



# Statement in Support of: “Virology under the Microscope—a Call for Rational Discourse”

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**KEYWORDS** COVID-19, SARS-CoV2, biosafety, coronavirus, gain of function, pandemic, zoonosis

We, members of the Australasian Virology Society, agree with and support the statement entitled "Virology under the Microscope—a Call for Rational Discourse" (1). Like virologists everywhere, we have worked with scientist and clinician colleagues worldwide to develop knowledge, tests, and interventions which collectively have reduced the number of deaths due to COVID-19 and curtailed its economic impact. Such work adds to the extraordinary achievements resulting from virology research that have delivered vaccines and/or antivirals against a long list of diseases and global scourges, including AIDS, smallpox, and polio (1).

We believe the question of the origin of SARS-CoV-2 should be approached with an open mind and in consideration of the best scientific evidence available. We concur with the view that the zoonosis hypothesis has the strongest supporting evidence (2–4), and this is a scenario that has been observed repeatedly in the past (5), including in Australia (6). Recent data strongly support the zoonosis hypothesis (7). We share the concern that emotive and fear-based dialogues in this area add to public confusion and can lead to ill-informed condemnation of virology research.

We believe the current narrative used by some parties—that gain-of-function research is synonymous with high-risk or nefarious activity—fails to appreciate, first, the true scientific value of this legitimate approach to experimental design and, second, the strength and effectiveness of current regulations. There is an extensive history of gain-of-function research safely and effectively contributing to the development of vaccines and antivirals (1). A recent review of gain-of-function studies conducted by the Australian Government defined gain-of-function research as "a change to the genome of any biological entity—a living organism such as an animal, insect, plant, virus, bacterium, or fungus—through any process so that it acquires a new or enhanced function". The review concluded that oversight of gain-of-function research in Australia is comprehensive and robust (8).

We do not believe virology research needs additional legislative controls. As in the United States, regulations in our region applying to virology research are strong, effective, and provide powerful oversight of manipulations of viruses by researchers. We support the call to legislators to resist fear-based campaigns that might lead to unnecessary and counterproductive restrictions being placed on virology research and may limit progress toward new antiviral drugs and vaccines.

We echo the call for policy makers, virologists, and biosafety experts to work together to ensure that research is conducted safely, with the common goal of reducing the burden of disease caused by viruses.

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