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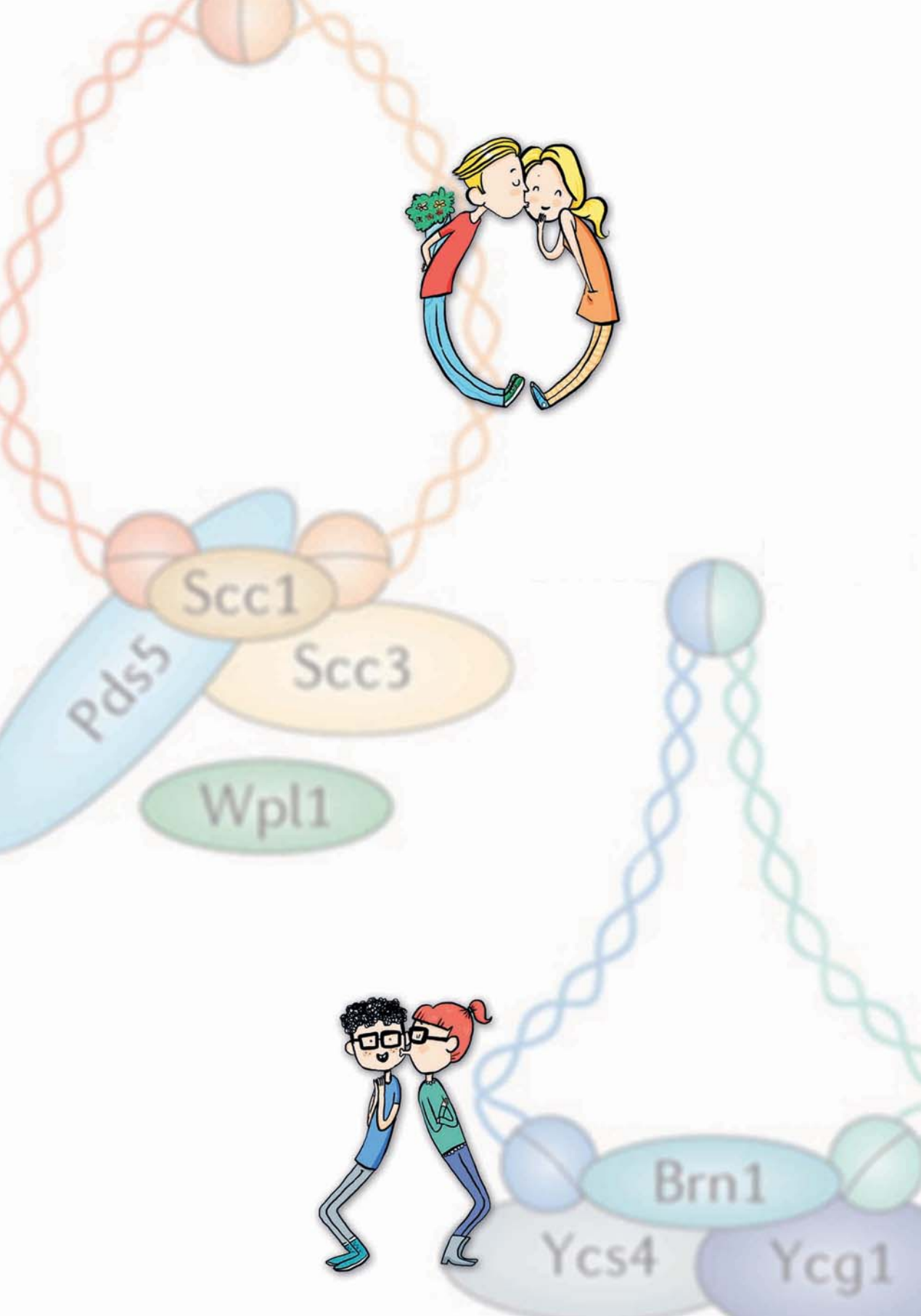
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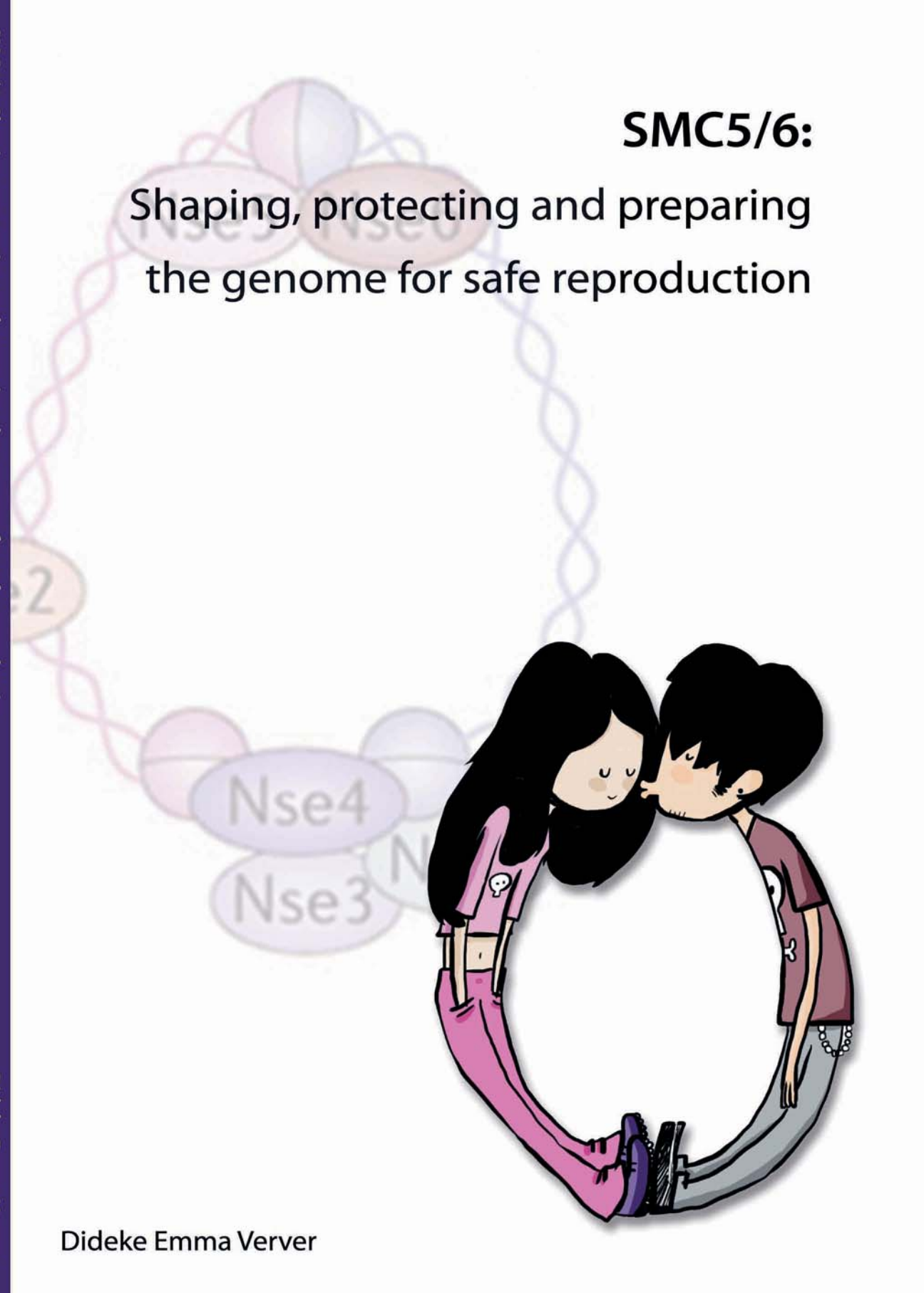
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Dideke Emma Verver



