

DEVICE FOR BLOOD CANNULATION FOR HAEMODIALYSIS

DESCRIPTION OF THE TECHNOLOGY

Worldwide, there are more than 850 million people with severe kidney disease. This number is increasing due to the rise in chronic diseases such as diabetes and cancer. Vascular access is essential for perform haemodialysis (HD) in the patient treatment of kidney disease.

Currently, these accesses are performed via a catheter, an arteriovenous graft or an arteriovenous fistula (AVF). Although the latter are the safest and longest lasting, they have significant limitations, including long maturation times, vascular deformation, thrombus, infection, and implant location problems.

Researchers from the company Klus Life Systems SLU, Valencia University and INCLIVA Biomedical Research Institute have developed a device consisting of a universal blood channelling system for haemodialysis that guarantees a homogeneous, continuous and orderly flow, reducing the risks associated with current techniques.

ADVANTAGES

- ✓ Elimination of repetitive punctures and associated patient pain.
- ✓ Reduction of vascular access maturation times.
- ✓ Minimises the risk of infections, thrombosis and vascular deformations.
- ✓ Facilitates home dialysis, improving the patient's quality of life.
- ✓ Potential application in other clinical settings such as oncology and transfusion.
- ✓ Effective solution for implant location problems.

STATE OF DEVELOPMENT

The device has been tested in controlled environments (*in silico* and *in vitro*) using advanced technology such as computational simulation, 3D printing and testing with a Stöckert S5 peristaltic extracorporeal perfusion machine at the Hospital Clínico Universitario of Valencia.

APPLICATION

Medical devices, medical implants, devices for the treatment of chronic diseases such as diabetes and cancer.

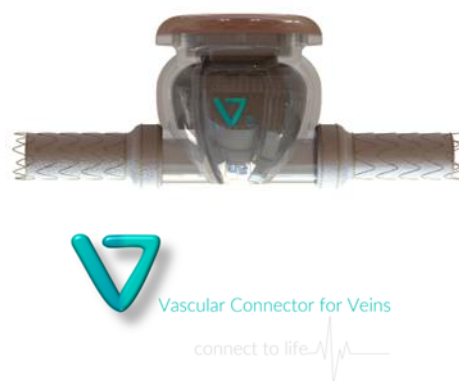
INTELLECTUAL PROPERTY RIGHTS

Spanish Patent Application P202330882 with priority date 27 October 2023.

International extension via PCT requested in 2024.

COLABORATION SOUGHT

Available to biotech or pharmaceutical companies, as well as medical systems companies specialising in hospital automation or cardiovascular systems interested in licensing agreements or co-development of this technology. It is also available for private investment.



CONTACT

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