

UiO : Global Health



THE LANCET ONE HEALTH COMMISSION



UiO : University of Oslo

WELCOME

Greetings,

As Co-chairs of University of Oslo's (UiO) Lancet One Health Commission, we are delighted to introduce our Commissioners and the Secretariat to you. This Commission aims at highlighting the synergistic benefit and added value of closer cooperation between human, animal and environmental health, related sciences and the importance of dismantling disciplinary silos.

Putting together the Lancet One Health Commission has allowed for an exclusive arrangement of Commissioners with a core group comprising of staff from the Centre for Global Health at UiO, the Kumasi Center for Collaborative Research in Tropical Medicine, WHO and Imperial College, responsible for driving the direction, design and implementation of the Commission.

There is much work to do, and the recommendations we will deliver over the next three years will be critical to driving the One Health research and action agenda across multiple spheres.

Our role as Co-chairs is to steer the Commission, and together with the Secretariat, provide support for the Commission to complete its mandate and achieve its mission. We hope this booklet is a helpful introduction as we begin this expedition. We welcome you to the Lancet One Health Commission!



Andrea S. Winkler

Co-Chair

Director, Centre for Global Health, University of Oslo, Norway, Co-director Center for Global Health, TUM, Germany



John Amuasi

Co-Chair

Group Leader, Global Health and Infectious Diseases Research Group, Kumasi Centre for Collaborative Research in Tropical Medicine, Kwame Nkrumah University of Science and Technology, Ghana



ABOUT THE LANCET ONE HEALTH COMMISSION

The Lancet One Health Commission is hosted by the Centre for Global Health at University of Oslo (UiO) and co-chaired by the Kumasi Centre for Collaborative Research (KCCR) in Tropical Medicine of Kwame Nkrumah University of Science and Technology. UiO Lancet Commission on One Health will contribute to creating awareness about One Health and the challenges we as a society are facing, as well as contributing to new knowledge in the area through research.

Introduction

The effect of human dominance over the biosphere over the past century is clearly manifested in the profusion of unprecedented technical possibilities, products and services, which characterize industrialization (1), and that have unparalleled potential to impact health. The apparent dominance of the human species naturally comes with a huge responsibility. Thus in our quest to ensure the health and continued existence of humanity, due consideration must be given to the very complex interdependence of all living species and the environment –the concept of One Health (2–4).

The Lancet One Health Commission aims for trans- and inter-disciplinary collaboration to promote original thinking and generate solutions to the complex Global Health threats of modern times, the majority of which, when properly analyzed, require a One Health approach. The concept has been highlighted and promoted by the United Nations, the G20, the World Health Organization (WHO) among several others (5). The Sustainable Development Goals in themselves could be seen as embodying a One Health strategy aimed at healthy people living on a perpetually habitable planet (6).

OBJECTIVE

The main objective is:

To involve both public and private sectors in harnessing inter-disciplinary methods to synthesize current evidence to shape policy direction on enhancing health within an environment shared by humans and animals (i.e. the One Health), and policy for generating critically needed research outputs to support a One Health approach.

Commissioners will explore global health challenges through a One Health lens, including not only neglected tropical diseases, emerging infectious diseases and antimicrobial resistance; but also, non-communicable diseases (7), taking into consideration disease management as well as prevention (1-2).

In proposing policy, implementation and governance recommendations, the Commissioners will emphasise socio-political dimensions that are critical for engaging and educating communities. Similarly, the Commission will promote leadership to build consensus amongst disparate sectors and foster champions for cohesion and change. Novel financing mechanisms such as Development Impact Bonds will be assessed as key to building resilient health systems at national and international levels (8). Conclusions from the Commission are anticipated to be integrated in policy briefs, international guidelines and protocols, and potentially a resolution at the World Health Assembly.

