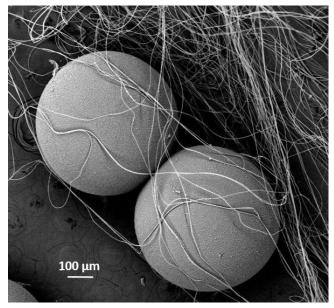


## Insights into the defense mechanisms of spider eggs against bacterial invasion

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MDDE, Ben-Gurion University of the Negev 08/12/2020, 12:00, at your nearest available Zoom machine

Arthropod eggs are a rich source of nutrients for the developing embryo, making them a favorite food source for other organisms. The presence of protective factors in the egg stage is essential to prevent infections, assuring embryo development. The current study is the first-time that spider eggs are tested



for avoiding bacterial colonization and invasion. This research's main goal was to determine whether the brown widow spider (*Latrodectus geometricus*) eggs have antibacterial defenses and study the mechanisms by which the eggs are protected from pathogenic bacteria.

We found that egg surface roughness and hydrophobicity, combined with its antibacterial chemical properties, reduce the ability of bacteria to grow on the egg surface. Understanding the combined antibacterial mechanisms associated with the brown widow spider egg surface can provide alternative approaches for controlling bacterial fouling.



