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Caring Cross Champions Healthcare Equity: Dr. Boro Dropuli? on Reshaping CAR-T Cell Therapies Through Decentralized Manufacturing

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Dr. Boro Dropuli?, Executive Director of Caring Cross, discusses with Ankit Kankar of BioSpectrum Asia how their mission to reduce CAR-T therapy costs is transforming global healthcare, with a focus on access in low- and middle-income countries.

In a candid conversation with Ankit Kankar from BioSpectrum Asia, Dr. Boro Dropuli?, Executive Director of Caring Cross, delves into the motivations behind Caring Cross's groundbreaking efforts to make CAR-T cell therapies more affordable. Drawing from decades of experience in the cellular gene therapy field, Dr. Dropuli? shares how Caring Cross's decentralized manufacturing model is driving down costs and enabling access to life-saving treatments, particularly in low- and middle-income countries. He also highlights key partnerships, including with Brazil's Fiocruz, that are central to their mission of improving global healthcare equity.

What motivated Caring Cross to focus on reducing the cost of CAR-T cell therapies, and how has your decentralized manufacturing model been instrumental in achieving this mission?

My team and I have been in the cellular gene therapy field for decades, seeing its ups and downs. Like many other of my colleagues in the field it was gratifying to see all that the result of that collective effort resulted in therapies made a significant difference in the lives of many patients, and in many cases, cures. But when we saw that the price of these therapies were set at several hundreds of thousands of dollars to multiple millions of dollars per therapy, which does not include hospital care costs, we knew that relatively few patients would get access to these potentially life-saving therapies. That is why Caring Cross was founded, to address these health inequity issues by individuals who have extensive experience in the field and know how to make these products more affordable and therefore improve their access to patients that need them. The decentralized or point-of-care model is a natural extension to improve affordability since we know that making these patient specific and autologous products close to where patients come for care is significantly more efficient and therefore more economical than making them in a centralized manufacturing facility.

Can you explain how Caring Cross facilitates technology transfer to hospitals in low- and middle-income countries (LMICs) and how this enables them to produce CAR-T treatments locally at a significantly reduced cost?

Yes indeed. We are currently working with a non-profit organization in Brazil, called the Fundação Oswaldo Cruz, or Fiocruz, to transfer all the technology needed to manufacture CAR-T cells so that they can provide these products to the Brazilian public health system for a tenth of the cost in the US and make them available to their patients for little or no cost. This is a program that is fully funded by the Brazilian ministry of Health and aims to have CAR-T products available to the Brazilian public in 2026 or at the latest 2027.

What challenges have you faced in implementing the point-of-care production model, and how does this approach ensure that patients can receive life-saving treatments within a week?

We are at the early stages of implementing the point-of-care production model. The biggest challenge will be to show that multiple manufacturing facilities at hospitals will be able to produce the CAR-T products that are safe, efficacious and comparable. In the past we have shown that multiple sites can in fact make such products, our goal now is to formalize this process with regulatory authorities for approval and provision to patients in need.

In countries like Spain and India, CAR-T therapy costs have dropped significantly. What were the key factors behind these cost reductions, and how can other regions replicate these successes?

In Spain, the cost of CAR-T cell therapy is less than $100,000 and in India less than $40,000. One of the main drivers for reduced cost is local manufacturing at facilities at or close to where patients come for care. Another is reducing the cost of the materials and time for manufacturing of the CAR-T cells. We are building a network of hospitals that will be able to manufacture these products locally, affordably and sustainably, like in the instances seen in Spain and India.

How does Caring Cross collaborate with global partners to expand access to gene therapies, and what role do these partnerships play in advancing healthcare equity worldwide?

Partnerships are key for any endeavor that has global implications. We are working with a diverse range of stakeholders to bring these technologies and therapies to areas in the world were there is access is limited. For example our partnership with Fiocruz and the Brazilian Ministry of Health is a key partnership that will bring these technologies to Brazil for distribution to the whole of Latin America.

Looking ahead, what are the long-term goals for Caring Cross in making gene therapies more accessible globally, and how do you envision the future of healthcare evolving through this model?

We are focused upon replicating the model we are pioneering in Brazil to other areas of the world, particularly in regions where the need is great but access is limited. We see a future ecosystem of companies and other organizations, where companies provide highly innovative cellular gene therapy products and other organizations like Caring Cross, support hospital-centered point-of-care manufacturing, providing safe and efficacious products, but for a cost that is affordable for public health systems and that ensures access for all patients in need.

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