An invitation to the Third European

CRYPTO-INFECTIONS CONFERENCE:

LYME DISEASE & OTHER HIDDEN INFECTIONS

MICROBIAL PERSISTENCE

Saturday 17th June to Sunday 18th June 2023

Catherine Mc Auley Centre, 21 Nelson Street, Dublin 7, Ireland

MEETING AGENDA — SATURDAY 17th June 2023

DAY 1- CHAIRS –Prof John (Jack) Lambert & Christian Perronne

8:30 **Introduction**
Prof John (Jack) Lambert

8:40 **An Overview of Persistent Infections**
Prof Christian Perronne

9:30 **A One Health approach to understanding and preventing Zoonotic infections**
Prof Gerald Barry

10:00 **Lyme Persistence**
Dr Monica Embers

11:00 Coffee break

11:20 **From bedside to bench- A clinicians journey in caring for patients with tickborne disease**
Dr Chris Green

12:00 **Persistent Bartonella infection**
Dr B Robert Mozayeni

13.00 LUNCH & POSTER DISPLAY

14:00 **Persistence of Lyme Disease Spirochetes- an Unsolved Problem**
Dr Natasha Rudenko

14:30 **SIX ABSTRACTS-** (10 minutes each- 10 minutes for questions)

15:40 **Persistent Babesia Infection–** - Dr Adam Birkenheuer

16:40 **Why collaborate with patients?**- Christele Dumas Gonnet

17:10 **Alzheimer Induced By Microbial Persistence**- Mikolaj Hurla

17:40 End of First day- Drinks & Reception

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MEETING AGENDA — SUNDAY 18th JUNE 2023

DAY 2

9:00 **Introduction** -*CHAIRS Prof Christian Perronne, Prof Gerald Barry*

9:15 **Long COVID** -*Dr John (Jack) Lambert*

10:15 **Neuropsychiatric Manifestations of Tick-borne Infections** Dr Bob Bransfield

11:15 Coffee break

11:45 **The Importance Of Chronic Infections In Chronic Disease And The Potential Role Of Mitochondria-** *Prof Karl Morten*

12:15 **TWO ABSTRACTS–** (10 minute presentations and 10 minutes for questions)

12:35 **From Bench to the Sandbox: Sparking Curiosity to Ignite Scientific Discovery and Social Innovation–** *Laura Lott, MBA*

13.15 **Round Table & Conclusions:**
Prof Christian Perronne, Prof John Lambert & Dr Chris Green

13:45 End of conference

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CALL FOR ABSTRACTS — DEADLINE 1st June 2023

Aims and eligibility

Abstracts should contain original material, recent work or novel concepts related to cryptic infections. The conference encourages research on cryptic infections as well as best practice examples and lessons learned.

Abstract categories

Please see below list of topics/ tracks available for submitted abstracts for Crypto-Infections 2019:

1. Human studies
2. Animal studies
3. Epidemiology
4. Diagnostics and therapeutics

For abstracts submitted by students, the registration for the conference will be waived, but all costs related to the conference participation should be covered by you, including flight and accommodation.

Please send your abstract in pdf format to gavramovic@mater.ie by the 1st May 2023. Word count limit is 250 words excluding title and authors. The abstract should contain the following sections: Title and Authors, Introduction, Methods, Results and Discussion. Authors should indicate if they wish to apply for an oral presentation or poster only.

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SPEAKERS' BIOGRAPHIES

Prof Jack (John) Lambert

Consultant Infectious Diseases, Mater Misericordiae University Hospital/ University College Dublin, Ireland.

Dr John lambert is is a consultant in Infectious diseases and genitourinary medicine, and has been practicing in Dublin Ireland as a consultant in the Mater and Rotunda Maternity hospitals, with teaching appointment at UCD School of Medicine and Medical Science. He is director of the National Isolation Unit for Highly Infectious Diseases at the Mater Misericordiae University Hospital and a member of the National Viral Hemorrhagic Fever Committee of the HSE. He has also been involved in the Sexual Health Strategy group in Ireland and teaching GP in Ireland on the subject of STDs. He has presented widely in the field of Lyme and co infections in the last 3 years through EU and USA conferences supported by the International Lyme and Associated Diseases Society (ILADS).

Prof Christian Perronne

Former Professor of Infectious and Tropical Diseases at the University of Versailles-St Quentin (UVSQ), France

Christian Perronne, MD, PhD, qualified in Internal medicine, is Professor of Infectious and Tropical Diseases. He retired in March 2022 from the University of Versailles-Paris Saclay, France. From 1994 to 2020, he was chief of a Department of medicine at the Raymond Poincaré University Hospital in Garches, Greater Paris University Hospitals group. He had major responsibilities within several institutions: Pasteur institute in Paris (vice-director of the national tuberculosis reference center), French College of Professors of Infectious and Tropical Diseases (chairman), French National Technical Advisory Group of Experts on Immunisation (chairman), French Drug Agency (chairman of several working groups making evidence based recommendations), Superior Council for Public Hygiene of France (Chairman), French High Council for Public Health (Chairman of the Communicable diseases commission), INSERM, National Council of Universities (Chairman for infectious and tropical diseases), European Advisory Group of Experts on Immunisation at the World Health Organization (vice-chairman). He was principal investigator of several major clinical trials. He is author or co-author of more than 300 scientific publications in peer-reviewed journals. Since 1994, Christian Perronne is involved in the management of chronic Lyme and associated diseases. He is author of a book "La vérité sur la maladie de Lyme" (in French) ("The truth about Lyme disease"), Odile Jacob publisher, Paris, which will be published

in English in May 2020 ("Crypto-infection, the truth about Lyme disease and other hidden infections"), Hammersmith publisher, London, Dublin.

