The history of the field of microbiology may not be as long as other scientific areas, but it is as rich.

Let's face it - it was only about 300 years ago, when Antonie van Leeuwenhoek first saw the 'wee animalcules" which we now know were bacteria.

The editors of the *Journal of Bacteriology*, a journal in the field of microbiology that publishes solid (although not always the sexiest) research, took a walk down memory lane during the year 2016 and highlighted the top 100 historical papers from the century in their "Classic Spotlight" series.

The series selected about 120 landmark papers and published summaries in almost every issue of the journal throughout 2016. All of the summaries are free and available online.

The editors (all well-known microbiologists themselves) were motivated in several ways to take on this project. The first was to illustrate the important role that the journal, *Journal of Bacteriology*, has had in defining the field of microbiology. They also considered that this collection of historic papers could serve as a useful teaching tool, or simply a fascinating resource for anyone interested in the history of microbiology.

The editors make a point of noticing that the most influential papers were not the most cited, or most popular. They are, instead, evergreens that had a major impact on the field or describe breakthroughs in the field that shifted paradigms, even the full impact of the discovery was not known at the time of publication.

They write,

> In all cases, however, these classic papers describe research that changed the
way we understand and conduct microbiology. Their “historical impact factor” can be seen in the fact that these papers continue to be cited, in many cases, decades after their initial appearance.

A sampling of some of my favorites are below, although the entire classic spotlight collection can be found here. [1]

Seeing is believing-Imaging the Active Bacterial Flagellar Filaments [2]

How The Gram Stain Works [3]

Look, Max - No Math Required! [4]

Molecular Biology of Methicillin Resistance in Staphylococcus aureus [5]

Cyclic di-GMP - the Molecule that Makes the Bacterial World Stop Going Round [6]

Quorum Sensing and the Multicellular Life of Unicellular Organisms [7]

A Very Pleiotropic Mutant [8]

References:

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[9] https://doi.org/10.1128/JB.00062-17