CURRICULUM VITAE

Claudia Trappetti
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CURRENT POSITION
September 2026 – Present
Associate Professor of Microbiology and Clinical Microbiology (MEDS-03)
Saint Camillus International University of Health Sciences – UniCamillus, Rome, Italy

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SCIENTIFIC PROFILE

I obtained my PhD in Microbiology from the University of Siena, Italy, in December 2008, under the supervision of Prof. Gianni Pozzi and Prof. Marco R. Oggioni, at the Laboratory of Molecular Microbiology and Biotechnology (LAMMB), University of Siena.
In January 2009, I established a scientific collaboration with Prof. James C. Paton at the Research Centre for Infectious Diseases, University of Adelaide, Australia.
From 2012, I developed an independent research programme in microbiology as a Principal Investigator at the University of Adelaide, supported by three consecutive competitive grants. In 2019, I was awarded an Australian Research Council Discovery Project as Chief Investigator A (AUD 396,000; 2019–2021), which supported the expansion of my research group through the recruitment of a full-time postdoctoral fellow, two PhD students and a research assistant.
In November 2023, I returned to Italy and resumed my research activities in collaboration with Prof. Marco R. Oggioni's group at the University of Bologna.

ACADEMIC AND RESEARCH APPOINTMENTS

October 2025 – December 2025
Contract Lecturer in General Microbiology, Single-Cycle Master's Degree in Dentistry and Dental Prosthetics, LUM "Giuseppe DeGennaro", Casamassima, Bari, Italy.
October 2025 – December 2025
Contract Lecturer in Oral Microbiology, Single-Cycle Master's Degree in Dentistry and Dental Prosthetics, LUM "Giuseppe DeGennaro", Casamassima, Bari, Italy.
November 2023 – Present
Research Fellow, Italian Cystic Fibrosis Research Foundation (FFC), Department of Pharmacy and Biotechnology, University of Bologna, Italy, in Prof. Marco R. Oggioni's group.
March 2014 – September 2023
Training, mentoring and academic supervision of PhD students in microbiology, University of Adelaide, Australia.
July 2019 – October 2023
Research Fellow (Level B), University of Adelaide, Australia.
January 2018 – July 2019
Beacon Fellowship, University of Adelaide, Australia (Level B).
March 2014 – December 2017
ARC DECRA Fellow, University of Adelaide, Australia (Level B).
March 2012 – February 2014
Garnett Rodney Williams Fellowship, University of Adelaide, Australia.

January 2009 – February 2012
Postdoctoral Research Fellow (Level A), University of Adelaide, Australia.
January 2002 – February 2004
Part-time Technician, Laboratory of Molecular Microbiology and Biotechnology (LAMMB), University of Siena, Italy.
Since 2012, I have conducted independent research as Principal Investigator and Chief Investigator on internationally funded projects, with direct responsibility for scientific planning, budget management and personnel coordination.

RESEARCH ACTIVITIES

My research lies at the interface between basic and translational research, with expertise in the development of:

- vaccine targets against *Streptococcus pneumoniae*;
- preclinical murine and porcine models of invasive bacterial infections;
- innovative ex vivo models using perfused human organs obtained from transplant procedures;
- strategies targeting bacterial biofilm formation, virulence and antimicrobial resistance.

My research is conducted using in vitro, in vivo (murine and porcine) and ex vivo models, with particular emphasis on the development of innovative experimental models based on perfused human organs (Clinical Trial No. 668/2023/Sper/AOUBo). These models are relevant for understanding respiratory infections and evaluating novel therapeutic strategies.

ACADEMIC QUALIFICATIONS AND CERTIFICATIONS

2024 – National Scientific Qualification (Abilitazione Scientifica Nazionale, ASN) for appointment as Associate Professor in:

- Microbiology and Clinical Microbiology (MED/07, now MEDS-03/A)

2024 – National Scientific Qualification (Abilitazione Scientifica Nazionale, ASN) for appointment as Associate Professor in:

- General Microbiology (BIO/19, now BIOS-15/A)

2025 – Licence for the use of animals for scientific purposes (Ministerial Decree of 5 August 2021): Functions A, B, C and D.
2019 – Australian Citizenship Test and Australian citizenship.
2004–2008 – PhD in Medical Biotechnology, University of Siena, Italy.
2002–2004 – Master's Degree in Biotechnology for Human Health, University of Siena, Italy.
1999–2002 – Bachelor's Degree in Biotechnology, University of Siena, Italy.