Dr. Gerald Barry

Assistant Professor of Virology in University College Dublin.

Gerald is chair of the Irish Division of the Microbiology Society, and a member of the Irish Government's Environmental Protection Agency GMO advisory committee. Dr Barry has worked on viruses that infect both animals and / or humans for over 15 years and his group's work mainly focuses on how viruses interact with their hosts and what, on a molecular level, determines a viruses ability to jump species and become zoonotic. Dr. Barry's group is also engaged in surveillance work, identifying viruses in animals and insects that have zoonotic potential. During the pandemic Dr. Barry engaged in research specific to COVID-19 and contributed to reports on aspects of SARS-CoV-2 diagnostics and prevention of infection in the workplace. Previously, Dr. Barry has worked with colleagues in the UK and Europe to understand ticks, how they carry and transmit infectious agents and specifically tick - borne infections such as Borrelia Burgdorferi, the causative agent of Lyme Disease.

Dr Monica Embers

Associate Professor in the Division of Immunology and the Director of Vector-borne Disease Research at the Tulane National Primate Research Center, USA.

Dr. Embers is currently an Associate Professor in the Division of Immunology and the Director of Vector-borne Disease Research at the Tulane National Primate Research Center. Her research program regarding Lyme disease and its infectious cause Borrelia burgdorferi specializes in animal models. The research is centered around three major efforts: (1) identifying treatments that can eradicate B. burgdorferi infection; (2) detection of persistent Lyme disease spirochetes in human (autopsy) tissues; and (3) immunodiagnosis for B. burgdorferi infection and cure. By transmitting Lyme disease to mice and nonhuman primates by tick, and studying the natural course of infection, her group aims to attain a better understanding of the clinical quandaries of human Lyme disease, including effective diagnosis

and treatment. Due to the many similarities between Bartonellosis and Lyme disease, her team has begun to develop research models for Bartonella infection. The goals of Bartonella research involve developing improved treatment strategies, understanding the pathophysiology of co-infection, and interrogating tick vector transmission of these pathogens.

Dr Christine Green, MD

Board Certified Family Physician, San Francisco, USA.

Dr. Christine Green is a board certified family physician practicing in the San Francisco Bay area for over 35 years. Returning patients to excellent health often requires "medical sleuthing." Understanding the physiology of the body and its interaction with infection (pathophysiology) led Dr. Green to her expertise in chronic vector-borne diseases, including persistent (chronic) tickborne diseases. The CDC notes that there are over 500,000 new cases of Lyme disease in Americans yearly. The vector-borne illnesses that Dr. Green recognizes, diagnoses and treats are relatively new and the scientific evidence is still emerging. She has devoted her time to understand how to best diagnose and treat sick patients and to share that understanding by developing evidence-based curriculum to provide other physicians continuing medical education. Over the past twenty-five years Dr. Green has treated thousands of patients with persistent tickborne disease. She serves on the boards of multiple Lyme organizations, speaks at conferences in the US and Europe, and is currently a director on the board and serves as Education Co-director of Invisible International,.https://invisible.international/ Dr. Green considers the whole patient, the scientific evidence, the clinical evidence and applies best practices on an individual basis.

Dr B Robert Mozayeni, MD

Expert in Translational Medicine, the science and art of advancing medical science safely and efficiently

Dr. Mozayeni trained in Internal Medicine, Rheumatology and Molecular Biophysics in a physician-scientist research residency at Yale-New Haven Hospital, where Lyme disease was discovered and treated by Rheumatologists in the Rheumatology section. He subsequently became a Senior Staff Fellow at the National Institutes of Health (NIH) where he completed a second fellowship in Rheumatology. Since 1994, while in private practice, has held clinical privileges at Suburban Hospital, a member of Johns Hopkins Medicine and an affiliate of the NIH Clinical Center.

Recently, he became the President of ILADS. His main objective with ILADS is the same as with his professional career – to advance the science of translational medicine and learn from the issues presented by Lyme disease, how to more rapidly advance medical science. His career passion is to find the fastest path for advancing medical science in diverse areas of patient need and controversy to validate and continuously improve best clinical practices.

He is the Chief Medical Officer of Galaxy Diagnostics, LLC. Recently, he founded 'T Lab' focusing on the use of high resolution microscopy to identify cryptic infections and demonstrate how they cause disease. He is a Fellow of the non-profit Think Lead Innovate Foundation and he is a founder of the non-profit Foundation for the Study of Inflammatory Diseases.

