AN INFECTIOUS ARMS RACE

Winning the fight against infectious bacteria requires staying ahead of the organisms' uncanny ability to flank our frontal assaults. By **Karyn Hede**.

Regulatory approvals of new classes of antibiotics bring novel mechanisms of attack

ANTIBIOTIC UPS AND DOWNS

As new antibiotics come on the market (upward arrows), resistance develops (downward arrows), but the drugs continue to be used. The growing collection of antibiotics over time is offset by the increasing resistance.

▲ Introduced ▼ Resistance

UPS AND DOWNS IN MRSA RESISTANCE

Over the past decade, many European countries have gained ground on methicillin-resistant *Staphylococcus aureus* (MRSA), but this deadly infection keeps spreading in others.

SOURCE: European Centre for Disease Prevention and Control

A SHRINKING ARSENAL

Since the early 1980s, the US Food and Drug Administration has approved fewer new antibiotics.

Source: US Centers for Disease Control and Prevention

USE OF ANTIBIOTICS VARIES DRAMATICALLY

Antibiotic prescribing practices in the European Union and European Economic Area vary widely, highlighting the need for standardized prescribing practices to reduce the spread of resistant bacteria.

SOURCE: European Centre for Disease Prevention and Control