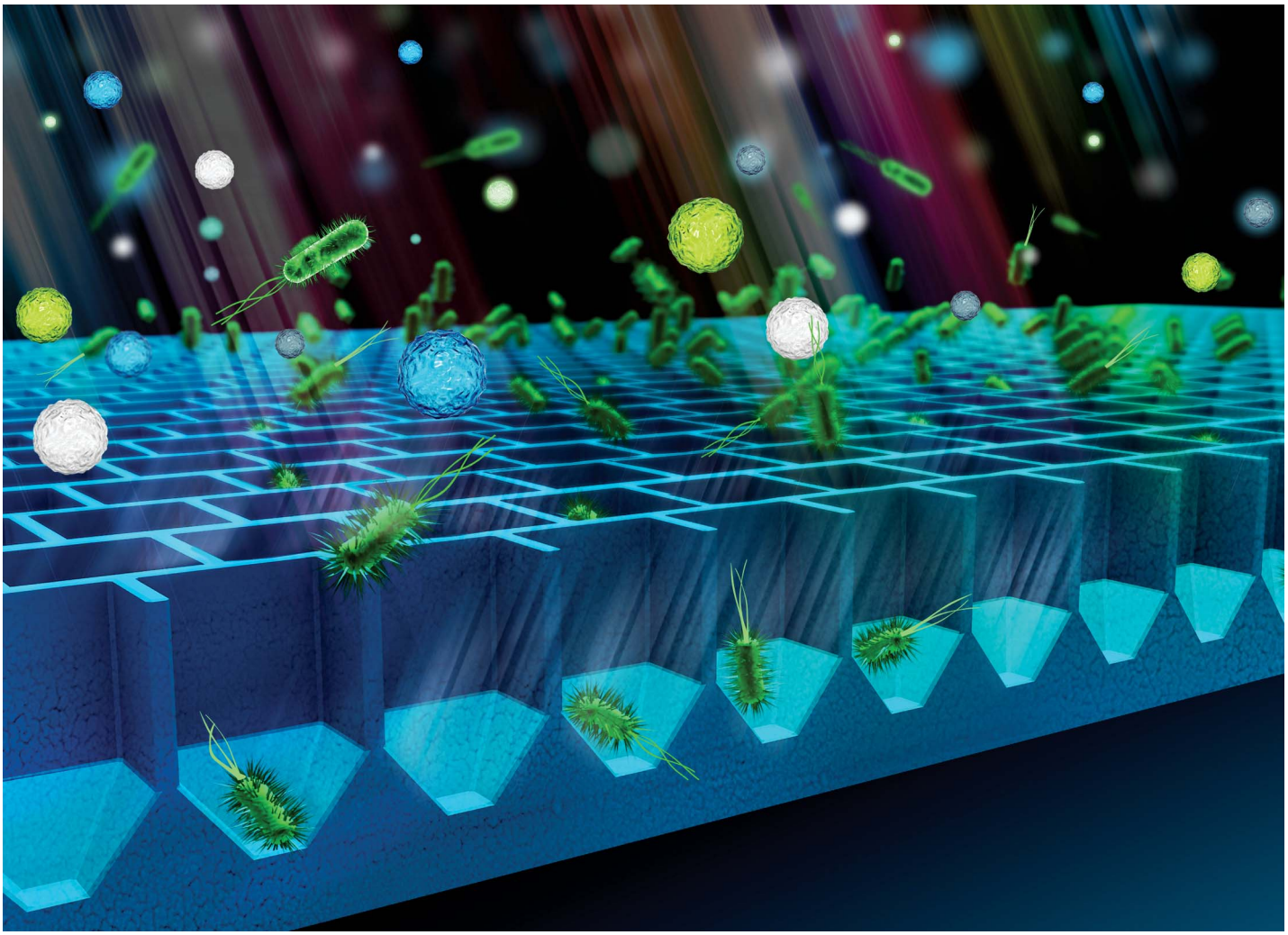

Showcasing research on self-reporting optical structures that can detect and quantify *E. coli* bacteria in real-time from the team of Professor Ester Segal at the Department of Biotechnology and Food Engineering and the Russell Berrie Nanotechnology Institute, Technion – Israel Institute of Technology, and Professor Amir Sa'ar at the Hebrew University of Jerusalem, Israel.

Title: Trap and track: designing self-reporting porous Si photonic crystals for rapid bacteria detection

This work introduces label-free optical sensors, based on a two-dimensional periodic structure of porous Si photonic crystals, in which the pore size and the surface are adjusted to capture bacteria cells. The sensing scheme can be easily modified to allow monitoring of concentration, growth and physiological state of bacteria cells.

As featured in:

See Ester Segal *et al.*, *Analyst*, 2014, **139**, 3885.

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