

## Topics for PhD admission, 2024

1. Antibiotic resistance of clinically relevant bacteria.
2. Quorum sensing and bacterial biofilm development.
3. Role of CRISPR-Cas system in cellular processes of bacteria.

## Bibliography

De Oliveira, D. M., Forde, B. M., Kidd, T. J., Harris, P. N., Schembri, M. A., Beatson, S. A., ... & Walker, M. J. (2020). Antimicrobial resistance in ESKAPE pathogens. *Clinical microbiology reviews*, 33(3), 10-1128. <https://doi.org/10.1128/cmr.00181-19>.

Devi, V., Harjai, K., & Chhibber, S. (2022). CRISPR-Cas systems: role in cellular processes beyond adaptive immunity. *Folia Microbiologica*, 67(6), 837-850. <https://doi.org/10.1007/s12223-022-00993-2>.

Patterson, A. G., Jackson, S. A., Taylor, C., Evans, G. B., Salmond, G. P., Przybilski, R., ..... & Fineran, P. C. (2016). Quorum sensing controls adaptive immunity through the regulation of multiple CRISPR-Cas systems. *Molecular cell*, 64(6), 1102-1108. <http://dx.doi.org/10.1016/j.molcel.2016.11.012>.

Solano, C., Echeverz, M., & Lasa, I. (2014). Biofilm dispersion and quorum sensing. *Current opinion in microbiology*, 18, 96-104. <https://doi.org/10.1016/j.mib.2014.02.008>.

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