

Debiopharm



Debiopharm, a Swiss-based global biopharmaceutical company used an open innovation Challenge through Wazoku to find a single-dose version of a COVID-19 vaccination. Identifying vaccinations that give the same protection in one shot will simplify vaccination processes.

This collaborative approach is a key part of Debiopharm's business model, finding ways to leverage the world as a laboratory of innovation. The Challenge was launched on InnoCentive, Wazoku's previous home for open innovation, to participants all over the world from many different backgrounds, industries, and cultures.

What is a Theoretical Challenge?

This was run as a Theoretical Challenge, meaning that the Solvers needed to send in a full written proposal with some level of development to be considered. A solution to a Theoretical Challenge is more than an idea but not quite a proof of concept: there should be a concept with detailed descriptions, specifications, and requirements. These criteria are necessary to bring a good idea closer to becoming an actual product or service.



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Over our 40+ years' experience, we have learned that collaboration is key to finding novel solutions to unmet medical needs. We are proud that the pool of international innovators from the Wazoku network have given fresh insights to help us in developing more simplified vaccine solutions.

Bertrand Ducrey - CEO of Debiopharm

Currently approved COVID-19 vaccines based on messenger RNA (mRNA) technology require two injections, at several week intervals, for optimal protection against the virus. These multi-dose formulations mean that the first vaccination doesn't give full protection. Finding a single shot version of a COVID-19 vaccination can help alleviate supply issues and improve the speed at which a recipient is protected.

➔ How do vaccines work?

Vaccines offer protection by training the immune system to recognize pathogens, such as viruses. Unlike traditional vector vaccines that are based upon modified forms of a live virus, mRNA vaccines contain instructions that allow the host cell to produce and display a harmless spike protein on its surface, which causes the body's immune system to send an antibody response. The mRNA is then degraded after the protein is expressed and there is less risk for a slight infection, as opposed to the potential case with an attenuated vaccine.

The mRNA COVID-19 vaccines must be stored at low temperatures due to limited stability and two doses are administered to first prime and then boost the immune system. Having vaccines that are single-dose helps to avoid storage times, risk of instability, and overall to stabilize the vaccine delivery.



133 Solvers engaged



From 2 doses weeks apart to a one-time vaccination



40 solutions submitted



33 fully evaluated



2 winners



Specialized in the manufacturing and development of oncology and antibiotic therapies, Debiopharm is a world leader in biopharmaceuticals, including the development of long-lasting formulations that allow for gradual dissolution and distribution of peptides and small molecules. Balancing between disruptive discovery products and real-world patient reach, Debiopharm identifies high-potential treatments and technologies for in-licensing, demonstrates their clinical safety and effectiveness, and then selects pharmaceutical commercialization partners to maximize patient access globally.

➔ The solution and the role of Wazoku

Debiopharm could easily access a wealth of solutions provided by the Wazoku Crowd. Solvers' written proposals were submitted, sorted, and evaluated on the platform – meaning the evaluation teams had a straightforward process to prioritize their chosen solution.

One solution helped to stabilize the process, meaning the vaccinations could be stored closer to 0oC (instead of -80 or -20oC). The other was supported by biological evidence of improved transfection, the process of introducing nucleic acids into cells through nonviral methods, of RNA.

The winning Solvers were awarded the full award fund of \$40,000 USD, and their solutions were tested and developed further by Debiopharm.



Using open innovation in this case provided us with interesting avenues to explore. In the last months, our team won a company award for most innovative project as a result of this work with Wazoku.

Bertrand Ducrey - CEO of Debiopharm

➔ Internal team award for this research

The team responsible for this open innovation Challenge at Debiopharm entered an internal company award about the most innovative activities of employees in the last year. They put forward their experience of tapping into a crowd of always-on problem solvers through Wazoku, and won the company award – receiving acclaim for their methods to bring Debiopharm new research areas.

➔ About Wazoku

Wazoku is an innovation SaaS business that helps some of the world's biggest organizations to innovate at scale. Whether it's making the most of your employee's ideas, identifying new partners to collaborate with, or exploring the boundless potential of open innovation – or all three! – Wazoku makes innovation happen.

We combine the tools, frameworks, and capability building that enables your organization to land and scale your innovation program. With AI-powered software, market-leading analytics, skills training, proven Challenge Driven Innovation® methodology and the world's first accredited open talent crowd, Wazoku is the global home for innovation.

We believe innovation requires diversity to be successful and that everyone should have a voice and role in the innovation process. We are changing the world, one idea at a time.