CONCEPT

At the core of The Lancet One Health Commission's work is recognition of the different dimensions to the Animal-Human interface, which we fan out into three major nodes so the Commission can investigate the nexus of:

1. The Shared Environment
2. Food Systems and Resources
3. Shared Medicines and Diagnostics

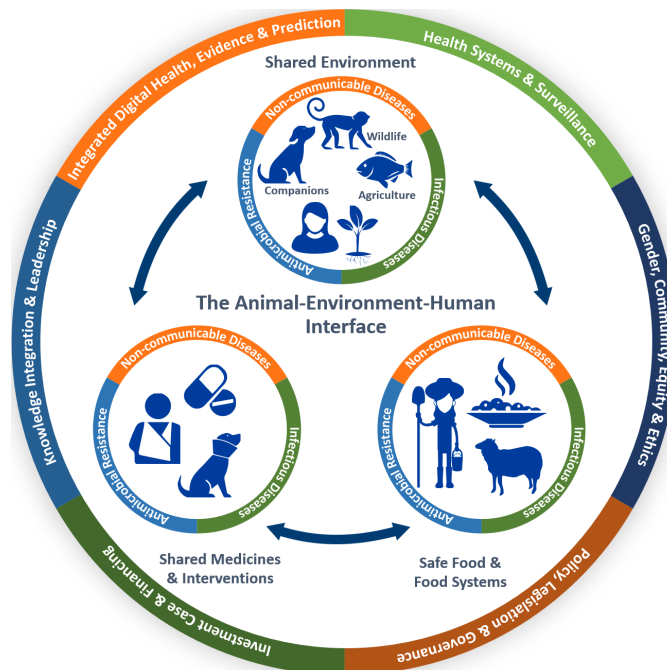


Figure 1: An illustration of The Lancet One Health Commission's concept



COMMISSIONERS

This initiative convenes 26 Commissioners from around the world with expertise relevant to One Health. The experts form three working groups and will also bring in their own research teams where appropriate, and will deliver on the expected outcomes of the Commission, culminating in the Lancet One Health Commission report and conference in 2021-22.



Dr. Abela-Ridder, Bernadette works in the Department for the Control of Neglected Tropical Diseases (NTDs) of the World Health Organization (WHO) as the team leader on neglected zoonotic diseases and NTDs that have a human animal interface. She is closely involved in advancing common areas of work with FAO, OIE and other global health actors. Bernadette previously worked in the WHO Department of Food Safety and Zoonoses working on capacity building and global early warning for zoonotic events and led the WHO global burden of leptospirosis study.



Dr. Ahmed, Osama Ahmed Hassan is a Postdoctoral Research Fellow of "One Health" at the Center for Global Health, Department of Community Medicine and Global Health, Institute of Health and Society, Faculty of Medicine, University of Oslo, Norway. He is in charge of the "One Health" signatory theme at the Center. Dr. Osama works closely with international organizations such as FAO, OIE, WHO, EU Health commission that are adopting the One Health approach to confront global health threats at animal, human and environment interface.



Dr. Amuasi, John is trained as a physician at the KNUST School of Medical Sciences in Ghana and has completed post-graduate studies in Health Research at the University of Minnesota SPH. Dr. Amuasi currently leads the Global Health and Infectious Diseases Research Group at the Kumasi Center for Collaborative Research in Tropical Medicine (KCCR) and is also a lecturer at the Global Health Department of the SPH, KNUST. Dr. Amuasi's work involves policy and field epidemiologic studies on diseases of poverty, and he has consulted for several international organizations on interventions to improve health systems, services and outcomes in sub-Saharan Africa.



Dr. Berthe, Franck is a One Health practitioner at the World Bank, working across the agriculture, environment and public health sectors on health issues at the human, animal and environment interfaces. He has served as an expert for the World Organisation for Animal Health (OIE) since 1996 through specialized Commissions and ad hoc groups. He is currently Vice-President of the OIE Biological Standards Commission. Before joining the Bank, Franck was the Head of the Animal and Plant Health Unit at the European Food Safety Authority (EFSA). Prior to that, he was Associate Professor at the Atlantic Veterinary College (UPEI) and Canada Research Chair in Aquatic Health Sciences.



Prof. Blumberg, Lucille is a Deputy Director of the National Institute for Communicable Diseases, of the National Health Laboratory Service, South Africa and founding head of the Division of Public Health Surveillance and Response. She is currently a medical consultant to the Division for Outbreak Preparedness and Response and to the Centre for Emerging, Zoonotic and Parasitic Diseases. She is an Associate Professor in the Department of Medical Microbiology at the University of Stellenbosch, Western Cape, and lecturer in the Faculty of Veterinary Medicine, University Of Pretoria, South Africa.



