinding of duplex DNA by a six-protein reaction. *Proc. Natl. Acad. Sci. USA* **83**:7638-7642.
43. Dröge, A. 1998. *Capsidmorphogenese des Bakteriophagen SPP1*. Doctoral Thesis, Technische Universität Berlin, Germany.
44. Dröge, A., P. Tavares. 2000. *In vitro* packaging of DNA of the *Bacillus subtilis* bacteriophage SPP1. *J. Mol. Biol.* **296**:103-115.

45. Dröge, A., M. A. Santos, A. Stiege, J. C. Alonso, R. Lurz, T. A. Trautner, and P. Tavares. 2000. Shape and DNA packaging activity of bacteriophage SPP1 procapsid: protein components and interactions during assembly. *J. Mol. Biol.* **296**:117-132.
46. Dube, P., P. Tavares, R. Lurz, and M. van Heel. 1993. Bacteriophage SPP1 portal protein: a DNA pump with 13-fold symmetry. *EMBO J.* **12**:1303-1309.
47. Dubnau, D. 1976. Genetic transformation of *Bacillus subtilis* a review with emphasis on the recombination mechanism. p 14-27. In D. Schlesinger (ed.), *Micobiology-1976*. American Society for Microbiology, Washington, D.C.
48. Eppler, K., E. Wyckoff, J. Goates, R. Parr, and S. Casjens. 1991. Nucleotide sequence of the bacteriophage P22 genes required for DNA packaging. *Virology* **183**:519-538.
49. Esche, H. 1975. Gene expression of bacteriophage SPP1. II. Regulatory aspects. *Mol. Gen. Genet.* **142**:57-66.
50. Esche, H., H. Spatz. 1973. Asymmetric transcription of SPP1 *in vivo*. *Mol. Gen. Genet.* **124**:57-63.
51. Esche, H., M. Schweiger, and T. A. Trautner. 1975. Gene expression of bacteriophage SPP1. I. Phage directed protein synthesis. *Mol Gen Genet.* **142**:45-55.
52. Földes, J., and T. A. Trautner. 1964. Infectious DNA from a newly isolated *B. subtilis* phage. *Z. Vererbungsl.* **95**:57-65.
53. Fisher, R. 1930. In *The genetical theory of natural selection*, Clarendon Press, Oxford.
54. Formosa, T., and B. M. Alberts. 1986. DNA synthesis dependent on genetic recombination: Characterization of a reaction catalyzed by purified bacteriophage T4 proteins. *Cell* **47**:793-806.
55. Fujisawa, H., and M. Morita. 1997. Phage DNA packaging. *Genes Cells* **2**, 537-545.

56. Ganesan, A. T., J. J. Andersen, J. Luh, and M. Effron. 1976. DNA metabolism, in *Bacillus subtilis* and its phage SPP1, p. 319-325. In Schlessinger, D. (ed.). *Microbiology* 1976. American Society of Microbiology Washington, DC.
57. Green, D. M. 1966. Intracellular inactivation of infective SP82 bacteriophage DNA. *J. Mol. Biol.* **22**:1-13.
58. Gual, A., and J. C. Alonso. 1998. Characterization of the small subunit of the terminase enzyme of the *Bacillus subtilis* bacteriophage SPP1. *Virology* **242**:279-287.
59. Gual, A., A. G. Camacho, and J .C. Alonso. 2000. Functional analysis of the terminase large subunit, G2P, of *Bacillus subtilis* bacteriophage SPP1. *J. Biol. Chem.* **275**:35311-35319.
60. Heilmann, H., and J. N. Reeve. 1982. Construction and use of SPP1v, a viral cloning vector for *B. subtilis*. *Gene* **17**:91-100.
61. Hendrix, R. W. 1978. Symmetry mismatch and DNA packaging in large bacteriophages, *Proc. Natl. Acad. Sci.* **75**:4779-4783.
62. Hendrix, R. W., and R. L. Duda. 1998. Bacteriophage HK97 head assembly: a protein ballet. *Adv. Virus Res.* **50**:235-288.
63. Helmann, J. D. 1995. Compilation and analysis of *Bacillus subtilis* σ^A -dependent promoter sequences: evidence for extended contact between RNA polymerase and upstream promoter DNA. *Nucl. Acids Res.* **23**: 2351-2360.
64. Humphreys, G. O., and T. A. Trautner. 1981a. Structure of *Bacillus subtilis* bacteriophage SPP1 DNA in relation to its transfection activity. *J Virol.* **37**:574-579.
65. Humphreys, G. O., and T. A. Trautner. 1981b. Maturation of bacteriophage SPP1 DNA: Limited precision in the sizing of mature bacteriophage genomes. *J. Virol.* **37**:832-835.

