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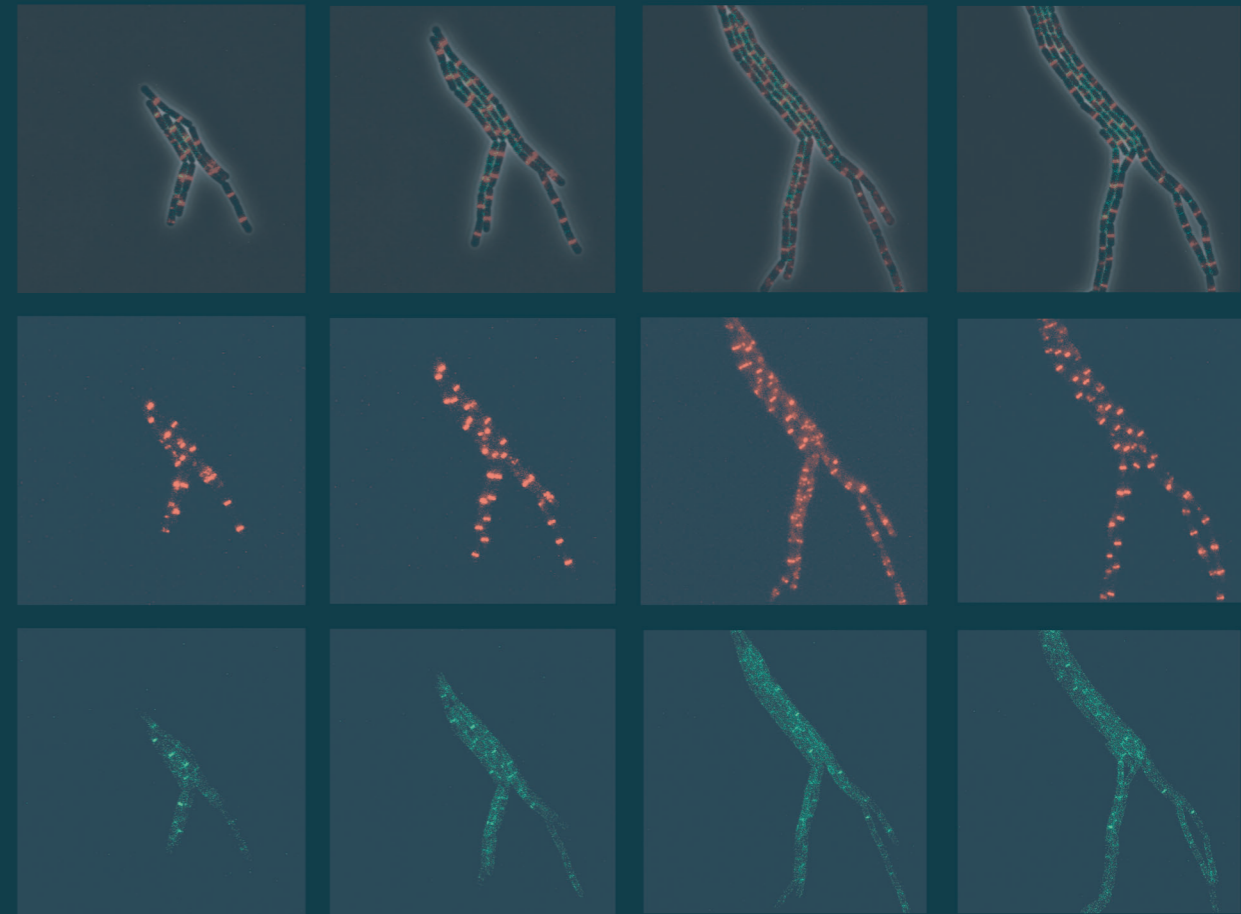
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# Investigation of protein interactions in the cell division complex of *Bacillus subtilis* reveals a possible mechanism for cell size homeostasis

Edward A. de Koning



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INVESTIGATION OF PROTEIN INTERACTIONS IN THE CELL DIVISION  
COMPLEX OF *BACILLUS SUBTILIS* REVEALS A POSSIBLE MECHANISM FOR  
CELL SIZE HOMEOSTASIS

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aan de Universiteit van Amsterdam  
op gezag van de Rector Magnificus  
prof. dr. ir. K.I.J. Maex

ten overstaan van een door het College voor Promoties ingestelde  
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## **Author contributions per chapter**

CHAPTER 1: General introduction. Written and edited by Edward de Koning (EK) and Leendert Hamoen (LH).

CHAPTER 2: In culture cross-linking of bacterial cells reveals large scale dynamic protein-protein interactions at the peptide level. Experiments designed by Luitzen de Jong (LdJ), EK, LH and Chris de Koster (CdK). BAMG synthesis by Martin Wanner and Jan van Maarseveen (JvM). Mass spectrometry by Winfried Roseboom (WR), Irena Dapic, Petra Jansen and Garry Corthals (GC). Reang and Yean Yan were developed by Hansuk Buncherd. All other experiments and data analysis by LdJ and EK. Manuscript was written and edited by LdJ, EK, Peter Lewis, JvM, CG, CdK and LH. This work is published in Journal of Proteome Research in 2017, volume 16, issue 7, pages 2457-2471.

CHAPTER 3: Mapping interactions between *Bacillus subtilis* FtsZ and SepF using crosslinking mass spectrometry. Experimental design by LH, LdJ and EK. Mass spectrometry by Henk Dekker, Leo de Koning, WR and EK. Protein purification by Michaela Wenzel and EK. Experiments and data analysis by EK. Manuscript was written and edited by EK and LH.

CHAPTER 4: Increasing threshold levels for divisome assembly and maturation ensure cell size homeostasis in *Bacillus subtilis*. Experimental design by LH and EK. ObjectJ macro development by Norbert Vischer. Modeling by Marten Postma. Experiments and data analysis by EK. Manuscript was written and edited by EK and LH.

CHAPTER 5: Discussion. Written and edited by EK and LH.