

**Characterization of SCO4439, a D-alanyl-D-alanine carboxypeptidase involved in spore cell wall maturation, resistance, and germination in *Streptomyces coelicolor***

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**Supplementary Fig. S1.** Master images used to quantify spore diameters in *S. coelicolor* SCO4439::Tn5062, and SCO4439::Tn5062[pBRB3\*].

**Supplementary Fig. S2.** Master images used to quantify spore diameters in *S. coelicolor* [pMS82] and SCO4439::Tn5062[pBRB3].

**Supplementary Movie 1.** Time-lapse confocal microscopy of the germination of spores from the *S. coelicolor* wild type strain.

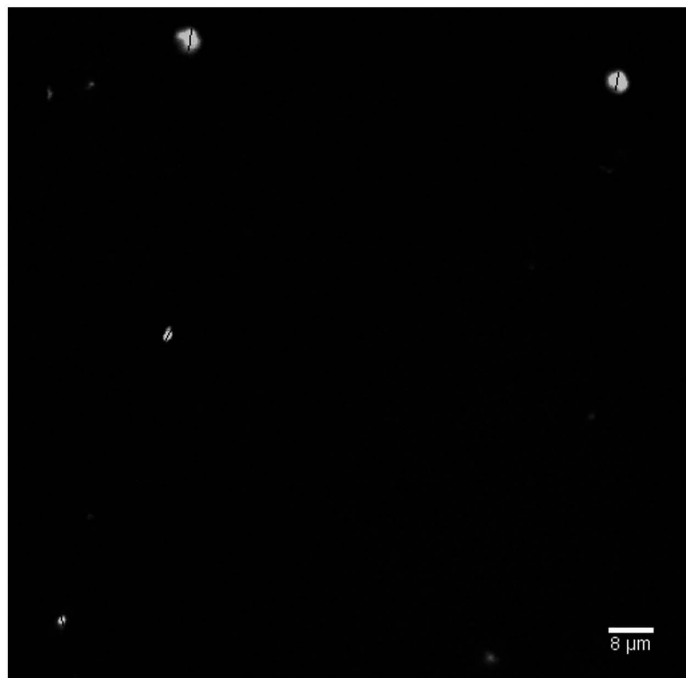
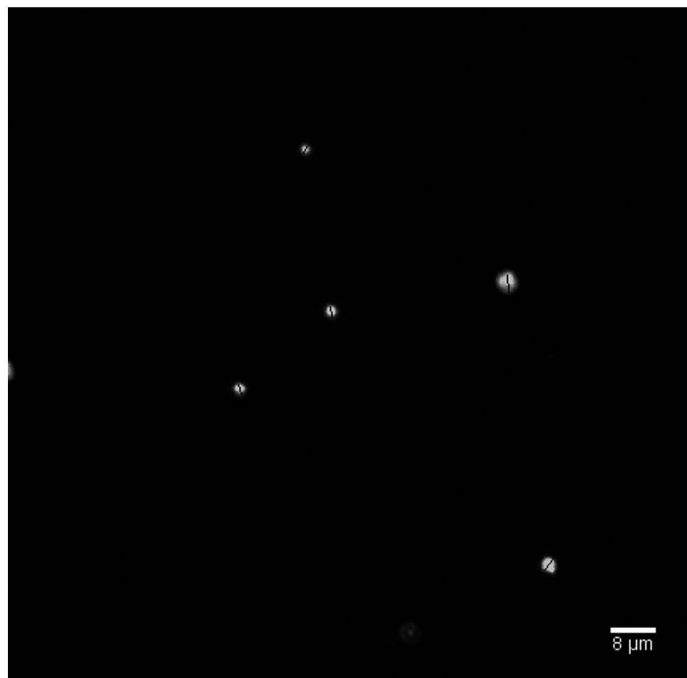
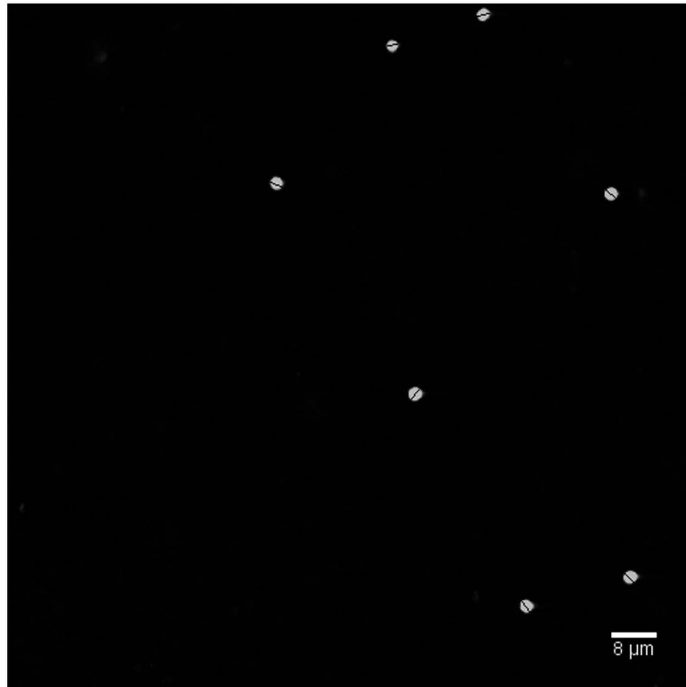
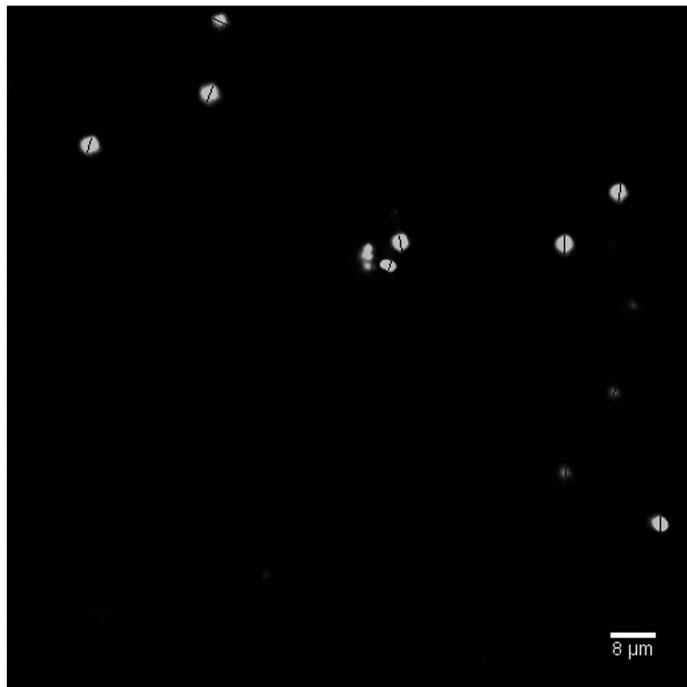
**Supplementary Movie 2.** Time-lapse confocal microscopy of the germination of spores from the *SCO4439::Tn5062* mutant strain.

**Supplementary Movie 3.** Time-lapse confocal microscopy of the germination of spores from the *SCO4439::Tn5062* [pBRB3] complemented mutant.

**Supplementary Movie 4.** Time-lapse confocal microscopy of the germination of spores from the *SCO4439::Tn5062* mutant harbouring the *SCO4439\** mutated gene (SCO4439::Tn5062[pBRB3\*]).

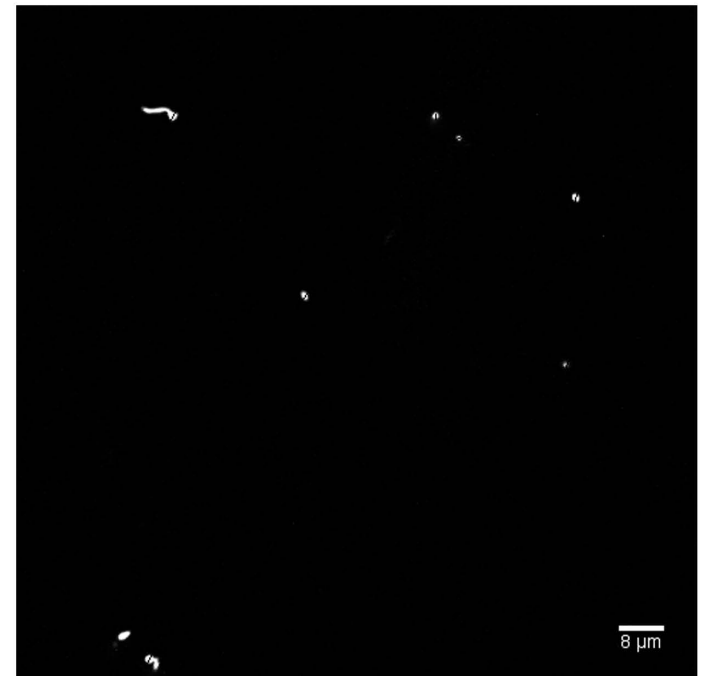
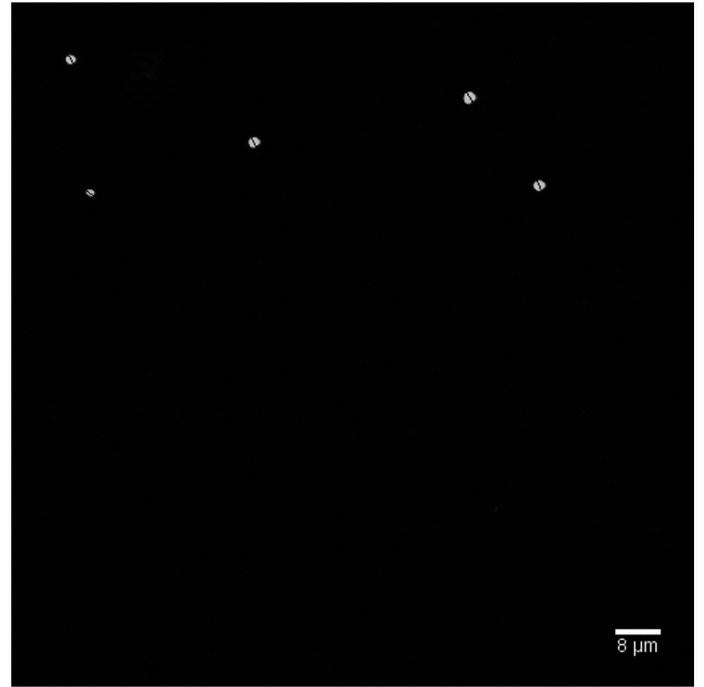
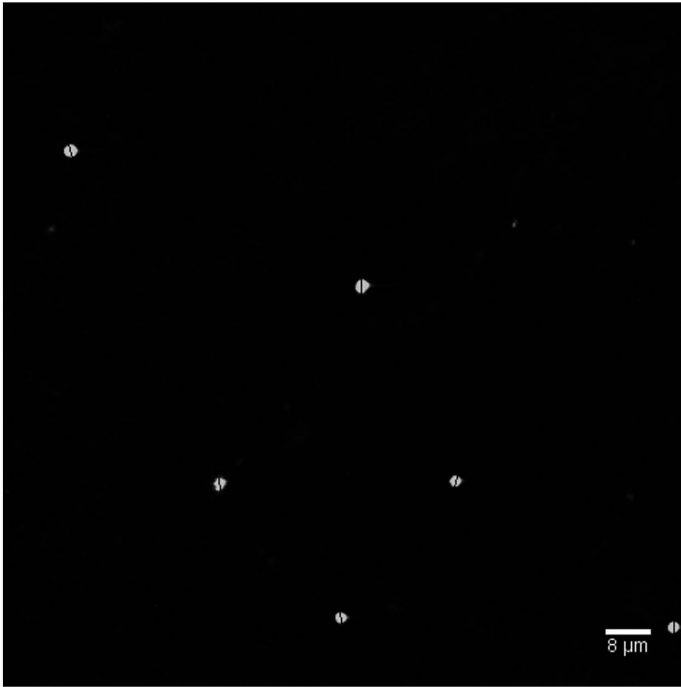
**Fig. S1. MASTER IMAGES USED TO QUANTIFY SPORE DIAMETER**

*Streptomyces coelicolor* 5-hours. Spore diameters measured are labelled by lines.