66. Isidro, A., M. A. Santos, A. O. Henriques, and P. Tavares. 2004. The high-resolution functional map of bacteriophage SPP1 portal protein. *Mol Microbiol* **51**:949-962.
67. Jacobson, E. D., and O. E. Landman. 1975. Interaction of protoplasts, L forms, and bacilli of *Bacillus subtilis* with 12 strains of bacteriophage. *J. Bacteriol.* **124**:445-448.
68. Jekow, P., J. Behlke, W. Tichelaar, R. Lurz, M. Regalla, W. Hinrichs, and P. Tavares. 1999. Role of the ionic environment on the assembly of bacteriophage SPP1 portal protein. *Eur. J. Biochem.* **264**:724-735.
69. Jekow, P., S. Schaper, D. Günther, P. Tavares, and W. Hinrichs. 1998. Crystallization and preliminary X-ray crystallographic studies of the 13-fold symmetric portal protein of bacteriophage SPP1. *Acta Cryst. D* **54**:1008-1011.
70. Kreuzer, K.N., W. Y. Yap, A. E. Menkens, and H.W. Engman. 1988. Recombination-dependent replication of plasmids during bacteriophage T4 replication. *J. Biol. Chem.* **263**:11366-11373.
71. Kunst, F., N. Ogasawara, I. Moszer, A. M. Albertini, G. Alloni, V. Azevedo, M. G. Bertero, P. Bessieres, A. Bolotin, S. Borchert, R. Borriss, L. Boursier, A. Brans, M. Braun, S. C. Brignell, S. Bron, S. Brouillet, C. V. Bruschi, B. Caldwell, V. Capuano, N. M. Carter, S. K. Choi, J. J. Codani, I. F. Connerton, A. Danchin, *et al.* 1997. The complete genome sequence of the gram-positive bacterium *Bacillus subtilis*. *Nature* **390**:249-256.
72. Kuzminov, A. 1995. Collapse and repair of replication forks in *Escherichia coli*. *Mol. Microbiol.* **16**:373-384.
73. Loessner, M. J., R. B. Inman, P. Lauer, and R. Calendar. 2000. Complete nucleotide sequence, molecular analysis and genome structure of bacteriophage A118 of *Listeria monocytogenes*: implications for phage evolution. *Mol. Microbiol.* **35**:324-340.

74. Low, K. B. and D. D. Porter. 1978. Modes of gene transfer and recombination in bacteria. *Annu. Rev. Genet.* **12**:249-287.
75. Lucchini, S., F. Desiere, and H. Brüssow. 1998. The structural gene module in *Streptococcus thermophilus* bacteriophage φSfi11 shows a hierarchy of relatedness to *Siphoviridae* from a wide range of bacterial hosts. *Virology* **246**:63-73.
76. Lurz, R., E. Orlova, D. Günther, P. Dube, A. Dröge, F. Weise, T. A. Trautner, M. van Heel, and P. Tavares. 2001. Structural organisation of the head-to-tail interface of bacteriophage SPP1. *J. Mol. Biol.* **310**:1027-1037.
77. Maratea, D., R. M. Zsigray, and D. L. Balkwill. 1985. Characterization of *Bacillus subtilis* phage 41c. *Curr. Microbiol.* **12**:261-266.
78. Marians, K. J. 2000. Replication and recombination intersect. *Curr. Opin. Genet. Dev.* **10**:151-156.
79. Martínez-Jiménez, M., P. Mesa, and J. C. Alonso 2002. *Bacillus subtilis* τ subunit of DNA polymerase III interacts with bacteriophage SPP1 Hexameric G40P DNA helicase. *Nucl. Acids Res.* **30**: 5056-5064.
80. Mastromei, G., S. Riva, A. Fietta, and L. Pagani. 1978. SPP1 DNA replicative forms: growth of phage SPP1 in *Bacillus subtilis* mutants temperature-sensitive in DNA synthesis. *Mol. Gen. Genet.* **167**:157-164.
81. McIntosh, P. K., R. Dunker, C. Mulder, and N. Brown. 1978. DNA of *Bacillus subtilis* bacteriophage SPP1: Physical mapping and localization of the origin of replication. *J. Virol.* **28**:865-876.
82. Mejean, V., and J. Claverys. 1988. Polarity of DNA entry in transformation of *Streptococcus pneumoniae*. *Mol. Gen. Genet.* **213**: 444-448.

