



ANNALIESA ANDERSON

CANDIDATE STATEMENT

Dr. Annaliesa Anderson has over 30 years of pharmaceutical experience resulting in several licensed, and authorized vaccines and therapeutics. She is currently the Senior Vice President and Chief Scientific Officer for Vaccine Research & Development at Pfizer. In this role, she leads a large organization with a *science first* philosophy and is responsible for the execution of Pfizer's Vaccine Research and Development strategy. She is passionate about microbiology and the nurturing of both current and future microbiologists who have a role to play in the public health, environmental sciences and biotechnology arenas, in addition to those pursuing academic pathways. By being elected to the American Society for Microbiology board as a director at large, she would leverage her experience to provide input into the Society's future directives to maintain support and identify ways to engage and mentor more diverse microbiologists for the future.

ASM-RELATED ACTIVITIES

- American Academy of Microbiology - Service Awards Selection Committee, Member, 2019-2022
- ASM Antibacterial Development Conference, Washington DC, Co-Chair, December 11-14, 2016.
- American Academy of Microbiology Fellow, elected 2016

CURRICULUM VITAE

Annaliesa S. Anderson, Ph.D., FAAM

Email: Annaliesa.Anderson@pfizer.com

Office Address: Pfizer, Inc
401 N. Middletown Road
Pearl River, NY 10965

Phone: 201-675-8376

Expertise:

- Vaccine development expert with over 30 years of pharmaceutical research experience.
- Currently the Senior Vice President and Chief Scientific Officer for Vaccine Research & Development at Pfizer.
- Leads an organization of over 1,000 scientists, clinicians, engineers, and staff for end-to-end research and development of infectious disease vaccines.
- Experience includes leadership roles for vaccine programs for SARS-CoV-2, Respiratory Syncytial Virus, Influenza, Varicella Zoster Virus *Streptococcus pneumoniae*, *Neisseria meningitidis*, *Staphylococcus aureus*, *Clostridioides difficile*, Lyme disease, *Escherichia coli*, and Group B Streptococcus.
- Made substantial contributions to vaccine antigen discovery, analytical strategy, preclinical proof of concept, clinical proof of concept, funding, and vaccine licensure.
- In my prior role as CSO for hospital I co-led development of compounds to combat antimicrobial resistance and treatments for respiratory viral infections, including **PAXLOVID**[®] the first authorized oral COVID-19 antiviral treatment.

Training & Career Highlights:

- Doctorate in biological sciences from University of Warwick in collaboration with Astra Zeneca in the field of microbial ecology; concurrently trained at Schering Plough in Kenilworth, NJ.
- Completed two post-doctoral fellowships funded by the UK natural environmental council and the Royal Society, with sabbaticals at CromaXome Corporation and Kaiserslautern University.
- Founded the prokaryotic bio-combinational engineering laboratory at Merck.
- Initiated a bacterial vaccine program at Merck in 2000; was responsibility for the pre/post licensure *in vivo* potency assays for **Gardasil**[®].
- Joined Wyeth in Pearl River, NY in 2007 to direct the bacterial vaccine research efforts in the Early Phase Vaccine Programs group; continued in her same role following acquisition of Wyeth by Pfizer.
- Contributed to the development/licensure of **Prevnar13**[®], **Trumenba**[®], **Comirnaty**[®], and **Prevnar20**[®]; expanded the bacterial vaccine and infectious diseases therapeutic development portfolio.

Publishing, Awards & Professional Service:

- Extensive publication and patent portfolio in the areas of vaccine and anti-infective research and development.
- Received awards for both mentoring and diversity initiatives.
- Member of the Society of General Microbiology (1991), the American Society for Microbiology (1998), a Fellow of the Royal Society of Medicine (2011), an elected fellow to the American Academy of Microbiology (2016), and serves on the Microbiology and Infectious Disease Steering Committee at the NY Academy of Sciences (2014) and the American Society for Microbiology Service Awards Selection Committee (2019).
- Serves on Scientific Advisory Boards for the University of Rochester's Broadening Experiences in Scientific Training (URBEST) Program; The Florey Institute, The University of Sheffield, Sheffield, UK; Contrafect, US.

EDUCATION

<u>School</u>	<u>Date</u>	<u>Major/Minor Courses</u>	<u>Degree</u>
University of Warwick, UK	1995	Biological Sciences	PhD
Manchester Met. University, UK	1991	Biological Sciences	BSc(HONS)

EMPLOYMENT HISTORY

SVP & CSO, Vaccine Research & Development	Pfizer Inc	2022-
SVP & CSO, Bacterial Vaccines and Hospital	Pfizer Inc	2021-2022
CSO Hospital	Pfizer Inc	2019-2021
VP & CSO, Bacterial Vaccines	Pfizer Inc	2015-2021
Sr. Director, Bacterial Vaccines	Pfizer Inc	2010-2015
Director, Bacterial Vaccines	Pfizer Inc	2009-2010
Director, Early Phase Programs	Wyeth Research	2007-2009
Head Microbial Vaccines Research	Merck Research Laboratories	2007-2007
Senior Research Fellow	Merck Research laboratories	2005-2007
Research Fellow	Merck Research Laboratories	2002-2005
Senior Research Biologist	Merck Research Laboratories	1998-2002
Postdoctoral Research	Univ. of Warwick, Coventry (UK)	1996-1998
Postdoctoral Research	Coventry University, Coventry (UK)	1995-1996
Industrial Placement	Shell Research, Kent, UK	1990 (6 mo)

SCIENTIFIC ADVISORY BOARD MEMBERSHIPS

- Scientific advisory Board Member, Contrafect (Current)
- University of Rochester's Broadening Experiences in Scientific Training (URBEST) Program (Current).
- The Florey Institute, The University of Sheffield, Sheffield, UK (Current).
- External Scientific Advisory Panel (ESAP) member of the newly established Immune Mechanisms of Protection Against Mycobacterium tuberculosis Centers (IMPAC-TB).
- Serve on Scientific Advisory Board to approve agenda proposals and co-chair session for World Vaccine Congress; US and Europe.
- FNIH Accelerating COVID-19 Therapeutic Interventions and Vaccines (ACTIV): Preclinical Therapeutics Working Group (2020-2021)

SOCIETY MEMBERSHIPS: Overseas fellow, The Royal Society for Medicine (2011); Society for General Microbiology (1991); American Society for Microbiology (2000), New York Academy of Sciences (2007), Fellow of the American Academy for Microbiology (2016), Infectious Disease Society of America (2019); American Association for the Advancement of Science (2019)

PUBLICATIONS AND PATENTS

A) Publications

NB: Maiden name: Huddleston

Journal Articles

- 1) G Alderson, DA Ritchie, C Cappellano, RH Cool, NM Ivanova, **AS Huddleston**, CS Flaxman, V Kristufek, D Lounes. 1993. Physiology and genetics of antibiotic production and resistance. *Res. Microbiol.* 144:665-672.
- 2) JA Dearing, KL Hay, SMJ Baban, **AS Huddleston**, EMH Wellington, PJ Loveland. 1996. Soil magnetism: testing conflicting theories. *Geophys. J. Int.* 127:728-34.
- 3) **AS Huddleston**, N Cresswell, MCP Neves, J Beringer, EMH Wellington. 1997. Molecular detection of streptomycin-producing streptomycetes in Brazilian soils. *Appl. Environ. Microbiol.* 63:1288-97.
- 4) P Wiener, S Egan, **AS Huddleston**, EM Wellington. 1998. Evidence for transfer of antibiotic-resistance genes in soil populations of streptomycetes. *Molecular Ecology.* 7(9):1205-16.
- 5) JA Dearing, JA Hannam, **AS Anderson**, EMH Wellington. 2001. Magnetic, geochemical and DNA properties of highly magnetic soils in England. *Geophys. J. Int.* 144:183-96.
- 6) **AS Anderson**, EMH Wellington. 2001. The taxonomy of streptomycetes. *Int J Syst Evol Micr.* 51:797-814.
- 7) **AS Anderson**, D Clark, P Gibbons, J Sigmund. 2002. The detection of diverse aminoglycoside phosphotransferases within natural populations of actinomycetes. *J Ind Microbiol Biot.* 29:60-9.
- 8) JM Sigmund, DJ Clark, FA Rainey, **AS Anderson**. 2003. Detection of eubacterial 3-hydroxy-3-methylglutaryl coenzyme A reductases from natural populations of actinomycetes. *Microbial Ecol.* 46(1):106-12.
- 9) NA Kuklin, GD Pancari, TW Tobery, L Cope, J Jackson, C Gill, K Overbye, D Montgomery, **AS Anderson**, W McClements, KU Jansen. 2003. Development of luminescent staphylococcal foreign body and deep thigh mouse models for monitoring bacterial infection *in vivo*. *Antimicrob Agents Ch.* 47(9):2740-8.
- 10) X Wang, L Noble, B Kreiswirth, W Eisner, W McClements, KU Jansen, **AS Anderson**. 2003. Evaluation of a multilocus sequence typing system for *Staphylococcus epidermidis*. *J Med Microbiol.* 52(11):989-98.
- 11) A Ayuso, D Clark, I González, O Salazar, **AS Anderson**, O Genilloud. 2005. A novel actinomycete strain de-replication approach based on the diversity of polyketide synthase and nonribosomal peptide synthetase biosynthetic pathways. *Appl Microbiol and Biot.* 67:795-806.
- 12) I González, A Ayuso, **AS Anderson**, O Genilloud. 2005. Diversity of actinomycetes isolated from lichens: detection of biosynthetic gene sequences and evaluation of their activity. *FEMS Microbial Ecol.* 54:401-15.
- 13) NA Kuklin, DJ Clark, SL Secore, JC Cook, LD Cope, TB McNeely, L Noble, MJ Brown, JK Zorman, MC Losada, X Wang, GD Pancari, H Fan, K Isett, BW Burgess, JT Bryan, ME Brownlow, MS Meinz, M Martin, R Kelly, LD Schultz, DL Montgomery, JC Onishi, JG Joyce, MB Kurtz, MJ Caulfield, KU Jansen, WL McClements, **AS Anderson**. 2006. Vaccination with IsdB protects against *S. aureus* infection. *Infect and Immun.* 74(4):2215-23.
- 14) C Klingenberg, A Rønnestad, **AS Anderson**, T Abrahamsen, J Zorman, A Villaruz, OM Flægstad, J Sollid. 2007. Persistent strains of coagulase-negative staphylococci in a neonatal intensive care unit are characterized by high prevalence of biofilm production, antibiotic resistance and cell wall-anchored proteins. *Clin Microbiol Infect.* 13(11):1100-11.
- 15) A. Dryla, B. Hoffmann, D. Gelbmann, C Giefing, M Hanner, A Meinke, **AS Anderson**, R Konrat, A von Gabain, E Nagy. 2007. High affinity binding of the staphylococcal HarA and IsdB proteins to haemoproteins involves homologous domains with an anti-parallel eight-stranded b-barrel structure. *J. Bacteriol.* 189(1):254-64.

