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High fidelity DNA replication and repair: new structures and mechanisms using cryogenic electron microscopy

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Curriculum Vitae – Alessandro Borsellini

Education

- 10/2011 – 12/2014 BSc Chemistry
Sapienza - University of Rome, Italy
- 12/2014 – 05/2017 MSc Chemistry of biological systems
Sapienza - University of Rome, Italy *cum laude*
- 11/2017 – 04/2022 PhD Structural Biology
LUMC, Leiden, The Netherlands

Publications

Cryo-EM structures reveal how ATP and DNA binding in MutS coordinate sequential steps of DNA mismatch repair

Alessandro Borsellini, Vladislav Kunetsky, Peter Friedhoff, Meindert H. Lamers
Nature Structure & Molecular Biology, 2022

MutL binds to 3' resected DNA ends and blocks DNA polymerase access

Alessandro Borsellini, Joyce H.G. Lebbink and Meindert H. Lamers
Nucleic Acid Research, 2022

DNA-dependent binding of nargenicin to DnaE1 inhibits replication in *Mycobacterium tuberculosis*

Melissa D. Chengalroyena, Mandy K. Masona, Alessandro Borsellini, Raffaella Tassoni, Garth L. Abrahamsa, Sasha Lynch, Yong-Mo Ahn, Jon Ambler, Katherine Young, Brendan M. Crowley, David B. Olsen, Digby F. Warner, Clifton E. Barry III, Helena I.M. Boshoff, Meindert H. Lamers*, and Valerie Mizrahi*
ACS infectious diseases, 2022

An air-blade based plunge freezer for improved cryo-EM grid preparation

Alessandro Borsellini, Rafael F. Leiro, Leoni Abendstein, and Meindert H. Lamers
Manuscript in preparation

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