



## **Messenger RNA: a safe and highly effective vaccine weapon against Covid-19**

### **Press release of the French National Academy of Medicine, the French National Academy of Pharmacy and the French Academy of Sciences\***

*4 août 2021*

The Academies denounce the false information circulating in a part of public opinion concerning messenger RNA-based vaccines. Issued and maintained by a small minority, these untruths are not based on any scientific data but their wide dissemination, especially through social networks, maintains doubt and confusion. They mislead our fellow citizens who legitimately expect to get reliable data on vaccination against Covid. This misinformation, amplified by the media and deceiving even some health professionals, has a deleterious effect on the dynamics of the national vaccination campaign and favours the development of a fourth epidemic wave fuelled by the high contagiousness of the delta variant.

The Academies wish to reiterate several points:

- Scientists and industry have been developing and improving the messenger RNA platform technology for more than 30 years, which has proven to be highly effective for vaccinating SARS-CoV2. The messenger RNA vaccines induce more than 90% protection against the symptomatic forms of Covid-19 and almost 100% protection against the severe forms;
- These vaccines are remarkably safe; they have undergone pharmaceutical development and best practice clinical trials for marketing and have been validated in emergency pandemic procedures by health authorities in Europe and the United States;
- After the injection of billions of doses, the vaccine's efficacy and safety have been largely confirmed by all real-life epidemiological studies and by pharmacovigilance;
- Vaccine messenger RNA is degraded rapidly after translation into vaccine protein and, like physiological RNAs, does not integrate into the human genome;
- Messenger RNA vaccines have the advantage of being rapidly produced in large quantities and could be easily modified, if necessary, in the face of possible escape mutations carried by new variants;
- SARS-CoV-2 variants have emerged in highly infected populations of countries with the lowest vaccine coverage rates;
- Many countries do not yet have enough vaccine to immunize their populations; when they do, they use other vaccines that are cheaper and easier to distribute. In wealthy countries such as France, where sufficient messenger RNA vaccines are available to immunize the entire population, the rhetoric of hesitancy and even opposition to vaccination is no longer acceptable;

– The Covid-19 pandemic is likely to continue as long as the whole of humanity has not acquired immunity, either through infection, but with serious consequences, or through vaccines. Only a universal vaccination will make it possible to interrupt this pandemic

The development of new vaccines using messenger RNA is a huge success of science. It provides a very effective weapon without which it is currently impossible to defeat the Covid-19 pandemic. The Academies recommend its rapid international distribution within the framework of a universal vaccination.

\* Press release approved by the executive offices of the three academies

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