SCIENTIFIC RESPONSIBILITIES AND GRANTS

Principal Investigator (PI) – *The molecular determinants of biofilm formation in Streptococcus pneumoniae: novel targets for vaccines and therapeutics*. Garnett Passe & Rodney Williams Memorial Foundation, AUD 154,782 (2012–2013).
Principal Investigator (PI) – *Biofilm and quorum sensing in pneumococcal biology.* Australian Research Council – DECRA, AUD 395,220 (2014–2018).
Principal Investigator (PI) – *Exploring a new link between sugar metabolism and cell-to-cell signalling.* Australian Research Council, AUD 399,000 (2019–2022).
Principal Investigator (PI) – *A tale of two quorum sensing systems that regulate pneumococcal virulence.* University of Adelaide, AUD 168,920 (2018).

Principal Investigator (PI) – *Understanding bacterial communication to prevent pneumococcal infection.* Barbara Kidman Women's Fellowship, AUD 30,000 (2021).

RESEARCH GROUP LEADERSHIP AND COLLABORATIONS

Study of the causes of bacterial meningitis – Collaboration with Prof. Marco R. Oggioni, University of Bologna. Coordination of animal experiments at the University of Adelaide, Australia, and subsequently at the University of Bologna. Preparation of two NHMRC grant applications in 2023 (2009–Present).

Collaboration with Dr John Atack, Institute for Glycomics, Griffith University, Queensland, Australia. Leadership of animal model studies; NHMRC grant applications in 2017 and 2018; ongoing collaboration supported by recent publications (2014–Present).

Study of fatty acids in Gram-positive and Gram-negative bacterial infections – Collaboration with Dr Bart Eijkelkamp, Flinders University, Australia. Leadership of the Gram-positive component of the research programme, resulting in several publications and NHMRC grant applications (2015–Present).

Bioplatforms Australia – Antibiotic Resistant Sepsis Pathogens – Member of a multidisciplinary research team investigating bacterial pathogenicity mechanisms (2018–2022).

Associate Investigator, Channel 7 Children's Research Foundation Grant – Study of pneumococcal biology and sugar metabolism in invasive disease and otitis media in children. Funding: AUD 40,000 per year (2022).

CONFERENCE PRESENTATIONS AND SCIENTIFIC MEETING ORGANISATION

2005 – Oral presentation, Gruppo di Genetica e Biologia Molecolare dei Procarioti, Cortona, Italy, 31 March–1 April 2005.
Trappetti C., Pozzi G., Oggioni M.R. *Monitoring gene expression of Streptococcus pneumoniae during infection in mice.* Abstract selected for oral presentation during PhD studies.

2005 – Oral presentation, 7th European Meeting on the Molecular Biology of the Pneumococcus (EUROPNEUMO), Braunschweig, Germany, 9–12 May 2005.
Trappetti C., Iannelli F., Ricci S., Pozzi G., Oggioni M.R. *Expression of pneumococcal virulence genes and vaccine candidates during infection.* Abstract selected for oral presentation.

2009 – Oral presentation, 9th European Meeting on the Molecular Biology of the Pneumococcus (EUROPNEUMO), Bern, Switzerland, 4–7 June 2009.
Trappetti C., Ogunniyi A.D., Oggioni M.R., Paton J.C. *Biofilm and Matrix: phase variant specific phenotype in pneumococci.* Abstract selected for oral presentation.

2010 – Oral presentation, 7th International Symposium on Pneumococci and Pneumococcal Diseases (ISPPD7), Tel Aviv, Israel, 14–18 March 2010.
Trappetti C., Ogunniyi A.D., Oggioni M.R., Paton J.C. *Extracellular matrix formation: an exclusive characteristic of opaque pneumococcal biofilms.* Abstract selected for oral presentation.

2013 – Oral presentation, *Competence, Transformation and Biological Consequence in the Pneumococcus*, Kaiserslautern, Germany, 19–22 August 2013.
Van Mourik P., Paton J.C., Paton A.W., Trappetti C. *A new role for CSP in AI-2 mediated quorum-sensing mechanisms.* Abstract selected for oral presentation. Coordinated and supervised the project undertaken by PhD student P. Van Mourik.

