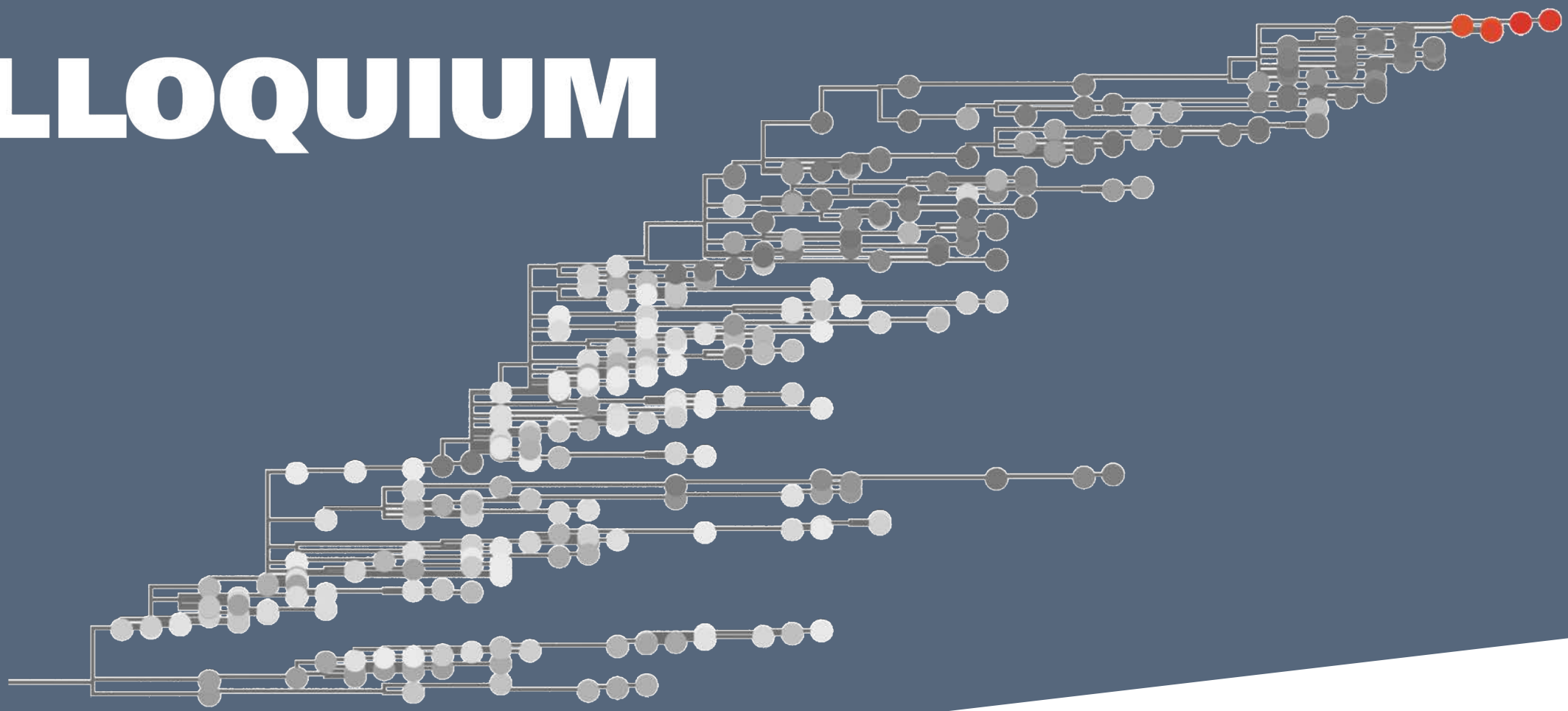


MAX DELBRÜCK COLLOQUIUM



Modelling bacterial response to cell wall targeting antibiotics

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To develop quantitative models for the evolution of antibiotic resistance, we first need models for how antibiotics work to inhibit bacteria. Cell-wall targeting antibiotics prevent bacteria from making their cell wall, leading to death by lysis. In experimental work on the cell wall targeting antibiotic mecillinam, we find that its efficacy is strongly dependent on the growth medium. For slow-growing cells on poor media, mecillinam does not work at all, even at very high concentrations. We show how these results can be explained from a mathematical perspective, considering the geometry of a dividing bacterial cell.

Wednesday, November 25, 2020, 16:30
University of Cologne
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Hosted by Fernanda Pinheiro and Michael Lässig