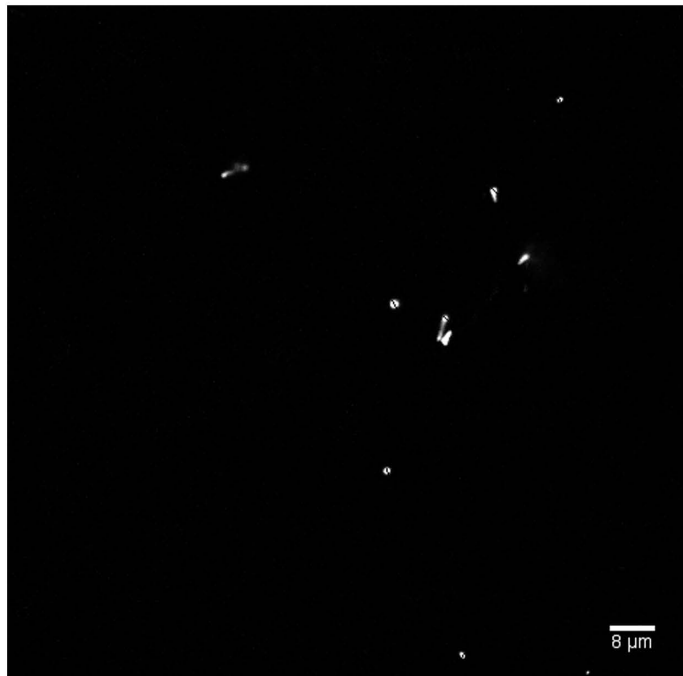
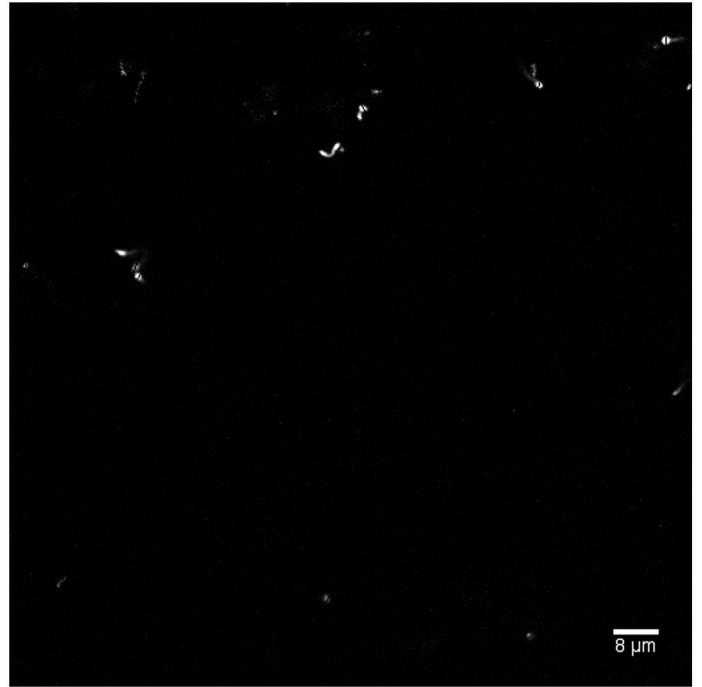
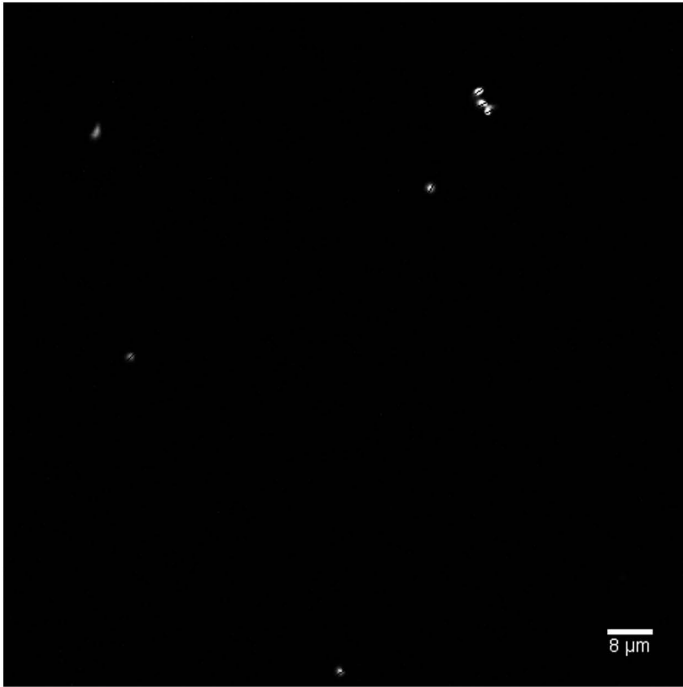
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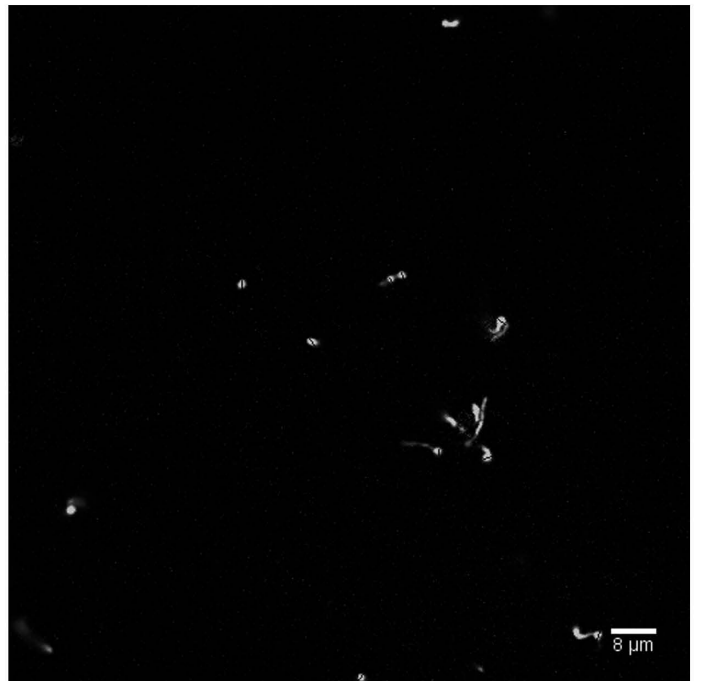
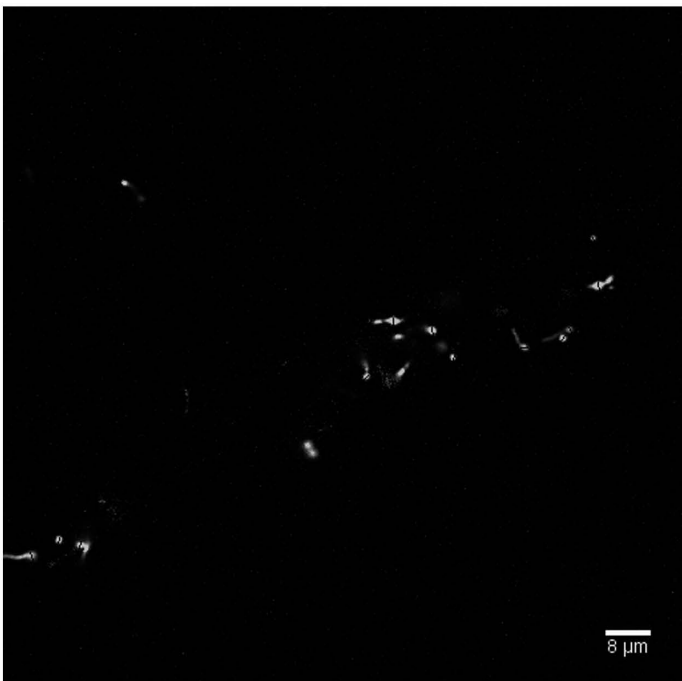
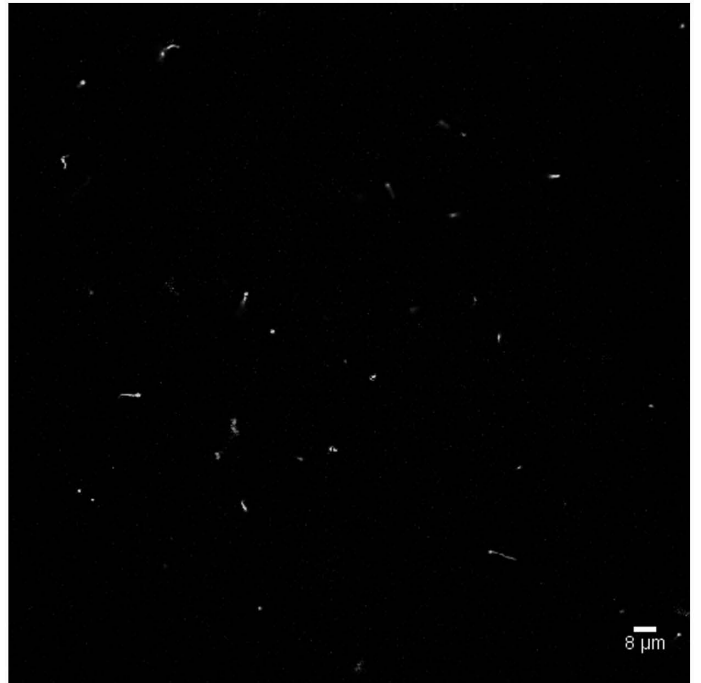
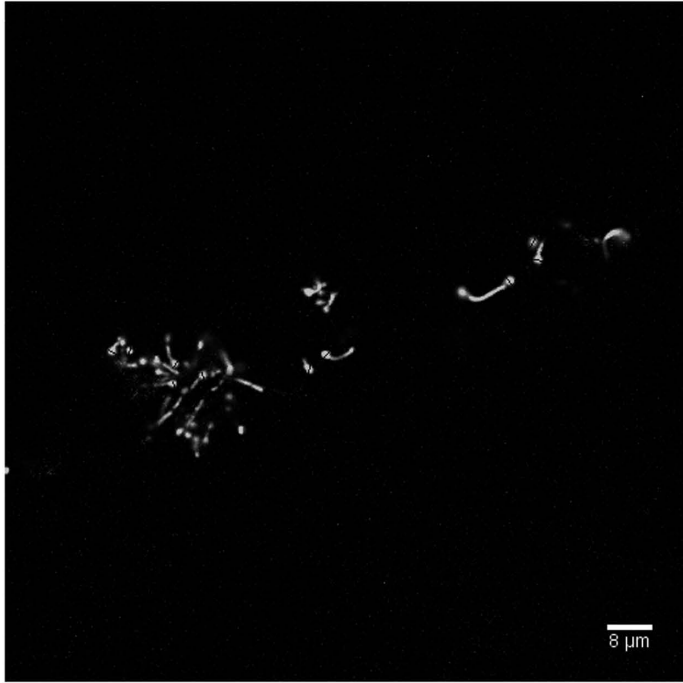
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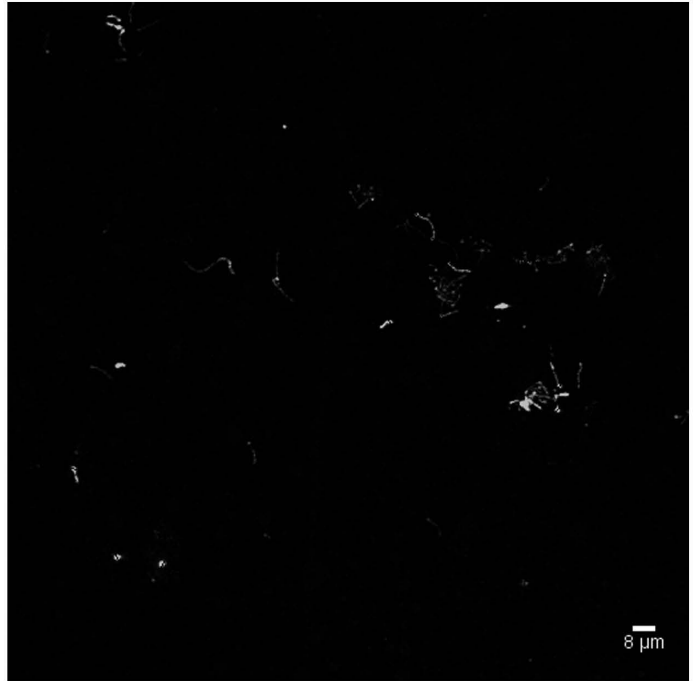
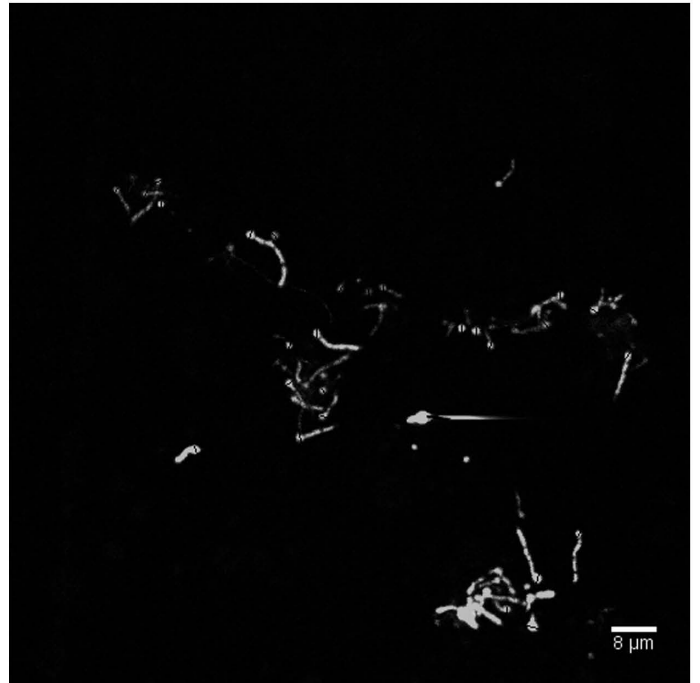
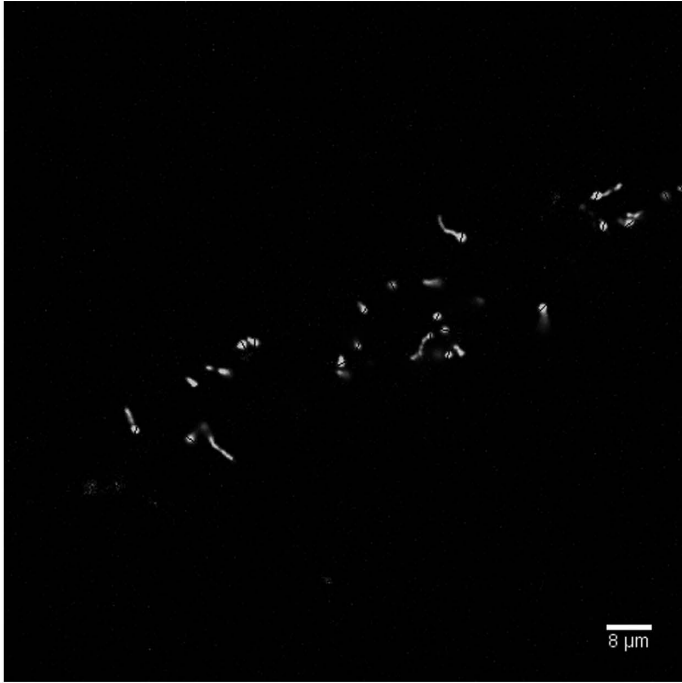
**Fig. S1. MASTER IMAGES USED TO QUANTIFY SPORE DIAMETER**

*Streptomyces coelicolor* wild type. 8-hours. Spore diameters measured are labelled by lines.



