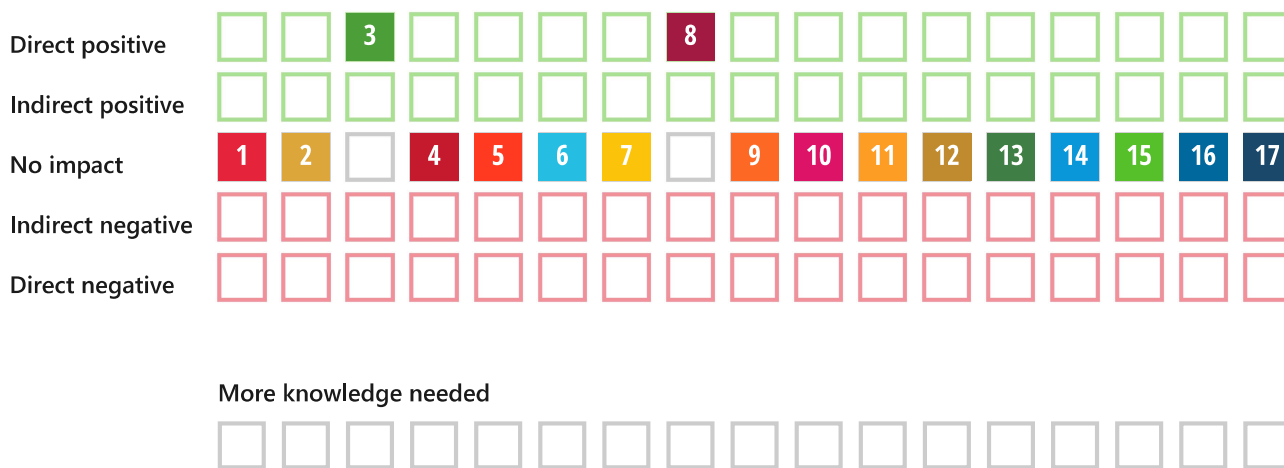


Zelle Biotech _ Endonuclease



Decription

The vaccine industry which had not seen much innovation since the last couple of decades has been reinvigorated due to the COVID-19 pandemic. The development and manufacturing of vaccines has seen huge improvements in a short time span. Even though the antigen (COVID-19) is new most vaccine manufacturing involves basic steps. Vaccines are regulated as biological products and need to go through to a well-defined regulatory process for approval. Among the many parameters that are monitored during manufacture and in the finished product is nucleic acid contamination. Nucleic acid contamination should be limited to 100 pg per dose (in the end product). The nucleic acid contamination is removed by using an endonuclease which degrades nucleic acid sequences to oligonucleotides (three to five base pairs in length). Almost all vaccine manufacturers use endonuclease in the process to meet the nucleic acid contamination specification. Until recently endonuclease was not being manufactured in India, it had to be imported. The cost of the endonuclease adds a huge cost to the cost of production. For the first time in India a Hyderabad based company has successfully started manufacturing of endonuclease. Zelle Biotechnology Pvt. Ltd has tied up with this company to characterize this endonuclease and market the product in India and the rest of the world. Besides regular enzyme and protein assays the endonuclease will need to be completely characterized using physicochemical and purity tests. To prove the removal of endonuclease in downstream steps a product specific ELISA detection kit will also need to be developed. The objective of this proposal is to completely characterized using physicochemical and purity tests and develop a product specific ELISA detection kit.

Strategic choices

The result reflects your current status. Now identify and prioritize the SDGs that you can take action on. Tick one or several of the questions you want to base your strategy on:

- Which positive impacts can you strengthen even further?
- Which negative impacts can you eliminate or minimize?
- What is needed and who can help you to fill the knowledge gaps?



NO POVERTY

End poverty in all its forms everywhere



Impact

NO IMPACT

Motivation

Zelle _ Endonuclease project deals with Vaccination for Covid (Bio Pharma & Lifesciences). So for this Particular SDG, Zelle has no substantial impact.



ZERO HUNGER

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Impact

NO IMPACT

Motivation

Zelle _ Endonuclease project deals with Vaccination for Covid (Bio Pharma & Lifesciences). So for this Particular SDG, Zelle has no substantial impact.



GOOD HEALTH AND WELL-BEING

Ensure healthy lives and promote well-being for all at all ages

Impact

DIRECT POSITIVE

Motivation

The endonuclease enzyme that will be manufactured is used the vaccine making industry. Vaccines as we know have become a necessity. The manufacture of the enzyme in India makes us (India) more self sufficient as vaccine producers. So far manufacture's have been importing the endonuclease. It has become imperative that we become self sufficient in this fight against Covid. Once sufficient has been manufactured for use in the Indian market it can be exported as well.



QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Impact

NO IMPACT

Motivation

Zelle _ Endonuclease project deals with Vaccination for Covid (Bio Pharma & Lifesciences). So for this Particular SDG, Zelle has no substantial impact.



GENDER EQUALITY

Achieve gender equality and empower all women and girls

Impact

NO IMPACT

Motivation

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CLEAN WATER AND SANITATION

Ensure availability and sustainable management of water and sanitation for all

Impact

NO IMPACT

Motivation

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AFFORDABLE AND CLEAN ENERGY

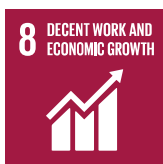
Ensure access to affordable, reliable, sustainable and modern energy for all

Impact

NO IMPACT

Motivation

Zelle _ Endonuclease project deals with Vaccination for Covid (Bio Pharma & Lifesciences). So for this Particular SDG, Zelle has no substantial impact.



DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Impact

DIRECT POSITIVE

Motivation

The manufacture of the enzyme using technology that can harness India. The infrastructure can be created. The creation of the infrastructure, manufacture, testing of the product, marketing and supply will create many skilled and unskilled jobs. It will also bring down the cost of the product as import cost is 5 times more than manufacturing in the country.



INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Impact

NO IMPACT

Motivation

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REDUCED INEQUALITIES

Reduce inequality within and among countries

Impact

NO IMPACT

Motivation

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SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient and sustainable

Impact

NO IMPACT

Motivation

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RESPONSIBLE PRODUCTION AND CONSUMPTION

Ensure sustainable consumption and production patterns

Impact

NO IMPACT

Motivation

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CLIMATE ACTION

Take urgent action to combat climate change and its impacts

Impact

NO IMPACT

Motivation

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LIFE BELOW WATER

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Impact

NO IMPACT

Motivation

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LIFE ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Impact

NO IMPACT

Motivation

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PEACE, JUSTICE AND STRONG INSTITUTIONS

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Impact

NO IMPACT

Motivation

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PARTNERSHIPS FOR THE GOALS

Strengthen the means of implementation and revitalize the global partnership for sustainable development

Impact

NO IMPACT

Motivation

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