Prof. Carabin, Hélène is a DVM trained in veterinary and human epidemiology and in health economics. Her work primarily focuses on using state-of-the-art epidemiological methods and Bayesian statistics to measure associations, while adjusting for bias, between animal, human and environmental factors and zoonotic infections such as *Shistosoma japonicum* and cysticercosis. She is also involved on research to develop serological markers for neurocysticercosis. Dr. Carabin highly contributed to the inclusion of neurocysticercosis and cystic echinococcosis in the Global Burden of Disease estimates. She is the Canada Research Chair in Epidemiology and One Health since September 2018.



Prof. Corander, Jukka is a group leader at the Institute of Basic Medical Sciences, University of Oslo, and an honorary faculty member at the Wellcome Sanger Institute, Cambridge, UK. Jukka received the ERC Starting grant 2009-2014 and is currently leading an ERC Advanced grant project SCARABEE for evolutionary epidemiology from Infection and Immunity panel. The group has introduced several of the leading statistical methods for bacterial population genomics, including tools for analysing population structure and recombination, GWAS and discovery of interacting mutations. The main research focus of the Corander group is understanding the molecular and ecological factors in bacterial evolution and transmission, and the emergence and dissemination of antimicrobial resistance.



Prof. Daszak, Peter is President of EcoHealth Alliance. Dr. Daszak is a member of the National Academy of Medicine and Chair of the NASEM's Forum on Microbial Threats. He is a member of the NRC Advisory Committee to the US Global Change Research Program, the Supervisory Board of the One Health Platform, the One Health Commission Council of Advisors, the CEEZAD External Advisory Board, the Cosmos Club, and the Advisory Council of the Bridge Collaborative. He is also a regular advisor to WHO on pathogen prioritization for R&D.



Prof. Fèvre, Eric is Professor of Veterinary Infectious Diseases at the Institute of Infection and Global Health (IGH), University of Liverpool and is jointly based at the International Livestock Research Institute, Nairobi, Kenya. Prof. Fèvre is the Chair the World Health Organization Working Group on zoonotic Neglected Tropical Diseases (zNTDs), is a member of the WHO Expert Committee on Human African Trypanosomiasis and was a member of the WHO Initiative to Estimate the Global Burden of Foodborne Disease (FERG). In Kenya, he is a member of the Zoonoses Technical Working Group (ZTWG), the advisory body to the Government of Kenya National Zoonotic Disease Unit.



Dr. Haesler, Barbara is a Senior Lecturer in Agrihealth at the Royal Veterinary College and the London Centre for Integrative Research on Agriculture and Health. She is a veterinary researcher with expertise in food systems, economics applied to animal health and One Health, and evaluation. She coordinated the international Network for Evaluation of One Health from 2014-2018 and then became an active member in the consortium's continuation as the Network for Ecohealth and One Health – a European Chapter of the Ecohealth International Trust. Dr Haesler has a special interest in using interdisciplinary approaches in food systems to investigate consequences and trade-offs in terms of food safety, food and nutrition security, animal welfare, livelihoods and sustainability.



Dr. Harrison, Wendy joined the Schistosomiasis Control Initiative as Deputy Director in April 2009 from the Comparative Medicine and Biology Unit at GlaxoSmithKline where she worked in an advisory role across a range of therapeutic drug development areas including inflammation and infection. Wendy was appointed as the Executive Director of SCI in 2016. Wendy is currently the Vice President of the Royal Society of Tropical Medicine and Hygiene and the Past Chair of the global NTD NGO Network.



Prof. Heymann, David is currently a Professor of Infectious Disease Epidemiology, London School of Hygiene and Tropical Medicine and Head of the Centre on Global Health Security at Chatham House, London. From 2012 to March 2017, he was chairman of Public Health England, UK, and prior to that assistant director general of WHO for health security and Executive Director of the WHO Communicable Diseases Cluster, during which he headed the global response to SARS. Before joining WHO, Heymann worked for 13 years as a medical epidemiologist in sub-Saharan Africa, on assignment from the US Centers for Disease Control and Prevention (CDC) during which he participated with the international teams investigating and responding to the first, second and third outbreaks of Ebola Haemorrhagic Fever in DRC.



