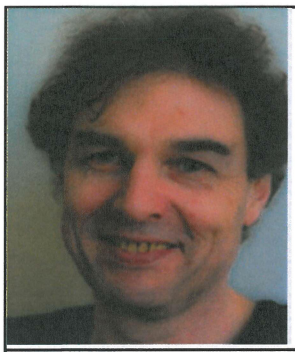
Abstract - Presentation for the Workshop " Early Discovery of New Antibiotics"
Paris 12-13 January 2017

Name of speaker:	Michel Arthur
Name of presentation:	Non-conventional approaches for peptidoglycan cross-linking inhibition



Abstract: Penicillin was the first antibiotic and members of this drug family, the β-lactams, remain the most broadly prescribed first-line treatment. Since the targets of β-lactams, the peptidoglycan transpeptidases, have been validated by more than 70 years of successful use, the NAPCLI consortium aims at developing antibiotics structurally unrelated to β-lactams and acting on the same targets but with different modes of action and on new interaction sites. β-lactams inactivate the transpeptidases by acting as structure analogues of the acyl donor of the transpeptidation reaction. Our consortium focus on the interaction of the transpeptidases with the second substrate, the acyl acceptor, to design inhibitors that will not be affected by existing resistance mechanisms and may act in synergy with β-lactams.