Wednesday 4th September session 1

Mechanisms & Resistance

1. **Amaeze N.** A glimpse into the survival of non-biofilm formers in a nutrient and moisture deficient environment.
2. **Bartke K.** Exposure to antibiotics increases diversity and gene transfer in Salmonella typhimurium biofilms.
3. **Cavallo I.** Microbial biofilm correlates with an increased antibiotic tolerance and poor therapeutic outcome in infective endocarditis.
4. **Dixon R.** Clostridium perfringens biofilm: characterisation and antibiotic tolerance.
5. **Espinoza S.** Development of a robust biofilm assay of S. pneumoniae to study adaptive evolution and the emergence of antibiotic resistance.
6. **Eze E.** Combined effects of low incubation temperature, minimal growth medium and low hydrodynamics optimize Acinetobacter baumannii biofilm formation.
7. **Fakhoury A.** Assessment of the antimicrobial tolerance of archaeal biofilms.
8. **Irie Y.** Bacterial suspended aggregates in high viscosity.
9. **Kolpen M.** Mycobacterium abscessus complex can be sensitized to antibiotics by breaking up bacterial aggregates and increasing oxygen availability.
10. **Nesse L.** Acquisition of plasmids containing a cephalosporin resistance gene reduces biofilm formation.
11. **Nesse L.** Dynamics in biofilms with Eschericia coli strains producing different matrix components.
12. **Nesse L.** Predicting genetic determinants of antibiotic resistance in biofilm and planktonic Escherichia coli populations by adaptive laboratory evolution.
13. **Oastler C.** Phenotypic and genotypic characterisation of biofilm-forming Salmonella enterica serovars isolated from pig and poultry production environments.
14. **Obaid N.** In-vitro study of antibiotics affecting on new and establishing Non-typeable Haemophilus influenzae biofilm
15. **Pietsch F.** Selection of resistance in bacteria grown on antimicrobial surfaces in multidrug environments.
16. **Roder H.** Increased plasmid uptake in a biofilm adapted, rugose phenotype was linked to the presence of flagella.
17. **Solano C.** Cyclic-di-GMP synthesis and subsequent biofilm formation enhances dibenzothiophene biodegradation in Rhodococcus erytropolis.
18. **Theerthankar D.** Conditions under which glutathione disrupts the biofilms and improves antibiotic efficacy of both ESKAPE and non-ESKAPE species.
19. **Valle J.** Pathobionts of the gastrointestinal microbiota express bap-like proteins with amyloid features to build biofilms.
22. **Woo B.** The search for PQS transport proteins using PQS affinity probe generated through metabolic labelling.
23. **Zaborskyte G.** Biofilm-evolved Klebsiella pneumoniae exhibit changes in capsule, fimbriae and c-di-GMP turnover

