Curriculum Vitae

Personal information

Karin Seifert

Work experience

1. Employer: Federal Institute for Drugs and Medical Devices, Department of Pharmacovigilance, Unit Risk Management I
    - Start date: 122017
    - End date:
    - Position: Scientific Assessor (Pharmacovigilance)
    - Activities: Assessment of PSURs, RMPs, PASS results, signals, variations, and referrals with a focus on immunomodulatory drugs
    - Country: Germany
2. Employer: London School of Hygiene & Tropical Medicine, Faculty of Infectious and Tropical Diseases, Department of Immunology and Infection
    - Start date: 102008
    - End date: 092017
    - Position: Assistant Professor
    - Activities: _ Research: drug and vaccine development (infectious diseases) _ Teaching and supervision at postgraduate level (MSc and PhD students) _ Citizenship: including membership of the LSHTM Ethics Committee (Interventions) and serving as UK representative and training school coordinator of COST Action CM1307
    - Country: United Kingdom
3. Employer: London School of Hygiene & Tropical Medicine, Faculty of Infectious and Tropical Diseases, Department of Immunology and Infection
    - Start date: 012002
    - End date: 102008
    - Position: Research Fellow
    - Activities: _ Research: anti_parasitic drug development and drug resistance _ Teaching and supervision at postgraduate level (MSc students) _ Citizenship: including peer_review and academic oversight of a CL3 laboratory
    - Country: United Kingdom
4. Employer: Institute of Specific Prophylaxis and Tropical Medicine, Medical University of Vienna
    - Start date: 062001
    - End date: 122001
    - Position: Scientific Co_worker
    - Activities: _ Studies on the mode of action of anti_amoebic agents
    - Country: Austria

Education and training

1. Subject:
    - Start date: 121997
    - End date: 062001
    - Qualification: Doctorate (Dr. rer. nat.)
    - Organisation: Medical University of Vienna
    - Country: Austria
2. Subject:
    - Start date: 101990
    - End date: 101997
    - Qualification: Study of Pharmacy (Mag. pharm.)
    - Organisation: University of Vienna
    - Country: Austria

Additional information

Publications

1. Voak AA, Harris A, Coteron_Lopez JM, Angulo_Barturen I, Ferrer_Bazaga S, Croft SL, Seifert K (2021) Pharmacokinetic / pharmacodynamic relationships of liposomal amphotericin B and miltefosine in experimental visceral leishmaniasis. PLoS Neglected Tropical Diseases 15(3):e0009013. 2. Prabowo SA, Smith SG, Seifert K, Fletcher HA (2019) Impact of individual_level factors on ex vivo mycobacterial growth inhibition: associations of immune cell phenotype, cytomegalovirus_specific response and sex with immunity following BCG vaccination in humans. Tuberculosis (Edinb). 119:101876. 3. Forrester S, Seifert K, Ashwin H, Brown N, Zelmar A, James S, Lagos D, Timmis J, Chatterjee M, Mottram JC, Croft SL, Kaye PM (2019) Tissue_specific transcriptomic changes associated with AmBisome® treatment of BALB/c mice with experimental visceral leishmaniasis. Wellcome Open Research 4:198. 4. Prabowo SA, Painter H, Zelmer A, Smith SG, Seifert K, Amat M, Cardona PJ, Fletcher HA (2019) RUTI vaccination enhances inhibition of mycobacterial growth ex vivo and induces a shift of monocyte phenotype in mice. Frontiers in Immunology 10:894. 5. Prabowo SA, Zelmer A, Stockdale L, Ojha U, Smith SG, Seifert K, Fletcher HA (2019) Historical BCG vaccination combined with drug treatment enhances inhibition of mycobacterial growth ex vivo in human peripheral blood cells. Scientific Reports 9:4842. 6. Ashwin H, Seifert K, Forrester S, Brown N, MacDonald S, James S, Lagos D, Timmis J, Mottram J, Croft SL, Kaye PM (2019) Tissue and host species_specific transcriptional changes in models of experimental visceral leishmanisis. Wellcome Open Research 3:135. 7. Voak AA, Standing JF, Sepúlveda N, Harris A, Croft SL, Seifert K (2018) Pharmacodynamics and cellular accumulation of amphotericin B and miltefosine in Leishmania donovani_infected primary macrophages. Journal of Antimicrobial Chemotherapy 73:1314_1323. 8. Salguero FJ, Garcia_Jimenez WL, Lima I, Seifert K (2018) Histopathological and immunohistochemical characterisation of hepatic granulomas in Leishmania donovani_infected BALB/c mice: a time_course study. Parasite & Vectors 11:73. 9. Meredith EL, Kumar A, Konno A, Szular J, Alsford S, Seifert K, Horn

