

## **KEY WORDS AND PHRASES FOR ABILITY TO COMPETE FOR NUTRIENTS SUCH AS IRON**

Bind human iron chelators

Individual bacteria within a group are able to benefit from the activity of the entire group.

Iron is essential for both bacterial growth and human cell growth.

Produce siderophores that trap iron

Produce toxins and enzymes that kill host cells only when iron concentrations are low in order to release host cell iron

Produces surface adhesins that bind to extracellular matrix proteins and polysaccharides surrounding host cell tissue, including fibronectin, collagen, laminin, hyaluronic acid, and elastin; proteases and hyaluronidase then dissolve these components

Provides food for the bacteria and enabling the bacteria to spread

Quorum Sensing

Synthesizing specific transport systems capable of binding limiting substrates and transporting them into the cell