

## **PRESS RELEASE: EUROPEAN ACADEMY OF MICROBIOLOGY HIGHLIGHT KEY ISSUES IN ENSURING EFFECTIVE VACCINES IN THE TIME OF COVID-19**

Leading experts<sup>1</sup> from the European Academy of Microbiology have outlined the context and current issues to be considered by policy makers regarding developing and implementing vaccines in preparation for and during pandemics. Vaccination has been a major advance for health care, allowing the eradication and reduction of various infectious diseases. While existing vaccines continue to be improved and distributed, major pathogens such as HIV, the causative agent of malaria and, COVID-19 represent significant research challenges that require the development of new vaccination strategies. Universal Vaccination has become possible, thanks to unprecedented coordinated efforts by the WHO Expanded Programme on Immunization (EPI), national governments, the vaccine industry, and philanthropic foundations to make vaccines accessible to all, regardless of means. Opposition to vaccination is not new, but the reasons why and the ways in which sections of the populations have developed opposition to vaccines, have changed, hence a need for better education, communication, and engagement with health professionals and the public about this field.

Eliora Z. Ron, Professor of Microbiology, Tel Aviv University, one of the authors of the paper, explained:

*“even with a vaccine against COVID-19, there are a number of steps required to ensure it is effective. It will need to be produced in sufficient quantities, extensively distributed globally, and taken up by a high enough proportion of the general population. These are issues for governments as well as scientists to encourage”.*

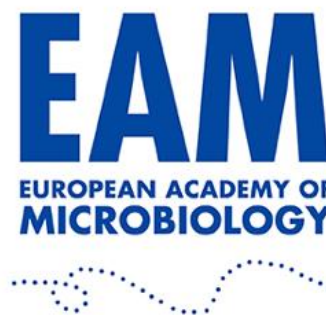
Some of the issues highlighted in the paper are listed below. The full version is freely available in the journal *microLife*: <https://academic.oup.com/microlife/article/1/1/uqaa003/6041022>

- The design and development of effective vaccines against COVID-19 is a challenge, but one that is based on a sound knowledge of the structure, function and immunobiology of related pathogens and a broad collective experience of vaccine development.
- It will be a major challenge to generate an extremely high number of doses rapidly in order to vaccinate a global population, even just those that are defined ‘high risk’.
- Who will own the vaccine? How will it get to those who need it most? Vaccine safety is equally important as vaccine efficacy, we urge for intensive safety studies, in the development phase, post-marketing, and then in larger population-based settings.
- In various countries, vaccination coverage is reduced due to a limited access to vaccines and vaccinations. This does not only prove to be relevant for low- and middle-income countries with weak health care infrastructures but also for high-income countries. We believe access to vaccination needs to be accomplished by barrier-free access.



Delftechpark 37a, 2628 XJ Delft, The Netherlands

T: +31 (0) 15 302 0050 E: eam@fems-microbiology.org W: europeanacademyofmicrobiology.org



- There is an urgent need to re-establish confidence in vaccines. The major issue is to convince young parents of the importance of vaccination and in this context paediatricians and general practitioners have a key role.
- As and when the supplies become available, the rollout and distribution of a vaccine will require careful management and international support and goodwill based on effective and cooperative global politics. Apart from all these logistical issues, equity of vaccine access has to be a high priority.
- Health authorities and governments need to react quickly to false or misleading information through cooperation with social media and messaging companies.
- It is most important that phase IV post-marketing studies are done transparently by governmental, to inform the public about the efficacy in particular risk or target groups, the side effects and the risks associated with non-vaccination.
- While there is a large amount of focus on a possible COVID-19 vaccine it is also important not to neglect routine immunization programmes that protect people against vaccine-preventable diseases.
- Vaccines are among the most important instruments that humans have to tackle infectious disease, other important elements of disease prevention and control (clean water, good hygiene and specific control measures against infection, antimicrobial therapies) should be neither forgotten nor ignored.

### About the European Academy of Microbiology

The European Academy of Microbiology was established in 2009, with the goal of promoting and recognizing excellence in microbiology across Europe. The objectives of the Academy are to be the authoritative voice of microbiology in Europe and promote the potential of microbiology and microbiologists in Europe and globally. The Academy also aims to be an advisory source for governmental and other decision-making bodies.

The members of the European Academy of Microbiology are experts from across the diverse fields of microbiology, with a notable record of publications, patents or inventions and contributions to the microbiological community. The recruitment process is highly selective and based on a peer-review evaluation by current members. The founding President of the EAM was Prof Jörg Hacker and the current President is Philippe J. Sansonetti, Professor at the Pasteur Institute, who will pass over to Prof Jörg Vogel from 1 January 2021. A full list of members can be found on the EAM website (<https://europeanacademyofmicrobiology.org>)

### Information for journalists

A full media pack including EAM logos: [https://fems-microbiology.org/about\\_fems/branding/](https://fems-microbiology.org/about_fems/branding/)

All media enquiries should be sent to Matthew Harvey, Managing Director, the Federation of European Microbiological Societies (FEMS) [matthew.harvey@fems-microbiology.org](mailto:matthew.harvey@fems-microbiology.org)

<sup>1</sup>Complete List of Authors:

- [Jeffrey Almond](#), University of Oxford
- [Jörg Hacker](#), German National Academy of Sciences Leopoldina
- [Colin Harwood](#), Newcastle University Biosciences Institute
- [Mariagrazia Pizza](#), GSK Vaccines Research;
- [Rino Rappuoli](#), GSK Vaccines SRL
- [Eliona Ron](#), Tel-Aviv University George S Wise Faculty of Life Sciences
- [Philippe Sansonetti](#), Pasteur, BCI
- [Samantha Vanderslott](#), Oxford Martin School, Vaccine group, University of Oxford
- [Lothar Wieler](#), Robert Koch Institut

