PROJECT OFFER

Method to improve mRNA vaccine safety

We present an innovative approach to enhance safety and efficacy of mRNA vaccines by incorporate vasoconstrictors during preparation. By preventing unintended bloodstream entry and minimizing adverse effects our method addresses concerns surrounding vaccine safety, improving the effectiveness and general reception of established mRNA vaccines!

BACKGROUND
The COVID-19 pandemic spurred rapid development and widespread adoption of mRNA vaccine technology. While these vaccines have demonstrated effectiveness and relative safety, instances of severe complications, such as myocarditis, have raised concerns about their trustworthiness. Most mRNA vaccines are designed for intramuscular administration, inherently carrying the risk of inadvertent entry into the bloodstream, which can lead to adverse effects, including vascular and myocardial inflammation.

TECHNOLOGY
Our innovative approach aims to mitigate the risk of unintended bloodstream entry of mRNA vaccines through localized vasoconstriction. By enhancing persistence within muscular tissue, we anticipate achieving nearly complete uptake of the vaccine into muscle cells, thereby preventing escape into the circulation and delivery to other tissues, such as the vascular endothelium. While the use of vasoconstrictive agents, such as adrenaline, is a well-established technique to prolong the effects of local anesthetics, its application in mRNA vaccine preparation represents a novel advancement in the field.

Advantages:
- Provides a simple and efficient method to prevent unintended bloodstream entry of mRNA vaccines, enhancing their safety profile.
- Reduces the risk of adverse effects, thereby bolstering the overall safety and efficacy of mRNA vaccines.
- Increases consumer confidence by reinforcing the reliability and safety of mRNA vaccines.
- Utilizes a well-established technique for the application of local anesthetics, ensuring ease of implementation and acceptance.
- Patent claims

OFFER
acib invites companies or investors to further refine and validate this innovative technology. Alternatively, we offer the option of a direct IP transfer, enabling partners to leverage this groundbreaking technology for their own research and development efforts. By leveraging Dr. Stefan Grabuschnig's and acib's resources, we can accelerate the development and deployment of this groundbreaking solution, contributing to global efforts to enhance vaccine safety and efficacy. Let's collaborate to shape the future of mRNA vaccines together.

acib-EXPERTS:
Dr. Stefan Grabuschnig

DEVELOPMENT STATUS:
TRL 2 (technology concept formulated)

IPR:
PCT/EP2022/084011

KEYWORDS:
mRNA vaccines
vasoconstrictors
safety
adversary effects
complications
myocarditis

CONTACT:
Dr. Martin Trinker
Director Business Development
tel: +43 316 873 9316
e-mail: martin.trinker@acib.at

Austrian Centre of Industrial Biotechnology (acib)
Krenngasse 37
8010 Graz
https://acib.at