Potential Pandemic Pathogens and Gain of Function Research

In 2014, the National Institutes of Health announced a pause on funding for research that could enhance the transmission or pathogenicity of certain viruses, also called “gain of function” research. The pause was removed in December 2017 after a lengthy risk-benefit analysis. Proponents of these studies argue there are significant potential gains from exploration of how these viruses spread; while critics worry the risk of accidentally seeding a pandemic outweighs the rewards.

- Does influenza pandemic preparedness and mitigation require gain-of-function research? Adam DC, Magee D, Bui CM, Scotch M, MacIntyre CR.
- The ethics of biosafety considerations in gain-of-function research resulting in the creation of potential pandemic pathogens. Evans NG, Lipsitch M, Levinson M.
- Gain-of-function experiments: time for a real debate. Duprex WP, Fouchier RA, Imperiale MJ, Lipsitch M, Relman DA.

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