83. Mertens, G., E. Amann, and J. N. Reeve. 1979. Bacteriophage polypeptides synthesized in infected minicells and *in vitro*. *Mol. Gen. Genet.* **172**:271-279.
84. Milanesi, G. and F. Melgara. 1974. *In vivo* and *in vitro* transcription of SPP1 DNA by host RNA polymerase. *J. Virol.* **14**:1613-1614.
85. Missich, R., F. Weise, S. Chai, X. Pedré, R. Lurz, and J. C. Alonso. 1997. The replisome organizer (G38P) of *Bacillus subtilis* bacteriophage SPP1 forms specialized nucleoprotein complexes with two discrete distant regions of the SPP1 genome. *J. Mol. Biol.* **270**:50-64.
86. Montenegro, M. A. and T. A. Trautner. 1981. *In vivo* transcription of *Bacillus subtilis* bacteriophage SPP1. *Mol. Gen. Genet.* **181**:512-517.
87. Montenegro, M. A., H. Esche, and T. A. Trautner. 1976. Induction of mutations in *B. subtilis* phage SPP1 by growth on host cells carrying a mutator DNA polymerase III. *Mol. Gen. Genet.* **149**:131-134.
88. Morelli, G., M. A. Montenegro, G. Hillenbrandt, E. Scherzinger, T. A. Trautner. 1978. The genome of *B. subtilis* phage SPP1: assignment of 5'--3'-polarity to the complementary strands of SPP1 DNA. *Mol. Gen. Genet.* **164**:93-97
89. Morelli, G., C. Fisseau, B. Behrens, T. A. Trautner, J. Luh, S. W. Ratcliff, D. P. Allison, and A. T. Ganesan. 1979. The genome of *Bacillus subtilis* phage SPP1: the topology of DNA molecules. *Mol. Gen. Genet.* **168**:153-161.
90. Murialdo, H. 1991. Bacteriophage λ DNA maturation and DNA packaging. *Annu. Rev. Biochem.* **60**:125-153.
91. Newcomb, W. W., R. M. Juhas, D. R. Thomsen, F. L. Homa, A. D. Burch, S. K. Weller, and J. C. Brown. 2001. The UL6 gene product forms the portal for entry of DNA into the herpes simplex virus capsid. *J. Virol.* **75**:10923-10932.
92. Novick, R.P., I. Edelman, and S. Lofdahl. 1986. Small *Staphylococcus aureus* plasmids are

transduced as linear multimers that are formed and resolved by replicative processes. *J. Mol. Biol.* **192**:209.

93. Orlova, E., P. Dube, E. Beckmann, F. Zemlin, R. Lurz, T. A. Trautner, P. Tavares, and M. van Heel. 1999. Structure of the 13-fold symmetric portal protein of bacteriophage SPP1. *Nature Struct. Biol.* **6**:842-846.
94. Orlova, E. V., B. Gowen, A. Dröge, A. Stiege, R. Lurz, F. Weise, M. van Heel, and P. Tavares. 2003. Structure of a viral DNA gatekeeper at 10 Å resolution by cryo-electron microscopy. *EMBO J.* **22**:1255-1262.
95. Pedré, X., F. Weise, S. Chai, G. Lüder, and J. C. Alonso. 1994. Analysis of *cis* and *trans* acting elements required for the initiation of DNA replication in the *Bacillus subtilis* bacteriophage SPP1. *J. Mol. Biol.* **236**:1324-1340.
96. Piechowska, M., and M. S. Fox. 1971. Fate of transforming deoxyribonucleate in *Bacillus subtilis*. *J. Bact.* **108**:680-689.
97. Ratcliff, S. W., J. Luh, A. T. Ganesan, B. Behrens, R. Thompson, M. A. Montenegro, G. Morelli, and T. A. Trautner. 1979. The genome of *Bacillus subtilis* phage SPP1: the arrangement of restriction endonuclease generated fragments, *Mol. Gen. Genet.* **168**:165.
98. Riva, S. 1969. Asymmetric transcription of *B. subtilis* phage SPP1 DNA *in vitro*. *Biochem. Biophys. Res. Comm.* **34**: 824-830.
99. Riva, S., M. Polsinelli, and A. Falaschi. 1968. A new phage of *Bacillus subtilis* with infectious DNA having separable strands. *J Mol Biol.* **35**:347-356.
100. Rottländer, E., and T. A., Trautner. 1970. Genetic and transfection studies with *B. subtilis* phage SP50, I. Phage mutants with restricted growth on *B. subtilis* strain 168. *Mol. Gen. Genet.* **108**:47-60.