- 16) RJ Zagursky, **AS Anderson**. 2008. Application of genomics in bacterial vaccine discovery: a decade in review. *Curr Opin Pharmacol*. 8(5):632-8.
- 17) J Cook, R Hepler, G Pancari, N Kuklin, H Fan, X-M Wang, L Cope, C Tan, J Joyce, J Onishi, D Montgomery, **AS Anderson**, T McNeely. 2009. *Staphylococcus aureus* capsule type 8 antibodies provide inconsistent efficacy in murine models of staphylococcal infection. *Hum Vaccines*. 5(4):254-63.
- 18) JS Nanra, Y Timofeyeva, S Buitrago, B Sellman, D Dilts, P Fink, L Nunez, M Hagen, Y Matsuka, T Mininni, D Zhu, V Pavliak, BA Green, KU Jansen, **AS Anderson**. 2009. Heterogeneous *in vivo* expression of clumping factor A and capsular polysaccharide: implications for *Staphylococcus aureus* vaccine design. *Vaccine*. 27(25-26):3276-80.
- 19) LK McNeil, E Murphy, X-J Zhao, S Harris, H-Q Jiang, A Scott, C Tan, M Mack, I DaSilva, K Alexander, K Mason, D Zhu, T Mininni, G Zlotnick, S Hoiseth, T Jones, M Pride, KU Jansen, **AS Anderson**. 2009. Detection of LP2086 on the cell surface of *Neisseria meningitidis* and its accessibility in the presence of serogroup B capsular polysaccharide. *Vaccine*. 27(25-26):3417-21.
- 20) E Murphy, L Andrew, KL Lee, D Dilts, PS Fink, K Ambrose, R Borrow, J Findlow, M-K Taha, A-E Deghmane, P Kriz, M Musilek, J Kalmusova, DA Caugant, T Alvestad, L Mayer, X Wang, D Martin, A von Gottberg, M du Plessis, KP Klugman, **AS Anderson**, KU Jansen, GW Zlotnick, SK Hoiseth. 2009. Sequence diversity of vaccine candidate LP2086 (factor H binding protein) in epidemiologically relevant strains of serogroup B *Neisseria meningitidis*. *J. of Infect Dis*. 200(3):379-89.
- 21) M Raedler, S Heyne, E Wagner, S Shalkowski, S Secore, **AS Anderson**, J Cook, L Cope, T McNeely, M Retzlaff, J Shanter, LJ Rubinstein, T Green, N Kartsonis, MT Esser. 2009. A serology assay to quantify human IgG antibodies to *Staphylococcus aureus* iron surface determinant B antigen. *Clin Vaccine Immunol*. 16(5):739-48.
- 22) HQ Jiang, SK Hoiseth, SL Harris, L McNeil, D Zhu, C Tan, A Scott, K Alexander, K Mason, L Miller, I DaSilva, M Mack, X-J Zhao, MW. Pride, L Andrew, E Murphy, M Hagen, R French, A Arora, T Jones, KU. Jansen, GW. Zlotnick, **AS Anderson**. 2010. Broad vaccine coverage predicted for a bivalent recombinant factor H binding protein based vaccine to prevent serogroup B meningococcal disease. *Vaccine*. 28(37):6086-93
- 23) DA Ala'Aldeen, MJ Flint, NJ Oldfield, SA Omer, LK McNeil, Q Jiang, E Murphy, PC Giardina, EG Novikova, IL Dodge, CD Bayliss, D Turner, K Neal, SK Hoiseth, KU Jansen, **AS Anderson**. 2010. Human antibody responses to the meningococcal factor H binding protein (LP2086) during invasive disease, colonization and carriage. *Vaccine*. 28(48):7667-75.
- 24) T Ebert, S Smith, G Pancari, D Clark, R Hampton, S Secore, V Towne, H Fan, XM Wang, X Wu, R Ernst, BR. Harvey, AC. Finnefrock, F Wang, C Tan, E Durr, L Cope, **AS Anderson**, Z An, T McNeely. 2011. A fully human monoclonal antibody to *Staphylococcus aureus* iron regulated surface determinant B (IsdB) with functional activity in vitro and in vivo. *Human Antibodies*. 19:1-17.
- 25) SL Harris, D Zhu, E Murphy, LK McNeil, X Wang, LW Mayer, L Harrison, KU Jansen, **AS Anderson**. 2011. Preclinical evidence for the potential of a bivalent fHBP vaccine to prevent *N. meningitidis* serogroup C disease. *Hum Vaccin Immunother*. 7:68-74.
- 26) E Murphy, S Lin, L Nunez, L Andrew, PS Fink, DA Dilts, SK Hoiseth, KU Jansen, **AS Anderson**. 2011. Challenges for the evaluation of *Staphylococcus aureus* protein based vaccines: monitoring antigenic diversity. *Hum Vaccine Immunother*. 7:51-9
- 27) GK Vannakambadi, EM Barbu, M Champion, CS Deivanayagam, B Le, **AS Anderson**, Y Matsuka, SL Lin, TJ Foster, S Narayana, M Höök. 2011. Structural and biochemical characterization of ClfB: ligand interactions. *J Biol Chem*. 286(29):25963-72.
- 28) J Broughan, R Anderson, **AS Anderson**. 2011. Strategies advance in development of *Staphylococcus aureus* prophylactic vaccines. *Expert Rev Vaccines*. 10(5):695-708.
- 29) **AS Anderson**, KU Jansen, JE Eiden. 2011. New frontiers in meningococcal vaccines. *Expert Rev Vaccines*. 10(5):617-34.
- 30) X Wang, A Cohn, M Comanducci, L Andrew, X Zhao, JR MacNeil; S Schmink, A Muzzi, S Bambini, R Rappuoli, M Pizza, E Murphy, SK Hoiseth, KU Jansen, **AS Anderson**, LH Harrison, NE Messonnier, TA Clark, LW Mayer. 2011. Prevalence and genetic diversity of candidate vaccine antigens among invasive *Neisseria meningitidis* isolates in the United States. *Vaccine*. 29(29-30):4739-44.
- 31) **AS Anderson**, IL Scully, Y Timofeyeva, E Murphy LK McNeil, T Mininni, L Nunez, M Carriere, C Singer, DA Dilts, KU Jansen. 2012. The *Staphylococcus aureus* manganese transport protein C is a highly conserved cell surface protein that elicits protective immunity against both *S. aureus* and *Staphylococcus epidermidis*. *J of Infect. Dis*. 205(11):1688-96.

- 32) J Hawkins, S Kodali, YV Matsuka, LK McNeil, T Mininni, IL Scully, JH Vernachio, E Severina, D Girgenti, KU Jansen, **AS Anderson**, RGK Donald. 2012. A recombinant Clumping factor A containing vaccine induces functional antibodies to *Staphylococcus aureus* that are not observed after natural exposure. *Clin Vaccine Immunol.* 19(10):1641-50.
- 33) HS Marshall, PC Richmond, MD Nissen, Q Jiang, **AS Anderson**, KU Jansen, G Reynolds, JB Ziegler, SL Harris, TR Jones, JL Perez. 2012. Safety and immunogenicity of a meningococcal B bivalent rLP2086 vaccine in healthy toddlers aged 18 to 36 months: a phase 1 randomized controlled clinical trial. *Pediatr Infect Dis J.* 31(10):1061-1068.
- 34) **AS Anderson**, AA Miller, RG Donald, IL Scully, JS Nanra, D Cooper, KU Jansen. 2012. Development of a multicomponent *Staphylococcus aureus* vaccine designed to counter multiple bacterial virulence factors. *Hum Vaccines.* 8(11).
- 35) HS Marshall, PC Richmond, MD Nissen, A Wouters, J Baber, Q Jiang, **AS Anderson**, TR Jones, SL Harris, KU Jansen, JL Perez. 2013. A phase 2 open-label safety and immunogenicity study of a meningococcal B bivalent rLP2086 vaccine in healthy adults. *J Vaccine.* 31(12):1569-75.
- 36) JS Nanra, SM Buitrago, S Crawford, J Ng, PS Fink, J Hawkins, IL Scully, LK McNeil, JM Aste-Amezaga, D Cooper, KU Jansen, **AS Anderson**. 2013. Capsular polysaccharides are an important immune evasion mechanism for *Staphylococcus aureus*. *Hum Vaccin Immunother.* 9(3):1-8.
- 37) **AS Anderson**, L Hao, Q Jian, SL Harris, TR Jone, JL Perez, L York, J Eiden, KU Jansen. 2013. Potential impact of the bivalent rLP2806 vaccine on *Neisseria meningitidis* carriage and invasive serogroup B disease. *Hum Vaccin Immunother.* 9(3):1-9.
- 38) LK McNeil, R Zagursky, S Lin, E Murphy, G Zlotnick, S Hoiseth, KU Jansen, and **AS Anderson**. 2013. The role of factor H binding protein in *Neisseria meningitidis* virulence and its potential as a vaccine candidate to broadly protect against meningococcal disease. *Microbiol Mol Biol R.* 77(2):234-52.
- 39) KU Jansen, D Girgenti, I Scully, **AS Anderson**. 2013. *Staphylococcus aureus* vaccines: problems and prospects. *Vaccine.* 31:2723-30.
- 40) R Donald, M Flint, N Kalyan, EJ Johnson, S Witko, C Kotash, P Shao, S Megati, I Yurgelonis, P Lee, Y Matsuka, E Severina, A Deatly, M Sidhu, KU Jansen, N Minton, **AS Anderson**. 2013. A novel approach to generate a recombinant toxoid vaccine against *Clostridium difficile*. *Microbiol.* 159(Pt7):1254-66.
- 41) SK Hoiseth, E Murphy, L Andrew, U Vogel, M Frosch, W Hellenbrand, R Abad, JA Vazquez, R Borrow, J Findlow, M-K Taha, A-E Deghmane, DA Caugant, P Kriz, M Musilek, LW Mayer, X Wang, J R MacNeil, L York, CY Tan, KU Jansen, **AS Anderson**. 2013. A multi-country evaluation of *Neisseria meningitidis* serogroup B factor H binding proteins and implications for vaccine coverage in different age groups. *Pediatr. Infect. Dis. J.* 32(10):1096-101.
- 42) A Gribenko, L Mosyak, S Ghosh, K Parris, K Svenson, J Moran, L Chu, S Li, T Liu, V Woods, Jr., KU Jansen, BA Green, **AS Anderson**, YV Matsuka. 2013. Three-dimensional structure and biophysical characterization of *Staphylococcus aureus* cell surface antigen - manganese transporter MntC. *J. Mol Biol.* 425(18):3429-45
- 43) JK Zorman, M Esser, M Raedler, BN Kreiswirth, DAA Ala'aldeen, N Kartsonis, SS Smugar, **AS Anderson**, T McNeely, JM Arduino. 2013. Naturally occurring IgG antibody levels to the *Staphylococcus aureus* protein IsdB in humans. *Hum. Vaccin. Immunother.* 9(9):1857-64.
- 44) LD Handke, JC Hawkins, AA Miller, KU Jansen, **AS Anderson**. 2013. Regulation of *Staphylococcus aureus* MntC expression and its role in response to oxidative stress. *PLoS One.* 8(10):1-8.
- 45) IL Scully, PA Liberator, KU Jansen, **AS Anderson**. 2014. Covering all the Bases: Preclinical Development of an effective *Staphylococcus aureus* vaccine. *Frontiers Immunol.* 5:109.
- 46) Y Timofeyeva, IL Scully, **AS Anderson**. 2014. Immunofluorescence microscopy for the detection of surface antigens in methicillin-resistant *Staphylococcus aureus* (MRSA). *Methods Mol Biol.* 1085:85-95.
- 47) KA Swanson, H-J Schmitt, KU Jansen, **AS Anderson**. 2015. Adult Vaccination: Current recommendations and future prospects. *Hum. Vaccin. Immunother.* 11(1):150-5.
- 48) GW Zlotnick, TR Jones, P Liberator, L Hao, S Harris LK McNeil, D Zhu, J Perez, J Eiden, KU Jansen, **AS Anderson**. 2015. The Discovery and development of a novel vaccine to protect against *Neisseria meningitidis* serogroup B disease. *Hum. Vaccin. Immunother.* 11(1):1-9.
- 49) W Rozemeijer, P Fink, E Rojas, CH Jones, D Pavliakova, P Giardina, E Murphy, P Liberator, Q Jiang, D Girgenti, RPH Peters, PHM Savelkoul, KU Jansen, **AS Anderson**, J Kluytmans. 2015. Evaluation of approaches to monitor *Staphylococcus aureus* virulence factor expression during human disease. *PLoS One.* 10(2):e0116945.

