



Universiteit
Leiden
The Netherlands

Dissection of DNA damage responses using multiconditional genetic interaction maps

Guénolé, A.

Citation

Guénolé, A. (2013, June 25). *Dissection of DNA damage responses using multiconditional genetic interaction maps*. Retrieved from <https://hdl.handle.net/1887/21009>

Version: Corrected Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/21009>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/21009> holds various files of this Leiden University dissertation.

Author: Guérolé, Aude

Title: Dissection of DNA damage responses using multiconditional genetic interaction maps

Issue Date: 2013-06-25

ACKNOWLEDGEMENTS

It was a long way with ups and downs but eventually the trip is over. This work would not have been feasible without the help and the support of a lot of people that I would like to thank.

Haico, you gave me the chance to start and complete this work successfully. I am very grateful for your trust and persistence in trying to get the best science out of me.

Leon, thank you for being so helpful and supportive in pushing me to complete my thesis.

Rohith, you have been a great collaborator. It was a pleasure to work with you. I learned a lot from your perseverance and scientific skills. Nevan and Trey, the generation and the interpretation of the EMAP data would have been impossible without you.

Dear present or former members of the van Attikum crew, you have been so patient and encouraging when I was so gloomy. I hope you will also remember our good time. To all of you and to the other people of the Toxicogenetics department, a big thanks for your help, technical and scientific advices and more importantly for your smiles during these 5 years.

I crossed the way of a lot of people during my PhD time in Leiden. To all of you that I met in the Netherlands or in the US, who are still in the Netherlands or already having a new life somewhere else in the world, you made my life beside work very enjoyable. Thanks a lot.

I have a great family! Maman, Sam, Ben et Dam, je n'aurais pas pu tenir si dans mes moments de doutes, de fatigue ou de désespoir, vous n'aviez pas été là pour croire en moi. Melou et Anso, votre amitié pendant cette longue période de thèse a été très importante pour moi. Akim, Na gbeï. Papa, cette thèse est beaucoup pour toi.

*A
p
p
e
u
d
i
x*

*A
p
p
e
n
d
i
x*

CURRICULUM VITAE

Aude Guérolé was born the 31st of October 1983 in Léon, France. In September 2002, she entered the classes préparatoires aux grandes écoles of Chateaubriant in Rennes, which consisted of 2 years of preparatory courses to join schools for Science & Engineering. In September 2004, she decided to continue her studies with a bachelor in Life Sciences at the Pierre and Marie Curie University in Paris. Then, she completed a Master in Molecular and Cellular Genetics. It was during this part of her studies that she got particularly interested in the field of DNA damage repair. To confirm her sensibility for this field, she first did an internship of 6 months in the Lab of Nico Dantuma at the Karolinska Institut in Stockholm, where she studied the yeast repair and shuttling factor Rad23. Her second internship on the mammalian repair factor Rad54 was done in the laboratory of Roland Kanaar at the Erasmus MC in Rotterdam. In February 2008, she joined the laboratory of Haico van Attikum to begin her PhD with the aim of investigating how the DNA damage response is coordinated in the context of chromatin. For her PhD research she worked for about 6 months in the laboratory of Nevan Krogan at the University of California, San Francisco (UCSF), where she performed a genetic interaction screen called the EMAP technology. Then, she was invited for 3 months to work in the laboratory of Trey Ideker at the University of California, San Diego (UCSD) to analyze the EMAP dataset generated in the laboratory of Nevan Krogan. She recently obtained a prestigious grant from the French Foundation for Cancer Research (ARC), which she will use to continue her carrier in the laboratory of Bijan Sobhian at the Cancer Research Institut of Montpellier (IRCM).

*A
p
p
e
n
d
i
x*

PUBLICATIONS

1. **Guérolé A**, Srivas R, Vreeken K, Wang ZZ, Wang S, Krogan NJ, Ideker T, van Attikum H. Dissection of DNA damage responses using multiconditional genetic interaction maps. *Mol Cell*. 2013 Jan 24;49(2):346-58.
2. Hegnauer AM, Hustedt N, Shimada K, Pike BL, Vogel M, Amsler P, Rubin SM, van Leeuwen F, **Guérolé A**, van Attikum H, Thomä NH, Gasser SM. An N-terminal acidic region of Sgs1 interacts with Rpa70 and recruits Rad53 kinase to stalled forks. *EMBO J*. 2012 Sep 12;31(18):3768-83.
3. Ryan C, Greene D, **Guérolé A**, van Attikum H, Krogan NJ, Cunningham P, Cagney G. Improved functional overview of protein complexes using inferred epistatic relationships. *BMC Syst Biol*. 2011 May 23;5:80.
4. Agarwal S, van Cappellen WA, **Guérolé A**, Eppink B, Linsen SE, Meijering E, Houtsmuller A, Kanaar R, Essers J. ATP-dependent and independent functions of Rad54 in genome maintenance. *J Cell Biol*. 2011 Mar 7;192(5):735-50.
5. Bandyopadhyay S, Mehta M, Kuo D, Sung MK, Chuang R, Jaehnig EJ, Bodenmiller B, Licon K, Copeland W, Shales M, Fiedler D, Dutkowski J, **Guérolé A**, van Attikum H, Shokat KM, Kolodner RD, Huh WK, Aebersold R, Keogh MC, Krogan NJ, Ideker T. Rewiring of genetic networks in response to DNA damage. *Science*. 2010 Dec 3;330(6009):1385-9. 21127252.
6. Hannum G, Srivas R, **Guérolé A**, van Attikum H, Krogan NJ, Karp RM, Ideker T. Genome-wide association data reveal a global map of genetic interactions among protein complexes. *PLoS Genet*. 2009 Dec;5(12):e1000782.