2015 – Oral presentation, 12th European Meeting on the Molecular Biology of the Pneumococcus (EUROPNEUMO), Oxford, UK, 7–10 July 2015.
Trappetti C., Eijkelkamp B., Amin Z., Paton A.W., McDevitt C.A., Oggioni M.R., Paton J.C. *A new role for Autoinducer-2 in Streptococcus pneumoniae.* Abstract selected for oral presentation.
2018 – Session Chair and Organiser, *Host–Pathogen Interactions*, International Symposium on Pneumococci and Pneumococcal Diseases (ISPPD), Melbourne, Australia, 15–19 April 2018.
Responsible for the selection and evaluation of submitted abstracts, determining those selected for oral and poster presentations, and coordinating the poster session.
2025 – Invited Speaker, Postgraduate Course *Experimental Models of Brain Infections: New Developments from Basic to Translational Research*, Nice, France.
The course focused on experimental models of brain infections, including interactive sessions, methodological workshops and structured discussions for early-career and established researchers.
2026 – Speaker, International Symposium on Pneumococci and Pneumococcal Diseases (ISPPD), Copenhagen, Denmark, 17–21 May 2026.

SUPERVISION, LEADERSHIP AND RESEARCH SERVICE

- Management of research projects funded through internationally competitive funding schemes.
- Supervision and training of PhD and Master's students, including involvement in experimental design, data analysis and laboratory activities.
- Supervision of PhD students at the University of Adelaide.
- External examiner for PhD theses.
- Coordination and supervision of postdoctoral researchers and research assistants.
- Reviewer for competitive grant applications, including Australian Research Council Discovery Projects and DECRA schemes, as well as Italian and British funding agencies.
- Reviewer for international peer-reviewed journals, including *Nature Microbiology*, *PLOS Pathogens*, *Scientific Reports*, *Frontiers* and *BMC Microbiology*.
- Scientific publications in international peer-reviewed journals and participation in international research collaborations.

Editorial Activities
Frontiers in Cellular & Infection Microbiology – *Special Research Topic: Sugar and Bacteria Pathogenesis*
Guest Editor, responsible for coordinating and overseeing manuscript submissions related to the selected research topic.
Period: 6 May 2023 – Present
Infectious Diseases Reviews
Editorial Board Member.
Period: 10 June 2021 – Present
Microorganisms – *Special Issue: Carbohydrates Metabolism and Pneumococcal Diseases*
Guest Editor, responsible for selecting and managing manuscript submissions for the Special Issue.
Period: 31 August 2021 – 31 March 2022

CAREER INTERRUPTIONS

Total: 25 months

- September 2020 – May 2021: Parental leave
- January 2020 – March 2020: Family care leave
- September 2018 – May 2019: Parental leave
- January 2009 – April 2009: International relocation

INTELLECTUAL PROPERTY

Patent

Oggioni M.R., Trappetti C., Pozzi G. *Method for producing bacterial biofilm on a plastic support and applications for screening therapies against pneumococcal infections.* Preliminary US patent filing EV333074242US, priority date: 17 June 2005.

SCIENTIFIC OUTPUT

Total publications: 48

- 46 peer-reviewed international journal articles
- 2 book chapters

Total citations: 1,780

H-index: 21 (Scopus)

PUBLICATIONS

Book Chapters

Paton J.C., Trappetti C. (2019). *Streptococcus pneumoniae Capsular Polysaccharide.* In: *Gram-Positive Pathogens*. ASM Press, pp. 304–315. doi:10.1128/9781683670131.ch19.

Trappetti C., Oggioni M.R. (2015). *Biofilm Formation Under In Vitro Conditions.* In: *Streptococcus Pneumoniae*. Elsevier, pp. 245–255. doi:10.1016/B978-0-12-410530-0.00013-2.