D, Wilkinson S (2017) Distinct activation mechanisms trigger the trypanocidal activity of DNA damaging prodrugs. Molecular Microbiology 106:207_222. 10. Voak AA, Harris A, Qaiser Z, Croft SL, Seifert K (2017) Pharmacodynamics and biodistribution of single_dose liposomal amphotericin B at different stages of experimental visceral leishmanisis. Antimicrobial Agents and Chemotherapy 61:e00497_17. 11. Koniordou M, Wyllie S, Patterson S, Seifert K (2017) Snapshot profiling of anti_leishmanial potency of lead compounds and drug candidates against intracellular L. donovani amastigotes with focus on human derived host cells. Antimicrobial Agents and Chemotherapy 61:e01228_16. 12. Seifert K, Juhls C, Salguero FJ, Croft SL (2015) Sequential chemo_immunotherapy of experimental visceral leishmaniasis using single low dose liposomal amphotericin B and a novel DNA vaccine candidate. Antimicrobial Agents and Chemotherapy 59:5819_5823. 13. Riede O, Seifert K, Oswald D, Endmann A, Hock C, Salguero FJ, Schroff M, Croft SL, Juhls C (2015) Preclinical safety and tolerability of a repeatedly administered DNA vaccine against human leishmaniasis. Gene Therapy 22:628_635. 14. Kaur H, Seifert K, Hawkes GE, Coumbarides GS, Alvar J, Croft SL (2015) Chemical and bioassay techniques to authenticate quality of the anti_leishmanial drug miltefosine. American Journal of Hygiene and Tropical Medicine 92(6 Suppl):31_38. 15. Lamour SD, Veselkov KA, Posma JM, Giraud E, Roger ME, Croft S, Marchesi JR, Holmes E, Seifert K, Saric J (2015) Metabolic, immune, and gut microbial signals mount a systems response to Leishmania major infection. Journal of Proteome Research 14:318_329. 16. Das S, Freier A, Boussoffara T, Das S, Oswald D, Losch FO, Selka M, Sacerdoti_Sierra N, Schönian G, Wiesmüller KH, Seifert K, Schroff M, Juhls C, Jaffe CL, Roy S, Das P, Louzir H, Croft SL, Modabber F, Walden P (2014) Modular multiantigen T cell epitope_enriched DNA vaccine against human leishmaniasis. Science Translational Medicine 6:234ra56. 17. Voak AA, Seifert K, Helsby NA, Wilkinson SR (2014) Evaluating aziridinyl nitrobenzamide compounds as leishmanicidal prodrugs. Antimicrobial Agents and Chemotherapy 58:370_377. 18. Salotra P, Singh R, Seifert K (2013) Visceral leishmaniasis – Current Treatments and Needs. In: Trypanosomatid Diseases: Molecular Routes to Drug Discovery (Drug Discovery in Infectious Diseases, Volume 4). Jäger, Timo; Koch, Oliver; Flohe, Leopold; Selzer, M. Paul. Wiley_Blackwell. 19. Voak AA, Gobalakrishnapillai V, Seifert K, Balczo E, Hu L, Hall BS, Wilkinson SR (2013) An essential type I nitroreductase from Leishmania major can be used to activate leishmanicidal prodrugs. Journal of Biological Chemistry 288:28466_28476. 20. Mohamed_Ahmed AH, Seifert K, Yardley V, Burrell_Saward H, Brocchini S, Croft SL (2013) Anti_leishmanial activity, uptake and biodistribution of an amphotericin B _ poly(α_glutamic acid) complex. Antimicrobial Agents and Chemotherapy 57:4608_4614. 21. Mohamed_Ahmed AH, Les KA, Seifert K, Croft SL, Brocchini S (2013) Non_covalent complexation of amphotericin_B with poly(α_glutamic acid). Molecular Pharmaceutics 10:940_950. 22. Seifert K (2011) Structures, targets and recent approaches in anti_leishmanial drug discovery and development. The Open Medicinal Chemistry Journal 5:31_39. 