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Swiss agritech startup Apolarion secures CHF 150,000 to advance chemical-free seed treatment

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Venture Kick funding will support field trials of a cold plasma technology designed to protect seeds from pathogens without chemical treatments.

The EPFL spin-off Apolarion has obtained CHF 150,000 from Venture Kick to advance a chemical-free seed treatment technology powered by plasma. Using only air and electricity, the cleantech startup aims to protect crops from harmful pathogens while reducing the environmental impact of agriculture.

Protecting seeds from disease is essential to ensuring healthy crops and reliable harvests. However, conventional seed treatments often rely on chemical coatings that can leave harmful residues in the soil, while alternatives using heat require considerable energy and are ineffective in some case. Both approaches present challenges for high-value seeds and the growing demand for sustainable, pesticide-free farming.

Apolarion is developing a modular device that uses cold atmospheric plasma to eliminate harmful microorganisms from seeds without chemicals. The technology generates highly reactive particles from air and electricity that neutralize

pathogens while preserving the seeds' ability to germinate. Designed for low energy consumption and flexible application, the solution offers a more sustainable alternative to conventional seed treatments.

The initial focus is on the Swiss and EU seed treatment market, valued at approximately USD 250 million, within a global market estimated at USD 13 billion and growing at 9.5% annually. Apolarion will seek to provide added value for over 450 companies in the EU alone by increasing yields of harvests plagued by pathogens.

The CHF 150,000 from Venture Kick will enable Apolarion to deliver this technology to customers for the first time. It will be used to support the first series of field trials through paying for operational spaces, equipment and personnel necessary for running these pilot programs. This will ensure a successful market entry and provide a strong foundation for future growth of Apolarion.

The startup is co-founded by Jesus Poley and Luke Simons, two plasma physicists from EPFL’s Swiss Plasma Center who combine scientific expertise with project management experience.

?The Venture Kick program has been so important in our journey. It introduced us to the startup network in Switzerland and gave us access to world-class training, coaching and advisors; helping achieve the early successes of Apolarion,? stated CEO and founder Luke Simons. ?We’re incredibly grateful for the recognition, exposure and support we’ve gained in the program, and we look forward to continuing to take part in this vibrant community.?