

## Key attributes of Seraph:

- Designed to quickly reduce drug-resistant and drug-susceptible pathogens
- Large binding capacity for pathogens
- Broad-spectrum hemoperfusion device for reducing pathogens during bloodstream infections
- Safe and effective
- Non-toxic

### Pathogens that bind to Seraph 100 include, but are not limited to<sup>1</sup>

MRSA	<i>E. faecium</i>
<i>S. aureus</i>	<i>A. baumannii</i>
<i>K. pneumoniae</i>	<i>S. epidermidis</i>
<i>K. pneumoniae</i> (CRE)	MRSE
<i>K. pneumoniae</i> (MDR)	CMV
<i>S. pyogenes</i>	<i>Adenovirus</i>
<i>S. marcescens</i>	Zika
<i>S. pneumoniae</i>	Ebola
<i>E. faecalis</i>	<i>C. albicans</i>
<i>E. faecalis</i> (VRE)	<i>E. coli</i>
	<i>E. coli</i> (CRE)

1. Data is based on independent laboratory studies; available upon request

## About ExThera Medical Corporation

Based in Northern California, ExThera Medical Corporation (ExThera) is a privately held medical device company developing innovative, single-use blood filters capable of capturing a broad range of bacteria, viruses, parasites, toxins and other harmful substances.

ExThera Medical Europe B.V. is based in Vaals in the Netherlands, centrally located near the border to Germany and Belgium to serve the entire EU.

ExThera's initial device, the Seraph<sup>®</sup> 100 Microbind<sup>®</sup> Affinity Blood Filter, received CE Mark certification in 2019 for the reduction of pathogens during bloodstream infections in adjunction to antibiotic therapy. The company has a growing body of data from independent laboratory studies supporting Seraph 100's safety and effectiveness.

The company is led by an accomplished executive team that has a multi-year history of product innovation including extensive experience launching successful blood-contacting devices, implants and biomaterials for medical devices.



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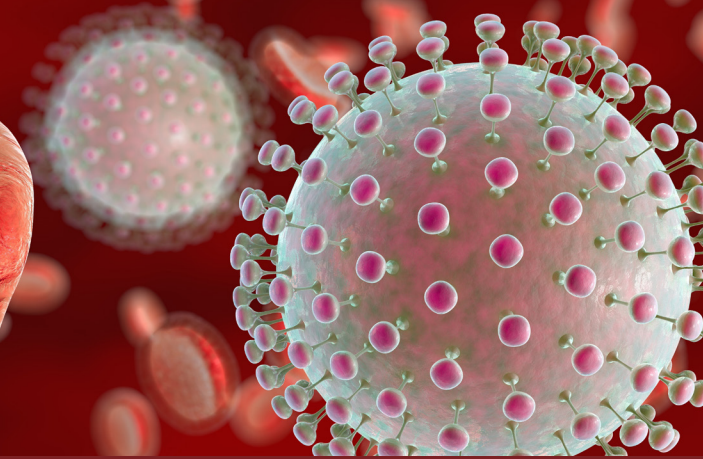
## Seraph<sup>®</sup> 100 Microbind<sup>®</sup> Affinity Blood Filter

Delivering rapid treatment of bloodstream infections



CE 0459

Seraph is not approved for use by the FDA



*“ExThera’s mission is the elimination of life-threatening bloodstream infections.”*

— Robert Ward, CEO

## Seraph Blood Filter: An Overview

- Unique, broad-spectrum hemoperfusion device
- Designed to safely and effectively treat bloodstream infections
- Allows up to 90% reduction of bloodstream pathogens during a single treatment
- End-point-attached heparin surface is highly antithrombogenic, contributing to device safety
- Compatible with most blood purification equipment
- Can be used alone or concurrently with hemodialysis

## How It Works

As blood flows through Seraph, it passes over proprietary microbeads coated with molecular receptor sites that mimic the receptors on human cells, the same receptors that dangerous pathogens attack when they invade the body. These harmful substances bind to the device’s surface and are removed from the bloodstream.

Seraph 100, which received CE Mark certification in 2019, is the first device to be specifically indicated to reduce pathogens during bloodstream infections in adjunction to antibiotic therapy. Seraph uses the biological activity of naturally-occurring ‘ligands’ to reduce pathogens in the blood by selective adsorption.

Seraph 100 is both fast and efficient. The device is engineered to operate with a low pressure drop at blood flow rates up to 350 mL/ minute and is designed to easily “add-on” to common blood purification equipment.

*“Seraph 100 is a unique tool to help provide a global solution to life-threatening blood infections.”*

— Keith McCrea

Chief Science Officer, ExThera

## Clinical Development Update

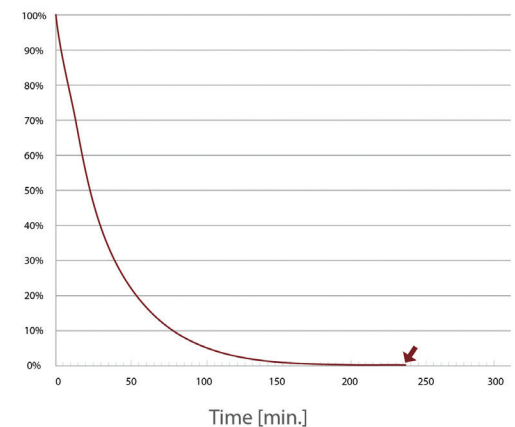
### The Seraph 100:

- CE Mark received in mid-2019 for the reduction of pathogens during bloodstream infections in adjunction to antibiotic therapy
- Effective against Drug-resistant and drug-susceptible bacteremia
- Granted Expedited Access Pathway by the US FDA

### The Seraph 200:

- Successfully evaluated in DARPA’s Dialysis-Like Therapeutics program
  - Phase IV GLP safety and efficacy testing
- IDE application pending with US FDA for drug-resistant and drug-susceptible bacteremia
- May be configured with optional supplemental adsorbents to remove evolved pathogens and other undesirable molecules, such as endotoxin
- Seraph 200 is not CE Marked nor FDA approved

Estimated Pathogen Removal vs. Time [min.] by Seraph 100 and Seraph 200 from 5 L of Blood: 4 hours at 40% Removal Per Pass and 350 mL/min (75% per pass is typical)



Data available upon request