

Control of cell division in *Treponema denticola*

[short, interesting and accurate]

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Running head: *T. denticola* cell division

Keywords: Spirochaetes, periodontal disease, *ftsZ*, promoter structure

[Select 4-6 keywords carefully, remembering that these will be used by search engines. Do not repeat words in the title.]

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Word count = 6876 (including all tables, legends and references)

SUMMARY

1 **[use line numbering]**

2 The Summary (*n.b.* not Abstract) is the most read part of a paper, so it is vital that it conveys the
3 research question, how it has been addressed (= methods), the main results and the
4 implications of the results. Write this part of the paper last. It should not be more than 250
5 words. Avoid statements such as "the results are discussed". Use English (UK) spell-checker.
6 End the Summary with sentences that capture the implications of the paper. This will define why
7 the paper should be published in Molecular Oral Microbiology and read by an international
8 audience.

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10 INTRODUCTION

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12 The first paragraph under all headings is not indented. The Introduction should introduce the
13 subject and put it into current perspective. The result should be a short description of the state-
14 of-the-art, suitably referenced. Avoid multiple citations, if possible. At the first mention of a
15 microbial species in the main text (not Summary or title), it should be given its full Latin name
16 with the current attribution. An example would be *Treponema denticola*. Subsequently, the
17 organism can be referred to as *T. denticola* except when starting a sentence, when it should be
18 given in full.

19 The second and subsequent paragraphs are indented. References are cited as follows
20 (Marshall, 1989; Wilson & Aebischer, 1995). Wilson and Aebischer (1995) found that numbers
21 of bacteria colonizing surfaces were variable. Where there are three or more authors use (De
22 Cauwer *et al.*, 2008) or De Cauwer *et al.* (2008) in the sentence.

23 End the Introduction with a clear description of the research question, supported by a
24 hypothesis as appropriate. The following is an example. In order to determine the impact of *T.*
25 *denticola* on the development of periodontitis, and to evaluate effects of these bacteria on other
26 species present within lesions, a novel *in vivo* model was developed in conjunction with
27 molecular analysis of defined-species biofilms. The hypothesis tested was that *T. denticola*
28 influenced development of periodontal disease through activation of virulence factors expressed
29 by other bacteria. The results suggest that proteases from *Prevotella intermedia* are activated by
30 *T. denticola*. However, additional factors to protease activation are involved in induction of
31 increased levels of pathogenesis by mixed-species communities.

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38 **METHODS**

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40 **Second order heading is in bold**

41 The objective of writing the Methods is that there is sufficient information presented for a reader
42 to be able to repeat the work. As the author, you will be very familiar with what has been done,
43 but the challenge is to present information clearly for others.

44 Abbreviations should be written in full at first mention. Spellings should conform to those
45 used in the Concise Oxford Dictionary. SI units should be used throughout. Consult the journal
46 Author Guidelines (<http://www.wiley.com/bw/submit.asp?ref=0043-1737>).

47

48 *Third order headings in italics*

49 For unusual chemicals (e.g. pendimethalin), the product name (Stomp 400 SC) its concentration
50 (400 g a.i. l⁻¹) and the supplier (BASF plc) should be stated.

51

52 *Analysis*

53 Data were analysed formally with analysis of variance as a split-split plot design. All analyses
54 were performed using the Genstat7 program (Payne *et al.*, 2002). The journal is preparing new
55 guidelines on the use and presentation of statistics. Meanwhile, the current advice is available
56 at: <http://www3.interscience.wiley.com/journal/119454113/issue>

57

58

59 **RESULTS**

60

61 **Second order heading in bold**

62 Results should be separated from Discussion. Present the key analyzed results objectively. Do
63 not repeat data in both tables and figures. Analyses of coverage between the sites showed
64 some differences associated with the field size and substratum types (Table 1). There were no
65 significant differences in growth rate associated with cultures with or without glucose.

66

67 *Third order heading in italics*

68 Analysis of the species present in the microflora indicated significantly greater biodiversity in the
69 boundary of the margins adjacent to strips (Fig. 1), but no statistical difference between biomass
70 measurements.

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73 **DISCUSSION**

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75 Discuss the implications of the results in the context of previous research. Critically evaluate the
76 methods employed.

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79 **ACKNOWLEDGEMENTS**

80

81 Under Acknowledgements please specify contributors to the article other than the authors
82 accredited. Please also include specifications of the source of funding for the study and any
83 potential conflict of interests, if appropriate.

84

85

86 **REFERENCES**

87

88 [The Journal follows the Harvard reference style. In the text, cite authors' names followed by the
89 date of publication e.g. in the text Author and Author (1994) or in parentheses (Author & Author,
90 1994). Where there are three or more authors, the first author's name followed by *et al.* will
91 suffice. Where more than one reference is cited they should be listed in chronological order.

92 References to unpublished work should be cited only in the text as 'A. Author pers. comm.' or

93 `A. Author unpubl. obs.'. Reference lists should be ordered alphabetically. Journal titles should
94 be abbreviated. `In press' is only acceptable if a volume number can be quoted.

95

96 Examples:

97 Author, A.B., and Author, B.C. (1989) Title of article. *Journal Title Abbreviated* **00**: 123-129.

98 Author, A., Author, B., Author, C., et al. [if more than 6] (1994) *Book Title*. Place: Publisher.

99 Author, A., and Author, B., Jr (1989) Chapter title. In *Book Title in Italics*, Vol. 1. Editor, A.B., and

100 Editor, B.C. (eds). Place: Publisher, pp. 163-189.

101 Author, A. (1989) Thesis title with lower-case initials to all words. PhD thesis, University, Town,

102 Country.

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106 should have - see www.doi.org/ for more information. If an author cites anything which does not

107 have a DOI they run the risk of the cited material not being traceable.

108 We recommend the use of a tool such as EndNote or Reference Manager for reference

109 management and formatting. Style as for *Molecular Microbiology*.

110 EndNote reference styles can be searched for here: www.endnote.com/support/enstyles.asp

111 Reference Manager reference styles: www.refman.com/support/rmstyles.asp

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114 **Supporting Information**

115 Additional Supporting Information may be found in the online version of this article:

116 Figure S1. Cell images in JPG format

117 Figure S2. Photograph of apparatus used in the experiments

118 Table S1. Data set of experiment one in Microsoft Excel format.

119 Video Clip S1. Clip in Quicktime of cells taking up dye.

120 Appendix S1. Detailed methodology (Word document)

121

122

123 **[Figure legends]**

124

125 **Fig. 1** Canonical Correspondence Analysis ordination of the flora from the boundaries (\diamond), 6 m

126 margins (o), crop edges (\times) and crop centres (∇) of paired arable fields in southern England.

127 Data are based on mean species cover from three 5 m² quadrants per location. The first two

128 axes explain 39% of the species-environment relations.

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130

131 **[Tables]**

132

133 **Table 1** Bacterial strains used in this study and their derivation.

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