**Pseudomonas**

24. **Aljalamdeh R.** Investigating the effect of tobramycin dry powder inhaler on the eradication of Pseudomonas aeruginosa biofilms.
25. **Allan W.** Characterising the structure and composition of biofilms formed by Pseudomonas aeruginosa under different shear conditions.
26. **Almuhanna Y.** Modulation of immune cell activation by Pseudomonas aeruginosa biofilms; potential role of C-type lectin receptors. *(Oral)*
27. **Angarano V.** Visible light for Pseudomonas fluorescens biofilms inactivation
28. **Barochia B.** Prevalence and genetic variation of the Pseudomonas aeruginosa elastase gene in clinical isolates from cystic fibrosis patients
29. **Cai Y.** Key regulators of nitric oxide-mediated regulation in Pseudomonas aeruginosa biofilms dispersal. *(Oral)*
30. **Coenye T.** Properties of Pseudomonas aeruginosa biofilm cells dispersed with various approaches.
32. **Damiati L.** Pseudomonas aeruginosa quorum-sensing signal molecules interfere with human mesenchymal stem cells on bioactive coated 2D/3D titanium implants.
33. **Fritz B.** RNA-seq characterization of Pseudomonas aeruginosa grown in alginate bead model and comparison to in vivo infections. *(Oral)*
34. **Gudzuhn M.** Analysis of biofilm phenotypes of 350 clinical Stenotrophomonas maltophilia reveals high levels of phenotypic and structural heterogeneity.
35. **Kaya E.** In vitro human peripheral blood mononuclear cell immune response to Pseudomonas aeruginosa biofilms.
36. **Mirani ZA.** Role of Phenotypic Switching in Stability and Persistence of Pseudomonas aeruginosa Biofilms.
37. **Okurowska K.** Comparison of ex vivo porcine and human corneas as models for bacterial keratitis caused by Pseudomonas aeruginosa.
38. **Percival S.** Evaluation of the antibiofilm activity of a Tetrasodium-EDTA complex-polymer against Pseudomonas aeruginosa in the drip flow bioreactor model
41. **Scalabrini M.** Simple pyranoside- and furanoside-functionalized glass surfaces: an attractive anti-bioadhesion strategy against Pseudomonas aeruginosa. *(Oral)*
42. **Schwensen H.** Changed antibody response following lung transplantation in Cystic Fibrosis patients with Pseudomonas aeruginosa biofilm infections.
43. **Shrestha R.** Drug resistance and biofilm production among Pseudomonas aeruginosa clinical isolates in a tertiary care hospital of nepal.
44. **Singh S.** Pseudomonas aeruginosa exopolysaccharide Psl Engages Host C-type Lectin Receptors.
45. Soren O. The use of nitric oxide donor pro-drugs to tackle Pseudomonas aeruginosa biofilms.
46. Soukarieh F. Sensitising Pseudomonas aeruginosa biofilms to antibiotics and reducing virulence through novel target inhibition.
47. Tashiro Y. Outer membrane vesicle formation by Pseudomonas aeruginosa biofilm cells.
48. Teh WK. Increased intracellular cyclic-di-AMP levels sensitize Streptococcus galolyticus subsp. galloyticus to osmotic stress and reduce biofilm formation and adherence on intestinal cells.
49. Vackier T. Incorporating a cleaning step in the sanitation of drinking water systems of broilers reduces biofilms and inhibits the regrowth of multidrug-resistant Pseudomonas aeruginosa and Stenotrophomonas maltophilia.
50. Valentin J. Identification of genes involved in Pseudomonas aeruginosa biofilm resistance to antibiotics.
51. Wang L. In vitro synergistic activity of fosfomycin, ciprofloxacin and gentamicin combinations against Pseudomonas aeruginosa biofilms.

Wounds & Skin

52. Bay L. Atopic dermatitis and healthy skin microbiota.
53. Cardenas C. Multispecies biofilm infected wounds murine model.
54. Cavallo I. Interleukin 1-α and VEGF support the growth and persistence of biofilm-growing Cutibacterium acnes in individuals with acne.
55. Coraça-Huber D. Relation between antibiotic susceptibility and biofilm formation capacity in strains isolated from infected orthopaedic devices.
56. Delury C. Eradication of wound-relevant pre-formed biofilms following release of combination antibiotics from absorbable beads in-vitro.
57. Forrest E. Cadexomer iodine delivers rapid & susatined broad spectrum antimicrobial activity and substaintial biofilm disruption and kill in a clinically relevant wound model.
58. Kadam S. A biomimetic model of the chronic wound infection microenvironment.
59. Kaushik K. A biomimetic, simulant wound fluid to investigate chronic wound biofilm pathogenesis and response to therapy.
60. Lamret F. Impact of the bone microenvironment on Staphylococcus aureus adhesion. *(Oral)*
61. Maddocks S. A novel flow system to model chronic wound biofilms and test antimicrobial dressings.
62. Magee E. Development of ‘smart’ wound dressings for biofilm sensing and control.
63. Pécastaings S. Propionibacterium acnes biofilm forming capacity: are phylotypes involved?
64. Percival S. A fluorescent artificial wound eschar model for biofilm and debridement study.
65. Price B. In a laboratory model of diabetic foot infection, vancomycin and gentamicin loaded calcium sulfate beads were more effective than systemically achievable concentrations of antibiotics in reducing polymicrobial biofilms grown from clinical isolates. .
66. Proctor C. Application of furanone compounds for the modulation of biofilm formation in common wound pathogens.
67. Reffuveille F. Internalization of Cutibacterium acnes in bone cells and its consequence on bacterial virulent behavior.
68. Ron-Doitch S. A surprising role of bacterial odor in human skin health.
69. Spittaels KJ. Interactions between Propionibacterium acnes biofilm and different human cell types are strain dependent.
70. Stewart P. Risk factors for chronic biofilm related infection.
71. Thaarup I. One size does not fit all; the gap between standardized in vitro biofilm-infected wound models and in vivo clinical settings.
72. Usman Y. Phenotypic profile of biofilm and extended spectrum beta lactamases bacteria from patients with diabetic foot ulcers in Zaria-Nigeria.