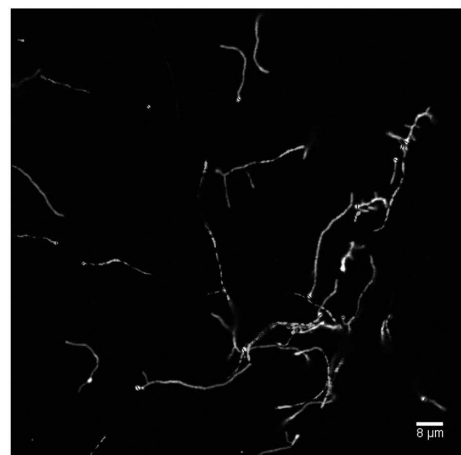
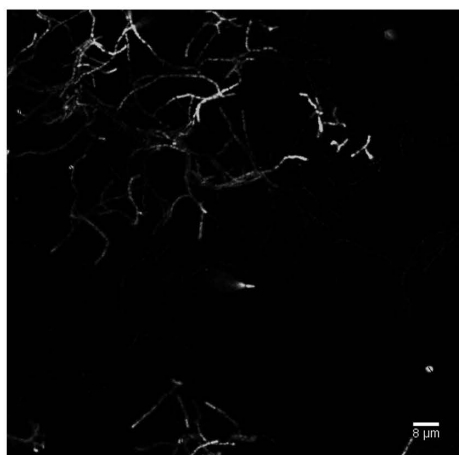
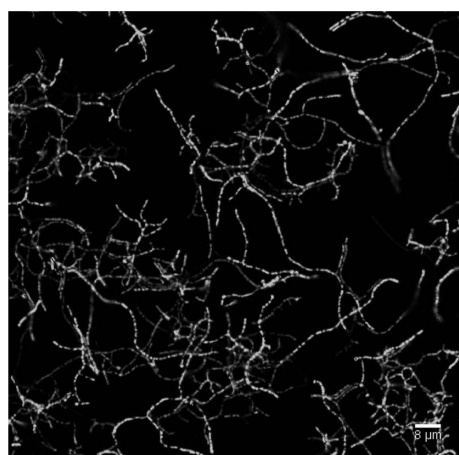
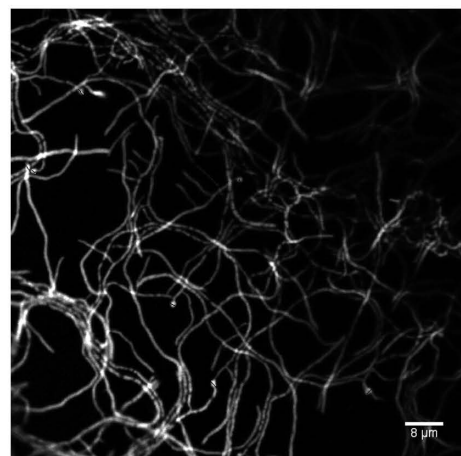
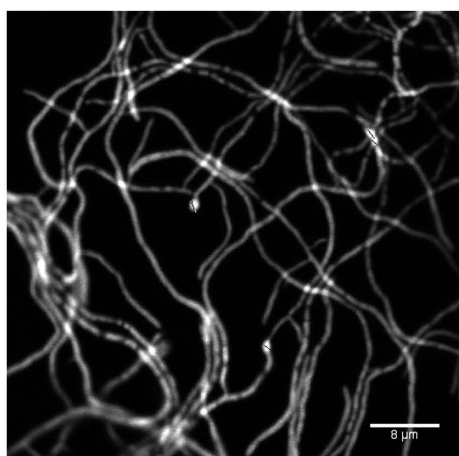
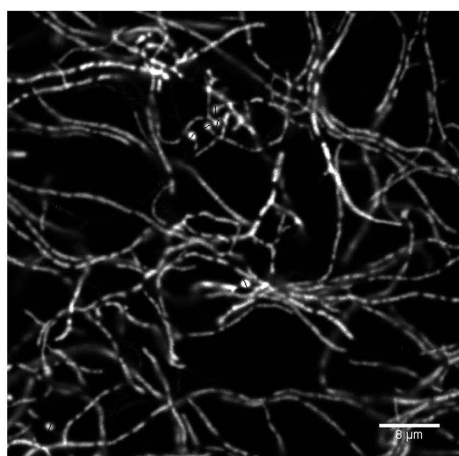
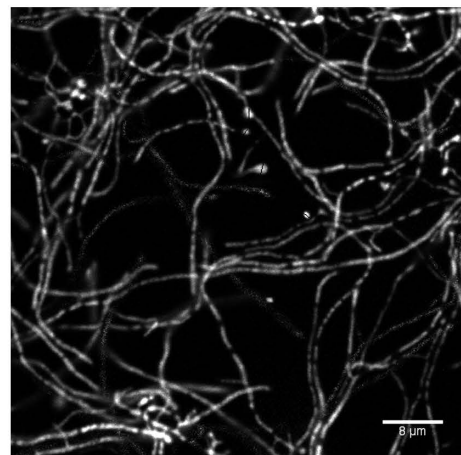
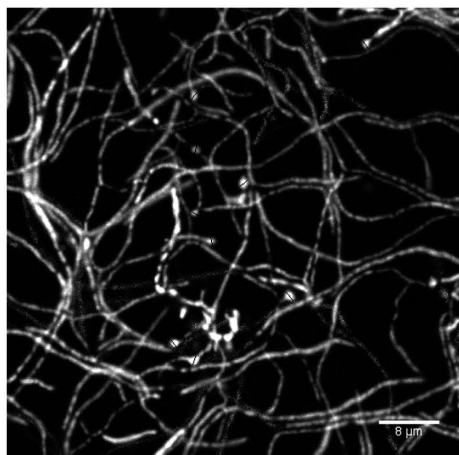
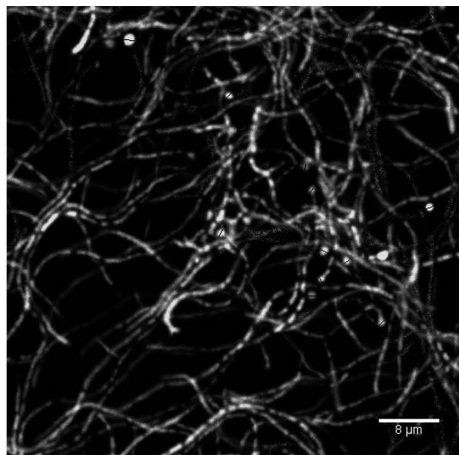
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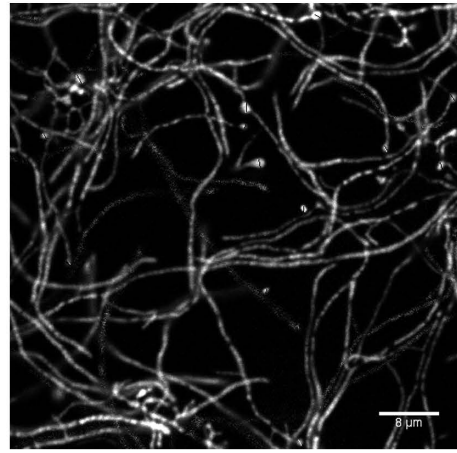
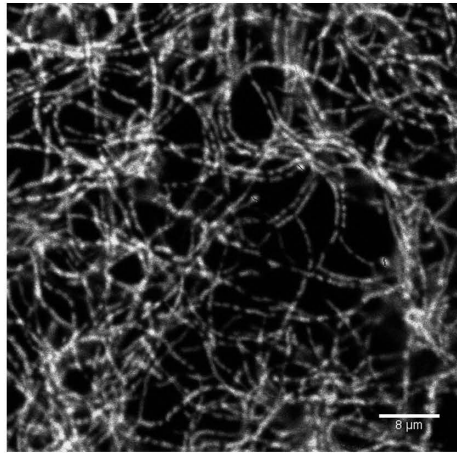
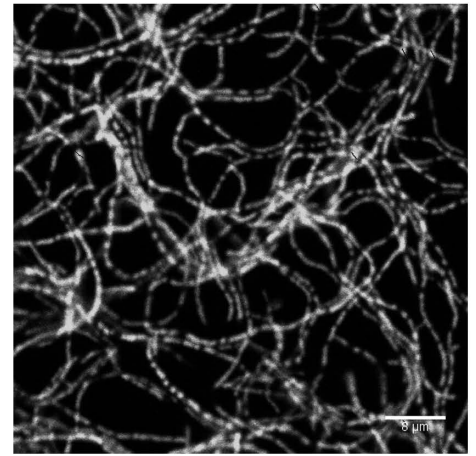
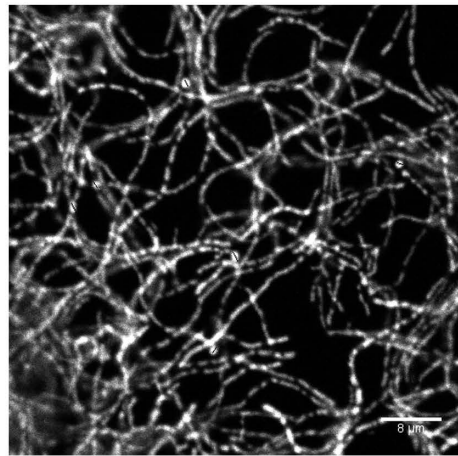
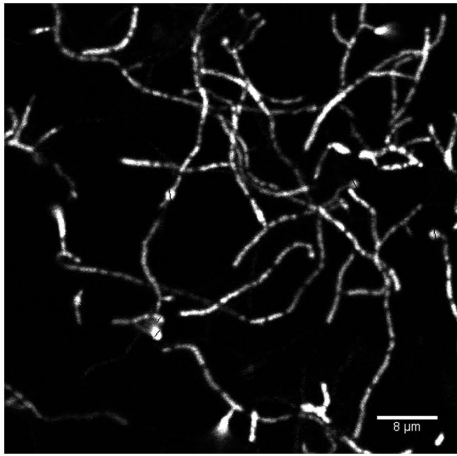
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*Streptomyces coelicolor* wild type. 15-hours. Spore diameters measured are labelled by lines.



