

KONAR-MF™ Device by Dr. Nageswara Rao Earns U.S. Patent, Sets New Standard in Cardiac Defect Closure

- U.S. patent follows prior approvals in India, Europe, Korea, and Euro-Africa—validating global clinical relevance.
- KONAR-MF™ occluder offers a single-solution approach for many cardiac lesions of the heart, reducing intervention risks.
- Available in India for just INR 50,000, the device remains significantly more affordable than its global price range of INR 1.2-6 lakh. The pricing reflects a deliberate commitment to make advanced cardiac care accessible to Indian patients.

Hyderabad, India; May 30, 2025 – Dr. Nageswara Rao Koneti, Senior Consultant and Head of the Division of Pediatric Cardiology at Rainbow Children's Heart Institute, Hyderabad, has received a **United States patent** for his breakthrough innovation, **the KONAR-MF™ (Multifunctional) Occluder**, a device designed to close septal defects in children and adults.

The U.S. patent is a significant addition to a growing list of international recognitions for the KONAR-MF™ device. It follows patents previously granted **in India, Europe (EC), Euro-African countries, and South Korea** between 2021 and 2023. The Indian patent, granted in February 2023, came after rigorous clinical and technical evaluation, reflecting the device's merit and real-world utility.

Redefining the Standard of Care in Structural Heart Defect Closure

The KONAR-MF™ occluder addresses a long-standing clinical gap by offering a single, adaptable solution to close a variety of defects, including:

- Perimembranous and **Muscular Ventricular Septal Defects (VSDs)**
- **Residual post-surgical defects**
- **Coronary arteriovenous fistulas**
- **Selected aortopulmonary windows**
- **Paravalvular leaks**
- **Systemic-to-pulmonary artery collaterals**

Unlike traditional occluders designed for a single-purpose use, the KONAR-MF™ adjusts dynamically to the shape and flow profile of each defect, allowing for more precise and safer deployment in diverse anatomical scenarios. This design reduces the risk of complications and improves patient outcomes.

Global Reach, Local Impact

Press Release



The KONAR-MF™ occluder is in use across Asia, Europe, Latin America, and Africa, with over 20 peer-reviewed studies confirming its safety and efficacy. Manufactured by Lifetech Scientific, it is priced at just **₹50,000 in India**, compared to **₹1.2 lakh in Pakistan** and **₹2.5–6 lakhs in other parts of Asia and Europe**. Its affordability makes it a critical tool in expanding access to care and reducing the burden of congenital heart disease, especially in low-resource settings.

By significantly lowering the cost of intervention and enabling broader access, particularly in **resource-constrained settings**, the KONAR-MF™ has the potential to **reduce the disease burden** of untreated congenital heart defects, which remain a major cause of morbidity and mortality in children in low- and middle-income countries.

Future Outlook

Securing a US patent is a rigorous process involving extensive examination, validation of prior data, and review of existing devices and publications. With over 20 published papers backing it, the KONAR device is now closer to obtaining FDA approval—enabling broader access across North America. This milestone not only affirms its global safety and efficacy but also paves the way for compassionate use in critical cases.

Dr. Nageswara Rao Koneti stated, “Receiving the U.S. patent is a moment of great pride—not just for me, but for Indian science. It reaffirms that innovations designed in India can meet the highest global standards and serve patients worldwide. This recognition motivates continued work towards affordable, scalable solutions in pediatric care.”

About Rainbow Children's Heart Institute:

Rainbow Children's Hospitals is amongst the best children's hospital in India and is recognized as a leader in women and pediatric care. Extending its services the Group has now launched Rainbow Children's Heart Institute, an exclusive heart centre, to provide the most comprehensive treatment for children with congenital and other cardiac issues. Backed by the expertise of Rainbow Children's Hospital and driven by a formidable team of cardiac experts, RCHI offers only the best for your child. For more information, log on to: <https://www.rainbowhospitals.in/rchi/>

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