- 50) HS Marshall, P Richmond, M Nissen, S Lambert, R Booy, G Reynolds, S Sebastian, M Pride, KU Jansen, **AS Anderson** and IL Scully. 2015. Group A streptococcal carriage, presence of anti-streptococcal C5a peptidase gene and seroepidemiology in children up to 10 years of age in Australia. *Pediatr Infect Dis J.* 3(8):831-8.
- 51) M Nissen, H Marshall, P Richmond, S Shakib, Q Jiang, D Cooper, D Rill, J Baber, J Eiden, W Gruber, KU Jansen, EA Emini, **AS Anderson**, ET Zito, and D Girgenti. 2015. A randomized phase I study of the safety and immunogenicity of three ascending dose levels of a 3-antigen *Staphylococcus aureus* vaccine (SA3Ag) in healthy adults. *Vaccine.* 33(15):1846-54.
- 52) CA Jeppesen, MD Snape, H Robinson, N Gossger, TM John, M Voysey, S Ladhani, IO Okike, C Oeser, A Kent, J Oliver, P Taylor, B Morales-Aza, SC Clarke, M Casey, F Martins, NRE Kitchin, **AS Anderson**, CH Jones, KU Jansen, J Eiden, L Pedneault, PT Heath, A Finn, SN Faust, AJ Pollard. 2015. Meningococcal carriage in adolescents and young adults in the United Kingdom to inform vaccination strategies. *J Infection.* 71(1):43-52.
- 53) E Rojas, J Hoyos, NJ Oldfield, P Lee, M Flint, CH Jones, DAA Ala'Aldeen, KU Jansen, and **AS Anderson**. 2015. Optimization of Molecular Approaches to Genogroup *Neisseria meningitidis* Carriage isolates and implications for monitoring the impact of new serogroup B vaccines. *PLoS One.* 10(7):e0132140.
- 54) S Kodali, E Vinogradov, F Lin, N Khoury, L Hao, V Pavliak, H Jones, D Laverde, J Huebner, KU Jansen, **AS Anderson**, RGK Donald. 2015. A Vaccine approach for the prevention of infections by multidrug resistant *Enterococcus faecium*. *J. Biol. Chem.* 290(32):19512-26.
- 55) IL Scully, K Swanson, L Green, KU Jansen, **AS Anderson**. 2015. Anti-Infective Vaccination in the 21st Century – New horizons for personal and public health. *Curr Opin Microbiol.* 27:96-102.
- 56) IL Scully, Y Timofeyeva, D Keeney, YV Matsuka, E Severina, LK McNeil, J Nanra, G Hu, PA Liberator, KU Jansen, **AS Anderson**. 2015. Demonstration of the preclinical correlate of protection for *Staphylococcus aureus* clumping factor A in a murine model of infection. *Vaccine.* 33(41):5452-7.
- 57) Jones HC, N Mohamed, E Rojas, L Andrew, J Hoyos, JC Hawkins, LK McNeil, Q Jiang, LW Mayer, X Wang, R Gilca, P De Wals, L Pedneault, J Eiden, KU Jansen, **AS Anderson**. 2016. Comparison of Phenotypic and Genotypic Approaches to Capsule Typing *Neisseria meningitidis* Using Invasive and Carriage Strain Collections. *J Clin Microbiol.* 54(1):25-3.
- 58) **AS Anderson**, IL Scully, ET Buurman, J Eiden, KU Jansen. 2016. *Staphylococcus aureus* clumping factor A remains a viable vaccine target for prevention of *S. aureus* infection. *mBio.* 7(2):e00225.
- 59) **AS Anderson**, JJ Eiden, JL Perez, P Balmer, LJ York, KU Jansen. 2016. Letter to the editor: Importance of serum bactericidal activity for estimating the breadth of protection for new meningococcal vaccines. *Euro Surveill.* 21(15).
- 60) GH Dayan, N Mohamed, IL Scully, D Cooper, E Beiger, J Eiden, KU Jansen, A Gurtman, **AS Anderson**. 2016. *Staphylococcus aureus*: the current state of disease, pathophysiology and strategies for prevention. *Expert Review Vac.* 9:1-20.
- 61) SA Clark, A Kekshmi, J Lucidarme, L Hao, H Tsao, L Lee-Jones, KU Jansen, LS Newbold, **AS Anderson**, R Borrow. 2016. Differences between culture & non-culture confirmed invasive meningococci with a focus on factor H-binding protein distribution. *J. Infec.* 73(1):63-70
- 62) Jamrozy DM, Harris SR, Mohamed N, Peacock SJ, Tan CY, Parkhill J, Anderson AS, Holden MT. 2016. Pan-genomic perspective on the evolution of the *Staphylococcus aureus* USA300 epidemic. *Microb Genom.* 2(5):e.000058.
- 63) H Marshall, M Nissen, P Richmond, S Shakib, Q Jiang, D Cooper, D Rill, J Baber, J Eiden, WC Gruber, KU Jansen, **AS Anderson**, ET Zito, D Girgenti. 2016. Safety and immunogenicity of a booster dose of a 3-antigen *Staphylococcus aureus* vaccine (SA3Ag) in healthy adults: A randomized phase 1 study. *J Infect.* 73(5):437-454.
- 64) Y Luo, OV Friese, HA Runnels, L Khandke, G Zlotnick, A Aulabaugh, T Gore, E Vidunas, SW Raso, E Novikova, E Byrne, M Schlittler, D Stano, RL Dufield, S Kumar, **AS Anderson**, KU Jansen, JC Rouse. 2016. The Dual Role of Lipids of the Lipoproteins in Trumemba, a Self-Adjuvanting Vaccine Against Meningococcal Meningitis B Disease. *AAPS Journal.* 18(6):1562-1575.
- 65) AV Gribenko, K Parris, L Mosyak, S Li, L Handke, JC Hawkins, E Severina, YV Matsuka, **AS Anderson**. 2016. High Resolution Mapping of Bactericidal Monoclonal Antibody Binding Epitopes on *Staphylococcus aureus* Antigen MntC. *PLoS Pathog.* 12(9):e1005908.

- 66) SL Harris, RG Donald, JC Hawkins, C Tan, R O'Neill, LK McNeil, JL Perez, **AS Anderson**, KU Jansen, TR Jones. 2016. Neisseria meningitidis Serogroup B Vaccine, Bivalent rLP2086, Induces Broad Serum Bactericidal Activity Against Diverse Invasive Disease Strains Including Outbreak Strains. *Pediatr Infect Dis J.* 36(2):216-223.
- 67) RG Donald, JC Hawkins, L Hao, P Liberator, TR Jones, SL Harris, JL Perez, JJ Eiden, KU Jansen, **AS Anderson**. 2016. Meningococcal Serogroup B Vaccines: Estimating Breadth of Coverage. *Hum Vaccin Immunother.* 2016. 13(2):255-265.
- 68) DM Jamrozy, SR Harris, N Mohamed, SJ Peacock, CY Tan, J Parkhill, **AS Anderson**, MT Holden. 2016. Pan-genomic perspective on the evolution of the *Staphylococcus aureus* USA300 epidemic. *Microb Genom.* 2(5):e000058.
- 69) CB Creech, RW Frenck Jr, EA Sheldon, DJ Seiden, MK Kankam, ET Zito, d Girgenti, JM Severs, FW Immerman, LK McNeil, D cooper, KU Jansen, W Gruber, J Eiden, **AS Anderson**, J. Baber. 2017. Safety, Tolerability and immunogenicity of a single dose 4-antigen or 3-antigen *Staphylococcus aureus* vaccine in healthy older adults: Results of a randomized trial. *Vaccine.* 35(2):385-394.
- 70) N Mohamed, MY Wang, J.-C. Le Huec, U. Liljenqvist, IL Scully, J Baber, E Begier, KU Jansen, A Gurtman and **AS Anderson**. 2017. Vaccine development to prevent *Staphylococcus aureus* surgical-site infections. *Br J Surg.* 104(2):e41-e54.
- 71) E Beiger, DJ Seiden, M Patton, E Zito, J Severs, D Cooper, J Eiden, WC Gruber, KU Jansen **AS Anderson** and A Gurtman. 2017. SA4Ag, a 4-antigen *Staphylococcus aureus* vaccine, rapidly induces high level of bacteria-killing antibodies. *Vaccine.* 35(8):1132-1139.
- 72) MB van Ravenhorst, MW Bijlsma, MA van houten, VMD Struben, **AS Anderson**, J Eiden , H Li, KU Jansen, H Jones, N Kitchin, L Pedneault, EAM Sanders, A Van der Ende. 2017. Meningococcal carriage in Dutch adolescents and young adults; A cross-sectional and longitudinal cohort study. *Clinical Microbiol Infect.* 23(8):573.el.
- 73) M-K Taha, JC Hawkins, P Liberator, A-E Deghmane, L Andrew, L Hao, TR Jones, LK McNeil, RE O'Neill, JL Perez, KU Jansen, **AS Anderson**. 2017. Bactericidal activity of sera from adolescents vaccinated with bivalent rLP2086 against meningococcal serogroup B outbreak strains from France. *Vaccine.* 35(11):1530-1537.
- 74) D Moradigaravand, D Jamrozy, R Mostowy, **A Anderson**, EK Nickerson, J Thaipadungpanit, V Wuthiekanun, D Limmathurotsakul, S Tandhavanant, C Wikraiphath, G Wongsuvan, N Teerawattanasook, Y Jutrakul, N Srisurat, P Chaimanee, TE West, B Blane, J Parkhill, N Chantratita, SJ Peacock. 2017. Evolution of the community-onset invasive *Staphylococcus argenteus* ST2250 clone in northeast Thailand is linked with the acquisition of livestock-associated staphylococcal genes. *MBio.* 8(4):e00802-17.
- 75) IL Scully, LK McNeil, S Pathirana, CL Singer, Y Liu, S Mullen, D Girgenti, A Gurtman, MW Pride, KU Jansen, PL Huang, **AS Anderson**. 2017. Neutrophil killing of *Staphylococcus aureus* in diabetes, obesity and metabolic syndrome: a prospective cellular surveillance study. *Diabetology & Metabolic Syndrome.* 9:76.
- 76) L Ostergaard, T Vesikari, J Absalon, J Beeslaar, BJ Ward, S Senders, JJ Eiden, KU Jansen, **AS Anderson**, LJ York, TR Jones, SL Harris, R O'Neill, D Radley, R Maansson, JL Pregaldien, J Ginis, NB Staerke, JL Perez. 2017. A Bivalent Meningococcal B Vaccine in Adolescents and Young Adults. *N Engl J Med.* 377(24): 2349-2362.
- 77) KU Jansen; C Knirsch; **AS Anderson**. 2018. The Role of vaccines in preventing bacterial antimicrobial resistance. *Nature Medicine.* 24(1): 10-20.
- 78) L Hao; MGT Holden; S Wang; L Andrew; S Wellnitz; F Hu; M Whaley; S Sammons; K Knipe; M Frace; LA McNamara; P Liberator; **A Anderson**. 2018. Distinct Evolutionary Patterns of Neisseria meningitidis Serogroup B disease Outbreaks at Two Universities in the United States. *Microbial Genomics.* *Microb Genom* 4(4):e000155.
- 79) LK McNeil, R Donald, J Findlow, R Borrow, P Kriz, J Vazquez, S Li, R Abad, MK Taha, DA Caugant, X Wang, J Vuong, H Claus, L Mayer, G Zlotnick, U Vogel, M Musilek, R French, S Harris, T Jones, A Gribenko, N Lambert, M Pride, K Jansen, **A Anderson**. 2018. Predicting the Susceptibility of Meningococcal Serogroup B Isolates to Bactericidal Antibodies Elicited by Bivalent rLP2086, a Novel Prophylactic Vaccine. *MBio* 9(2):e00036-18
- 80) S Vuocolo, P Balmer, B Gruber, KU Jansen, **AS Anderson**, P Perez, L York. 2018. Vaccination Strategies for the Prevention of Meningococcal Disease. *Human Vaccine Immunotherapeutics.* 14(5): 1203-1215.

- 81) SL Harris, C Tan, L Andrew, L Hao, PA Liberator, J Absalon, **AS Anderson**, TR Jones. 2018. The Bivalent Factor H Binding Protein Meningococcal Serogroup B Vaccine Elicits Bactericidal Antibodies Against Representative Non-Serogroup B Meningococci. *Vaccine* (epub ahead of print)
- 82) KU Jansen, **AS Anderson**. 2018. The role of vaccines in fighting antimicrobial resistance (AMR). *Human Vaccines & Immunotherapeutics*. 14(9):2142-2149.
- 83) JL Perez, J Absalon, J Beeslaar, P Balmer, KU Jansen, TR Jones, S Harris, LJ York, Q Jian, D Radley, **AS Anderson**, G Crowther, JJ Eiden. 2018. From Research to Licensure and Beyond: Clinical Development of MenB-FHbp, a Broadly Protective Meningococcal B Vaccine. *Expert Review of Vaccines*. 17(6):461-477.
- 84) J Poolman, **AS Anderson**, 2018. Escherichia coli and Staphylococcus aureus: leading bacterial pathogens of health-care associated infections and bacteremia at older age. *Expert Review of Vaccines*. 2018 Jul; 17(7):607-618.
- 85) L Handke, A Gribenko, Y Timofeyeva, I Scully, **A Anderson**. 2018. MntC-dependent manganese transport is essential for Staphylococcus aureus oxidative stress resistance and virulence. *mSphere*. 3(4):e00336-18.
- 86) J Baber, A Gurtman, WC Gruber, **A Anderson**, D Cooper, M Aizawa, J Eiden, KU Jansen, Y Shoji, M Inoue, T Yonemura, CK Liew, T Gegeny, H Minor, L Ragucci, D Lee. 2018. Safety, tolerability, and immunogenicity of a novel 4-antigen Staphylococcus aureus vaccine (SA4Ag) in 136 healthy Japanese adults aged 20 to 85 years. *Human Vaccines & Immunotherapeutics*. 14(11).
- 87) A Gurtman, B Begier, C Sabharwal, N Mohamed, D Cooper, H Edwards, R Haupt, K Jansen, **A Anderson**. 2018. The Development of a Staphylococcus aureus Four Antigen Vaccine for use in Prior Elective Orthopedic Surgery. *Human Vaccines & Immunotherapeutics*. 15(2).
- 88) R Gilca, P De Wals, S Nolan, N Kitchin, J Eiden, Q Jiang, C Jones, K Jansen, **A Anderson**, L Pedneault. 2018. A Longitudinal Epidemiology Study of Meningococcal Carriage in Students Aged 13 to 25 Years in Quebec. *mSphere*00427-18R1.
- 89) K Le Doare, B Kampman, J Vekemans, PR Heath, D Goldblatt, MH Nahm, C Baker, MS Edwards, G Kwatra, N Andrews, SA Madhi, A Sobanjo ter Meulen, **AS Anderson**, B Carsaro, P Fisher, A Gorringer. 2019. Serocorrelates of protection against infant group B streptococcus disease. *Lancet Inf. Disease*, 2019 May (19)5.
- 90) N Mohamed, Y Timofeyeva, E Jamrozy, E Rojas, L Hao, NC Silmon de Monerri, J Hawkins, G Singh, B Cai, P Liberator, S Sebastian, RGK Donald, IL Scully, JJ Jones, CB Creech, I Thomsen, J Parkhill. SJ Peacock, KU Jansen, MTG Holden, **AS Anderson**. 2019. Molecular Epidemiology and eXpression of Capsular Polysaccharides in Sthphylococcus aureus Clinical isolates in the United States. *PLoS ONE*.
- 91) ET Buurman, Y Timofeyeva, J Gu, JH Kim, S Kodalie, Y Liu, T Mininni, S Moghazeh, D Pavliakova, C Singer, S Singh, LD Handke, J Lotvin, AK Prasad, IL Scully, RGK Donald, KU Jansen, **AS Anderson**. 2019. A novel hexavalent capsular polysaccharide conjugate vaccine (GBS6) for the prevention of neonatal group B streptococcal infections by maternal immunization. *J. Infect Dis*. 2019 Jun 5;220(1):105-115.
- 92) N Kitchin, SA Remich, J Person, Y Peng, WC Gruber, KU Jansen, MW Pride, **AS Anderson**, C Knirsch, C Weeber. 2019. A phase 2 study evaluating the safety, tolerability, and immunogenicity of two 3 dose regimens of a Clostridium difficile vaccine in healthy US adults age 65-85 years. *Cin Infect Dis*. Jan 1;70(1):1-10.
- 93) HY Chang, J Vuong, F Hu, P Liberator, A Chen, CB Kretz, A Blain, L Hao, AC Retchless, MJ Whaley, **AS Anderson**, X Wang. 2019. Distribution of *Neisseria meningitidis* serogroup b (NmB) vaccine antigens in meningococcal disease causing isolates in the United States during 2009-2014, prior to NmB vaccine Licensure. *Journal of Infection*. 2019. 79(5) 426-434.
- 94) HS Marshall, J Baber, P Richmond, M Nissen, S Shakib, BN Kreiswirth, ET Zito, J Server, J Eiden, W Gruber, KU Jansen, CH Jones, **AS Anderson**. 2019. *J Infect*. 79(6):582-592.
- 95) JA Bettinger, P Liberator, SA Halperin, W Vaudry, M Sadarangani, L Hao, N Lambert, KU Jansen, **AS Anderson**, R Tsang; members of the Canadian Immunization Monitoring Program, Active (IMPACT). Estimated susceptibility of Canadian meningococcal B isolates to a meningococcal serogroup B vaccine (MenB-FHbp). *Vaccine*. 2020 Feb 18;38(8):2026-2033. doi: 10.1016/.
- 96) **AS Anderson**, IL Scully, MW Pride, KU Jansen. Vaccination against Nosocomial Infections in Elderly Adults. *Interdiscip Top Gerontol Geriatr*. 2020;43:193-217. doi: 10.1159/000504481
- 96) JA Grobler, **AS Anderson**, P Fernandes, MS Diamond, CM Colvis, JP Menetski, RM Alvarez, JAT Young, KL Carter. Accelerated Preclinical Paths to Support Rapid Development of COVID-19 Therapeutics. *Cell Host Microbe*. 2020 Nov 11;28(5):638-645.