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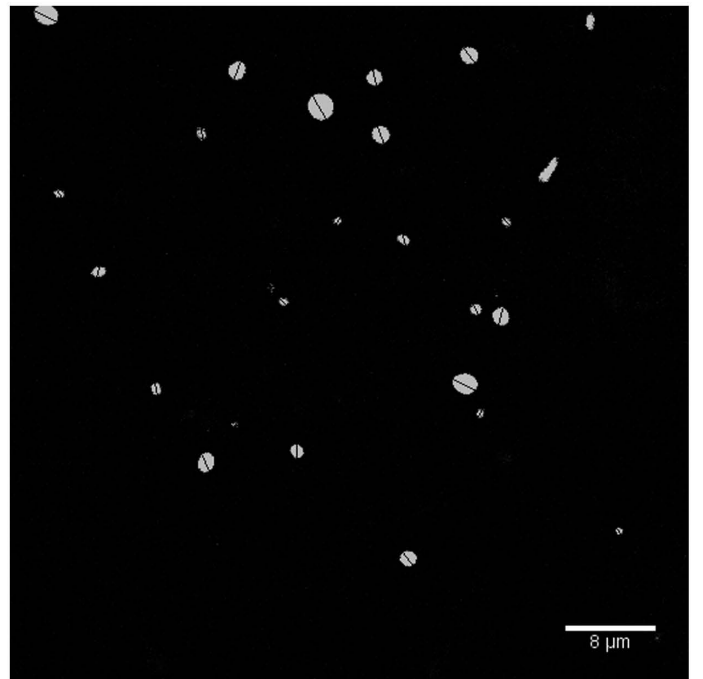
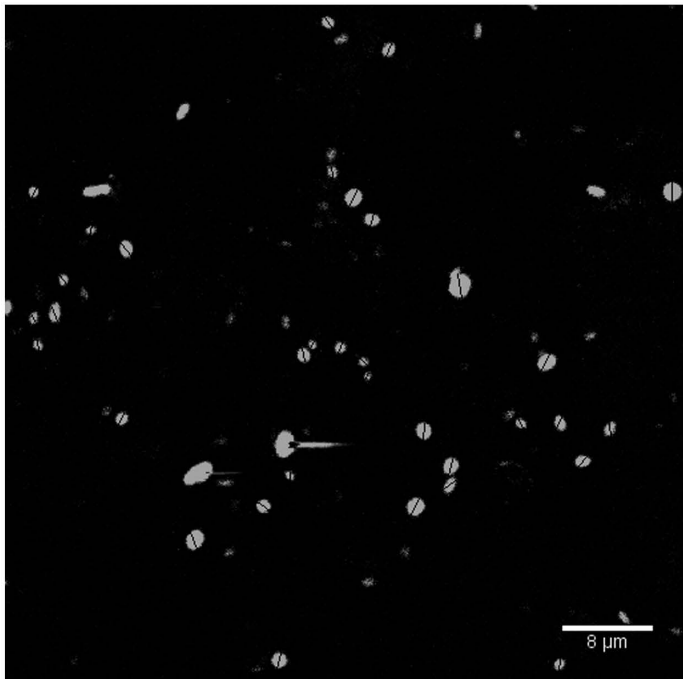
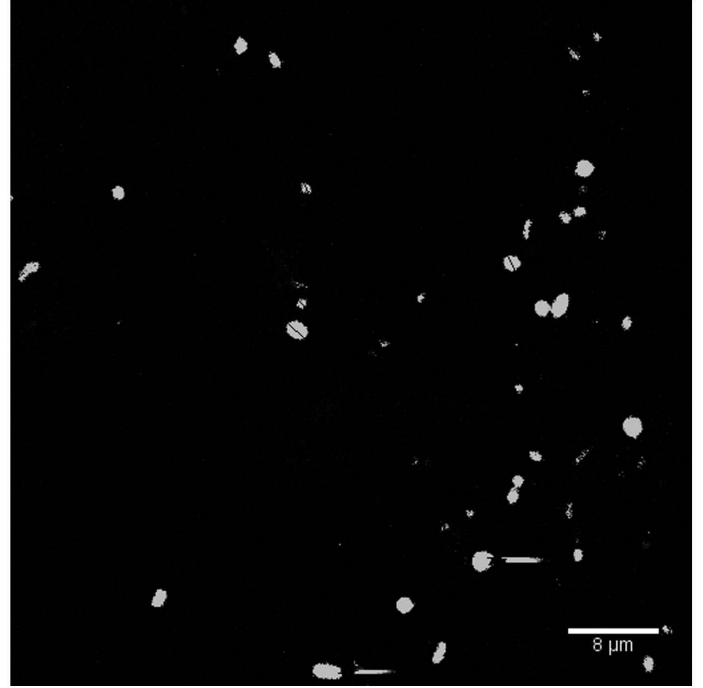
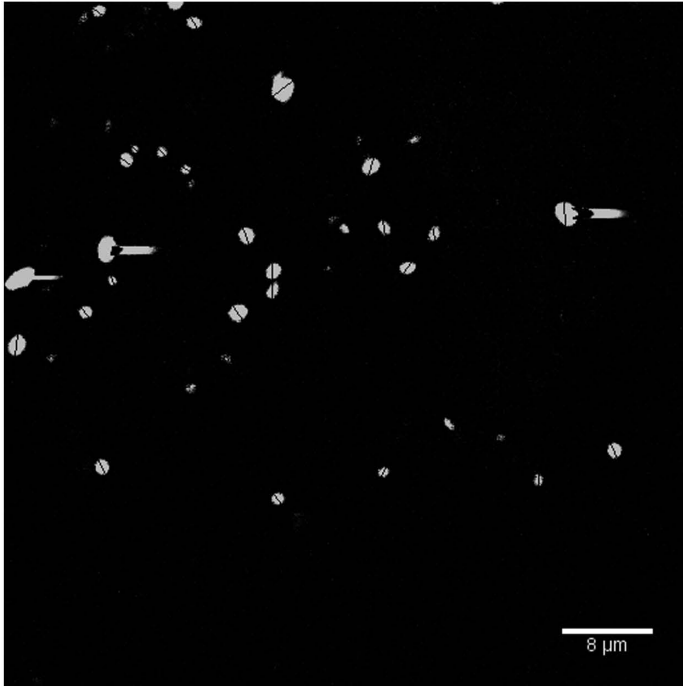
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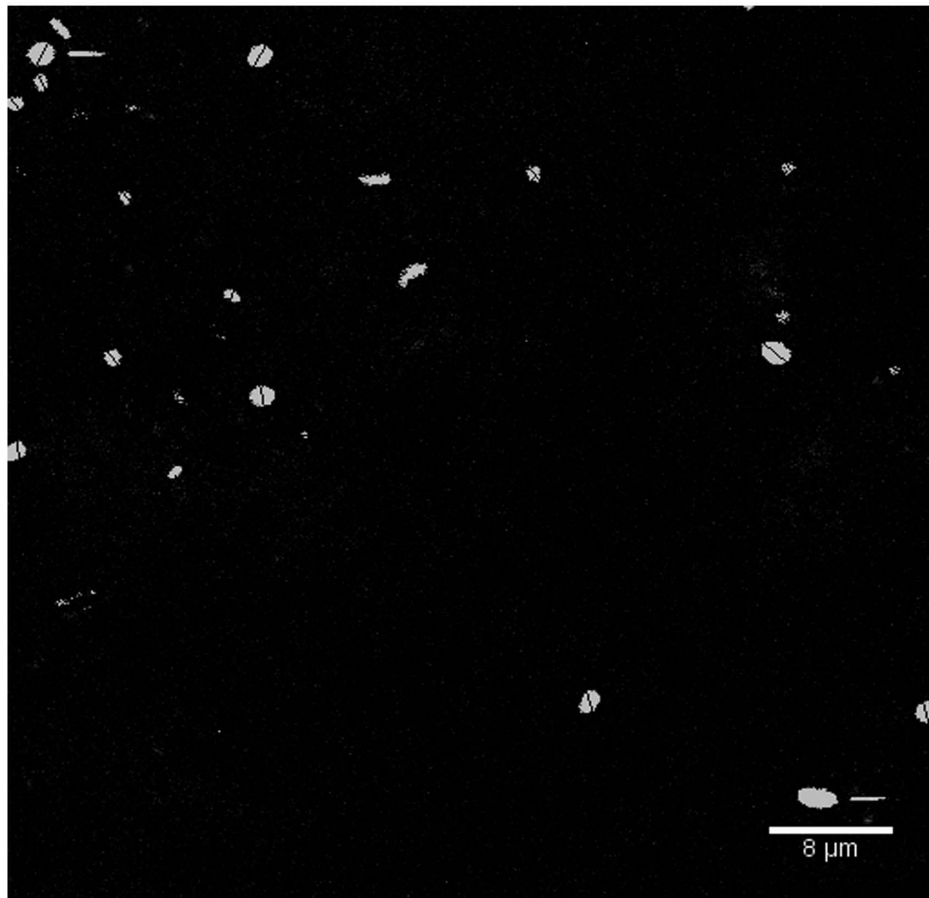
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*Streptomyces coelicolor*::Tn5062 5-hours. Spore diameters measured are labelled by lines.