Dr. Lapinski, Maria is the Director of the Michigan State University (MSU) Health and Risk Communication Center: Healthy People-Healthy Planet. She is appointed as a Professor in the Department of Communication and Michigan Ag-Bio Research at MSU. For six years, she served as the Associate Dean for Research for the College of Communication Arts and Sciences. From 2012-2016 she led, along with Dr. Julie Funk in the College of Veterinary Medicine an interdisciplinary collaborative: One Health: Emerging Communication Technology for Decision-Making and Behavior which was seed-funded by the U.S. National Cancer Institute, National Institutes of Health.



Dr. Lubroth, Juan is the Chief Veterinary Officer of the Food and Agriculture Organization of the United Nations (FAO). Dr. Lubroth previously served for seven years as the Senior Officer of FAO's Animal Health Service and Head of the Infectious Diseases Group/Emergency Prevention System in charge of worldwide surveillance, capacity building, and progressive control of transboundary animal diseases. In October 2009, Dr. Lubroth was appointed as Chief of the Animal Health Service.



Prof. May, Jürgen is a Professor for Epidemiology of Tropical Diseases at the University of Hamburg, Member of the Board of Directors at the Bernhard Nocht Institute for Tropical Medicine (BNITM), and Head of the Dept. Infectious Disease Epidemiology. Currently, he is a Board Member of the German Association for Tropical Medicine and International Health (DTG), Coordinator of the Unit African Partner Institutions at the German Center of Infectious Disease Research, and nominated representative of Germany and Luxemburg at the Joint Coordination Board (JBC) of the WHO Special Program for Research and Training in Tropical Diseases (TDR).



Dr. Natterson-Horowitz, Barbara is a Visiting Professor in Harvard University's Department of Human Evolutionary Biology and Professor of Medicine in the UCLA Division of Cardiology. She co-directs the UCLA Evolutionary Medicine Program and its graduate degree program. She is also President of the International Society of Evolution, Medicine and Public Health. Dr. Natterson-Horowitz has authored numerous One Health-themed chapters and two One Health-themed books including *Wildhood* and the New York Times bestselling and award-winning book, *Zoobiquity*, which makes the case for a species-spanning approach to health. In September 2019, Dr. Natterson-Horowitz keynoteed the Nobel Assembly's Nobel Conference in Stockholm, Sweden where *Zoobiquity* was the featured theme and book for the event.



Dr. Nwankwo, Uzoma is a Senior Medical Officer and Health Economist at Ministry of Health, Nigeria. He trained at University of Port Harcourt Nigeria; the London School of Hygiene and tropical Medicine, and the London School of Economics. He chairs the WHO Working Group on Investment for Impact (IfI) on the economics, financing and socioeconomic impact of NTDs control, and is a member of Nigeria's Healthcare Financing, Equity & Investment (HCFE&I) technical working group.



Dr. Okello, Anna is the current Research Program Manager for Livestock Systems at the Australian Centre for International Agricultural Research, a statutory authority within the Australian government's foreign aid portfolio. Anna is a Senior Advisor for One Health at the Indo-Pacific Centre for Health Security, and holds an adjunct teaching position at the University of Edinburgh's Global Health Academy. She has also held technical advisory and research roles for International Non-Government Organizations, academia, the World Health Organization and the Australian government.



Prof. Sahay, Sundeep is professor in informatics at the University of Oslo since 1999. He has more than 25 years of researching and teaching information systems/health information systems across more than 20 countries in both the Global North and South. He founded a social enterprise called HISP India (see www.hispindia.org) in 2000 as a part of Oslo's HISP (Health Information Systems Programme) research and development network. He has been Principal Investigator for at least 4 multi-country long term Research Council of Norway grants (total grant approx. 50 Million NOK), and received the UiO Innovation Award in 2012.



Prof. Samuels, Thelma Alafia is Honorary Professor at the Caribbean Institute for Health Research, University of the West Indies in Jamaica, recently retired as the Director of the George Alleyne Chronic Disease Research Centre at UWI Barbados. She is a public health physician and epidemiologist and was the Principal Investigator for the formal evaluation of the CARICOM Heads of Government 2007 Port of Spain NCD Summit Declaration. She is currently the Principal Investigator for the follow-on project, also funded by the IDRC Canada, "Improving Household Nutrition Security in CARICOM". She sits on the Governing council of NCD Child and of Defeat NCDs.