- 97) S Sterrett, BJ Peng, RL Burton, DC LaFon, AO Westfall, S Singh, M Pride, **AS Anderson**, GC Ippolito, HW Jr Schroeder, MH Nahm, K Prasad, P Goepfert, A Bansal. (2020). Peripheral CD4 T follicular cells induced by a conjugated pneumococcal vaccine correlate with enhanced opsonophagocytic antibody responses in younger individuals. *Vaccine*, 38(7), 1778–1786.
- 98) Y Timofeyeva, IL Scully, **AS Anderson**. 2020. Immunofluorescence microscopy for the detection of surface antigens in methicillin resistant staphylococcus aureus (MRSA). *Methods Mol Biol*. 2020;2069;47-58
- 98) Z Li, K Lee, U Rajyaguru, CH Jones, S Janezic, M Rupnik, **AS Anderson**, P Liberator. Ribotype Classification of *Clostridioides difficile* Isolates Is Not Predictive of the Amino Acid Sequence Diversity of the Toxin Virulence Factors TcdA and TcdB. *Front Microbiol*. 2020 Jun 19;11:1310.
- 99) J Absalon, N Segall, SL Block, KJ Center, IL Scully, PC Giardina, J Peterson, WJ Watson, WC Gruber, KU Jansen, Y Peng, S Munson, D Pavliakova, Scott, **AS Anderson**. Safety and immunogenicity of a novel hexavalent group B streptococcus DA conjugate vaccine in healthy, non-pregnant adults: a phase 1/2, randomised, placebo-controlled, observer-blinded, dose-escalation trial. *Lancet Infect Dis*. 2021 Feb;21(2):263-274.
- 100) P Liberator, RGK Donald, P Balmer, J Findlow, **A Anderson**. 2020. Variant Signal Peptides of Vaccine Antigen, FHbp, Impair Processing Affecting Surface Localization and Antibody-Mediated Killing in Most Meningococcal Isolates. *Frontiers in Microbiology, Infectious Disease section*. *Front Microbiol*. 2020 Nov 6;11:538209. doi: 10.3389/fmicb.2020.538209.
- 102) J Beeslaar, J Absalon, **AS Anderson**, JJ Eiden, P Balmer, SL Harris, TR Jones, RE O'Neill, JL Pregaldien, D Radley, R Maansson, J. Ginis, A Srivastava, JL Perez. 2020. MenB-FHbp Vaccine Protects Against Diverse Meningococcal Strains in Adolescents and Young Adults: Post Hoc Analysis of Two Phase 3 Studies. *Infect Dis Ther*. 2020 Sep;9(3):641-656.
- 103) JA Grobler, **AS Anderson**, P Fernandes, MS Diamond, CM Colvis, JP Menetski, RM Alvarez, JAT Young, KL Carter. Accelerated Preclinical Paths to Support Rapid Development of COVID-19 Therapeutics. *Cell Host Microbe*. 2020 Nov 11;28(5):638-645.
- 104) IS Scully, Y Timofeyeva, A Illenberger, A Illenberger, P Lu, P Liberator, KU Jansen, **AS Anderson**. 2020. Performance of a Four-Antigen Staphylococcus aureus Vaccine in Preclinical Models of Invasive S. aureus Disease. *Microorganisms*. 2021 Jan 15;9(1):177.
- 105) M de Vries, AS Mohamed, RA Prescott, AM Valero-Jimenez, L Desvignes, R O'Connor, C Steppan JC Devlin, E Ivanova, A Herrera, A Schinlever, P Loose, K Ruggles, SB Koralov, **AS Anderson**, J Binder, M Dittmann. A comparative analysis of SARS-CoV-2 antivirals characterizes 3CL^{pro} inhibitor PF-00835231 as a potential new treatment for COVID-19. *J Virol*. 2021 Feb 23;95(10):e01819-20.
- 106) MD Hall, JM Anderson, **AS Anderson**, D Baker, J Bradner, KR Brimacombe, EA Campbell, KS Corbett, K Carter, S Cherry, L Chiang, T Cihlar, E De Wit, M Denison, M Disney, CV Fletcher, SL Ford-Scheimer, M Gotte, AC Grossman, FG Hayden, DJ Hazuda, CA Ianeri, H Marston, AD Mesecar, S Moore, JO Nwankwo, J O'Rear, G Painter, KS Saikatendu, CA Schiffer, TP Shehan, P-Y Shi, HD Smyth, MJ Sofia, M Weetall, SK Weller, R Whitley, AS Fauci, CP Austin, FS Collins, AJ Conley, MI Davis. Report of the National Institutes of Health SARS-CoV-2 Antiviral Therapeutics Summit. *Journal of Infectious Disease*. *J Infect Dis*. 2021 Jul 15;224(Supplement_1):S1-S21. doi: 10.1093/infdis/jiab305.
- 107) A Elfassy, WV Kalina, R French, H Nguyen, C Tan, S Sebastian, MH Wilcox, K Davies, MA Kutzler, KU Jansen, **AS Anderson**, MW Pride. Development and clinical validation of an automated cell cytotoxicity neutralization assay for detecting *Clostridioides difficile* toxins in clinically relevant stools samples. *Anaerobe*. 2021 Jul 20;71:102415.
- 108) J Lawrence, N Kitchin, **AS Anderson**, M Pride, K Jansen, W Gruber, Y Peng, K Yi, C Knirsch, C Webber. Safety and Immunogenicity of Different *Clostridioides (Clostridium) difficile* Vaccine Formulations in Two Early Phase Randomized Studies of Healthy Adults Aged 50–85 Years. *Vaccine*. 2021 Sep 24;39(40):5991-6003. doi: 10.1016/j.vaccine.2021.05.028.
- 109) KU Jansen, WC Gruber, R Simon, J Wassil, **AS Anderson**. The impact of human vaccines on bacterial antimicrobial resistance. A review. *Environ Chem Lett*. 2021 Sep 29:1-32. doi: 10.1007/s10311-021-01274-z.

- 110) B Boras, RM Jones, BJ Anson, D Arenson, L Aschenbrenner, MA Bakowski, N Beutler, J Binder, E Chen, H Eng, H Hammond, J Hammond, RE Haupt, R Hoffman, EP Kadar, R Kania, E Kimoto, MG Kirkpatrick, L Lanyon, EK Lendy, JR Lillis, J Logue, SA Luthra, C Ma, SW Mason, ME McGrath, S Noell, RS Obach, MN O'Brien, R O'Connor, K Ogilvie, D Owen, M Pettersson, MR Reese, TF Rogers, MI Rossulek, JG Sathish, N Shirai, C Steppan, M Ticehurst, LW Updyke, S Weston, Y Zhu, J Wang, AK Chatterjee, AD Mesecar, MB Frieman, **AS Anderson**, C Allerton. Discovery of a Novel Inhibitor of Coronavirus 3CL Protease for the Potential Treatment of COVID-19. *Nat Commun.* 2021 Oct 18;12(1):6055. doi: 10.1038/s41467-021-26239-2.
- 111) N Catlin, GD Cappon, ME Scott, CM Tohde, WS Nowalnd, SM Buitrago, IL Scully, **AS Anderson**, CJ Bowman, Maternal Immunization with Group B Streptococcus 6-Valent Polysaccharide Conjugate Vaccine Supported by Lack of Toxicity in Rat and Rabbit Fertility and Developmental Toxicity Studies. *Birth Defects Research.* 2021. *Birth Defects Res.* 2021 Nov 15;113(19):1343-1356. doi: 10.1002/bdr2.1953.
- 112) DR Owen, CMN Allerton, **AS Anderson**, L Aschenbrenner, M Avery, S Berritt, Britton B, RD Cardin, A Carlo, KJ Coffman, A Damtonio, L Di, H Eng, R Ferre, KS Gajiwala, SA Gibson, SE Greasley, BL Hurst, EP Kadar, AS Kalgutkar, JC Lee, J Lee, W Liu, SW Mason, S Noell, JJ Novak, Obach RS K Ogilvie, NC Patel, M Pettersson, DK Rai, MR Reese, MF Sammons, JG Sathish, RSP Singh, CM Steppan, AE Stewart, JB Tuttle, L Updyke, PRR Verhoest, L Wei, Q Yang, Y Zhu. An Oral SARS-CoV-2 M^{pro} Inhibitor Clinical Candidate for the Treatment of COVID-19. *Science.* 2021 Dec 24;374(6575):1586-1593. doi: 10.1126/science.abc4784.
- 113) D Drazan, H Czajka, JD Maguire, JL Pregaldien, R Maansson, R O'Neill, **AS Anderson**, P Balmer, J Beeslaar, JL Perez. A phase 3 study to assess the immunogenicity, safety, and tolerability of MenB-FHbp administered as a 2-dose schedule in adolescents and young adults. *Vaccine.* 2022 Jan 21;40(2):351-358. doi: 10.1016/j.vaccine.2021.11.053.
- 114) J Absalon, R Simon, D Radley, PC Giardina, K Koury, KU Jansen, **AS Anderson**. Advances towards licensure of a maternal vaccine for the prevention of invasive group B streptococcus disease in infants: a discussion of different approaches. *Hum Vaccin Immunother.* 2022 Dec 31;18(1):2037350. doi: 10.1080/21645515.2022.2037350. Epub 2022 Mar 3.
- 115) L Chorro, ZLi, L Chu, S Singh, J Gu, J Kim, K Dutta, R Pan, S Kodali, D Ndreu, A Patel, JC Hawkins, C Ponce, NC Silmon de Monerri, D Keeney, A Illenberger, CH Jones, L Andrew, J Lotvin, AK Prasad, I Kanevsky, KU Jansen, **AS Anderson**, RGK Donald. Preclinical immunogenicity and efficacy of optimized O25b O-antigen glycoconjugates to prevent MDR ST131 *E. coli* infections. *Infection and Immunity Infect Immun.* 2022 Apr 21;90(4):e0002222. doi: 10.1128/iai.00022-22.
- 116) J Findlow, R Borrow, DS Stephens, P Liberator, **AS Anderson**, P Balmer, L Jodar. Correlates of protection for meningococcal surface protein vaccines; current approaches for the determination of breadth of coverage. *Expert Rev Vaccines.* 2022 Apr 26. doi: 10.1080/14760584.2022.2064850.
- 117) RSP Singh, SS Toussi, F Hackman, PL Chan, R Rao, R Allen, L Van Eyck, S Pawlak, EP Kadar, F Clark, H Shi, **AS Anderson**, M Binks, S Menon, G Nucci, A Bergman. Innovative Randomized Phase 1 Study and Dosing Regimen Selection to Accelerate and Inform Pivotal COVID-19 Trial of Nirmatrelvir. *Clin Pharmacol Ther.* Vol 112:1. doi: 10.1002/cpt.2603, 2022 Apr 7.
- 118) **Anderson AS**. 2022. Protocol for a Phase IV Double-Blind Randomised Controlled Trial to Investigate the Effect of the 13-valent Pneumococcal Conjugate Vaccine and the 23-valent Pneumococcal Polysaccharide Vaccine on Pneumococcal Colonisation Using the Experimental Human Pneumococcal Challenge Model in Healthy Adults (PREVENTING PNEUMO 2). Accepted May 30, 2022, *bmjopen-2022-062109.R1*.
- 119) Perez J, Vesikari T, Kaufman D, Richmond P, Wysocki J, Szenborn L, Beeslaar J, Maguire J, Balmer P, O'Neil R, **Anderson AS**, Pregaldien JL, Maansson R, Jiang HQ, Newell T, Michalski, K, Fincke J. 2022. Phase 2 Randomized Studies of Safety and Immunogenicity of a Primary Series and Booster Dose of the MenB-FHbp Meningococcal Serogroup B Vaccine in Healthy Children 1 to <10 Years of age. 2020. *The Lancet Infectious Diseases*.
Lee JT, Yang Q, Gribenko A, Perrin BS, Jr., Zhu Y, Cardin R, Liberator PA, **Anderson AS**, Hao L.
- 120) Genetic Surveillance of SARS-CoV-2 M(pro) Reveals High Sequence and Structural Conservation Prior to the Introduction of Protease Inhibitor Paxlovid. *mBio.* 2022;13(4):e0086922. Epub 2022/07/22. doi: 10.1128/mbio.00869-22.