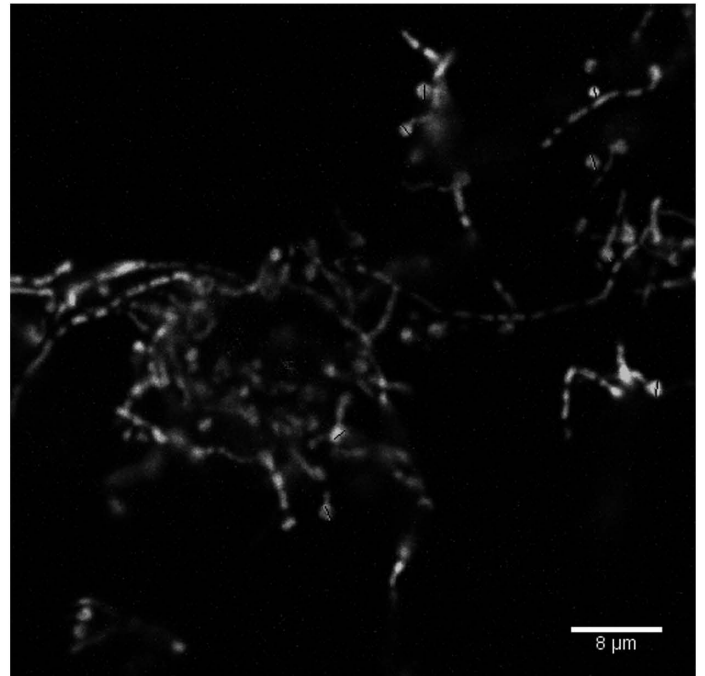
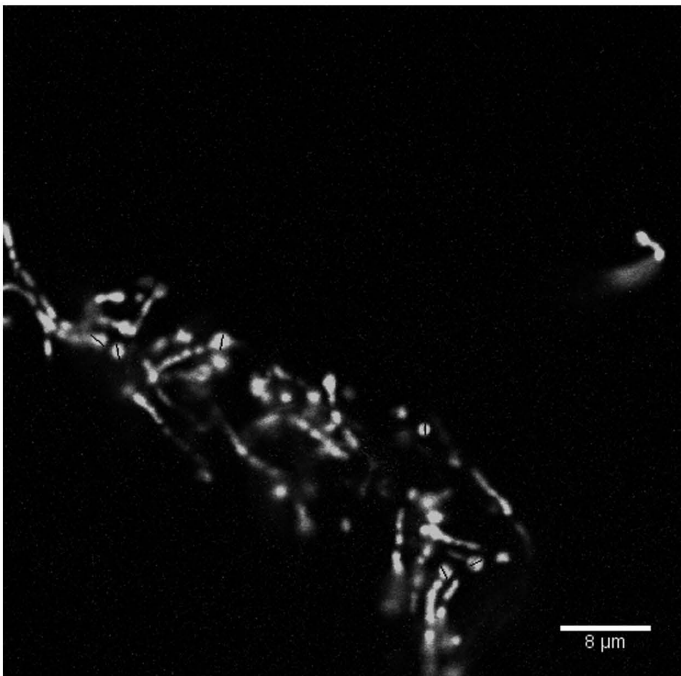
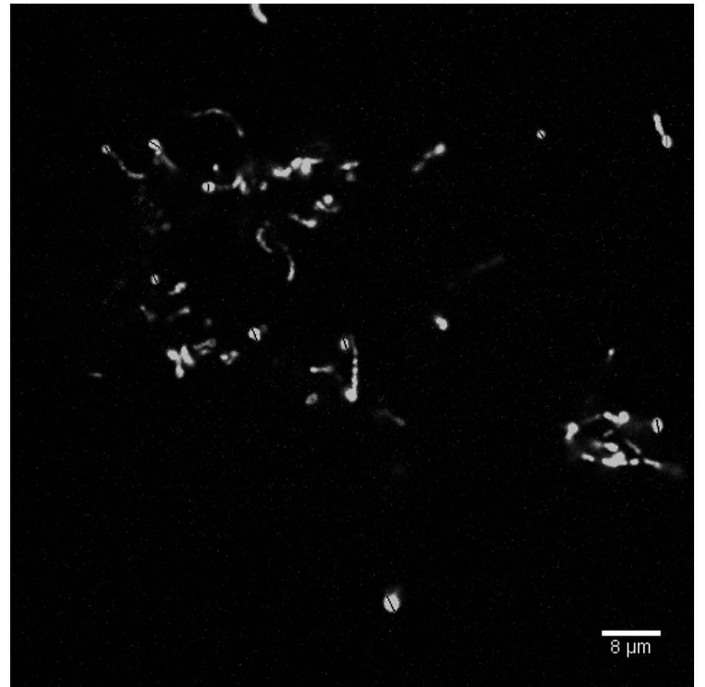
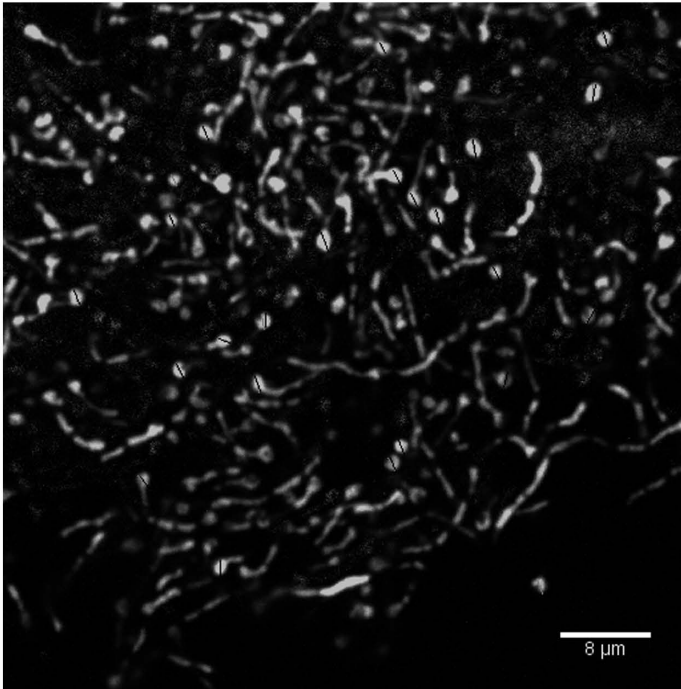
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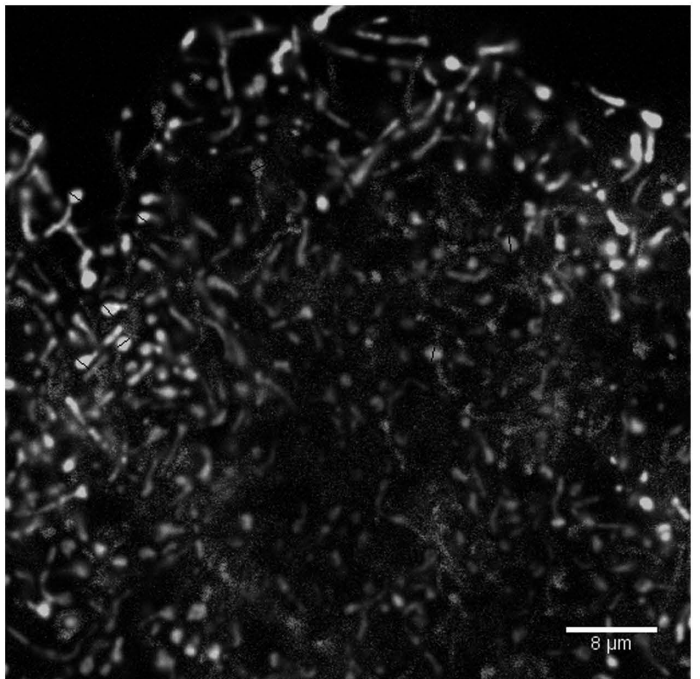
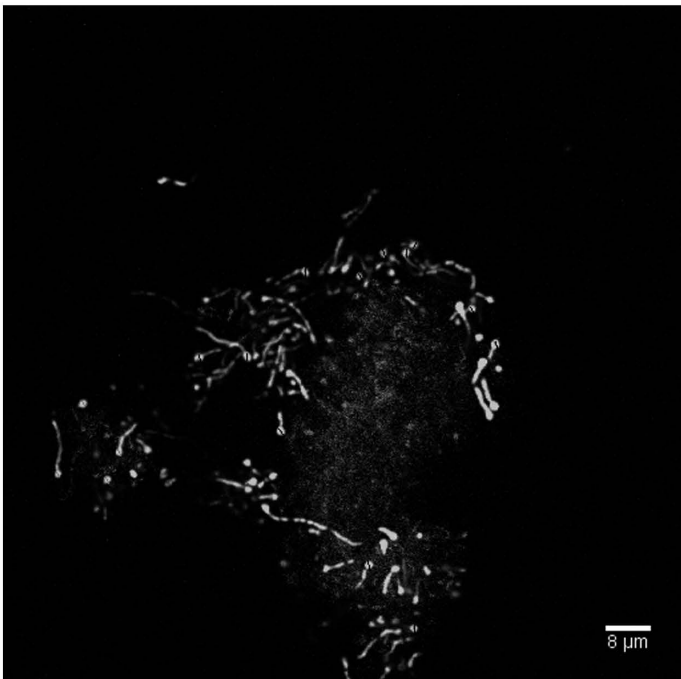
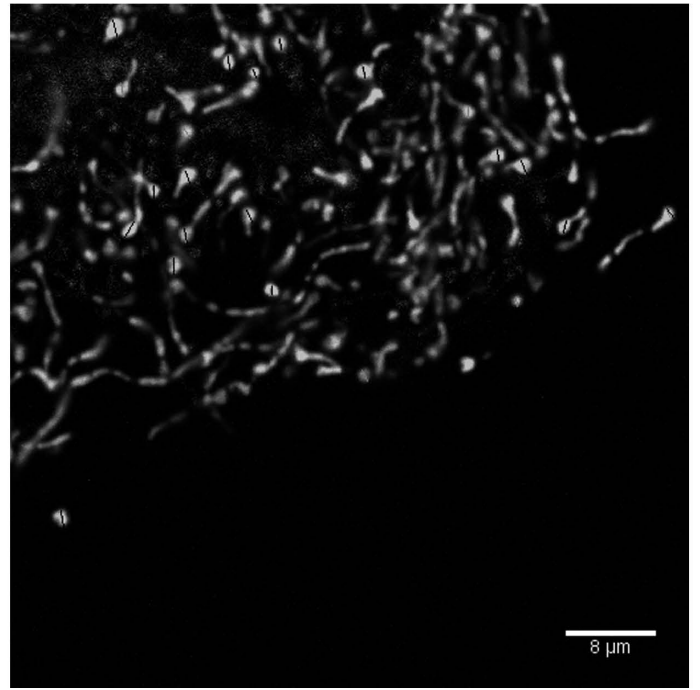
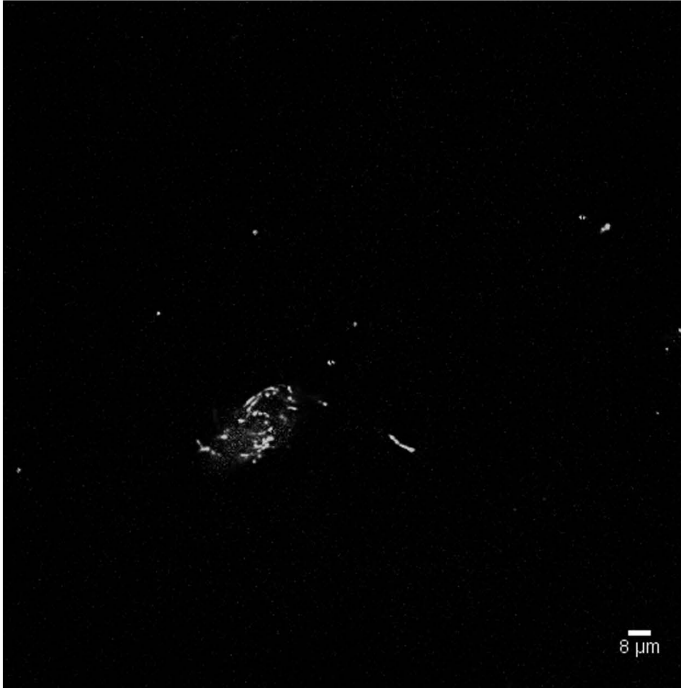
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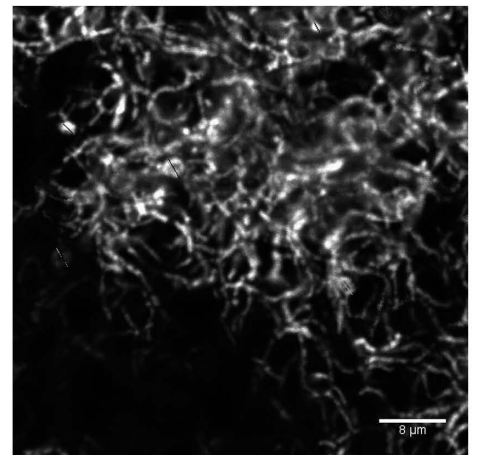
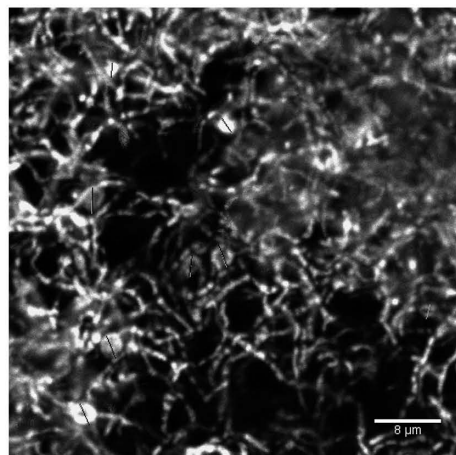
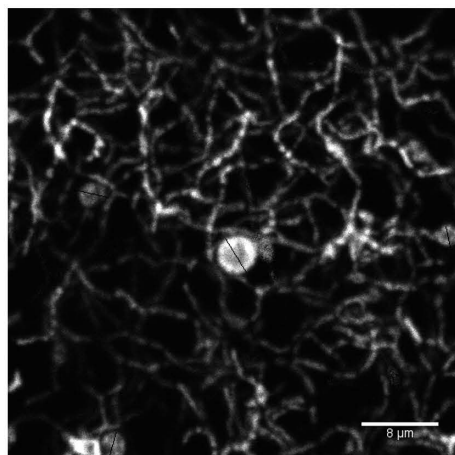
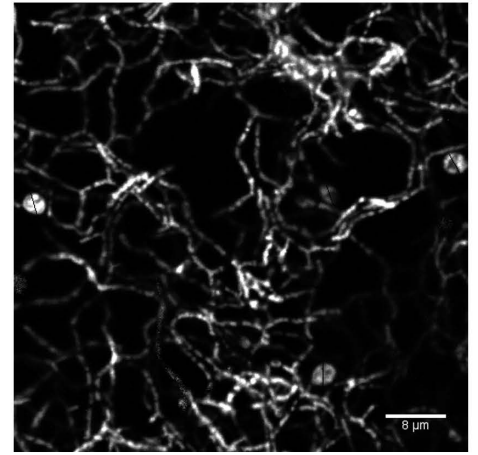
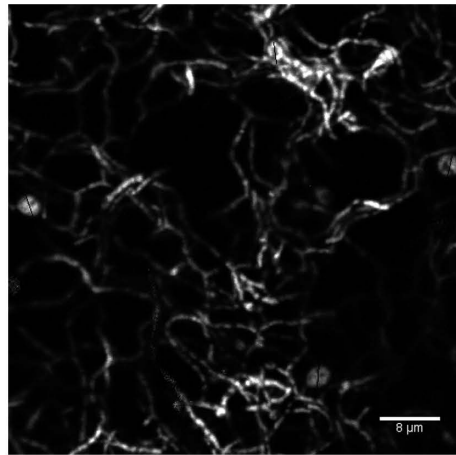
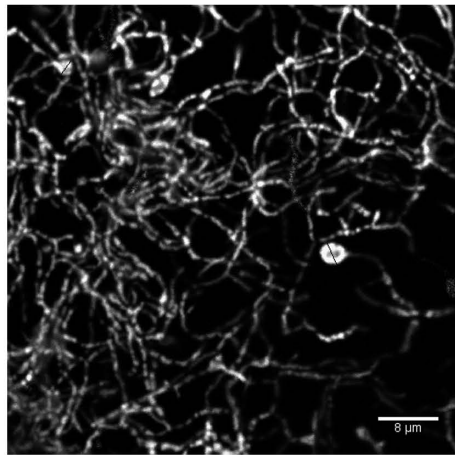
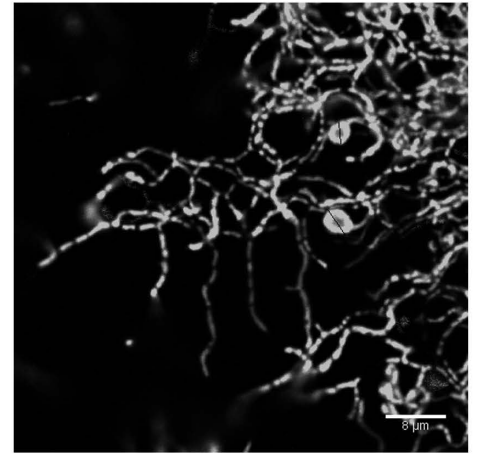
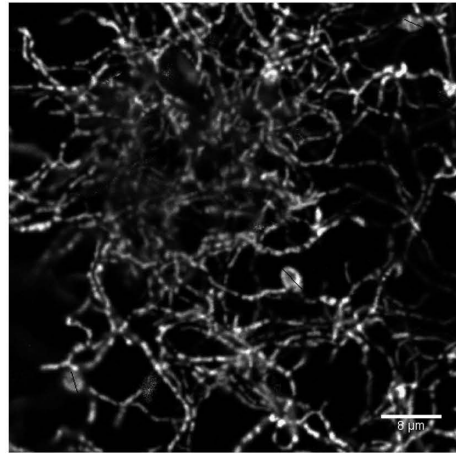
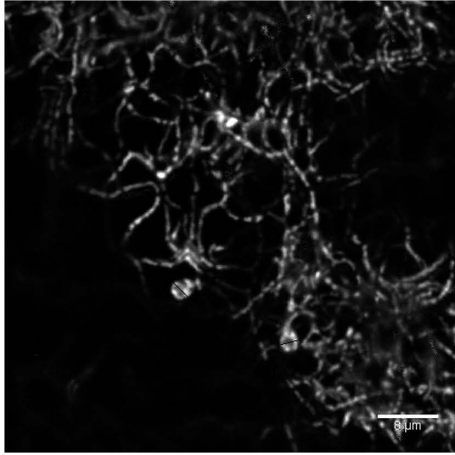
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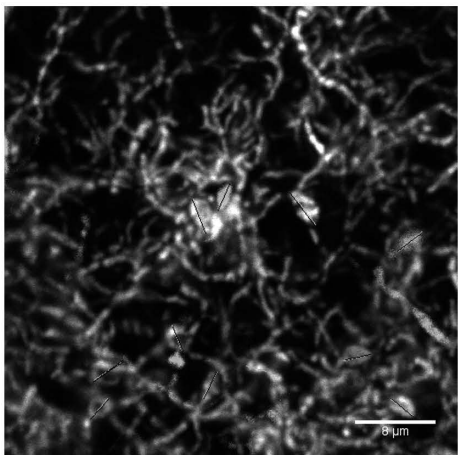
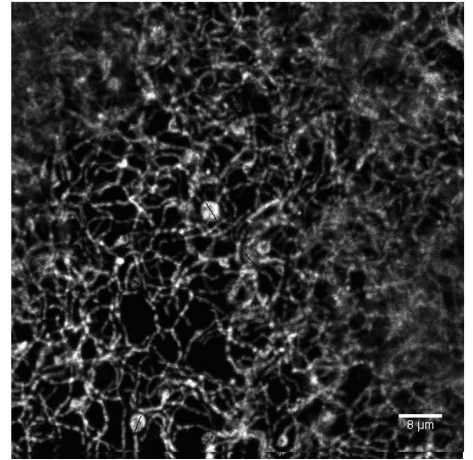
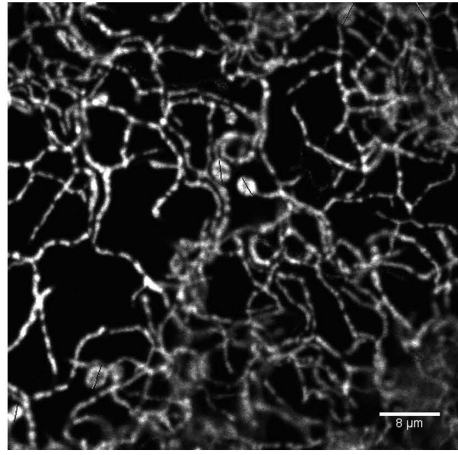
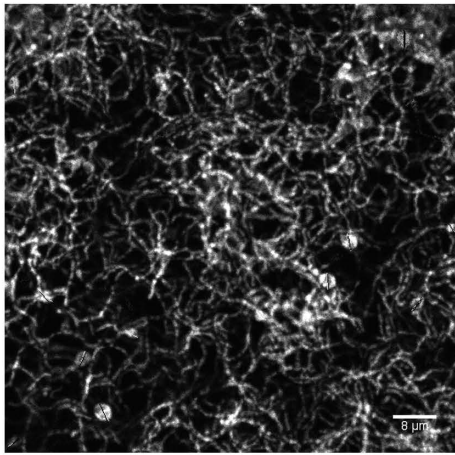
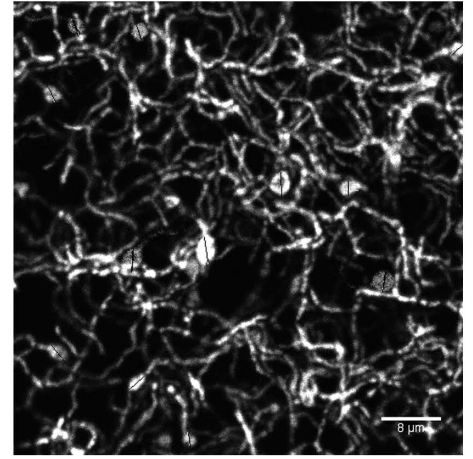
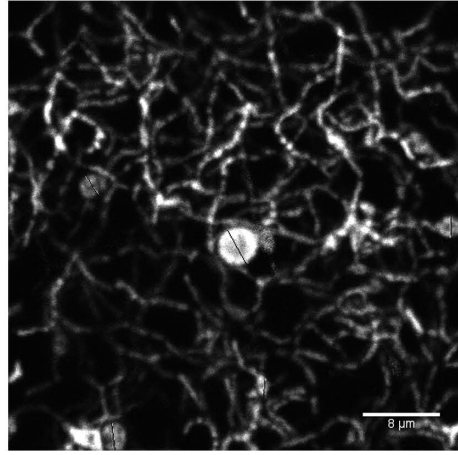
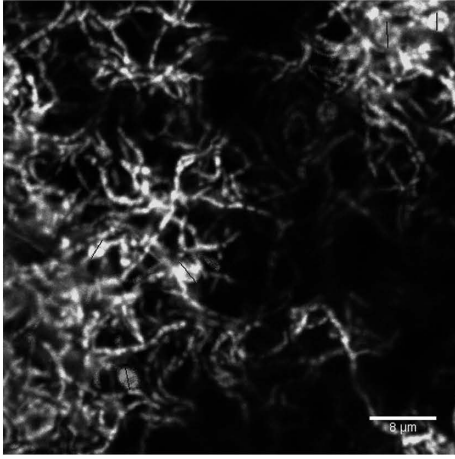
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*Streptomyces coelicolor* SCO4439::Tn5062. 15-hours. Spore diameters measured are labelled by lines.