His work on cerebrovascular diseases, as a Rheumatologist, he began to appreciate the importance of Bartonella cryptic infections. Over the past 12 years, he has been actively researching chronic rheumatic and cerebrovascular diseases and their relationship to persistent human Bartonella infection.

SPEAKERS' BIOGRAPHIES

Dr. Natasha Rudenko, PhD.

Deputy Head of the laboratory of Molecular Ecology of Vectors and Pathogens at the Institute of Parasitology of Biology Centre Academy of Sciences of the Czech Republic

For the last two decades her research were focused on ecology, epidemiology, and distribution of arthropod-borne diseases and vector-host-pathogen interactions. The main interests are: ecology, epidemiology, genetic diversity of the causative agent of human Lyme disease, the spirochetes from *Borrelia burgdorferi* sensu lato complex, in Europe and around the world and their impact in global public health, microbial infectivity, pathogenicity, survival behaviors, and response to antibiotic treatment or capability to transform into persisting forms that cause relapsing or chronic diseases.

Dr. Adam Birkenheuer

Professor of Small Animal Internal Medicine, College of Veterinary Medicine, North Carolina State University; USA.

Dr Birkenheuer received his DVM from the University of Florida, and his PhD in Immunology from NC State University. He is the Quattlebaum Distinguished Chair in Infectious Disease Research at the NC State College of Veterinary Medicine, USA and has widely published on tick-borne diseases.

Christèle Dumas-Gonnet

Patient-Expert Lyme disease and co-infections

Christèle Dumas-Gonnet is 49 years old and she graduated a University Degree in Therapeutic Patient Education at Faculty of Medicine of the Sorbonne University – Paris in 2021. She's the Co-founder of the PReFacE Collective (Patient REsource FACilitator Europe). She initially graduated from Sciences Politiques Lyon and has worked for almost 20 years in the field of health, medico-social and child protection. She is also a volunteer in end-of-life support for people with brain tumors in a neuro-oncology department.

Mikolaj Hurla

President of student research group of neurobiology, undergraduate researcher at Neurobiology Lab, Clinic of Neurology, Poznan University of Medical Sciences (PUMS)

Mikołaj Hurła is a 6th year MD student and the president of the student research group of neurobiology. He has been awarded a Chancellor's Scholarship (2021-2023) for his scientific activity. He is a member of the Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment and the Student Scientific Society. He is an active member of Prof Jolanta Dorszewska and Prof Wojciech Kozubski research team at Neurobiology Lab and Clinic of Neurology PUMS. His main interests are: neurodegenerative diseases, especially Alzheimer's Disease and its molecular basis. Recently his research concerns the involvement of infectious agents in the pathogenesis of Alzheimer's Disease.

Robert C. Bransfield, MD, DLFAPA

Board certified by the American Board of Psychiatry and Neurology in Psychiatry and a Distinguished Life Fellow of the American Psychiatric Association.

Dr. Bransfield's primary activity is an office based private practice of psychiatry. In addition, Dr Bransfield is the Past President of ILADS, the International Lyme and Associated Diseases Educational Foundation and the New Jersey Psychiatric Association. He has held a number of administrative positions with organizations involved with health, mental health and community related activities. He is a Clinical Associate Professor of Psychiatry at Rutgers—Robert Wood Johnson Medical School and the Hackensack Meridian School of Medicine. Dr Bransfield has authored and co-authored a number of publications in peer-reviewed literature, other medical publications and books; has been active in political advocacy on an international, national and local level.

Prof Karl Morten

Principal Investigator and Director of Graduate Studies in the Nuffield Department of Women's and Reproductive Health, Oxford University, UK.

The Morten lab have a long-standing interest in understanding the role of mitochondria in health and disease and have built up over the last 15 years technologies allowing this to be studied in a high throughput format. Our research is multi-disciplinary working closely with clinicians, engineers and mathematicians. One of the leading groups in Oxford working on Mitochondria, the group collaborate widely in Oxford supporting groups to carry out experiments in this area leading to a number of publications. Recently we have been actively exploring the mechanisms behind Myalgic Encephalomyelitis/Chronic fatigue syndrome (ME/CFS) and developing compounds designed to target cancer cell mitochondria. Our plan is expand our research into other chronic conditions including Chronic Lyme Disease (CLD) and Long Covid. A small pilot study support by the Lyme Treatment Foundation has just started and looks to find evidence of persistent pathogens in CLD. The interplay between mitochondria and intracellular pathogens is likely highly important and an area we are actively exploring.

Laura Lott (MBA)

Chief Executive Officer, Invisible International, USA.

Laura Lott is the Chief Executive Officer of Invisible International, a non-profit organization committed to alleviating the suffering caused by invisible illnesses through education, research, and community empowerment. Previously, she was the Executive Director of MIT Hacking Medicine Institute, aimed at fostering collaboration between industry, government, and academic institutions to accelerate medical innovation, as well as the co-founder and co-director of the Dean Center for Tick Borne Illness at the Spaulding Rehabilitation Hospital, an affiliate of Harvard Medical School.

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