- 121) Robinson RE, Mitsi E, Nikolaou E, Pojar S, Chen T, Reiné J, Nyazika TK, Court J, Davies K, Farrar M, Gonzalez-Dias P, Hamilton J, Hill H, Hitchens L, Howard A, Hyder-Wright A, Lesosky M, Liatsikos K, Matope A, McLenaghan D, Myerscough C, Murphy A, Solórzano C, Wang D, Burhan H, Gautam M, Begier E, Theilacker C, Beavon R, **Anderson AS**, Gessner BD, Gordon SB, Collins AM, Ferreira DM. Human Infection Challenge with Serotype 3 Pneumococcus. *Am J Respir Crit Care Med*. 2022. Epub 2022/07/09. doi: 10.1164/rccm.202112-2700OC.
- 122) **Anderson AS**. A lightspeed approach to pandemic drug development. *Nat Med*. 2022;28(8):1538. Epub 2022/08/12. doi: 10.1038/s41591-022-01945-6.
- 123) **Anderson AS**, Caubel P, Rusnak JM. Nirmatrelvir-Ritonavir and Viral Load Rebound in Covid-19. *N Engl J Med*. 2022;387(11):1047-9. Epub 2022/09/08. doi: 10.1056/NEJMc2205944.
- 124) Marshall HS, Vesikari T, Richmond PC, Wysocki J, Szenborn L, Beeslaar J, Maguire JD, Balmer P, O'Neill R, **Anderson AS**, Prégaldien JL, Maansson R, Jiang HQ, Perez JL. Safety and immunogenicity of a primary series and booster dose of the meningococcal serogroup B-factor H binding protein vaccine (MenB-FHbp) in healthy children aged 1-9 years: two phase 2 randomised, controlled, observer-blinded studies. *Lancet Infect Dis*. 2022. Epub 2022/09/11. doi: 10.1016/s1473-3099(22)00424-8.
- 125) Hao L, Kuttel MM, Ravenscroft N, Thompson A, Prasad AK, Gangolli S, Tan C, Cooper D, Watson W, Liberator P, Pride MW, Jansen KU, **Anderson AS**, Scully IL. Streptococcus pneumoniae serotype 15B polysaccharide conjugate elicits a cross-functional immune response against serotype 15C but not 15A. *Vaccine*. 2022;40(33):4872-80. Epub 2022/07/10. doi: 10.1016/j.vaccine.2022.06.041.

Book Chapters

- 1) EMH Wellington, P Marsh, IK Toth, N Cresswell, **AS Huddleston**, M Shilabel. 1993. The selective effects of antibiotics in soil. In: Trends in Microbial Ecology. Editors R. Guerrero & C. Pedros-Alio, pp 331-36, Spanish Society for Microbiology, Spain.
- 2) EMH Wellington, **AS Huddleston**, P Marsh. 1994. The use of molecular markers for the detection and typing of bacteria in soil. In: Bacterial Diversity and Systematics: Current status, future prospects. Editors Priest F.G., A. Ramos-Cormenzana and B.Tindall, . Plenim publ. Co. pp. 137-52.
- 3) **AS Huddleston**, JL Hinks, M Beyazova, A Horan, DI Thomas, S Baumberg, EMH Wellington. 1995. Studies on the diversity of streptomycin-producing streptomycetes. In Proceedings of International Symposium on the Biology of Actinomycetes, Moscow, Russia. 261-64.
- 4) JEM Watts, **AS Huddleston-Anderson**, EMH Wellington. 1998. Bioprospecting. In Manual of Industrial Microbiology and Biotechnology, (Eds AL Demain and J E Davies). ASM Press, Washington, D.C. 631-41.
- 5) M Osborn, S Bron, N Firth, S Holsappel, **AS Huddleston**, R Kiewiet, W Meijer, S Seegers, R Skurray, P Terpstra, C Thomas, P Thorsted, E Tietze, S Turner. 2000. The evolution of bacterial plasmids. In: The Horizontal Gene Pool: Bacterial Plasmids and Gene Spread. 301-62. Edited by Thomas, C. M. Harwood Accademic Publishers, Amsterdam.
- 6) **AS Anderson**, Z An, WR Strohl. 2000. Polyketide Antibiotics. In *Encyclopedia for Microbiology*, 3:241-254. Edited by Lederberg, J. Academic Press, San Diego.
- 7) RG Donald, **AS Anderson**. 2011. Current strategies for antibacterial vaccine development. Answering the Call to Arms. Edited by A. A. Miller, P. F. Miller, Horizon Scientific Press, U.K.
- 8) AV Gribenko, P Liberator, **AS Anderson**, YV Matsuka, L Mosyak. 2015. Cell surface antigen – manganese-binding protein MntC from *Staphylococcus aureus*. In: Encyclopedia of Inorganic and Bioinorganic Chemistry. Wiley online library.
- 9) LR Green, J Eiden, L Hao, T Jones, J Perez, LK McNeil, KU Jansen, **AS Anderson**. 2016. Approach to the Discovery, Development & Evaluation of a Novel Neisseria meningitidis Serogroup B Vaccine. In: Vaccine Design, Methods and Protocols, Vol 1. Vaccines for Human Diseases (Sunil Thomas, editor). Methods in Molecular Biology. Vol 1403. Springer, New York.
- 10) SP Lockhart, DA Scott, KU Jansen, **AS Anderson**, WC Gruber. 2018. “Glycoconjugate Vaccines: The Clinical Journey” in “Carbohydrate-Based Vaccines: From Concept to Clinic” Ed Prasad A.K. Pub. American Chemical Society, Washington DC. Chapter 2:7-59.
- 11) IL Scully, KA Swanson, I Kanevsky, AK Prasad, AS Anderson. 2018. “Preclinical Assessment of Glycoconjugate Vaccines” in “Carbohydrate-Based Vaccines: From Concept to Clinic” Ed Prasad A.K. Pub. American Chemical Society, Washington DC. Chapter 10:229-247.

- 12) **AS Anderson**, IL Scully, MW Pride, KU Jansen. Vaccination against Nosocomial Infections in Elderly Adults. In: Vaccines for Older Adults: Current Practices and Future Opportunities (Birgit Weinberger, editor). Interdiscip Top Gerontol Geriatr. 2020, Vol 43, pp 193-217. doi: 10.1159/000504481. Epub 2020 Apr 9. Karger. Basel, Switzerland.
- 13) KU Jansen, WC Gruber, R Simon, J Wassil, **AS Anderson**. In Press. The Role of Vaccines in Combating Antimicrobial Resistance. In: Mitigation of Antimicrobial Resistance (Harsh Panwar, Chetan Sharma, Eric Lichtfouse, editors). Sustainable Agriculture Reviews. Series 8380. Springer Nature. Basel, Switzerland.

B) Recent Poster Presentations

- 1) I Dodge, S Olmsted, Y Matsuka, E Murphy, M Douglas, K Mason, A Severin, E Rojas, E Severina, M Mack, D Pawlyk, A Villa, M Carriere, J Fulginiti, I Dasilva, D Zhu, R.J Zagursky, M Hagen, KU Jansen, **AS Anderson**. Piecing it together: genomics, proteomics and antigen selection for a group A streptococcal vaccine XVII Lancefield International Symposium on Streptococci and Streptococcal Diseases. Porto Heli, Greece, 22-26 June 2008
- 2) E Murphy, I Dodge, S Olmsted, Y Matsuka, M Douglas, K Mason, A Severin, E Rojas, G Singh, E Severina, M Mack, D Pawlyk, A Villa, M Carriere, J Fulginiti, I Dasilva, D Zhu, R.J Zagursky, M Hagen, BA Green, KU Jansen, **AS Anderson**. Genomics, proteomics and antigen selection for a group A streptococcal vaccine. 2nd International Conference on Gram-positive pathogens, Omaha Nebraska, Oct 5-8 2008
- 3) E Murphy, L Andrew, KL Lee, K Ambrose, D Dilts, R Borrow, J Findlow, M-K Taha, A-E Deghmane, P Kriz, M Musilek, J Kalmusova, D Caugant, T Alvestad, L Mayer, X Wang, D Martin, A von Gottberg, K Klugman, **AS Anderson**, KU Jansen, G Zlotnick, S Hoiseth (2008) Sequence diversity of vaccine candidate LP2086 in *Neisseria meningitidis* serogroup B strains causing invasive disease. International Pathogenic Neisseria Conferences, Rotterdam
- 4) SK Hoiseth, E Murphy, L Andrew, KL Lee, K Ambrose, D Dilts, R Borrow, J Findlow, M-K Taha, A-E Deghmane, P Kriz, M Musilek, J Kalmusova, D Caugant, T Alvestad, L Mayer, X Wang, GW Zlotnick, KU Jansen, **AS Anderson**. (2008) LP2086 and MLST distribution in epidemiologically relevant strains of Serogroup B *Neisseria meningitidis*. International Pathogenic Neisseria Conferences, Rotterdam
- 5) L Nunez, E Murphy, S Lin, P Fink., S Hoiseth, DA Dilts, KU Jansen, **AS Anderson**. Variation and distribution of *clfA* alleles among *S. aureus* clinical isolates. 109th ASM General Meeting, May 2009
- 6) G Singh, A Luckay, S Chong, A Severin, T Mininni, G Palladino, I Dodge, K Mason, J Patti, M Hagen, K Jansen¹, **AS Anderson**. Monitoring the Level of Functional Antibody to *Staphylococcus aureus* Clumping Factor A (ClfA) in Primates. 109th ASM General Meeting, May 2009
- 7) **AS Anderson**, SK Hoiseth, E Murphy, L Andrew, LK McNeil, U Voge, M Frosch, R Abad, JA Vazquez, KU Jansen. Epidemiology of the serogroup B *Neisseria meningitidis* (MnB) factor H binding protein and implications for vaccine development. ESPID, Brussels, Belgium, June 9-13, 2009.
- 8) KU Jansen, T Jones, A Arora, GW Zlotnick, SK Hoiseth, E Murphy, LK McNeil, SL Harris, DA Ala'Aldeen, N Oldfield, M Flint, H Jiang, D Zhu, **AS Anderson**. Development of a bivalent factor H binding protein (fHBP) vaccine for broad protection against invasive *Neisseria meningitidis* serogroup B (MnB) disease. ESPID, Brussels, Belgium, June 9-13, 2009.
- 9) GW Zlotnick, SK Hoiseth, H-Q Jiang, E Murphy, L Andrew, LK McNeil, D Zhu, U Vogel, M Frosch, J Vazquez, **AS Anderson**, KU Jansen. Epidemiology of the Serogroup B *Neisseria meningitidis* (MnB) Factor H Binding Protein in Strains Sampled from Spain and Germany in the Years 2001-2006. EMGM, Manchester, UK, June 17-19, 2009
- 10) **AS Anderson**; D Zhu, X Wang, L Mayer, LZ Miller, E Murphy, LK McNeil, SL Harris, GW Zlotnick, KW Mason, H-Q Jiang, KE Alexander, X-J Zhao, L Andrew, SK Hoiseth, KU Jansen. Effectiveness of a bivalent factor H binding protein vaccine across *Neisseria meningitidis* serogroups. P237 IPNC Banff, Canada 2010.