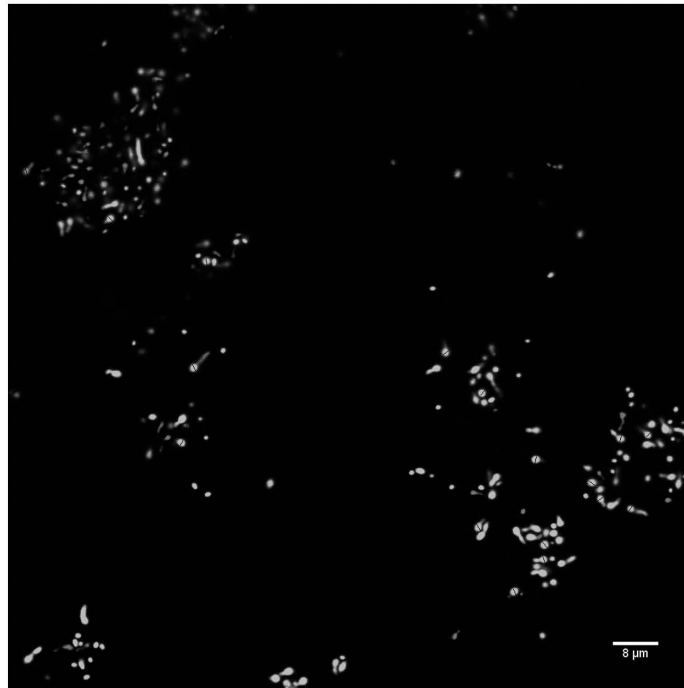
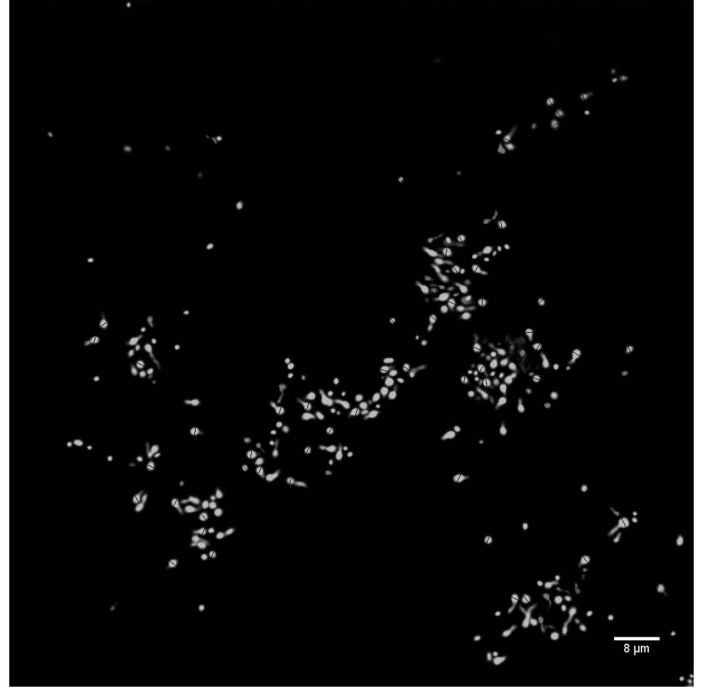
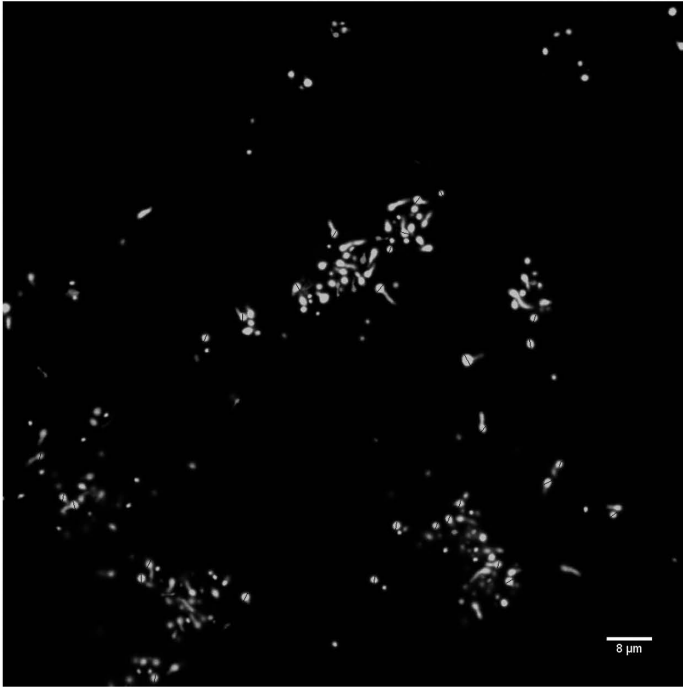
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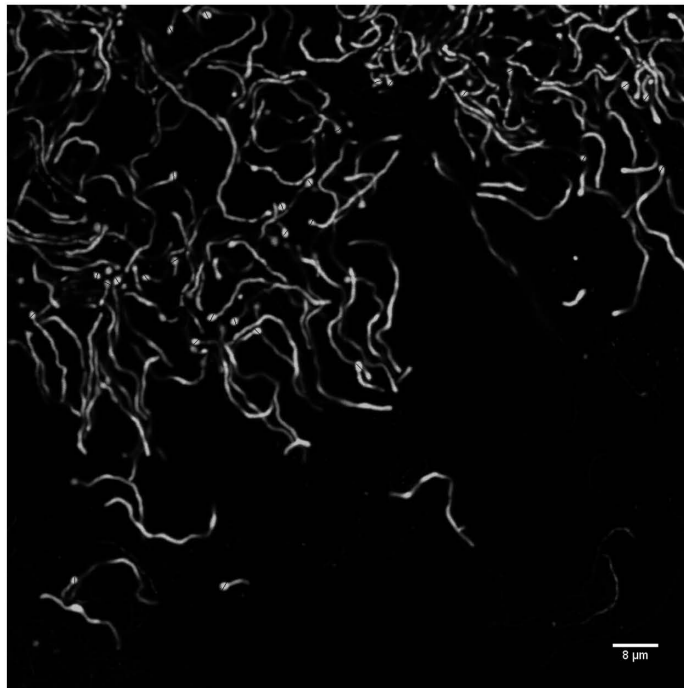
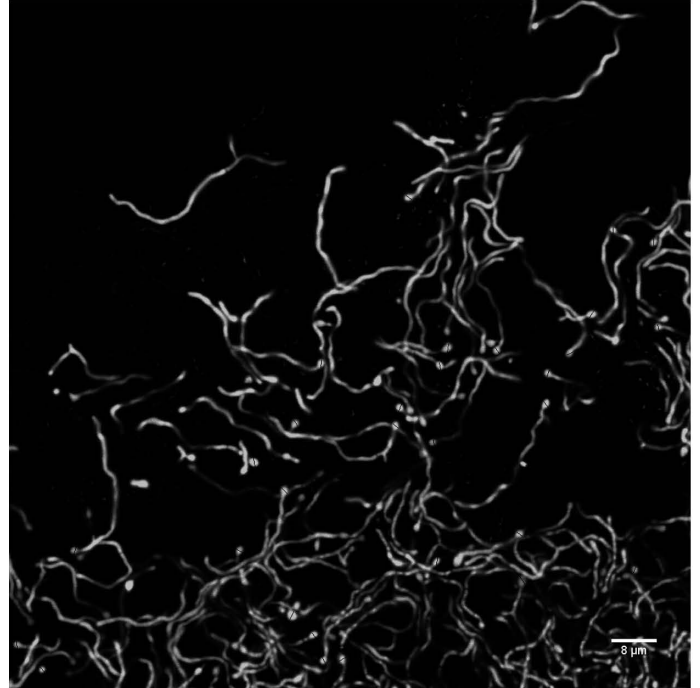
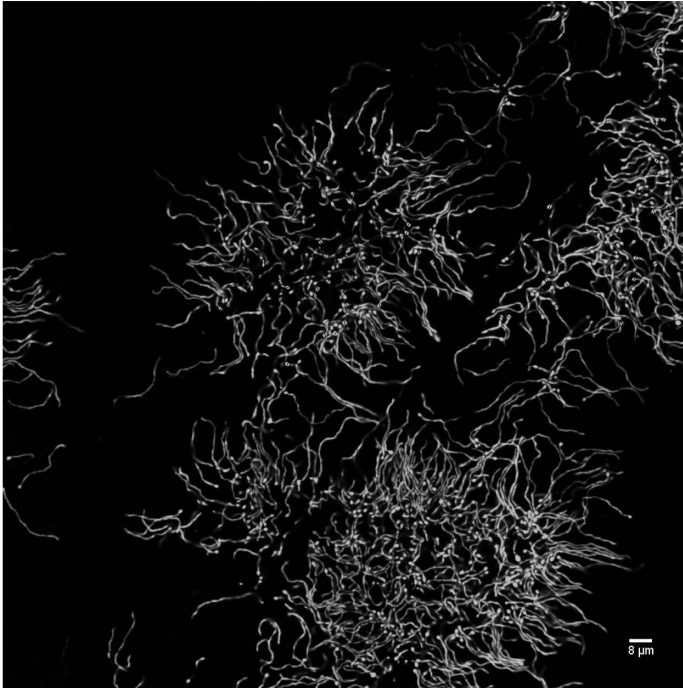
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*Streptomyces coelicolor*::Tn5062[pBR3\*] 5-hours. Spore diameters measured are labelled by lines.