**Multispecies & Interactions**

73. Abusrewil S. Development and validation of an in vitro endodontic mixed biofilms model.
74. Alshanta O. Modelling endodontic treatment against dual-species biofilms.
75. Amador C. Deciphering the matrix code: effect of interspecies interactions in multispecies-biofilm matrix. *(Oral)*
76. Aqawi M. The effect of cannabigerol on quorum sensing and biofilm formation of Vibrio harveyi.
77. Ballen V. Enterococcus faecalis inhibits Klebsiella pneumoniae growth in polymicrobial biofilms.
78. Brotherton D. Investigating the relationship between bacterial vesicles and biofilm formation in Eschericia coli.
81. De Weaver B. Pre-clinical and clinical anti-biofilm efficacy of nitradine: a novel non-antibiotic brushing solution (Periotabs) for teeth and gums to help reduce perio-diseases and dental-implant infections.
82. Figueira L. Cold atmospheric pressure plasma significantly reduces polymicrobial cariogenic biofilm.
83. Govaert M. Listeria monocytogenes and Salmonella typhimurium dual-species biofilm: development and inactivation with cold atmospheric plasma.
84. Hassan M. Exploring antibiotic persistence and polymicrobial communities of biofilms from an ex-vivo perspective.
85. Hola V. Microbial communities of central venous catheters.
86. Johnston W. Investigating the microbiological response to periodontal therapy.
87. Karygianni L. Antibiotic susceptibility patterns of Aggregatibacter actinomycetemcomitans and Porphyromonas gingivalis strains isolated from subgingival biofilm samples in Switzerland in the last 37 years.
89. Kuehne S. A potential role for Fusobacterium nucleatum c-di-nucleotides production in (multispecies) biofilm formation.
90. Lamas-Samanamud G. The role of quorum sensing in the development of Microcystis aeruginosa blooms: gene expression.
91. **Morse D.** Polymicrobial denture-associated biofilms: in vitro interactions and infection modelling.

92. **Muras A.** Presence of AHL-like quorum sensing molecules in oral samples. *(Oral)*

93. **Nagasawa R.** Quorum sensing-inducing subpopulation specific eDNA production in Streptococcus mutans.


95. **Risconi R.** Microfluidic experiments of bacterial biofilms associated with biliary stents: the role of fluid flow on biofilm formation by clinical isolates.

96. **Rodrigues Soldati K.** The impact of smoking on subgingival biofilms and host antimicrobial peptides in patients with chronic periodontitis.

97. **Rostami N.** Prebiotic potential of native plaque DNase Enzymes to control oral biofilms.

98. **Santos L.** Assessing cleaning and bacterial contamination on endoscopy unit.


100. **Thompson T.** Cross-domain signaling: bacterial response to archaeal quorum sensing.

101. **Tsagkari E.** A novel rapid prototyping tool for suspended biofilm growth media.

102. **Young T.** Developing commercially relevant complex biofilm models: limitations for standardisation.
Thursday 5th September session 2

Novel Agents

103. Artini M. Antimicrobial efficacy of essential oils against pathogens isolates from cystic fibrosis patients by using a machine learning analysis.
106. Bessa L. New antimicrobial peptide disrupts mono- and dual-species biofilms of Pseudomonas aeruginosa and Staphylococcus aureus.
107. Bidossi A. Biofilm-related antimicrobial cross-resistance: lesson learned from an old hydroxyquinolines.
110. Efthimiou G. A strong inhibitory effect of heather honey, propolis and medicinal plant extracts on biofilm formation by pathogenic bacteria.
111. Falà A. Antimicrobial sensitization through quorum quenching.
112. Fletcher J. In-vitro effect of antibiotic loaded calcium sulfate beads on bacterial growth from infected diabetic foot ulcer tissue.
113. Gomes F. Bioactivity and phenolic characterization of different medicinal and aromatic plants.
114. Gomes L. The potential use of probiotics to control biofilm formation in urinary catheters.
115. Kincses A. Biofilm inhibiting activity of selenium compounds.
116. Lazar V. Traditional essential oils as new potential antimicrobials and biofilm formation inhibitors.
117. Long L. Elasnin, a bacteriostatic agent that has potent antibiofilm activities against Gram-positive bacteria.
118. Mann K. Gelatin microparticles as carriers for the delivery of antimicrobial peptides.
119. Markova A. Synthesis and evaluation of novel quaternary ammonium salts and development of bacterial biofilms by MBEC assay for future examination of these compounds.
120. Maybin J. Investigating the synergy between antimicrobials and cold atmospheric plasma.
121. Oasland A. The effect of disinfectants on Quinolone resistant E.coli (QREC) in broiler production.
122. Ocampo OC. The effect of antimicrobials on Pseudomonas aeruginosa PAO1 biofilm formation.
123. Parrilli E. A new weapon against biofilm: a lipopeptide from Antarctica. (Oral)
124. Percival S. Efficacy of tetrasodium-EDTA alone and in a complex with metal ions against mono and mixed species biofilms.
126. Peuker T. Generation and screening of polyphenol rhamnosides with antibiofilm properties.
127. Raut M. Deciphering the novel cellulose degradation mechanism of the ruminal bacterium Fibrobacter succinogenes S85.
128. **Ren Q.** Beneficial biofilms as smart bioactive interfaces to maintain a balanced oral microbial community.