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SMC5/6: Shaping, protecting and preparing the genome for safe reproduction
PhD Thesis, University of Amsterdam, the Netherlands

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This thesis describes research performed in the Reproductive Biology Laboratory of the Center for Reproductive Medicine, Academic Medical Center, University of Amsterdam, Amsterdam.

Cover: Illustration by Vera van Groos (www.veravangroos.nl)

The three couples represent the family of heterodimeric, ring shaped SMC complexes. Cohesin (back, top) is the most famous, well characterized complex of the family, hence the popular one. Condensin (back, bottom) is somewhat underappreciated, although its behaviour is very interesting and definitely worth looking at. SMC5/6 (front) has been acting mysteriously and unpredictably in the recent past, and I suspect it is deliberately trying to confuse whoever attempts to completely understand this complex.

Complex images adapted from: Jeppsson et al., *Nature Reviews Molecular Cell Biology* (2014), with permission of Nature Publishing Group.

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**SMC5/6:
Shaping, protecting and preparing
the genome for safe reproduction**

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor
aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
prof. dr. D.C. van den Boom
ten overstaan van een door het College voor Promoties ingestelde commissie,
in het openbaar te verdedigen in de Agnietenkapel
op donderdag 1 oktober 2015, te 14:00 uur

door

Dideke Emma Verver
geboren te Huissen

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"(...) I am more interested in the small and particular,
for the world is never more revealing than when it is studied in intimate detail."

- Sherlock Holmes

written by Larry Millet in *Sherlock Holmes and The Red Demon* (1996)

Voor papa en mama

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