The threat mitigation of emerging infectious diseases globally

As curative medicine gets, compared to public health systems, generally more attention and financial support, particularly the underdeveloped countries are not well enough prepared for outbreaks of infectious diseases. In the past several Western public health institutes, like the French 'Institut Pasteur', the Dutch 'Tropeninstituut', and many others, were prominent surveyors of contagious diseases and very active in the international mitigation of infectious diseases. In the last decennia, the investments in worldwide public health unfortunately have been reduced compared to curative healthcare. With the recent Ebola Virus Disease outbreak in West Africa, we see a new wave of growing interest to invest in Worldwide Public Health to prevent spreading of highly contagious diseases. Most public health systems in developing countries do not have proper diagnostic laboratories, quarantine procedures and treatment facilities. Non-Governmental Organisations (NGOs) helping to fight outbreaks are often better trained in curative treatments and have less skills with biological (bioweapon) threats in which military have more experience. I acclaim Bill Gates’ announcement in the New England Journal of Medicine (Bill Gates, NEJM, March 19, 2015) that all countries should identify trained military resources that would be available for outbreaks and work together to fight epidemics. New diagnostic technologies will help us worldwide in the defence against emerging contagious diseases. Especially in PCR-based systems, which are nowadays quite ruggedized, are very promising in the identification of potential outbreaks of infectious diseases in wildlife, cattle and/or the human population in developing countries.

Biography

Stef Stienstra is a Strategic and Creative Development Manager in Biomedical Science, who works internationally for several medical and biotech companies as Scientific Advisory Board Member. He is also an active Reserve-Officer of the Royal Dutch Navy in his rank as Commander (OF4). For the Dutch Armed Forces, he is CBRNe specialist with focus on (micro)biological and chemical threats. He is also Manager of the group of medical- and environmental functional specialists within the 1st CMI (Civil Military Interaction) Battalion of the Dutch Armed Forces. In his civilian position, he is at this moment developing with MT-Derm in Berlin (Germany), a novel interdermal vaccination technology as well as a new therapy for cutaneous leishmaniasis for which he has won a Canadian ‘Grand Challenge’ grant. With Hemanua in Dublin (Ireland), he has developed an innovative blood separation unit, which is also suitable to produce convalescent plasma for Ebola Virus Disease therapy. He has finished both his studies in Medicine and in Biochemistry in The Netherlands with a Doctorate and has extensive practical experience in cell biology, immuno-haematology, infectious diseases, biodefense and transfusion medicine. His natural business acumen and negotiation competence helps to initiate new successful businesses, often generated from unexpected combinations of technologies. He consults at top level management, in which his good understanding of abstract science combined with excellent skills in communication of scientific matters to non-specialists helps to get things done.

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