Refereed Journal Articles

1. Althari Y., Chen Y.K., Menon A., Ferrándiz M.J., van Raaphorst R., De Ste Croix M., Ulijasz A.T., Glanville D.G., Veening J.-W., Bentley S.D., Croucher N.J., Bayliss C.D., de la Campa A.G., Zhang J.-R., **Trappetti C.**, Haigh R.D., Oggioni M.R. *Type I Restriction–Modification Systems Regulate Gene Expression through DNA Topology.* Nucleic Acids Research. NAR-02202-B-2026, accepted.
2. **Trappetti C.**, van Ingen H., Falconi M., Romeo A., Sancamillo G., Caprini M., Oggioni M.R., Sette M. *Structured peptides as vaccine antigens against infections.* Frontiers in Immunology. 2026 Aug 7;17:1908831. doi:10.3389/fimmu.2026.1908831.
3. Hijazi K., Sharaf S., Alapati S., Abbood H., Roos D., **Trappetti C.**, Oggioni M.R. *Whole-body decolonisation policies and Staphylococcus aureus bacteraemia rates in acute hospitals in England: a national cross-sectional survey.* Journal of Hospital Infection. 2026 Jul 14;176:11–15. doi:10.1016/j.jhin.2026.07.010.
4. Alnabati N., Flandi F., Al Saoudi T., Cattabriga G., Richardson T., Gennai A., Ghezzi D., Hames R.G., Isherwood J., Kanani T., Jasiunaite Z., Tang S., Germinario G., Radi G., Rizzo F., Schilcher K., Bayliss C.D., Camilli R., Caprini M., Parolin C., Fedi S., Chung W.Y., Garcea G., Giampieri E., Castellani G., Straatman K., Bruno S., **Trappetti C.**, Ravaioli M., Dennison

A.R., Martinez-Pomares L., Oggioni M.R. *The mannose receptor on sinusoidal lining cells mediates two-step bacterial clearance in the human spleen.* Nature Communications. 2026 Apr 29;17(1):7595. doi:10.1038/s41467-026-72430-8.

5. Adams F.G., Alquethamy S., Waters J.K., Davies B.J., Haracic E., Nanson J.D., Paton J.C., Forwood J.K., Hassan K.A., Brazel E.B., **Trappetti C.**, Eijkelkamp B.A. *Acinetobacter baumannii employs a rare fatty acid desaturase for niche-specific host adaptation.* ACS Infectious Diseases. 2025;11(3):550–557.
6. Shearer H.L., Currie M.J., Agnew H.N., **Trappetti C.**, Stull F., Pace P.E., Paton J.C., Dobson R.C.J., Dickerhof N. *Hypothiocyanous acid reductase is critical for host colonization and infection by Streptococcus pneumoniae.* Journal of Biological Chemistry. 2024 May;300(5):107282. doi:10.1016/j.jbc.2024.107282.
7. Agnew H.N., Atack J.M., Fernando A.R.D., Waters S.N., van der Linden M., Smith E., Abell A.D., Brazel E.B., Paton J.C., **Trappetti C.** *Uncovering the link between the SpnIII restriction modification system and LuxS in Streptococcus pneumoniae meningitis isolates.* Frontiers in Cellular and Infection Microbiology. 2023;13. doi:10.3389/fcimb.2023.1177857.
8. **Trappetti C.**, Paton J.C. *A selfish bacteriocin dictates pneumococcal domination.* Cell Host & Microbe. 2023 Jan 11;31(1):7–8. doi:10.1016/j.chom.2022.12.006.
9. Tikhomirova A., Zilm P.S., **Trappetti C.**, Paton J.C., Kidd S.P. *The central role of arginine in Haemophilus influenzae survival in a polymicrobial environment with Streptococcus pneumoniae and Moraxella catarrhalis.* PLOS ONE. 2022 Jul 25;17(7):e0271912. doi:10.1371/journal.pone.0271912.
10. Phillips Z.N., **Trappetti C.**, Van Den Bergh A., Martin G., Calcutt A., Ozberk V., Guillon P., Pandey M., von Itzstein M., Swords W.E., Paton J.C., Jennings M.P., Atack J.M. *Pneumococcal Phasevarions Control Multiple Virulence Traits, Including Vaccine Candidate Expression.* Microbiology Spectrum. 2022 Jun 29;10(3):e0091622. doi:10.1128/spectrum.00916-22.
11. Agnew H.N., Brazel E.B., Tikhomirova A., van der Linden M., McLean K.T., Paton J.C., **Trappetti C.** *Streptococcus pneumoniae Strains Isolated From a Single Pediatric Patient Display Distinct Phenotypes.* Frontiers in Cellular and Infection Microbiology. 2022 Mar 31;12:866259. doi:10.3389/fcimb.2022.866259.
12. Tikhomirova A., Brazel E.B., McLean K.T., Agnew H.N., Paton J.C., **Trappetti C.** *The Role of luxS in the Middle Ear Streptococcus pneumoniae Isolate 947.* Pathogens. 2022 Feb 7;11(2):216. doi:10.3390/pathogens11020216.
13. Adams F.G., **Trappetti C.**, Waters J.K., Zang M., Brazel E.B., Paton J.C., Snel M.F., Eijkelkamp B.A. *To Make or Take: Bacterial Lipid Homeostasis during Infection.* mBio. 2021 Jun 29;12(3):e00928-21. doi:10.1128/mBio.00928-21.
14. Zang M., MacDermott-Opeskin H., Adams F.G., Naidu V., Waters J.K., Carey A.B., Ashenden A., McLean K.T., Brazel E.B., Jiang J.H., Panizza A., **Trappetti C.**, Paton J.C., Peleg A.Y., Köper I., Paulsen I.T., Hassan K.A., O'Mara M.L., Eijkelkamp B.A. *The Membrane Composition Defines the Spatial Organization and Function of a Major Acinetobacter baumannii Drug Efflux System.* mBio. 2021 Jun 29;12(3):e01070-21. doi:10.1128/mBio.01070-21.

