February 12, 2016

Dear Chairs and Ranking Members:

The American Society for Microbiology (ASM), which represents over 47,000 members in the United States and worldwide, is writing in support of the President’s request of $1.8 billion for emergency supplemental funding to prepare for and respond to the Zika virus outbreak. An imminent threat to global health, the spread of this viral pathogen needs to be addressed immediately. At present, there are no vaccines, no rapid diagnostics, and no cures for Zika infection. The biomedical and public health communities must answer important questions about the Zika virus and discover ways to prevent, diagnose, and treat Zika infections.
Recent disease outbreaks in Central and South America have exposed the Zika virus as a serious public health issue. Health officials and biomedical researchers are investigating potential links between the usually asymptomatic infection and cases of devastating birth defects and Guillain-Barré syndrome in those infected. Establishing definitive cause and effect relationships, rather than just correlations, is critical as is discovering whether there are additional factors that distinguish mild from severe disease associated with Zika infections. Unfortunately, *Aedes* species mosquitoes that are indigenous to large areas of the world are known to transmit the virus. The Ebola virus outbreak in West Africa is a recent and sobering reminder of how quickly emerging infectious diseases can spread and destroy their human victims. How we respond to Zika virus today will directly impact the public health outcome, both near-term and long-term.

With an insidious pathogen like Zika virus that causes asymptomatic or minimally symptomatic disease during the acute stage of infection, there may be other possible sequelae to infection yet to be recognized. Recognition of these sequelae will require the gathering of sufficient data from populations living in highly endemic areas like Brazil, Columbia, and El Salvador and finding epidemiologic links between serologic evidence of infection and subsequent health problems. The possible links between Zika virus infection and microcephaly and Guillain-Barré syndrome were recognized in a fortuitous fashion – a regional health issue was detected and then linked retrospectively to Zika virus infection. We urge approval of the funds requested so that heretofore unrecognized connections between Zika virus infection and human disease can be discerned prospectively in a systematic, scientifically rigorous, and statistically meaningful way.

Much of the success against this threat will depend on biomedical research and scientific discovery of new vaccines and treatments. The fight against Zika virus must be informed by scientific understanding gained from research. Although the Zika virus was first identified in 1947, its biology is not well understood. The funding requested would help further research on areas such as molecular studies in Zika pathogenesis and transmission. Additionally, there is a notable lack of understanding about the ecological parameters governing transmission. We need more research on natural hosts of the Zika virus, the rate and speed of transmission of infection among these vectors/carriers and humans, the variables of change on a regional-to-continental scale and, importantly, how transmission can be controlled. It is vitally important to conduct basic and applied research that answers questions about this virus, ultimately leading to prevention and treatment measures.

Multiple stakeholders—including the World Health Organization, the Centers for Disease Control and Prevention, the Food and Drug Administration, and the National Institutes of Health—have initiated strategic research and public health programs to combat the spread of Zika virus. Successful prevention of Zika infection must involve multiple federal, state, and local public health agencies, as well as research institutions like the National Institute of Allergy and Infectious Diseases. The ASM recognizes that new additional funds must be allocated to multiple partners involved to successfully take the offensive against Zika virus.

The new resources requested will help build upon existing preparedness efforts and will support strategies to combat Zika both at home and abroad. ASM specifically supports efforts outlined in the President’s request to accelerate vaccine and diagnostic development, for which $200 million is requested, and to establish a new Urgent and Emerging Threat Fund ($210 million).
toward improving epidemiology and expanding laboratory and diagnostic capacity for this emerging disease threat and other public health needs. We ask Congress to show its support in this crucial effort by approving this request for additional new funding. The ASM stands ready to be of assistance.

Sincerely,

[Signature]

Lynn Enquist, Ph.D.
President, American Society for Microbiology

[Signature]

Ron M. Atlas, Ph.D.
Chair, Public and Scientific Affairs Board, American Society for Microbiology

[Signature]

Stefano Bertuzzi, Ph.D.
CEO, American Society for Microbiology