Dr. Sejvar, James serves as a neuroepidemiologist at CDC's Divisions of High-Consequence Pathogens and Pathology. He is board-certified in neurology, and serves on the faculty of the Department of Neurology at Emory University in Atlanta, Georgia. Dr. Sejvar is a member of the American Academy of Neurology, the Infectious Disease Society of America and the American Society for Tropical Medicine and Hygiene. He serves on the editorial board of *Lancet Neurology*, and serves as a manuscript reviewer for numerous international medical journals.



Dr. Stone, Matthew is a veterinary epidemiologist from New Zealand, and the Deputy Director General – International Standards and Science at the World Organisation for Animal Health (OIE) at their Paris headquarters. Matthew worked for 20 years with the government veterinary authority of New Zealand, the Ministry for Primary Industries, serving in numerous veterinary and management roles. Matthew has been President of the Epidemiology Branch of the New Zealand Veterinary Association.



Dr. Thompson, Ricardo is the WHO Regional Programme Review Group Acting Chair for Africa and the Director and Principal Investigator, Chókwè Health Research and Training Centre (CITSC), National Institute of Health, Mozambique. From 2001 to 2008, he served as Scientific Director of the National Institute of Health in Mozambique. From 2011-2015, he served as the chairman of the WHO Lymphatic Filariasis Program Review Group in the African Region. In 2015, he became the vice-chair of the newly formed WHO Neglected Tropical Diseases Program Review Group.



Prof. Xiao, Ning is Deputy Director and Professor of the National Institute of Parasitic Diseases, Chinese Center for Disease Control and Prevention in Shanghai, China. From 1997-1998, he studied parasite immunology as a visiting scholar in the University of Tokyo, Japan and got his PhD on Parasitology from Asahikawa Medical University, Japan. Currently, he is the Vice Chair of the Joint Coordinating Board of TDR, a member of the Regional Steering Committee for the Global Fund Regional Artemisinin-resistance initiative and a STAG member of WHO-NTDs.



Prof. Winkler, Andrea is the Director of Centre for Global Health at the Faculty of Medicine. She is also affiliated as a professor at the Department for Community Medicine and Global Health, at the Institute of Health and Society. She is a medical doctor who has practiced in various medical specialties for more than 10 years. She also has three-years' experience of tropical medicine. Her interest lies with poverty-related diseases of the infectious as well as non-infectious nature, zoonotic diseases with the ensuing One-Health concept, global palliative care as well as migrant medicine.



Prof. Zinsstag, Jakob graduated with a doctorate in veterinary medicine on Salmonella diagnosis at the Veterinary Faculty of the University of Berne in 1986. Since 2010, he has been a Professor of Epidemiology at the University of Basel and since 2011 deputy head of department of Epidemiology and Public Health at the Swiss TPH. He is a diplomat of the European College of Veterinary Public Health (ECVPH), past President of the International Association for Ecology and Health, President of the Transdisciplinarity network of the Swiss Academies (td-net), and the lead editor of the book "One Health: the theory and practice of integrated approaches to health" (CABI 2015).



COMMISSION SECRETARIATS

The Centre for Global Health (CGH) at the University of Oslo (UiO) hosts the Secretariat of The Lancet One Health Commission, supported by the Kumasi Centre for Collaborative Research in Tropical Medicine (KCCR) at the Kwame Nkrumah University of Science and Technology (KNUST).



Dr. Asaduzzaman, Muhammad is a research fellow at Centre for Global Health, University of Oslo. His primary expertise lies in One Health, field epidemiology and global health with skilled training on medical sciences, public health and clinical trials. His long term research interests focus on the development of a comprehensive understanding of key pathways involved in Antimicrobial Resistance (AMR) along with Infectious disease epidemiology (specially zoonotic) through multidisciplinary approach. Being a former One Health Fellow in South Asia and GHES Fogarty Fellow in global health, Dr.Asad has long standing research experience in One Health arena at global south.



Ms. Carson, Marianne is a PhD student at the Royal Veterinary College (RVC), UK, in the Veterinary Epidemiology, Economics and Public Health Group (VEEPH). Her research is focused on understanding poultry farmer decision-making during avian influenza outbreaks in Vietnam. She is the coordinator for the Lancet One Health Commission in the Oslo secretariat.