101. Santos, M. A. 1991. Bacteriófagos de *Bacillus subtilis* do grupo SPP1 – Características gerais, especificidade de adsorção e organização genómica. PhD thesis, Faculdade de Ciências da Universidade de Lisboa, Lisboa, Portugal.
102. Santos, M.A., H. de Lencastre, and L. J. Archer. 1983. *Bacillus subtilis* mutation blocking irreversible binding of bacteriophage SPP1. *J. Gen. Microbiol.* **129**:3499-3504.
103. Santos, M. A., H. de Lencastre, and L. J. Archer. 1984. Homology between phages SPP1, 41c, 22a, ϕ15 and SF6 of *Bacillus subtilis*. *J. Gen. Virol.* **65**: 2067-2072.
104. 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, ϕ15 and SF6. *J. Virol.* **60**:702-707.
105. Schmidt, C., and H. Schmieger. 1984. Selective transduction of recombinant plasmids with cloned *pac* sites by *Salmonella* phage P22. *Mol. Gen. Genet.* **196**:123-128.
106. Simpson, A. A., Y. Tao, P. G. Leiman, M. O. Badasso, Y. He, P. J. Jardine, N. H. Olson, M. C. Morais, S. Grimes, D. L. Anderson, T. S. Baker, and M. G. Rossmann. 2000. Structure of the bacteriophage φ29 DNA packaging motor. *Nature* **408**:745-750.
107. Skalka, A. M. 1977. DNA replication - Bacteriophage lambda. *Curr. Top. Microbiol. Immunol.* **78**:201-237.
108. Soultanas, P., and D. B. Wigley. 2001. Unwinding the 'Gordian knot' of helicase action. *Trends Biochem Sci.* **26**:47-54.
109. Spatz, H. C., and T. A. Trautner. 1970. One way to do experiments on gene conversion? Transfection with heteroduplex SPP1 DNA. *Mol. Gen. Genet.* **109**:84-106.
110. Spatz, H. C., and T. A. Trautner. 1971. The role of recombination in transfection of *B. subtilis*. *Mol. Gen. Genet.* **113**:174-190.

111. Stahl, F., and N. Murray. 1966. The evolution of gene clusters and genetic circularity in microorganisms. *Genetics* **53**:569-576.
112. Stahl, F. W., I. Kobayashi, and M. M. Stahl. 1985. In phage λ , *cos* is a recombinator in the Red pathway. *J. Mol. Biol.* **181**:199-209.
113. Stanley, E., G. F. Fitzgerald, C. Le Marrec, B. Fayard, and D. van Sinderen. 1997. Sequence analysis and characterization of ϕ O1205, a temperate bacteriophage infecting *Streptococcus thermophilus* CNRZ1205. *Microbiology* **143**:3417-3429.
114. Steensma, H. Y., and J. Blok. 1979. Effect of calcium ions on the infection of *Bacillus subtilis* by bacteriophage SF6. *J. Gen. Virol.* **42**:305-314.
115. Stiege, A., A. Isidro, A. Dröge, and P. Tavares. 2003. Specific and stoichiometric targetting of a DNA-binding protein to the SPP1 procapsid by interaction with the portal oligomer. *Mol. Microbiol.* **49**:1201-1212.
116. Stüber, D., G. Morelli, H. Bujard, M. A. Montenegro, and T. A. Trautner. 1981. Promoter sites in the genome of *B. subtilis* phage SPP1. *Mol. Gen. Genet.* **181**:518-521.
117. Tailor, R., G. Bensi, G. Morelli, U. Canosi, and T. A. Trautner. 1985. The genome of *Bacillus subtilis* phage SPP1: structure of an early promoter. *J. Gen. Microbiol.* **131**:1259-1262.
118. Tavares, P., A. Dröge, R. Lurz, I. Graeber, E. Orlova, P. Dube, and M. van Heel. 1995. The SPP1 connection. *FEMS Microbiol. Rev.* **17**:47-56.
119. Tavares, P., R. Lurz, A. Stiege, B. Rückert, and T. A. Trautner. 1996. Sequential headful packaging and fate of the cleaved DNA ends in bacteriophage SPP1. *J. Mol. Biol.* **264**: 954-967.