- 11) E Murphy, L Andrew, M Flint, E Rojas, DA Ala'Aldeen, NJ Oldfield, CD Bayliss, DPJ, KR Neal, SK Hoiseth, KU Jansen, **AS Anderson**. Prevalence of Factor H Binding Protein (fHBP) Variants in *N. meningitidis* Carriage Isolates. P37 IPNC Banff, Canada 2010.
- 12) GW Zlotnick, E Novikova, M Carriere, R Camarda, S Lin, TL Mininni, D Dilts, L Andrew, LK McNeil, KU Jansen, **AS Anderson**. Biochemical and biophysical analysis indicates conformation plays an important role in the binding of hfH and antibodies to the fHBP of *N.meningitidis*. OM01 IPNC Banff, Canada 2010.
- 13) KU Jansen, EZ Emini, **AS Anderson**, TR Jones, SL Harris, E Murphy, SK Hoiseth. Estimating effectiveness for *Neisseria meningitidis* serogroup B (MnB) vaccine candidates composed of non-serogroup specific antigens. VW03 IPNC Banff, Canada 2010.
- 14) P Richmond, H Marshall, E Sheldon, Q Jiang, **AS Anderson**, KU Jansen, TR Jones, JL Perez. Safety & immunogenicity of serogroup B *Neisseria meningitidis* (MnB) rLP2086 vaccine in adults and adolescent subjects: overview of 3 clinical trials VW04 IPNC Banff, Canada 2010.
- 14) DA Ala'Aldeen, M Flint, NJ Oldfield, SA Omer, CD Bayliss, DPJ Turner, KR Neal, LK McNeil, Q Jiang, E Murphy, PC Giardina, EG Novikova, SK Hoiseth, KU Jansen, **AS Anderson**. Human antibody responses to the meningococcal factor H binding protein LP2086 during invasive disease. P106 IPNC Banff, Canada 2010.
- 15) LK McNeil, GW Zlotnick, X Zhao, **AS Anderson**, KU Jansen. Anti-fHBP antibodies elicited after immunization with a recombinant fHBP vaccine candidate (rLP2086) can displace human Factor H from the surface of Serogroup B Meningococci. P33 IPNC Banff, Canada 2010
- 16) L York, Q Ataher, E Murphy, S Hoiseth, L McNeil, **AS Anderson**, R Abad, J Vazquez, U Vogel, M Frosch, W Hellenbrand, KU Jansen, B Fritzell. fHBP epidemiology of invasive meningococcal B isolates from Spain and Germany: age based prevalence of fHBP subfamilies.P64 IPNC Banff, Canada 2010.
- 17) X Wang, A Cohn, M Comanducci, L Andrew, X Zhao, JR MacNeil, S Schmink, A Muzzi, S Bambini, R Rappuoli, M Pizza, E Murphy, SK Hoiseth, KU Jansen, **AS Anderson**; LH Harrison, NE Messonnier, TA Clark, LW Mayer. Prevalence and genetic diversity of candidate vaccine antigens among invasive *Neisseria meningitidis* isolates in the United States. P89 IPNC Banff, Canada 2010.
- 18) **AS Anderson**, E Murphy, C Tan, X Wang, J MacNeil, A Cohn, P Kriz, M Musilek, DA. Caugant, S.K. Hoiseth, K.U. Jansen¹, and L. York. High Frequency Of Mnb Disease In Infants Caused By Strains Carrying Subfamily A Factor H Binding Protein Indicates The Need For A Bivalent Fhbp Vaccine
P069 Emgm Slovenia 2011
- 19) E Murphy, L Andrew, M Flint, E Rojas, DA Ala'Aldeen, NJ Oldfield, SK Hoiseth, KU Jansen, **AS Anderson**. Prevalence Of Factor H Binding Protein (Fhbp) Variants In *N. Meningitidis* Carriage And Disease Isolates In The Uk P 070 Emgm Slovenia 2011
- 20) P Richmond, M Nissen, H Marshall, S Shakib, P Hodsman, Q Jiang, D Rill, J Baber, J Eiden, KU Jansen, **A Anderson**, E Zito, D Girgenti. A Randomised, placebo controlled Phase 1 first-in-human study of a novel 3 –antigen *Staphylococcus aureus* vaccine in healthy adults. ECCMID, Mary 9, 2011. Milan, Italy
- 21) E Rojas, J Hoyos, M Flint, P Fink, L Andrew, R Donald, KU Jansen, **AS Anderson** Assessment Of Real-Time Pcr Assays For Classification And Genogrouping Of *Neisseria Meningitidis* P 085 Emgm Slovenia 2011
- 22) H Marshall, P Richmond, M Nissen, Q Jiang, **AS Anderson**, K Jansen, S Harris, T Jones, J Perez. A Phase I/II Open-Label Safety And Immunogenicity Study Of A Meningococcal B Bivalent Rlp2086 Vaccine In Healthy Adults P 046 Emgm Slovenia 2011.
- 23) **AS Anderson**, S Harris, M Murphy, N Oldfield, DA Ala'Aldeen, KU Jansen. Evaluation of the Impact of fHBP Vaccines on IMBD and *N. meningitidis* Carriage Isolates. Presented at the Meningitis Research Foundation meeting, November 8-9, 2011, London (UK).
- 24) KU Jansen, **AS Anderson**, T Jones, S Harris, L McNeil, J Perez, E Murphy, SK Hoiseth, E Emini, J Eiden Monitoring the Breadth of Coverage of Meningococcal Vaccines: An Overview and Progress Update on the Pfizer Bivalent LP2086 Vaccine Program. Presented at: ACVR 2011: Baltimore, Maryland.
- 25) H Marshall, P Richmond, M Nissen, R Booy, G Reynolds, I Scully, **AS Anderson**, KU Jansen, P Pride, C Jones, F Laudat, W Gruber, J Liang. A cross-sectional prospective study to describe carriage of and antibodies to β haemolytic streptococcus antigens in children aged 0 to 10 years of age. Presented at WSPID 2011, Nov 16-19, Melbourne, Australia.

- 26) **AS Anderson**, J Eiden, KU Jansen, Q Jiang, SL Harris, TR Jones, JL Perez. Potential impact of the bivalent RLP2086 vaccine on *Neisseria meningitidis* invasive disease and carriage isolates in two adolescent populations. Presented at 30th Annual Meeting of the European Society for Paediatric Infectious Diseases (ESPID), May 8-12, 2012, Thessaloniki, Greece.
- 27) W Rozemeijer, P Fink, E Rojas, CH Jones, D Pavliakova, P Giardina, E Murphy, P Liberator, Q Jiang, DQ Girgenti, RPH Peters, P Savelkoul, KU Jansen, **AS Anderson**, J Kluytmans. Expression and Immune Response to *Staphylococcus aureus* Virulence Factors in Human Disease. ICAAC, Sept. 9-12, 2012. San Francisco, CA.
- 28) Snape MD, Robinson H, Gossger N, John TM, Ladhani S, Smith S, Oliver J, Taylor P, Morales-Aza B, Clarke SC, Martins F, Kitchin NRE, **Anderson AS**, Jones H, Jansen K, Eiden J, Finn A, Faust SN, Heath PT, Pollard AJ & Pedneault L. Oropharyngeal carriage of *Neisseria meningitidis* in adolescents and young adults in the United Kingdom: results from a longitudinal swabbing study. Poster presentation at 18th International Pathogenic Neisseria Conference, Würzburg, September 9-14, 2012.
- 29) Nissen M, Richmond P, Marshall H, Shakib S, Hodzman P, Jiang Q, Rill D, Baber J, Eiden J, Jansen KU, **Anderson A**, Zito E, Girgenti D. Safety, Tolerability, and Immunogenicity of a novel 3-antigen *Staphylococcus aureus* vaccine (SA3Ag) in healthy adults: Results of a randomized, placebo controlled Phase 1 first-in-human study. Oral Presentation at ID week; San Diego 20 Oct 2012.
- 30) B Morales-Aza, P Sikora, SN Faust, PT Heath, AJ Pollard, MD Snape, CH Jones, N Kitchin, L Pedneault, J Eiden, KU Jansen, **AS Anderson**. Oropharyngeal swabs for *Neisseria Meningitidis* (NM) taken into enrichment broth, stored and frozen and batch cultured show little loss of sensitivity. ESPID, May 31, 2013. Milan, Italy.
- 31) M Matson, D Girgenti, E Zito, R Hubler, H Jones, F Laudat, **A Anderson**. Longitudinal analysis of bacterial carriage rates and antibody titers to 4 conserved *Staphylococcus aureus* antigens comprising a novel multi-component vaccine. ICAAC (2014) Interscience Conference on Antimicrobial Agents & Chemotherapy - 54th Annual. Sept. 5-9, 2014. Washington, D.C.
- 32) **A Anderson**, I Scully, P Liberator, D Cooper, J Baber, D Girgenti, E Zito, J Eiden, W Gruber, E Emini, K Jansen. Advancing the development of an effective *Staphylococcus aureus* vaccine by targeting multiple bacterial virulence factors. eP146. Poster presented at ECCMID; May 10-13, 2014; Barcelona, Spain
- 33) RW Frenck, CB Creech, E Sheldon, DJ Seiden, M Kankam, J Baber, E Zito, R Hubler, J Eiden, JM Severs, S Sebastian, J Nanra, KU Jansen, **AS Anderson**, D Girgenti. Safety, Tolerability, and Immunogenicity of a Novel 4-Antigen *Staphylococcus aureus* Vaccine (SA4Ag) in Healthy Adults: Results of a Randomised, Placebo-Controlled, First-in-Human Phase 1/2 Study. eP134. Poster presented at ECCMID; May 10-13, 2014; Barcelona, Spain.
- 34) RW Frenck, CB Creech, E Sheldon, D Seiden, MK Kankam, J Baber, ET Zito, R Hubler, J Eiden, JM Severs, S Sebastian, JS Nanra, KU Jansen, **AS Anderson**, D Girgenti. Rapid rises in antibody titers observed following single dose administration of a novel 4-antigen *Staphylococcus aureus* vaccine (SA4Ag) to healthy adults. P599. Presented at IDWeek; October 8-12, 2014; Philadelphia, PA.
- 35) SA Clark, J Lucidarme, LS Newbold, L Hao, H Tsao, **AS Anderson**, R Borrow. Variation in Factor H-Binding Protein distribution among culture and non-culture meningococcal disease cases in England and Wales in 2011. P19. Presented at International Pathogenic Neisseria Conference 2014; October 12-17, 2014; Asheville, NC
- 36) SL Harris, R Donald, JC Hawkins, C Tan, R O'Neill, J Perez, **AS Anderson**, KU Jansen, TR Jones. Bivalent rLP2086 elicits antibodies in individuals that provide broad coverage against MnB strains expressing prevalent and outbreak-associated fHBP variants. P33. Presented at International Pathogenic Neisseria Conference 2014; October 12-17, 2014; Asheville, NC.
- 37) J Bettinger, D Scheifele, S Halperin, W Vaudry, P Liberator, L Hao, **AS Anderson**, KU Jansen, RSW Tsang. Comparative analysis of Canadian *Neisseria meningitidis* serogroup B isolates. P72. Presented at International Pathogenic Neisseria Conference 2014; October 12-17, 2014; Asheville, NC.
- 38) P Liberator, X Wang, J Vuong, F Hu, L Hao, L Nunez, L McNeil, S Logan, K Tompkins, KU Jansen, **AS Anderson**. Genetic analysis and quantitation of factor H binding protein expression in US invasive meningococcal serogroup B isolates from population-based active bacterial core surveillance (2010-2012). P77. Presented at International Pathogenic Neisseria Conference 2014; October 12-17, 2014; Asheville, NC.

