

# Broad spectrum Antimicrobial & Anticoagulant Composition



## APPLICATIONS

The technology has immense potential for use in difficult to treat / drug resistant infections as:

- a) Prescription (Rx) medications (for dermal, dental, surgical site, catheter related, vaginal, intranasal, lung infections)
- b) Over the Counter (OTC) medications (for dermal, vaginal, and intranasal infections)
- c) Medical devices (in drug eluting bandages, coatings for medical devices)

FOUNDER'S NAME	CATEGORIES OF INVENTION	INTELLECTUAL PROPERTY	
Dr. Dinesh Aggarwal	Pharmaceuticals (Drugs & Medical Devices)	Indian Patent: 487298 European Union: EP3426313B1	Canadian Patent: CA3017097 US patent- US2019002132A1 (pending)

## PROBLEM ADDRESSED

AMR is one of the top global health threats. Misuse and overuse of antimicrobials is the key driver of AMR. Per World Health Organization (WHO), AMR make infections harder to treat and medical procedures / treatments such as surgeries, chemotherapies – riskier. AMR has led to 1.27 million global deaths and contributed to 4.95 million deaths in 2019. In addition, it would lead to at least US\$1 trillion in additional healthcare costs and GDP losses per year by 2030. AMR crisis is further compounded due to antibiotic pipeline and access crisis.

Per Centers for Disease Control (CDC), strategies to address AMR involves - implementing evidence-based infection control practices and developing novel drugs / therapies. However, both strategies face limitations i.e. developing nations lack infrastructure and training to implement infection control practices while novel drug / therapies' development is prohibitive due to cost (~\$1Billion / drug) and low returns.

## ABOUT THE TECHNOLOGY

Daarsh Innovations' novel antimicrobial platform technology addresses AMR. The developed technology is infection agnostic and offers broad-spectrum efficacy against super bugs / drug resistant bacteria, fungi and viruses. It comprises of synergistically acting ingredients offering multi-mode mechanism of action. Generally Recognized As Safe (GRAS) categorization of the utilized ingredients make the composition highly safe and suitable for difficult to treat / drug resistant topical, intranasal, lung, dental, vaginal, surgical site, medical devices' related infections.

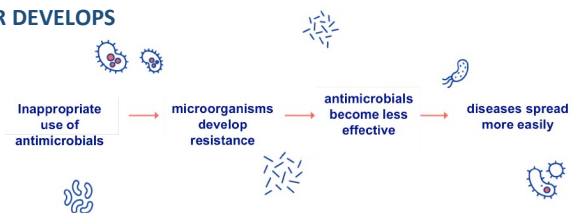
## MARKET FORECAST

Applications addressing AMR, makes the developed technology highly valuable. The following table may be utilized as a reference for market forecast values:

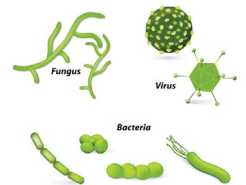
Segment	Market Size (INR Cr)*	Source
Prescription (Rx) Medications	34,094	<a href="https://tinyurl.com/4enbbx">https://tinyurl.com/4enbbx</a>
Over the Counter (OTC) Medications	45,199	<a href="https://rb.gy/ebu979">https://rb.gy/ebu979</a>
Medical Devices & Other Uses	71,395	<a href="https://rb.gy/jstw4s">https://rb.gy/jstw4s</a>
<b>Total</b>	<b>150,688</b>	

\* Market Size is calculated based on certain assumptions and data from the indicated sources

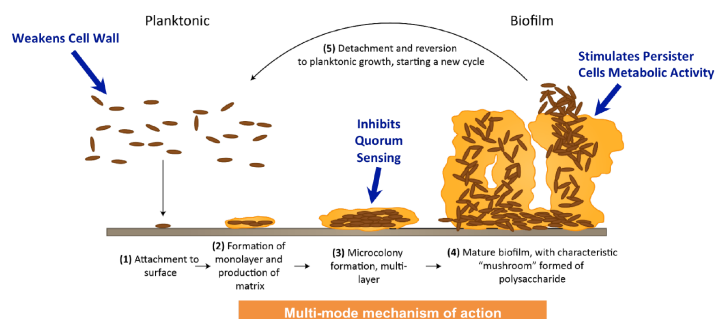
## HOW AMR DEVELOPS



## PATHOGEN AGNOSTIC TECHNOLOGY



## MODE OF ACTION – MULTI MODAL



## ADVANTAGES

- Utilizes FDA approved generally regarded as safe (GRAS) molecules thereby reducing both the development cost and time in excess of 90%.
- Rapid acting thereby reducing the treatment duration
- Pathogen agnostic and broad spectrum antimicrobial i.e. effective against drug resistant bacteria, drug resistant fungus and viruses – thereby catering to complex / multi species infections.
- Multiple applications (Rx Medications, OTC medications, medical devices, surface sterilization)