15. Adams F.G., Pokhrel A., Brazel E.B., Semenec L., Li L., **Trappetti C.**, Paton J.C., Cain A.K., Paulsen I.T., Eijkelkamp B.A. *Acinetobacter baumannii Fatty Acid Desaturases Facilitate Survival in Distinct Environments.* ACS Infectious Diseases. 2021 Aug 13;7(8):2221–2228. doi:10.1021/acsinfecdis.1c00192.
16. Minhas V., Paton J.C., **Trappetti C.** *Sickly Sweet – How Sugar Utilization Impacts Pneumococcal Disease Progression.* Trends in Microbiology. 2021 Sep;29(9):768–771. doi:10.1016/j.tim.2021.01.016.
17. Tikhomirova A., **Trappetti C.**, Paton J.C., Watson-Haigh N., Wabnitz D., Jervis-Bardy J., Jardeleza C., Kidd S.P. *A single nucleotide polymorphism in an IgA1 protease gene determines Streptococcus pneumoniae adaptation to the middle ear during otitis media.* Pathogens and Disease. 2021 Jan 9;79(1):ftaa077. doi:10.1093/femspd/ftaa077.
18. McLean K.T., Tikhomirova A., Brazel E.B., Legendre S., Haasbroek G., Minhas V., Paton J.C., **Trappetti C.** *Site-Specific Mutations of GalR Affect Galactose Metabolism in Streptococcus pneumoniae.* Journal of Bacteriology. 2020 Dec 7;203(1):e00180-20. doi:10.1128/JB.00180-20.
19. Minhas V., Aprianto R., McAllister L.J., Wang H., David S.C., McLean K.T., Comerford I., McColl S.R., Paton J.C., Veening J.W., **Trappetti C.** *In vivo dual RNA-seq reveals that neutrophil recruitment underlies differential tissue tropism of Streptococcus pneumoniae.* Communications Biology. 2020 Jun 5;3(1):293. doi:10.1038/s42003-020-1018-x.
20. Andreassen P.R., **Trappetti C.**, Minhas V., Nielsen F.D., Pakula K., Paton J.C., Jørgensen M.G. *Host-glycan metabolism is regulated by a species-conserved two-component system in Streptococcus pneumoniae.* PLOS Pathogens. 2020 Mar 4;16(3):e1008332. doi:10.1371/journal.ppat.1008332.
21. Kwambana-Adams B.A., Mulholland E.K., Satzke C.; ISPPD group. *State-of-the-art in the pneumococcal field: Proceedings of the 11th International Symposium on Pneumococci and Pneumococcal Diseases (ISPPD-11).* Pneumonia. 2020 Feb 5;12:2. doi:10.1186/s41479-019-0064-y.
22. Paton J.C., **Trappetti C.** *Streptococcus pneumoniae Capsular Polysaccharide.* Microbiology Spectrum. 2019 Mar;7(2). doi:10.1128/microbiolspec.GPP3-0019-2018.
23. Minhas V., Harvey R.M., McAllister L.J., Seemann T., Syme A.E., Baines S.L., Paton J.C., **Trappetti C.** *Capacity To Utilize Raffinose Dictates Pneumococcal Disease Phenotype.* mBio. 2019 Jan 15;10(1):e02596-18. doi:10.1128/mBio.02596-18.
24. Paton J.C., **Trappetti C.** *Stand by to repel boarders.* Nature Microbiology. 2019 Jan;4(1):8–9. doi:10.1038/s41564-018-0324-2.
25. Tikhomirova A., **Trappetti C.**, Standish A.J., Zhou Y., Breen J., Pederson S., Zilm P.S., Paton J.C., Kidd S.P. *Specific growth conditions induce a Streptococcus pneumoniae non-mucoidal, small colony variant and determine the outcome of its co-culture with Haemophilus influenzae.* Pathogens and Disease. 2018 Oct 1;76(7). doi:10.1093/femspd/fty074.
26. **Trappetti C.**, McAllister L.J., Chen A., Wang H., Paton A.W., Oggioni M.R., McDevitt C.A., Paton J.C. *Autoinducer 2 Signaling via the Phosphotransferase FruA Drives Galactose Utilization by Streptococcus pneumoniae, Resulting in Hypervirulence.* mBio. 2017 Jan 24;8(1):e02269-16. doi:10.1128/mBio.02269-16.