- 39) J Vuong, F Hu, M Whaley, A Blain, BH Harcourt, **AS Anderson**, P Liberator, L Hao, L Nunez, J MacNeil, T Clark, L Mayer, X Wang. Molecular characterization of *Neisseria meningitidis* isolates collected through Active Bacterial Core surveillance and an enhanced surveillance in the United States, 2010-11. P168. Presented at International Pathogenic Neisseria Conference 2014; October 12-17, 2014; Asheville, NC.
- 40) G Zlotnick, A Gribenko, R Donald, S Mullen, TL Mininni, M Carriere, R Camarda, HQ Jiang, D Zhu, S Harris, J Moran, KU Jansen, **AS Anderson**. Identification of Several Bactericidal Epitopes on Factor H Binding Protein, a Meningococcal Vaccine Component Using Deuterium-Hydrogen Exchange Mass Spectroscopy. O24. Presented at International Pathogenic Neisseria Conference 2014; October 12-17, 2014; Asheville, NC.
- 41) MK Taha, JC Hawkins, P Liberator, AE Deghmane, L Andrew, L Hao, TR Jones, LK McNeil, RE O'Neil, J Perez, KU Jansen, **AS Anderson**. Bactericidal activity of sera from subjects vaccinated with bivalent rLP2086 against meningococcal serogroup B outbreak. MRF Conference. November 4-5, 2015. London, UK.
- 42) **A Anderson**, I Scully, D Cooper, R Donald, N Mohamed, H Li, A Gurtman, K Jansen. SA4Ag: A Staphylococcus aureus Vaccine for a New Century. IABS (2015) International Alliance for Biological Standardization- 10th New Technologies, New Vaccines. March 22-25. Wilmington, DE.
- 43) I Scully, J Baber, P Liberator, D Cooper, E Zito, J Eiden, W Gruber, E Emini, K Jansen, A Gurtman, **A Anderson**. Advancing the development of a Staphylococcus aureus vaccine to prevent postoperative invasive S. aureus disease by targeting multiple bacterial virulence factors. SIS (2015) Surgical Infection Society - 35th Annual Meeting. April 15-18. Westlake Village, CA.
- 44) L Green, L Handke, P Dunman, P Liberator, K Jansen, **A Anderson**, I Scully. Rsp controls S. aureus immune evasion through modulation of the critical adhesin, FnbA. GRC (2015) Gordon Research Conference - Phagocytes 2015. May 31-June 5, Waterville Valley, NH.
- 45) DM Jamrozy, SR Harris, N Mohamed, SJ Peacock, J Parkhill, **AS Anderson**, MTG Holden. Microevolution of Staphylococcus aureus USA300 derived from the US. SGBI (2015) Staphylococcus Great Britain and Ireland - Staph GBI 2015. March 30-April 2, 2015. Birmingham, UK.
- 46) B Creech, R Frenck, EA Sheldon, DJ Seiden, MK Kankam, E Zito, D Girgenti, JM Severs, D Cooper, K Jansen, E Emini, W Gruber, J Eiden, **A Anderson**, J Baber. Safety, Tolerability and Immunogenicity of a Single Dose 4-antigen or 3-antigen Staphylococcus aureus Vaccine in Healthy Older Adults. IDSA (2015) Infectious Diseases Society of America - 53rd Annual Meeting (See IDW). October 7-11. Sand Diego, CA
- 47) I Scully, **A Anderson**, D Cooper, R Donald, A Gurtman, K Jansen, N Mohamed, L Hao. Development of a Staphylococcus aureus vaccine for the 21st century. VRD (2015) Vaccines Research & Development - 2015 International Conference. November 2-4, Baltimore, MD.
- 48) SA Clark, A Lekshmi, J Lucidarme, L Hao, H Tsao, LS Newbold, **AS Anderson**, R Borrow. Factor H-Binding Protein Distribution Among Culture and Non-Culture Meningococci In England And Wales: 2011-2013. EMGM (2015) European Meningococcal Disease Society - 13th Biennial Congress. September 14-17, Amsterdam, The Netherlands.
- 49) E Begier, DJ Seiden, M Patton, E Zito, J Severs, D Cooper, J Eiden, WC Gruber, KU Jansen, **A Anderson**, A Gurtman. SA4Ag, a 4-antigen Staphylococcus aureus vaccine designed to prevent invasive surgical site infections, rapidly induces high levels of bacteria-killing antibodies. SIS (2016) Surgical Infection Society - 36th Annual Meeting. May 18-21. Palm Beach, FL.
- 50) IL Scully, LK McNeil, S Pathirana, C Singer, Y Liu, S Mullen, D Girgenti, A Gurtman, E Begier, MW Pride, KU Jansen, Huang, **AS Anderson**. No Impairment in Neutrophil Function in Diabetic, Metabolic Syndro PL me and Obese Individuals as Compared to Healthy Individuals. SIS-E (2016) Surgical Infection Society - Europe: 29th European Congress on Surgical Infections. June 2-3. Amsterdam, The Netherlands.
- 51) CD Dupont IL Scully, RM Zimnisky, K Tsioris, PA Liberator, **AS Anderson**, JC Love. How does the addition of surface protein antigens to a potential vaccine for Staphylococcus aureus affect the immune response it induces? FOCIS (2016) Federation of Clinical Immunology Societies - FOCIS 2016. June 21-25. Boston, MA.
- 52) N Mohamed, Y Timofeyeva, D Jamrozy, E Rojas, L Hao, J Hawkins, G Singh, B Cai, P Liberator, R Donald, I Scully, H Jones, J Parkhill, S Peacock, K Jansen, M Holden, **A Anderson**. Molecular Epidemiology and Expression of Capsular Polysaccharides in Staphylococcus aureus

- clinical isolates in the United States. ISSSI (2016) International Symposium on Staphylococci & Staphylococcal Infections - 16th Symposium. August 30-September 2. Seoul, Korea.
- 53) van Ravenhorst MB, Bijlsma MW, Struben VMD, van Houten MA, Anderson AS, Eiden J, Jansen KU, Jones H, Kitchin N, Pedneault L, Sanders EAM & van der Ende A. Meningococcal carriage in Dutch adolescents and young adults; A cross-sectional and longitudinal cohort study. Poster presentation at 20th International Pathogenic Neisseria Conference. September 4-9, 2016, Manchester.
 - 54) L Handke, A Gribenko, Y Timofeyeva, I Scully, **A Anderson**. MntC-dependent manganese transport is essential for *S. aureus* oxidative stress resistance and virulence. ICGPP (2016) International Conference on Gram-Positive Pathogens - 6th. October 9-12. Omaha, NE.
 - 55) DB Creech, J Baber, H Jones, N Mohamed, D Jamrozy, L Hao, M Holden, P Carlson, J Parkhill, S Peacock, RW Frenck, JM Severs, J Eiden, KU Jansen, A Gurtman, **AS Anderson**. Longitudinal analysis of *Staphylococcus aureus* carriage at three body sites following vaccination with a novel *S aureus* 4-antigen vaccine (SA4Ag). IDW (2016) IDWeek 2016. October 26-30. New Orleans, LA.
 - 56) L Handke, A Gribenko, Y Timofeyeva, I Scully, **A Anderson**. MntC-dependent manganese transport is essential for *S. aureus* oxidative stress resistance and is a target of functional antibodies. ASM (2016) American Society for Microbiology - 2016 Conference on Antibacterial Development. December 11-14. Washington, DC.
 - 57) T Vesikari, S Senders, J Absalon, JJ Eiden, KU Jansen, J Beeslaar, LJ York, TR Jones, R Maansson, SL Harris, RE O'Neill, J Ginis, **AS Anderson**, JL Perez. Immunogenicity of MenB-FHbp (Bivalent rLP2086), a Meningococcal Serogroup B Vaccine, in US Adolescents: Results From a Phase 3 Trial. IDW (2016) IDWeek 2016. October 26-30. New Orleans, LA.
 - 58) HY Chang, J Vuong, F Hu, C Kretz, A Blain, **A Anderson**, L McNeil, P Liberator, L Hao, X Wang. Molecular epidemiology of *Neisseria meningitidis* vaccine antigens in the United States, 2009-2014. IPNC (2016) International Pathogenic Neisseria Conference. September 4-9, Manchester, UK.
 - 59) C Tan, KU Jansen, AS Anderson, TR Jones, SL Harris. Selection and Characterization of Ten Additional Diverse MnB SBA Test Strains to Provide Supportive Immunogenicity Data in Phase 3 Trials of Bivalent rLP2086. IPNC (2016) International Pathogenic Neisseria Conference. . September 4-9, Manchester, UK.
 - 60) JA Bettinger, R Tsang, DW Scheifele, SA Halperin, W Vaudry, N Lambert, P Liberator, L Hao, KU Jansen, **AS Anderson**. fHBP Variant Diversity and Level of Surface Expression Among Invasive *Neisseria meningitidis* Serogroup B Isolates from Canada (2006-2012). IPNC (2016) International Pathogenic Neisseria Conference. . September 4-9, Manchester, UK.
 - 61) J Eiden, J Perez, T Jones, S Harris, P Liberator, P Balmer, Y L ork, C Tan, N Lambert, J Hawkins, KU Jansen, **AS Anderson**. fHBP Based Meningococcal Vaccines and Estimating Vaccine Coverage. WCVII (2016) World Congress on Vaccines, Immunization and Immunotherapy. June 1-2. Bern, Switzerland.
 - 62) MB van Ravenhorst, MW Bijlsma, VMD Struben, MS van houten, AS Anderson, J Eiden, KU Jansen, H Jones, N Kitchin, L Pedneault, EAM Sanders, A van der Ende. Meningococcal carriage in Dutch adolescents and young adults. IPNC (2016) International Pathogenic Neisseria Conference 2016.. September 4-9. Manchester, UK.
 - 63) SA Clark, A Lekshmi, AD Carr, J Lucidarme, LS Newbold, S Gray, **AS Anderson**, R Borrow. Antimicrobial susceptibility of English and Welsh meningococci and its potential influence on strain culturability. IPNC (2016) International Pathogenic Neisseria Conference 2016. September 4-9. Manchester, UK.
 - 64) JA Bettinger, R Tsang, DW Scheifele, SA Halperin, W Vaudry, N Lambert, P Liberator, L Hao, KU Jansen, **AS Anderson**. fHBP Variant Diversity and Level of Surface Expression Among Invasive *Neisseria meningitidis* Serogroup B Isolates from Canada (2006-2012). CIC (2016) Canadian Immunization Conference - 12th. December 6-8. Ottawa, Canada.
 - 65) RW Frenck, CB Creech, A Fiquet, R Feldman, MK Kankam, S Pathirana, J Baber, D Radley, D Cooper, J Eiden, WC Gruber, KU Jansen, **AS Anderson**, A Gurtman. Persistence of Immune Responses Through 36 Months After Vaccination with a Novel *Staphylococcus aureus* 4-Antigen Vaccine (SA4Ag). ECCMID (2017) European Congress of Clinical Microbiology and Infectious Diseases - 27th Annual. April 22-25. Vienna, Austria.

- 66) C Tan, KU Jansen, **A Anderson**, TR Jones, S Harris. Selection of Ten Additional Diverse MnB SBA Test Strains to Provide Supportive Immunogenicity Data in Phase 3 Trials of Bivalent rLP2086. NFID (2017) National Foundation for Infectious Diseases. April 24-25. Bethesda, MD.
- 67) S Harris, C Tan, L Andrew, L Hao, P Liberator, J Absalon, **AS Anderson**, TR Jones. Bivalent RLP2086 Elicits Bactericidal Antibodies Against Non-Serogroup B Meningococci. ESPID (2017) European Society for Pediatric Infectious Diseases. May 23-27. Madrid, Spain.
- 68) S Harris, C Tan, L Andrew, L Hao, P Liberator, J Absalon, **AS Anderson**, TR Jones. Trumenba® Elicits Bactericidal Antibodies Against Non-Serogroup B Meningococci. EMGM (2017) European Meningococcal and Haemophilus Disease Society. September 18-21. Prague, Czech Republic.
- 69) Inoue M, Yonemura T, Baber J, Shoji Y, Aizawa M, Cooper D, Eiden J, Gruber W, Jansen K, **Anderson A**, Gurtman A. B3451003 study (Japanese safety/immunogenicity/colonization). IDW (2017) IDWeek 2017. October 4-8. San Diego, CA
- 70) L Ostergaard, T Vesikari, A J Bsalon, J Beeslaar, B Ward, S Senders, J Eiden, K Jansen, **A Anderson**, L York, J T ones, S Harris, R O'Neill, D Radley, R Maansson, Prégaldien, J Ginis, N Breinholt Staerke, J Perez. A Bivalent Meningococcal B Vaccine in Adolescents J-L and Young Adults. EMGM (2017) European Meningococcal and Haemophilus Disease Society. In progress. September 18-21. Prague, Czech Republic.
- 71) M Inoue, T Yonemura, J Baber, Y Shoji, M Aizawa, D Cooper, J Eiden, W Gruber, K Jansen, **A Anderson**, A Gurtman. B3451003 Study (Japanese Safety/Immunogenicity/Colonization) IDW (2017) ID Week 2017. October 4-8. San Diego, CA.
- 72) Li Hao, Matthew Holden, Xin Wang, Lubomira Andrew, Sabine Wellnitz, Fang Hu, Melissa Whaley, Scott Sammons, Kristen Knipe, Mike Frace, Lucy A. McNamara, Paul Liberator, **Annaliesa S. Anderson**. Distinct Evolutionary Dynamics of *Neisseria meningitidis* Serogroup B Invasive Isolates from Meningococcal Disease Outbreaks at Two Universities in the United States. ASM Conference on Rapid Applied Microbial Next-Generation Sequencing and Bioinformatic Pipelines. Washington DC. Oct 2017.
- 73) SL Harris, C Tan, L Andrew, L Hao, P Liberator, J Absalon, TR Jones, **AS Anderson**. Trumenba® (MenB-FHbp) elicits bacterial Antibodies Against Non-Serogroup B Meningococci. Meningitis and Specticaemia in Children and Adults. (2017). November 14-15. London. UK.
- 74) Inoue M, Yonemura T, Baber J, Shoji Y, Aizawa M, Cooper D, Eiden J, Gruber WC, Jansen KU, **Anderson AS**, Gurtman A. Safety, Tolerability, and Immunogenicity of a Novel 4-antigen Staphylococcus aureus Vaccine (SA4Ag) in 136 Healthy Japanese Adults Aged 20 to 85 Years. Poster (#2179) presented at the 28th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), April 21-24, 2018, Madrid, Spain.
- 75) L Ostergaard, T Vesikari, J Absalon, J Beeslaar, B Ward, S Senders, JJ Eiden, KU Jansen, **AS Anderson**, LJ York, TR Jones, SL Harris, RE O'Neill, D Radley, R Maansson, S Munson, JL Prégaldien, J Ginis, G Crowther, N B Staerke, JL Perez. Antibody Responses to 3 doses of MenB-FHBP (Bivalent RLP2086) vaccine are comparable across studies and predict similar antibody persistence and booster response. (2018). ECCMID, (2018). April 21-24, Madrid, Spain.