120. Tavares, P., M. A. Santos, R. Lurz, G. Morelli, H. L. Lencastre, and T. A. Trautner. 1992. Identification of a gene in *Bacillus subtilis* bacteriophage SPP1 determining the amount of packaged DNA. *J. Mol. Biol.*, **225**:81-92.
121. Thuman-Commike, P. A., B. Greene, J. A. Malinski, J. King, and W. Chiu. 1998. Role of the scaffolding protein in P22 procapsid size determination suggested by T = 4 and T = 7 procapsid structures. *Biophys J.* **74**:559-568.
122. Trautner, T. A., and M. Noyer-Weidner. 1993. Restriction/modification and methylation systems, in *Bacillus subtilis*, related species and their phages. p. 39-108. In A. Sonenschein, J. Hoch and R. Losick (ed.) *Bacillus subtilis* and other gram-positive bacteria. *American Society for Microbiology*, Washington, D.C.
123. Trautner, T. A., and Ch. Spatz. 1973. Transfection in *B. subtilis*. *Curr. Top. Microbiol. Immunol.* **62**:61-88.
124. Trautner, T. A., B. Pawlek, S. Bron, and C. Anagnostopoulos. 1974. Restriction and modification in *B. subtilis*. Biological aspects. *Mol. Gen. Genet.* **131**:181-191.
125. Trautner, T. A., Ch. Spatz, B. Behrens, B. Pawlek, and M. Behnke. 1972. Exchange between complementary strands of DNA? *Adv. Biosciences* **8**:79-87.
126. Valpuesta, J. M., and J. L. Carrascosa. 1994. Structure of viral connectors and their function in bacteriophage assembly and DNA packaging. *Quart. Rev. Biophys.* **27**:107-155.
127. van Heel, M., E. Orlova, P. Dube, and P. Tavares. 1996. Intrinsic *versus* imposed curvature in cyclical oligomers: the portal protein of bacteriophage SPP1. *EMBO J.* **15**:4785-4688.
128. van Sinderen, D., H. Karsens , J. Kok, P. Terpstra, M. H. J. Ruiters, G. Venema, and A. Nauta. 1995. Sequence analysis and molecular characterization of the temperate lactococcal bacteriophage r1t. *Mol. Microbiol* **19**:1343-1355.

129. Viguera, E., P. Hernández, D. B. Krimer, A. S. Boitsov, R. Lurz, J. C. Alonso, and J. B. Schwartzman. 1996. The ColE1 unidirectional origin is a polar replication fork barrier. *J. Biol. Chem.* **271**:22414-22421.
130. Viret, J. F., and J. C. Alonso. 1987. Generation of linear multigenome-length plasmid molecules in *Bacillus subtilis*. *Nucleic Acids Res.* **15**:6349-6367.
131. Viret, J.F., A. Bravo, and J. C. Alonso. 1991. Recombination-dependent concatemeric plasmid replication. *Microbiol. Rev.* **55**:675-683.
132. Weise, F., S. Chai, G. Lüder, and J. C. Alonso. 1994. Nucleotide sequence and complementation studies of the gene 35 region of the *Bacillus subtilis* bacteriophage SPP1. *Virology* **202**:1046-1049.
133. Yamaguchi, T., T. Hayashi, H. Takami, K. Nakasone, M. Ohnishi, K. Nakayama, S. Yamada, H. Komatsuzawa, and M. Sugai. 2000. Phage conversion of exfoliative toxin A production in *Staphylococcus aureus*. *Mol. Microbiol.* **38**:694-705.
134. Yasbin, R. E. and F. E. Young. 1974. Transduction in *Bacillus subtilis* by bacteriophage SPP1 *J Virol.* **14**:1343-1348.
135. Yasbin, R. E., V. C. Maino, and F. E. Young. 1976. Bacteriophage resistance in *Bacillus subtilis* 168, W23, and interstrain transformants. *J Bacteriol.* **125**:1120-1126.
136. Zsigray, R. M., A. L. Miss, and O. E. Landman. 1973. Penetration of a bacteriophage into *Bacillus subtilis*: blockage of infection by deoxyribonuclease. *J Virol.* **11**:69-77.