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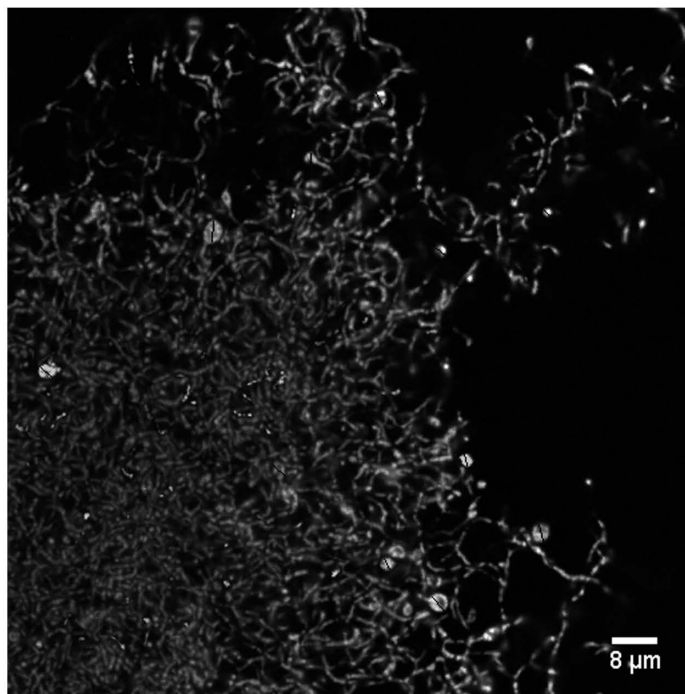
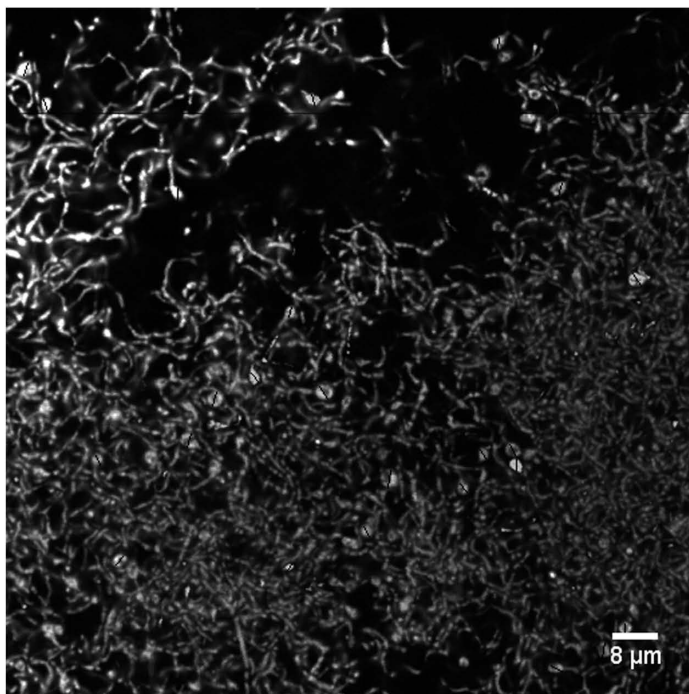
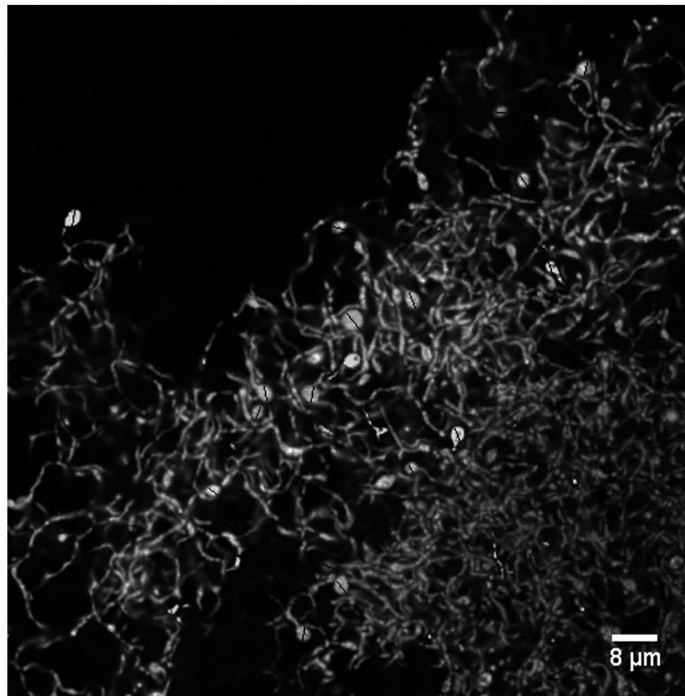
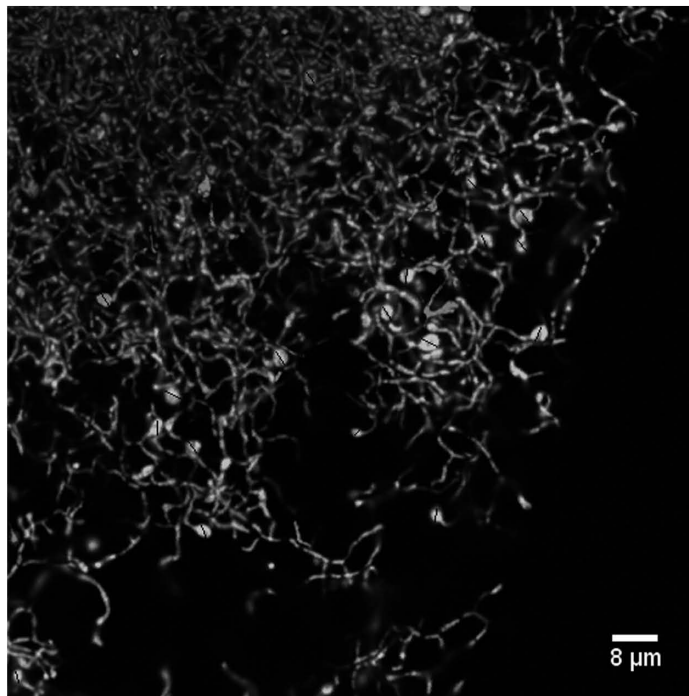
*Streptomyces coelicolor*::Tn5062[pBR3\*] 8-hours. Spore diameters measured are labelled by lines.





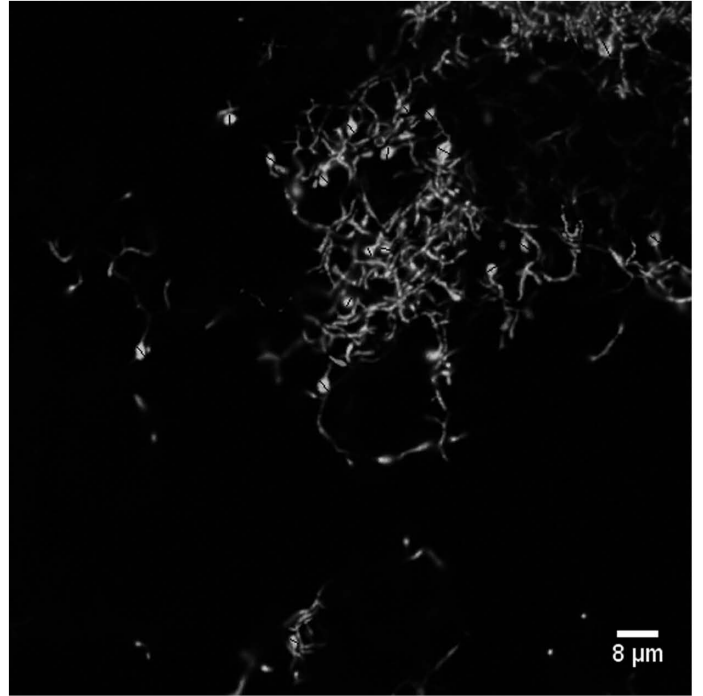
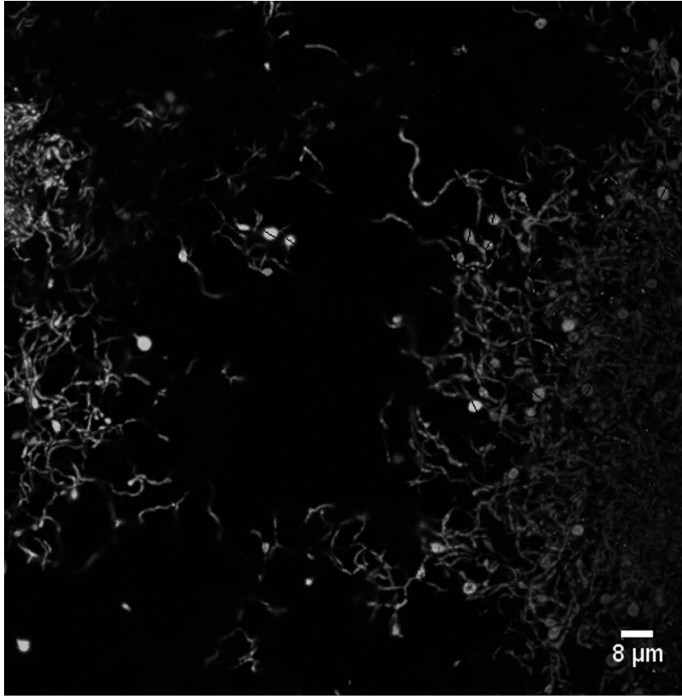
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*Streptomyces coelicolor*:Tn5062[pBR3\*] 15-hours. Spore diameters measured are labelled by lines.