129. **Rice C.** Bacteriophages for eradication of clinically relevant biofilms.

130. **Smet C.** Improving the plasma activated liquids efficacy for the inactivation of L. monocytogenes and S. typhimurium biofilms.

131. **Tiganova I.** Novel polycationic photosensitizers for antibacterial photodynamic therapy.

132. **Townsend E.** Bacteriophage: Potentials for enhancing anti-biofilm therapy. **(Oral)**

133. **van Charante F.** The effect of fosmidomycin prodrugs against Acinetobacter baumannii biofilms.

134. **van der Gucht M.** Phage-encoded miniDNases as a novel source of enzyme-based antibiofilm strategies.

135. **Van der Mei H.** Nanocarriers with conjugated antimicrobials to eradicate pathogenic biofilms evaluated in vitro and in vivo.

136. **Whitehead K.** Metal formulations have the potential for use as antimicrobials in controlling healthcare associated infections.

137. **Wu Y.** Charge-reversible carbon dots for biofilm treatment.

**Staphylococcus**

138. **Balasubramaniam A.** The human skin bacteria Staphylococcus epidermidis fermentation end product ameliorates UVB-induced ROS generation through production of free electron transfer.

139. **Borges A.** Furvina synthetic derivatives inhibit quorum sensing and biofilms of Staphylococcus aureus.

140. **Brown H.** Cutibacterium acnes clinical isolates are able to modify the attachment, formation and structure of Staphylococcus aureus biofilms.

141. **Castanho M.** PepR, a viral - derived peptide, is efficacious against Staphylococcus aureus biofilms.

142. **Cendra M.** Facing the in vitro challenge in Pseudomonas aeruginosa and Staphylococcus aureus coexistence.

143. **Cheng Y.** Modelling Staphylococcus aureus biofilm on infected chronic wounds.

144. **Gaio V.** Does mazEF have a role in Staphylococcus epidermidis biofilm dormancy?

145. **Ibberson C.** Virulence factor expression dominates the Staphylococcus aureus transcriptomic signature of human infection. **(Oral)**

146. **Jorge P.** Interactions of Pseudomonas aeruginosa and Staphylococcus aureus in biofilm-related infections: insights through network reconstruction and creation of a new online database.

147. **Lerche C.** Dabigatran has anti-biofilm properties and enhance antibiotic efficacy of experimental Staphylococcus aureus endocarditis. **(Oral)**

148. **Onuoha O.** Demonstrating the efficacy of cold atmospheric gas plasma against biofilm of Staphylococcus aureus (ATCC 6358).

149. **Regan H.** A systematic comparison of factors affecting the antimicrobial susceptibility of Staphylococcus aureus and Staphylococcus epidermidis.

150. **Ricciardelli A.** New anti-biofilm PDMS-based coating reducing biofilm formation of Staphylococcus epidermidis.
151. **Richter K.** Repurposing metal chelators to combat staphylococci biofilms.
152. **Růžička F.** Decontamination effect of the novel water vapor plasma generator prototype on staphylococcal biofilm.
153. **Salgado B.** Antibacterial efficacy of cold atmospheric plasma on methicillin-resistant Staphylococcus aureus biofilm.
154. **San-Martin-Galindo P.** Characterization of Staphylococcus aureus biofilms formed on modified paper-based arrays: understanding biofilm dynamics and impact of surface properties.
155. **Tolordava E.** Nanostructured surfaces prevent the formation of Pseudomonas aeruginosa and Staphylococcus aureus biofilms.