23. Seifert K, Munday J, Syeda T, Croft SL (2011) In vitro interactions between sitamaquine and amphotericin B, sodium stibogluconate, miltefosine, paromomycin and pentamidine against Leishmania donovani. Journal of Antimicrobial Chemotherapy 66:850_854. 24. Croft SL, Seifert K (2010) Antiprotozoal agents. In: Antibiotic and Chemotherapy: Expert Consult (9th Edition). Finch, Roger G.; Greenwood, David; Whitley, Richard J.; Norrby, S. Ragnar. Saunders. 25. Nicoletti S, Seifert K, Gilbert IH (2010) Water_soluble polymer drug conjugates for combination chemotherapy against visceral leishmaniasis. Bioorganic & Medicinal Chemistry 18:2559_65. 26. Seifert K, Escobar P, Croft SL (2010) In vitro activity of anti_leishmanial drugs against Leishmania donovani is host cell dependent. Journal of Antimicrobial Chemotherapy 65:508_511. 27. Nicoletti S, Seifert K, Gilbert IH (2009) N_(2_hydroxypropyl)methacrylamide_amphotericin B (HPMA_AmB) copolymer conjugates as antileishmanial agents. International Journal of Antimicrobial Agents 33:441_448. 28. Seifert K, Lemke A, Croft SL, Kayser O (2007) Anti_leishmanial structure_activity_relationships of synthetic phospholipids: in vitro and in vivo activity of selected derivatives. Antimicrobial Agents and Chemotherapy 51:4525_4528. 29. Seifert K, Pérez_Victoria FJ, Stettler M, Sánchez_Cañete MP, Castanys S, Gamarro F, Croft SL (2007) Inactivation of the miltefosine transporter, LdMT, causes MIL resistance that is conferred to the amastigote stage of Leishmania donovani and persists in vivo. International Journal of Antimicrobial Agents 30:229_235. 30. Perez_Victoria FJ, Sanchez_Canete MP, Seifert K, Croft SL, Sundar S, Castanys S, Gamarro F (2006) Mechanisms of experimental resistance of Leishmania to miltefosine: implications for clinical use. Drug Resistance update 9:26_39. 31. Croft SL, Seifert K, Yardley V (2006) Current scenario of drug development for leishmaniasis. Indian Journal of Medical Research 123:399_410. 32. Seifert K, Croft SL (2006) In vitro and in vivo interactions between miltefosine and other antileishmanial drugs. Antimicrobial Agents and Chemotherapy 50:73_79. 33. Seifert K, Matu S, Perez_Victoria FJ, Castanys S, Gamarro F, Croft SL (2003) Characterisation of Leishmania donovani promastigotes resistant to hexa_decylphosphocholine (miltefosine). International Journal of Antimicrobial Agents 22:380_387. 34. Croft SL, Seifert K, Duchene M (2003) Antiprotozoal activities of phospholipid drugs. Molecular Biochemical Parasitology 126:165_172 35. Walochnik J, Duchêne M, Seifert K, Wiedermann G, Hottkowitz T, Eibl H, Aspöck H (2002) Cytotoxic activities of alkylphosphocholines against clinical isolates of Acanthamoeba spp. Antimicrobial Agents and Chemotherapy 46:695_701. 36. Seifert K, Duchêne M, Wernsdorfer WH, Kollaritsch H, Scheiner O, Wiedermann G, Hottkowitz T, Eibl H (2001) Effects of alkylphosphocholines on trophozoites of human intestinal parasite Entamoeba histolytica. Antimicrobial Agents and Chemotherapy 45: 1505_1510. 37. Seifert K, Duchêne M, Wernsdorfer WH, Kollaritsch H, Scheiner O, Wiedermann G, Eibl H (2000) A new Approach for Chemotherapy against Entamoeba histolytica. Archives of Medical Research 31 (4 Suppl): S6_7.