27. **Trappetti C.**, Paton J.C. *Host-to-Host Transmission of the Pneumococcus—New Victims of a Toxic Relationship.* Cell Host & Microbe. 2017 Jan 11;21(1):5–6. doi:10.1016/j.chom.2016.12.011.
28. Harvey R.M., **Trappetti C.**, Mahdi L.K., Wang H., McAllister L.J., Scalvini A., Paton A.W., Paton J.C. *The Variable Region of Pneumococcal Pathogenicity Island 1 Is Responsible for Unusually High Virulence of a Serotype 1 Isolate.* Infection and Immunity. 2016 Jan 11;84(3):822–832. doi:10.1128/IAI.01454-15.
29. Tikhomirova A., **Trappetti C.**, Paton J.C., Kidd S.P. *The outcome of H. influenzae and S. pneumoniae inter-species interactions depends on pH, nutrient availability and growth phase.* International Journal of Medical Microbiology. 2015 Dec;305(8):881–892. doi:10.1016/j.ijmm.2015.09.003.
30. Amin Z., Harvey R.M., Wang H., Hughes C.E., Paton A.W., Paton J.C., **Trappetti C.** *Isolation site influences virulence phenotype of serotype 14 Streptococcus pneumoniae strains belonging to multilocus sequence type 15.* Infection and Immunity. 2015 Dec;83(12):4781–4790. doi:10.1128/IAI.01081-15.
31. Wright E.A., Di Lorenzo V., **Trappetti C.**, Liciardi M., Orru G., Viti C., Bronowski C., Hall A.J., Darby A.C., Oggioni M.R., Winstanley C. *Divergence of a strain of Pseudomonas aeruginosa during an outbreak of ovine mastitis.* Veterinary Microbiology. 2015 Jan 30;175(1):105–113. doi:10.1016/j.vetmic.2014.11.011.
32. Manso A.S., Chai M.H., Atack J.M., Furi L., De Ste Croix M., Haigh R., **Trappetti C.**, Ogunniyi A.D., Shewell L.K., Boitano M., Clark T.A., Korlach J., Blades M., Mirkes E., Gorban A.N., Paton J.C., Jennings M.P., Oggioni M.R. *A random six-phase switch regulates pneumococcal virulence via global epigenetic changes.* Nature Communications. 2014 Sep 30;5:5055. doi:10.1038/ncomms6055.
33. Harvey R.M., Hughes C.E., Paton A.W., **Trappetti C.**, Tweten R.K., Paton J.C. *The impact of pneumolysin on the macrophage response to Streptococcus pneumoniae is strain-dependent.* PLOS ONE. 2014 Aug 8;9(8):e103625. doi:10.1371/journal.pone.0103625.
34. **Trappetti C.**, van der Maten E., Amin Z., Potter A.J., Chen A.Y., van Mourik P.M., Lawrence A.J., Paton A.W., Paton J.C. *Site of isolation determines biofilm formation and virulence phenotypes of Streptococcus pneumoniae serotype 3 clinical isolates.* Infection and Immunity. 2013 Feb;81(2):505–513. doi:10.1128/IAI.01033-12.
35. Ong C.L., Potter A.J., **Trappetti C.**, Walker M.J., Jennings M.P., Paton J.C., McEwan A.G. *Interplay between manganese and iron in pneumococcal pathogenesis: role of the orphan response regulator RitR.* Infection and Immunity. 2013 Feb;81(2):421–429. doi:10.1128/IAI.00805-12.
36. Potter A.J., **Trappetti C.**, Paton J.C. *Streptococcus pneumoniae uses glutathione to defend against oxidative stress and metal ion toxicity.* Journal of Bacteriology. 2012 Nov;194(22):6248–6254. doi:10.1128/JB.01393-12.
37. Gualdi L., Hayre J.K., Gerlini A., Bidossi A., Colomba L., **Trappetti C.**, Pozzi G., Docquier J.D., Andrew P., Ricci S., Oggioni M.R. *Regulation of neuraminidase expression in Streptococcus pneumoniae.* BMC Microbiology. 2012 Sep 11;12:200. doi:10.1186/1471-2180-12-200.
38. Ogunniyi A.D., Mahdi L.K., **Trappetti C.**, Verhoeven N., Mermans D., Van der Hoek M.B., Plumptre C.D., Paton J.C. *Identification of genes that*