Ms. Haavardsson, Ingeborg is the Managing Director of the CGH. Her education background includes a Master's Degree in International Conflict Analysis from the University of Canterbury, Kent, UK. She is a management and event specialist, with over 25 years of experience from the international research and development sector. She is heading the Oslo secretariat for the Lancet One Health Commission.



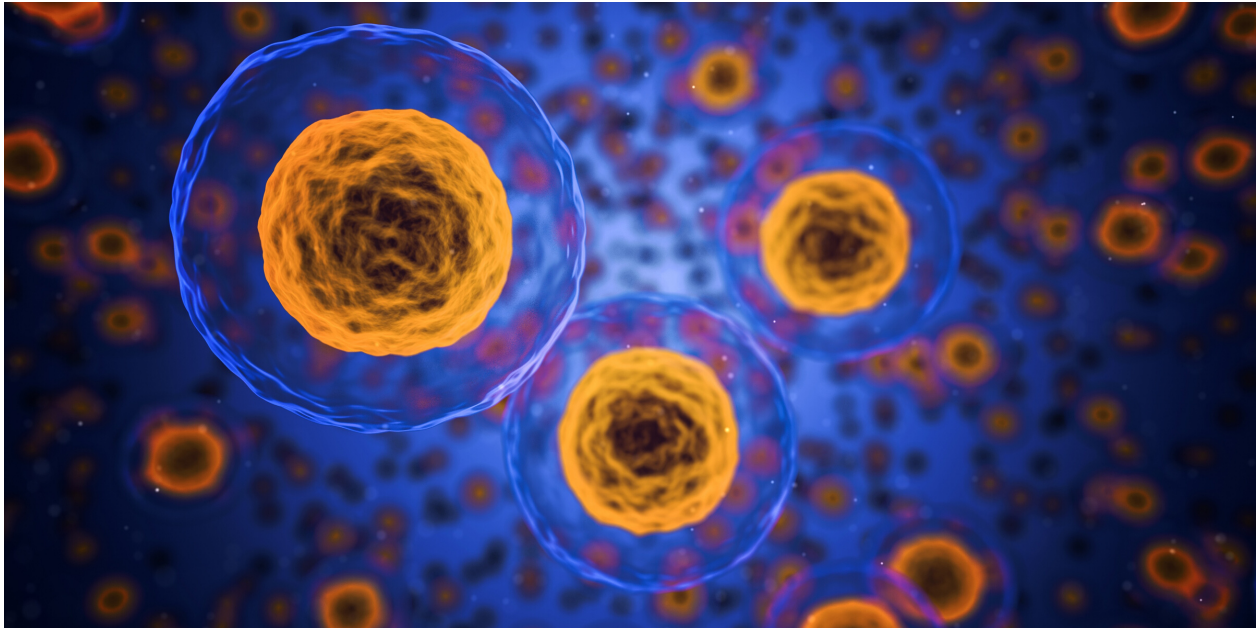
Dr. Rødland, Ernst Kristian is a specialist in Internal Medicine. He has mostly worked, either as a scientist or a clinician, in the field of infectious diseases since 2003. He has been a postdoctoral research fellow at the Centre for Global Health (CGH), University of Oslo (UiO) from August 2017, and currently also holds a 20% position as associate professor at Institute of Informatics, UiO. At present his work is oriented around antimicrobial resistance (AMR), One Health (OH), migrant health and Global Health. Dr. Rødland is involved in several projects addressing AMR with an OH approach, mostly in low- and middle-income countries. He is also a scientific coordinator in a Norwegian network for OH resistance surveillance (NORSE).



Ms. Rodriguez, Gabriella is the Communications officer at the Centre for Global Health at the University of Oslo (UiO) and also supports the secretariat of the Lancet One Health Commission. She is currently working on a master's degree on sexual and reproductive health from the International Community Health program at the Institute of Health and Society, UiO.



Prof. Wasteson, Yngvild is professor in microbiology/food safety at the Faculty of Veterinary Medicine, NMBU. She is trained as a veterinarian and has a PhD in microbiology. Her fields of interests are zoonotic infections and antimicrobial resistance, addressed in a One Health perspective. She is member of the Norwegian Scientific Committee for Food and Environment, and head of the panel on microbial ecology. From 2010 and until the merger into NMBU in 2014, Yngvild Wasteson was rector of the Norwegian School of Veterinary Science.



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