C) Patents applications

>30 granted patents in the fields of *S. aureus*, *S. epidermidis*, *N. meningitidis*, *C. difficile*, and beta hemolytic streptococci

Patent Number	Title
7754226	Compositions and Methods of Use of ORF 554 From Beta Hemolytic Streptococcal Strains
7914798	Compositions and Methods of Use of ORF1358 From Beta-hemolytic Streptococcal Strains

8563001	Multicomponent Immunogenic Composition for The Prevention of Beta-hemolytic Streptococcal (BHS) Disease
9125951	Compositions and Methods for Preparing Staphylococcus Aureus Serotype 5 And 8 Capsular Polysaccharide Conjugate Immunogenic Compositions
8568735	Immunogenic Compositions of Staphylococcus Aureus Antigens
8071112	Compositions and Methods of Use of ORF1358 From Beta-hemolytic Streptococcal Strains
9757443	Non-Lipidated Variants of Neisseria Meningitidis ORF2086 Antigens
8481692	Compositions Relating to A Mutant Clostridium Difficile Toxin and Methods Thereof
8986710	Neisseria Meningitidis Compositions and Methods Thereof
8557548	Compositions Relating to A Mutant Clostridium Difficile Toxin and Methods Thereof
9127050	Multicomponent Immunogenic Composition for The Prevention of Beta-hemolytic Streptococcal (BHS) Disease
8900597	Compositions Relating to A Mutant Clostridium Difficile Toxin and Methods Thereof
8889145	Immunogenic Compositions of Staphylococcus Aureus Antigens
10787652	Compositions and Methods Relating to a Mutant Clostridium Difficile Toxin
9802987	Immunogenic Fusion Polypeptides
9822150	Neisseria Meningitidis Compositions and Methods Thereof
9114105	Immunogenic Compositions of Staphylococcus Aureus Antigens
9745354	Compositions Relating to A Mutant Clostridium Difficile Toxin and Methods Thereof
9561269	Neisseria Meningitidis Compositions and Methods Thereof
9187536	Compositions Relating to A Mutant Clostridium Difficile Toxin and Methods Thereof
9623100	Compositions and Methods for Preparing Staphylococcus Aureus Serotype 5 And 8 Capsular Polysaccharide Conjugate Immunogenic Compositions
10888611	Neisseria Meningitidis Compositions and Methods Thereof
10226525	Group B Streptococcus Polysaccharide-Protein Conjugates, Methods for Producing Conjugates, Immunogenic Compositions Comprising Conjugates, And Uses Thereof
9724402	Neisseria Meningitidis Compositions and Methods Thereof
10512681	Non-Lipidated Variants of Neisseria Meningitidis ORF2086 Antigens
10196429	Neisseria Meningitidis Compositions and Methods Thereof

10774117	Compositions Relating to A Mutant Clostridium Difficile Toxin and Methods Thereof
10899802	Neisseria Meningitidis Compositions and Methods Thereof
10751402	Immunogenic Polysaccharide Protein Conjugated Comprising A Polysaccharide Derived from B Streptococcus GBS
10183070	Neisseria Meningitidis Compositions and Methods Thereof
10982198	Compositions and Methods Relating to a Mutant Clostridium Difficile Toxin
10543267	Neisseria Meningitidis Compositions and Methods Thereof
10550159	Neisseria Meningitidis Compositions and Methods Thereof
10946086	Group B Streptococcus Polysaccharide-Protein Conjugates, Methods for Producing Conjugates, Immunogenic Compositions Comprising Conjugates, And Uses Thereof
10597428	Compositions Relating To A Mutant Clostridium Difficile Toxin And Methods Thereof
	Escherichia Coli Compositions and Methods Thereof
11077180	Non-Lipidated Variants of Neisseria Meningitidis ORF2086 Antigens
10813989	Neisseria Meningitidis Compositions and Methods Thereof
10829521	Neisseria Meningitidis Compositions and Methods Thereof

INVITED PRESENTATIONS

A novel *Staphylococcus aureus* vaccine: iron surface determinant B (IsdB), that induces rapid antibody responses in Rhesus Macaques and specific protection in a murine *S. aureus* sepsis model: **Society for General Microbiology, 158th Meeting, University of Warwick, U. K. April 3-6, 2006**

Preclinical immune correlates of protection for a *Staphylococcus aureus* vaccine: **Fifth World Congress on Vaccines, Immunization and Immunotherapy. Montreal, Canada. . Nov 7, 2006.**

Preclinical and epidemiological evaluation of IsdB: A potential vaccine to prevent *S. aureus* infections. **7th World Congress. TRAUMA, SHOCK, INFLAMMATION AND SEPSIS – Interdisciplinary Summit on Inflammation. Munich, Germany. March 13-17th, 2007.**

Epidemiology of antibodies to *S. aureus* antigens in natural populations and implications towards the development of an effective *S. aureus* vaccine: **Gordon Research Conference for Staphylococcal Diseases, Les Diablerets Conference Center. Switzerland. September 2-7, 2007.**

Discovery and early development of a *Neisseria meningitidis* B Vaccine .**Molecular Vaccine Development: Perceived Barriers / Potential Solutions Islamorada, Florida Keys. January 28-31, 2008.**

A bivalent recombinant factor H binding protein (LP2086) vaccine to provide broad protection against *Neisseria meningitidis* disease. **Sixth World Congress on Vaccines, Immunization and Immunotherapy. Milan, Italy. September 28-31, 2008.**

Development of a Bivalent Factor H Binding protein (fHBP) Vaccine for Broad Protection Against Invasive *Neisseria meningitidis* Serogroup B (MnB) Disease. **EMGM. Manchester, UK, June 17-19, 2009.**

Advances in the development of a universal meningococcus serogroup B vaccine. **Meningitis Research Foundation. London UK. October 11-12, 2009.**

Challenges in the development of a *Staphylococcus aureus* vaccine. Annaliesa Anderson, Pfizer Vaccine Research, Pearl River, NY, USA. **Seventh World Congress on Vaccines, Immunisation and Immunotherapy. Berlin, Germany. May 26-28, 2010.**

The discovery and development of a vaccine to prevent serogroup B meningococcal disease. **The Theobald Smith Society Meeting in Miniature. Rutgers University, N.J. October 14, 2010.**

Challenges for developing a *S. aureus* vaccine. **American Society for Microbiology 45th Annual Regional Meeting. Albany, NY. November 10, 2010.**

Can We Beat *S. aureus* at Its Own Game? Insights into the Design and Evaluation of a Novel Investigational Vaccine for the Prevention of *S. aureus* Invasive Disease" **Gordon Research Conference on Staphylococcal Diseases. Lucca (Barga), Italy. July 24-29, 2011.**

The Development of a Multi-Antigen Vaccine for the Prevention of Staphylococcal Disease. **13th Annual NARSA Meeting. Bethesda, Maryland. March 13, 2012.**

Anti-Bacterial Vaccine Development: Past Present and Future. **Eleventh Annual Theoretical & Applied Science Student Research Symposium. Ramapo College of New Jersey, Mahwah, NJ. April 18, 2012.**

Development of a Novel Multi-Antigen Vaccine to Prevent *Staphylococcus aureus* Infection and Disease. **52nd ICAAC 2012. San Francisco, CA. Sept. 9-12, 2012.**

Vaccine Development by Harnessing the Immunopathogenic Mechanisms of *S. aureus*. **13th Gordon Conference on Staphylococcal Diseases. Waterville Valley, NH. July 28-Aug 2, 2013.**

Strategies for Immuno-prophylaxis of Nosocomial Infections. **Gulf Coast Consortia for Quantitative Biomedical Sciences - 23rd Keck Annual Research Conference. Houston, TX. November, 2013.**

Staphylococcus aureus vaccine development in the 21st Century. **New Technologies, New Vaccines Wilmington, DE. March 22-15, 2015.**

Approaches to estimate the potential impact of Novel Neiserial meningitidis serogroup B Vaccines Prior to Implementation. **IMVACS Immunotherapeutics and Vaccine Summit - 10th Annual ImVacS. Boston, MA. August 24-25, 2015.**

Staphylococcus aureus Vaccine Development. **IBC Bioconjugates: From Targets to Therapeutic. San Francisco, CA, June 13-15, 2016.**

Clinical update and vaccine progression for *Staphylococcus aureus* vaccines. **WVC (2016) World Vaccine Congress Europe. Barcelona, Spain. October 10-12, 2016.**

Bacterial Vaccine Development. **University of Maryland. November 2, 2016.**

Staphylococcus aureus vaccine development. **Orthopedic Grand Rounds, Cedars-Sinai Medical Center, Beverly Hills, CA. February 21, 2017.**

GBS vaccine development. **European Medicines Agency, Vaccines Working Party. London, UK. May 22-25, 2017.**

Vaccine development against AMR pathogens. **Florey Institute, Sheffield, UK. September 20, 2017.**

Prospects of Immunological approaches to prevent Gram positive neonatal invasive disease. **Grand Challenges Annual Meeting, Washington, DC, October 3, 2017.**

Updates on the development of a multivalent Group B Streptococcal vaccine. **ISV Annual Congress, Paris, France, October 5, 2017.**

Staphylococcus aureus vaccines to solve the antimicrobial resistance problem. **SBSD (2016) Superbugs and Superdrugs - 18th Annual Conference, Iselin, NJ, November 13-16, 2017.**

Group B Streptococcal Vaccine Development. **International Symposium on Streptococcus agalactiae Disease (ISSAD), Cape Town, Africa, February 23, 2018.**

Bacterial vaccine development: A research and development perspective. **BactiVAC, Birmingham, UK, March 20, 2019**

Are bacterial vaccines harder to develop? **World Vaccine Congress, Washington, DC, April 14-17, 2019**

Progress towards the Development of a *C. difficile* Prophylactic Vaccine. **C diff Expo, St. Louis, MO, November 6-7, 2019.**

The importance of vaccines in reducing antibiotic exposure and preventing antimicrobial resistance. **COMBINE Vaccine Workshop, February 8, 2021.**

Vaccines and the fight against antimicrobial resistance 1 & 2, **HST Talks, July 2021.**

Future of Vaccinology, **NYAS, March 30-31, 2022.**

Paxlovid. **STAT Breakthrough Science Summit, Avella Ctr, NY, March 31, 2022.**

Understanding COVID-19 to prepare for Next Pandemic. **2022 Nature Conference, April 4-5, 2022.**

GBSS Group B Strep in Pregnancy & Babies 2022 Conference. April 12-13, 2022.

World Health Organization Technical Advisory Group on GBS Vaccine Development. September 7, 2022.

Wellcome Trust Meeting on Use of Correlates of Protection in Pre-licensure Development. September 27, 2022

Wellcome Trust Meeting on Correlates of Protection for GBS Disease. September 28, 2022

ACADEMIC AND PROFESSIONAL ACTIVITIES

- Reviewer: Therapeutic Advances in Vaccines, The Medical Letter, Expert Reviews, Human Vaccine and Immunotherapeutics, Vaccine, Infection and Immunity, Molecular Microbiology, PLOSone, Infection Genetics and Evolution, Journal of Infectious Diseases, The Medical Research Council (UK), Meningitis UK (UK Charity), PLOS Pathogens Journal, Reviewer for Cytokine Journal (All current).
- Steering committee member for Microbiology & Infectious Diseases section of the New York Academy of Sciences (Current).
- Industry Observer/presenter, World Health Organization, Meeting of the technical advisory group on antimicrobial resistance, 14th March 2022.
- Presenter, World Health Organization, Group B Streptococcus Vaccine full value of vaccine assessment, 3rd November 2021.

- Reviewer: Annaliesa Anderson. 2019. UKMenCar4: A cross-sectional survey of asymptomatic meningococcal carriage amongst UK adolescents at a period low invasive meningococcal disease incidence, Wellcome Open Research, 10.21956/wellcomeopenres.16781.r36292.
- Reviewer for NY Academy of Sciences (2019).
- Service Awards Selection Committee, American Academy of Microbiology (ASM). July 1-2019-June 30, 2022.
- Industry Observer/presenter, World Health Organization, workshop on the role of correlates of protection in the GBS vaccine development pathway, 13th December 2017.
- Industry Observer/presenter, World Health Organization, 2017 Product Development for Vaccines Advisory Committee (PDVAC) Consultation 21-23 June, 2017.
- Industry Observer, to discuss the considerations for using ETEC and Shigella disease burden estimates to guide vaccine development strategy, 6-7 April 2017.
- Cochair of ASM Antibacterial Development Conference, Washington DC, December 11-14, 2016.
- Industry Observer/presenter, World Health Organization Consultation on GBS Vaccine Development, 27 to 28 April 2016.