contribute to the pathogenesis of invasive pneumococcal disease by in vivo transcriptomic analysis. Infection and Immunity. 2012 Sep;80(9):3268–3278. doi:10.1128/IAI.00295-12.
39. Kadioglu A., Cuppone A.M., **Trappetti C.**, List T., Spreafico A., Pozzi G., Andrew P.W., Oggioni M.R. *Sex-based differences in susceptibility to respiratory and systemic pneumococcal disease in mice.* Journal of Infectious Diseases. 2011 Dec 15;204(12):1971–1979. doi:10.1093/infdis/jir657.
40. **Trappetti C.**, Potter A.J., Paton A.W., Oggioni M.R., Paton J.C. *LuxS mediates iron-dependent biofilm formation, competence, and fratricide in Streptococcus pneumoniae.* Infection and Immunity. 2011 Nov;79(11):4550–4558. doi:10.1128/IAI.05644-11.
41. **Trappetti C.**, Ogunniyi A.D., Oggioni M.R., Paton J.C. *Extracellular matrix formation enhances the ability of Streptococcus pneumoniae to cause invasive disease.* PLOS ONE. 2011;6(5):e19844. doi:10.1371/journal.pone.0019844.
42. **Trappetti C.**, Gualdi L., Di Meola L., Jain P., Korir C.C., Edmonds P., Iannelli F., Ricci S., Pozzi G., Oggioni M.R. *The impact of the competence quorum sensing system on Streptococcus pneumoniae biofilms varies depending on the experimental model.* BMC Microbiology. 2011 Apr 14;11:75. doi:10.1186/1471-2180-11-75.
43. **Trappetti C.**, Kadioglu A., Carter M., Hayre J., Iannelli F., Pozzi G., Andrew P.W., Oggioni M.R. *Sialic acid: a preventable signal for pneumococcal biofilm formation, colonization, and invasion of the host.* Journal of Infectious Diseases. 2009 May 15;199(10):1497–1505. doi:10.1086/598483.
44. Oggioni M.R., **Trappetti C.**, Kadioglu A., Cassone M., Iannelli F., Ricci S., Andrew P.W., Pozzi G. *Switch from planktonic to sessile life: a major event in pneumococcal pathogenesis.* Molecular Microbiology. 2006 Sep;61(5):1196–1210. doi:10.1111/j.1365-2958.2006.05310.x.
45. Isola D., Pardini M., Varaine F., Niemann S., Rüsch-Gerdes S., Fattorini L., Orefici G., Meacci F., **Trappetti C.**, Rinaldo Oggioni M., Orrù G.; LONG-DRUG study group. *A Pyrosequencing assay for rapid recognition of SNPs in Mycobacterium tuberculosis embB306 region.* Journal of Microbiological Methods. 2005 Jul;62(1):113–120. doi:10.1016/j.mimet.2005.02.004.
46. Oggioni M.R., Iannelli F., Ricci S., Chiavolini D., Parigi R., **Trappetti C.**, Claverys J.P., Pozzi G. *Antibacterial activity of a competence-stimulating peptide in experimental sepsis caused by Streptococcus pneumoniae.* Antimicrobial Agents and Chemotherapy. 2004 Dec;48(12):4725–4732. doi:10.1128/AAC.48.12.4725-4732.2004.

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