The possible lab-leak origin of SARS-CoV-2: why is an inquiry into this matter so critical?

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Abstract

The progenitor of SARS-CoV-2 remains unknown, according to a preliminary report released on 9 June 2022 by the WHO panel. Jesse Bloom pondered about the SARS-CoV-2 emergence long before December 2019, putting in check the joint WHO-China report. In addition, a rare conflict of interest occurred: 'Mr. Inattention' was a member of the team that the WHO sent to China in 2021 to investigate the COVID-19 origin. The presence of 'Mr. Inattention' provides evidence that WHO overlooked a troubling possibility: apparently, there were those who had at least planned to develop full-length infectious clones of bat SARS-related coronaviruses, with insertion of a fragment (proteolytic cleavage site) of this virus into bat coronaviruses, such a cleavage site being able to interact with furin, an enzyme expressed in human cells. Some moral threshold may have been damaged, threatening civilizational security and public health, given the hypothesis of an unnatural origin of SARS-CoV-2. In other words, there is a possibility of a lab-associated origin of this novel pathogen. This makes it illegal to patent vaccines against COVID-19 in Brazil and all other 192 member states of the World Intellectual Property Organization (WIPO), at least as long as such suspicion exists.

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Abstract

- The progenitor of SARS-CoV-2 remains unknown, according to a preliminary report released on 9 June 2022 by the WHO panel. Jesse Bloom pondered about the SARS-CoV-2 emergence long before December 2019, putting in check the joint WHO-China report. In addition, a rare conflict of interest occurred: 'Mr. Inattention' was a member of the team that the WHO sent to China in 2021 to investigate the COVID-19 origin. The presence of 'Mr. Inattention' provides evidence that WHO overlooked a troubling possibility: apparently, there were those who had at least planned to develop full-length infectious clones of bat SARS-related coronaviruses, with insertion of a fragment (proteolytic cleavage site) of this virus into bat coronaviruses, such a cleavage site being able to interact with furin, an enzyme expressed in human cells. Some moral threshold may have been damaged, threatening civilizational security and public health, given the hypothesis of an unnatural origin of SARS-CoV-2. In other words, there is a possibility of a lab-associated origin of this novel pathogen. This makes it illegal to patent vaccines against COVID-19 in Brazil and all other 192 member states of the World Intellectual Property Organization (WIPO), at least as long as such suspicion exists.
- 66 Keywords
- 67 SARS-CoV-2 virus, COVID-origins investigation, Conflict of interest, COVID-19 vaccines, Patents.

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- Jesse D. Bloom pondered about the SARS-CoV-2 emergence long before December 2019 (Bloom 2021), putting in check the joint WHO-China report (WHO 2021). Indeed, this first WHO report suggests the natural origin of the current coronavirus (zoonotic overflow) as the most likely hypothesis, ruling out all suspect cases prior to 8 December 2019, now classified as non-COVID. However, a study by Huang (et al. 2020) traced a confirmed case symptomatic since 1 December
- 79 2019 without any association with the Huanan Seafood Market in Wuhan. Here is an eclipsed fact between the lines of a rare conflict of interest: 'Mr. Inattention' was a member of the team that the
- WHO sent to China in 2021 to investigate the COVID-19 origin (WHO 2021).
 - The presence of 'Mr. Inattention' provides evidence that WHO overlooked a troubling possibility: apparently, there were those who had at least planned to develop full-length infectious clones of bat SARS-related coronaviruses, with insertion of a fragment (proteolytic cleavage site) of this virus into bat coronaviruses, such a cleavage site being able to interact with furin, an enzyme expressed in human cells (Daszak apud Lerner et al. 2021). As if that were not enough, there are also speculations that the

87 Wuhan Institute of Virology was already engaged in some of the activities described just above. Thus, the current coronavirus can be an invention for non-peaceful purposes. 88 Some moral threshold may have been damaged (Harrison et al. 2022), threatening civilizational 89 security and public health, given the hypothesis of an unnatural origin of SARS-CoV-2. In line with 90 the international rules endorsed by WIPO, the Brazilian Industrial Property Code (Federal Law No. 91 92 9279, Article 18) says that invention that is contrary to morality, safety or health is not patentable. Since COVID-19 can be of an immoral origin, vaccines developed for that inherit, from a legal 93 viewpoint, this 'gene' of immorality and should have their patenting suspended or broken, without 94 interruption of disease control through vaccination. 95 The origin of the SARS-CoV-2 virus needs a thorough inquiry as soon as possible (Lopez 2023). 96 This is a cross-disciplinary claim. But alas, 'WHO abandons plans for crucial second phase of 97 COVID-origins investigation' (Mallapaty 2023). Behold an artificial eclipse — and it is potentially 98 catastrophic from a bioethical-economic perspective. 99 100 Acknowledgements 101 102 This study had the support of the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior — 103 Brasil (CAPES) — Code 001. 104 105 **Open Research** 106 107 108 Data is available through Bloom 2021, Lerner et al. 2021, Harrison et al. 2022, Huang et al. 2020, 109 Lopez 2023, Mallapaty 2023, WHO 2022 and WHO 2021. 110 **Authors' Contributions** 111 112 113 Antonio Araújo: Investigation and Writing (Original Draft), Liliane Lins-Kusterer: Writing (Review 114 & Editing), and Eduardo Netto: Writing (Review & Editing) and Supervision.

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