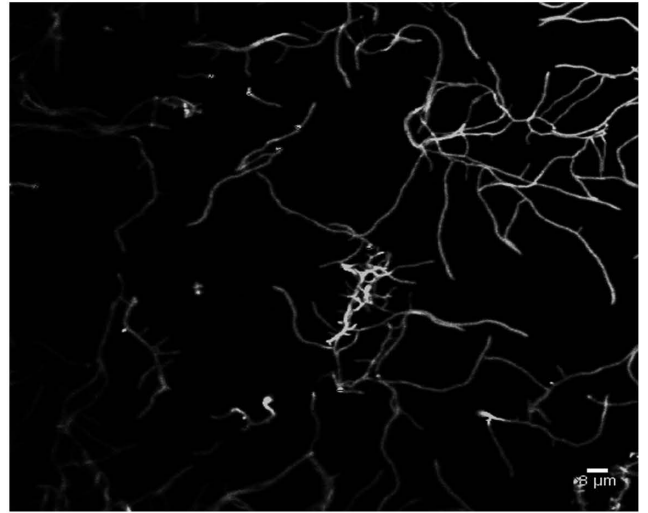
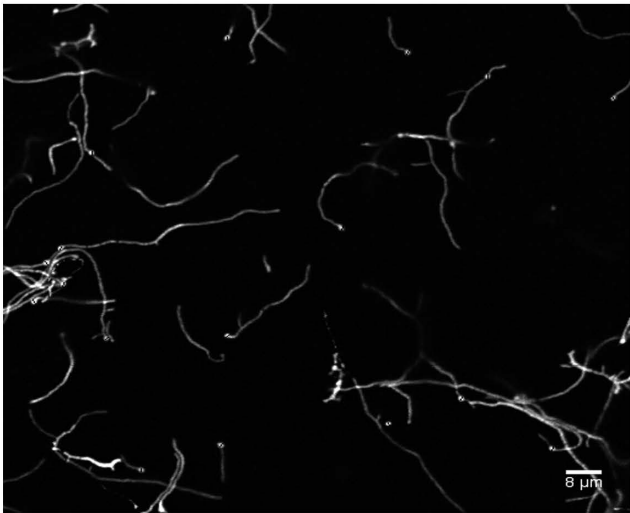
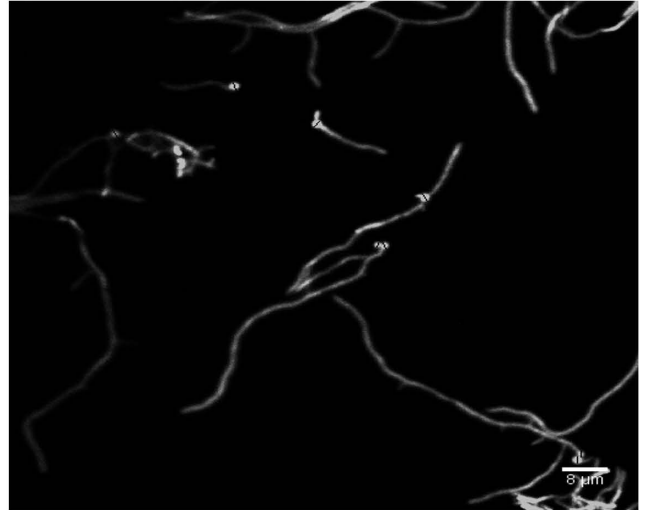
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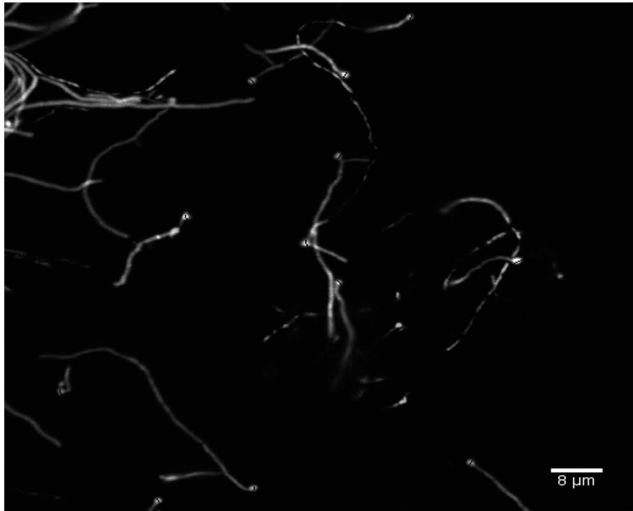
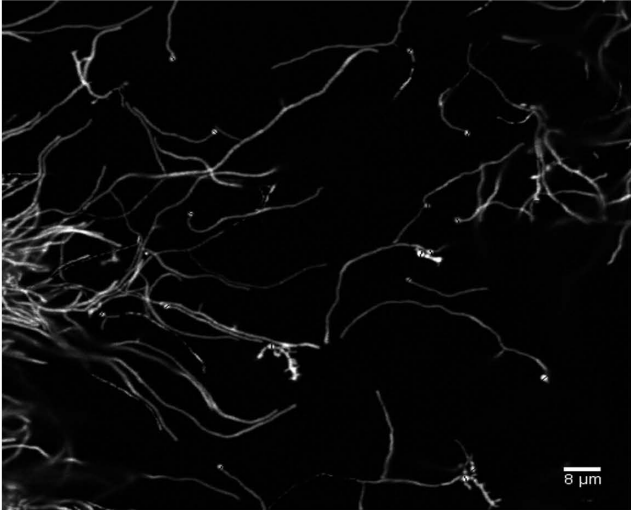
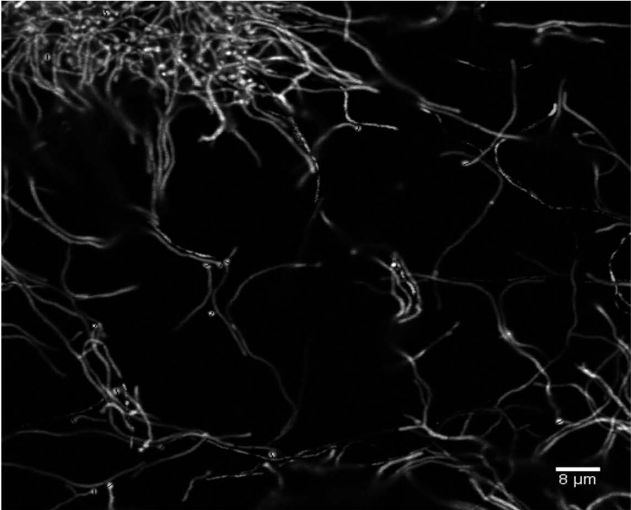
**Fig. S2. MASTER IMAGES USED TO QUANTIFY SPORE DIAMETER**

*Streptomyces coelicolor* [pMS82]. 15-hours. Spore diameters measured are labelled by lines.



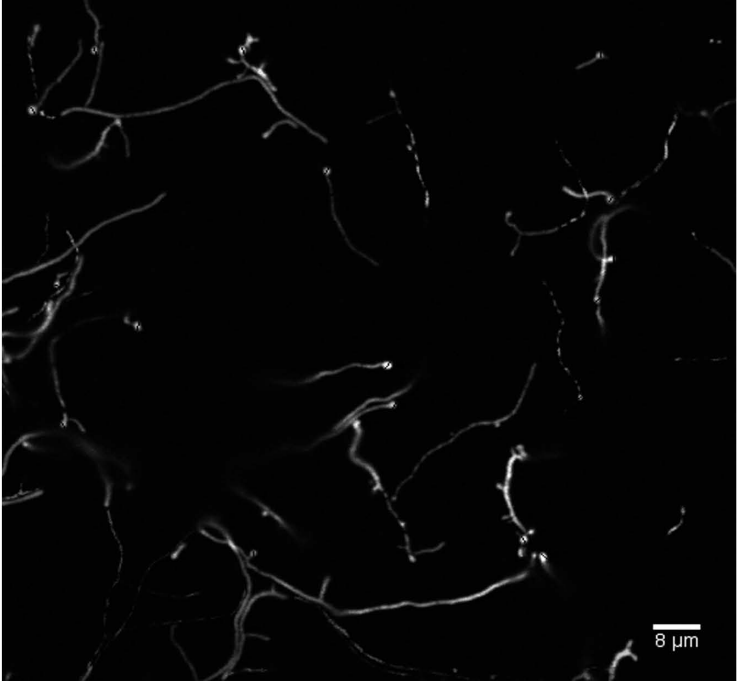
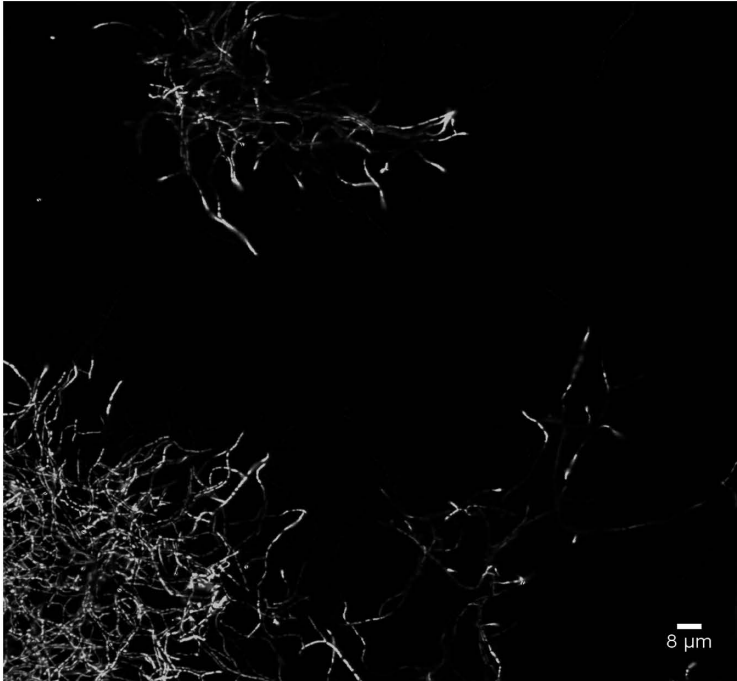
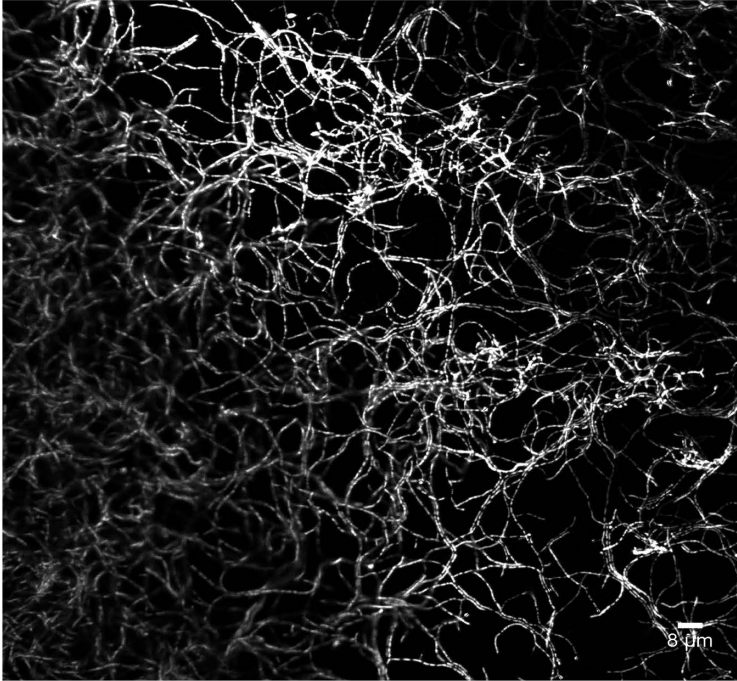
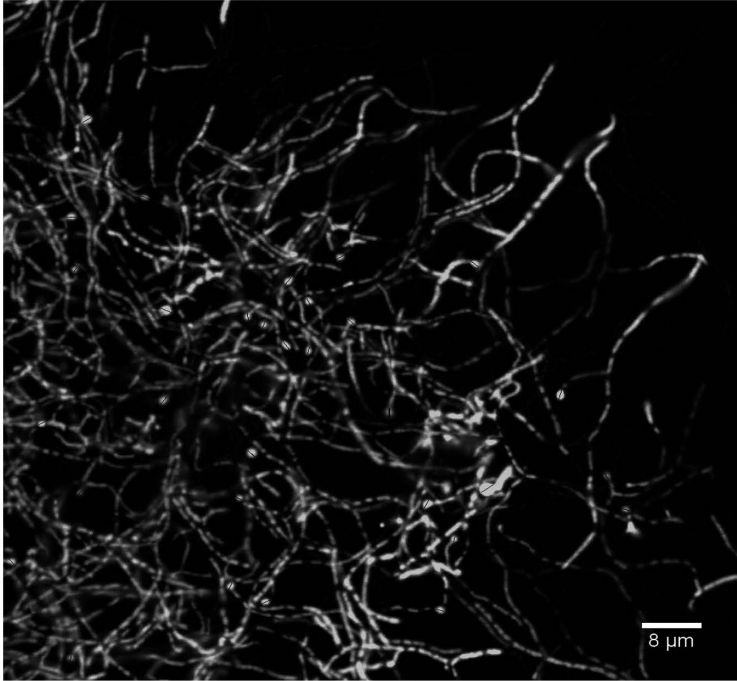
**Fig. S2. MASTER IMAGES USED TO QUANTIFY SPORE DIAMETER**

*Streptomyces coelicolor* [pMS82]. 15-hours. Spore diameters measured are labelled by lines.



**Fig. S2. MASTER IMAGES USED TO QUANTIFY SPORE DIAMETER**

SCO4439::Tn5062 [pBRB3]. 15-hours. Spore diameters measured are labelled by lines.



**Fig. S2. MASTER IMAGES USED TO QUANTIFY SPORE DIAMETER**

SCO4439::Tn5062 [pBRB3]. 15-hours. Spore diameters measured are labelled by lines.