Projects

Patent application PCT/EP2013/059033, Combination vaccine for the treatment of leishmaniasis

Memberships

Awards: British Society for Antimicrobial Chemotherapy, Travel grant to attend ICAAC (2014) Oral presentations at scientific meetings and conferences: • International Society for Neglected Tropical Diseases, Wellcome Trust London, UK, "Host cells and anti_leishmanial drug activity" (2016) • Training School of COST action CM1307, Fraunhofer_IME SP Hamburg, Germany, "Integrating PK and PD into lead optimisation" (2015) • Joint meeting of the 16th Drug Design and Development Seminar 2015 of the German Society for Parasitology and Workgroup 4 of the COST action CM1307, Berlin, Germany, "Interrogating pharmacokinetics and pharmacodynamics of single dose liposomal amphotericin B in a mouse model of visceral leishmaniasis" (2015) • PK/PD in Leishmania Meeting, DDW_GSK (Tres Cantos), Spain, "Defining PK/PD relationships of anti_leishmanial drugs" (2013) • Vaccine interest group meeting, LSHTM, UK, "Proof of concept studies of combining drug and vaccine to treat leishmaniasis" (2013) • Worldleish 5 (Fifth World Congress on Leishmaniasis), Porto de Galinhas, Pernambuco, Brazil, "Chemo_immunotherapy of experimental visceral leishmaniasis using single low dose AmBisome® and a novel DNA vaccine" (2013) • Annual meeting of COST ACTION CM0801 (New Drugs for Neglected Diseases), Crete, Greece, "Development of a DNA vaccine for leishmaniasis" (2012) • Global Challenges for New Drug Discovery Against Tropical Parasitic Diseases, Riviera Mayo, Mexico, "Combination chemotherapy, immunotherapy and immunochemotherapy and its role in leishmaniasis" (2011) • Department of Pharmacology, Institute of Postgraduate Medical Education and Research, Kolkata, India, "Treatment of leishmaniasis and experimental models" (2011) • Peninsula Society of Tropical Medicine, Exeter, UK, "Leishmaniasis" (2010) • British Society for Parasitology, Spring Meeting and Trypanosomiasis and Leishmaniasis Seminar, Cardiff, UK, "In vitro activity and host cell dependence of anti_leishmanial drugs" (2010) • Scientific meeting at the Institute Pasteur Tunis prior to the 2nd SC meeting within LEISHDNAVAX. Tunisia, "Characterisation in vivo and in vitro of BI 2302 strain of L. donovani" (2010) • Annual Meeting of the Austrian Society of Tropical Medicine and Parasitology, Vienna, Austria, "In vitro activity of anti_leishmanial drugs against Leishmania donovani is host cell dependent" (2009) • Seminar at the Institute of Specific Prophylaxis and Tropical Medicine, Medical University Vienna, Vienna, Austria, "New approaches to treat leishmaniasis – from experimental models to beyond" (2008) • Workshop on leishmaniasis chemotherapy and drug resistance. LSHTM representative for Leishmed. Larnaca, Cyprus, "Combination chemotherapy for leishmaniasis – in vitro and in vivo interactions of anti_leishmanial drugs" (2006) • ICOPA XI, Glasgow, UK, "Anti_leishmanial activity and selectivity of phospholipids" (2006) • Workshop on Drug combinations for the treatment of visceral leishmaniasis. DNDi, Geneva, Switzerland, "Biological efficacy data" (2005) • Seminar at the Welsh School of Pharmacy, Centre for Polymer Therapeutics, Cardiff University, Cardiff, UK, "Intracellular delivery of anti_leishmanial compounds to the parasitophorous vacuole of macrophages" (2005) • Annual Meeting of the Austrian Society of Tropical Medicine and Parasitology, Vienna, Austria, "Miltefosin: Studien zu Resistenzentwicklung und Kombinationstherapie in in vitro und in vivo Modellen von viszeraler Leishmaniose" (2005) • Meeting of WG5 (Drug resistance) of COST ACTION B22, Drug Development for parasitic diseases, University of Glasgow, Scotland, UK, "Experimental resistance to miltefosine in leishmaniasis" (2005) • Third World Congress on Leishmaniasis, Sicily, Italy, "Interaction with other anti_leishmanial drugs" (2005), sponsored by Zentaris • Drug Development for Parasitic Diseases, 1st COST B22 Congress, Antwerp, Belgium, "Interaction of miltefosine with other anti_leishmanial drugs" (2004) • XI.International Congress of Protozoology (ICOP XI), Salzburg, Austria, "Effect of alkylphosphocholines on Entamoeba histolytica" (2001) • XXXV.

Tagung der Österreichischen Gesellschaft für Tropenmedizin und Parasitologie, Innsbruck, Austria, „Die Wirkung von Alkylphosphocholinen auf Entamoeba histolytica“ (2001) • 4th COST_B9 Congress on Antiprotozoal Chemotherapy, Lisbon, Portugal, „In vitro activity of alkylphosphocholines against Entamoeba histolytica” (2001) • XIV. Seminar on Amebiasis. Mexico City, Mexico, “A new approach for chemotherapy against Entamoeba histolytica” (2000)

Other Relevant Information

Certificate in Pharmacoepidemiology and Pharmacovigilance, London School of Hygiene & Tropical Medicine, UK (2008 _ 2009) Completion of selected Modules of the Master of Drug Regulatory Affairs (Licensing, Pharmacovigilance, Pharmacological and Toxicological Documentation), University of Bonn, Germany (2016 _ 2017)