**Candida**

156. **Bandara N.** Saving the prey: Pseudomonas aeruginosa quorum sensing augments Candida albicans antifungal resistance.
158. **Dekkerová J.** Employment of polyclonal antibody anti-CR3-RP Ab in the treatment of biofilm of Candida albicans and Candida auris resistant to common antifungals.
159. **Imbert C.** Candida albicans enhances initial biofilm growth of Cutibacterium acnes under aerobic condition.
160. **Imbert C.** Spirulina sustainable lipid extracts and their vectorization to combat C. albicans biofilms.
161. **Kean R.** Transcriptional profiling of biofilm formation by the emerging fungal pathogen Candida auris.
163. **McKloud E.** Identification of Candida biofilm-related genes and expression of inflammatory biomarkers in RVVC.
164. **Roques C.** Impairment of Candida albicans adhesion on dielectric surfaces (SiO2) containing or not AgNPs by absorbed proteins. (Oral)
165. **Ruiz-Sorribas A.** In vitro polymicrobial bacteria-fungal biofilm model in the context of prosthetic joint infections.
166. **Short B.** Candida albicans and Staphylococcus aureus interactions are mediated by key Candida biofilm genes.
167. **Williams M.** Preliminary study into the effects of tobacco smoke on Candida albicans.
168. **Zatorska B.** Control of Candida auris infections by using selected hospital surface disinfectant und new biocides.

**Surfaces & Methods**

169. **Adoni P.** Nucleating biofilms using polymers for use in biotechnology
170. **Alemi F.** Biocidal performance of a metal oxide coating on surface treated polyethylene.
171. Allkja J. Minimum information guideline for spectrophotometric and fluorometric methods to assess biofilm formation in microplates.
172. Alves D. Modulating an antimicrobial release approach by dopamine chemistry to fight infections associated to orthopedic implants.
173. Blood N. Flow dynamics and material surface properties influence ureolytic biofilm development and encrustation.
174. Clinton Smith A. Detection of bacterial porphyrin fluorescence from in vitro biofilm models. (Oral)
175. Colin M. Efficiency of copper alloys touch surfaces against biofilm formation.
176. del Olmo G. Optimising phosphate treatment in UK drinking water systems to prevent plumbosolvency: evaluation of its impact on biofilm development.
177. Dubern JF. Discovery of a polymer resistant to biofilm, swarming and biomineralization for the prevention of catheter-associated urinary tract infections.
179. Farthing N. Multi-mode microscopy to elucidate early stages in biofilm formation.
180. Jiang Y. Characterization of microcosm biofilm regrowth on titanium surfaces after various decontamination treatments.
182. Leonov P. Scalable cell factories in membrane-based bioreactors.
183. Li M. Biofilm inhibition of nitric oxide releasing titanium surfaces.
184. Lichtenberg M. Determinants of metabolic activity and biofilm aggregate sizes and distribution in a new in vivo-like biofilm model.
186. Mulhall R. Assessing the Impact of chemically engineered surface modifications with respect to attachment, survival and the development of microbes at the cellular level.
188. Otero FJ. Structure and metabolism of engineered enhanced current-producing biofilms.
189. Romero M. Micro-scale topographies instruct bacterial attachment to surfaces.
191. Rosenberg M. Propidium iodide staining underestimates viability of adherent bacterial cells.
192. Seviour T. Can anammox surface (S-) layer protein nucleate biofilm formation?.
193. Straub H. Bacterial adhesion and early biofilm formation on soft surfaces: towards a better understanding of bacteria mechanosensing abilities and physico-chemical interactions at play.
194. Subbiahdoss G. Bacterial film formation at oil-water interfaces.
196. Traon F. Study the adhesion and biofilm formation of diatoms on hydrophilic and hydrophobic surfaces.
197. **Vestby L.** To form a biofilm or not - that is the question for Salmonella under exposure to furanone.

198. **Vyaz H.** Assessing the role of pharyngeal cell surface glycans in Group A Streptococcus biofilm formation.

199. **Wagner E.** Biofilm hotspots in the food processing environment. **(Oral)**

200. **Wagner S.** Covalent lectin inhibition and application in bacterial biofilm imaging.

201. **Westgate S.** Validation of the EPA approved single tube method using a wide range of biocides.

202. **Wieland B.** Bacteria on technical surfaces under the influence of shear forces.

203. **Xia H.** Effect of Faraday waves on the bacterial attachment and biofilm formation.

204. **Young E.** Active layer fluctuations drive a critical pinning transition in biofilm surface roughness.