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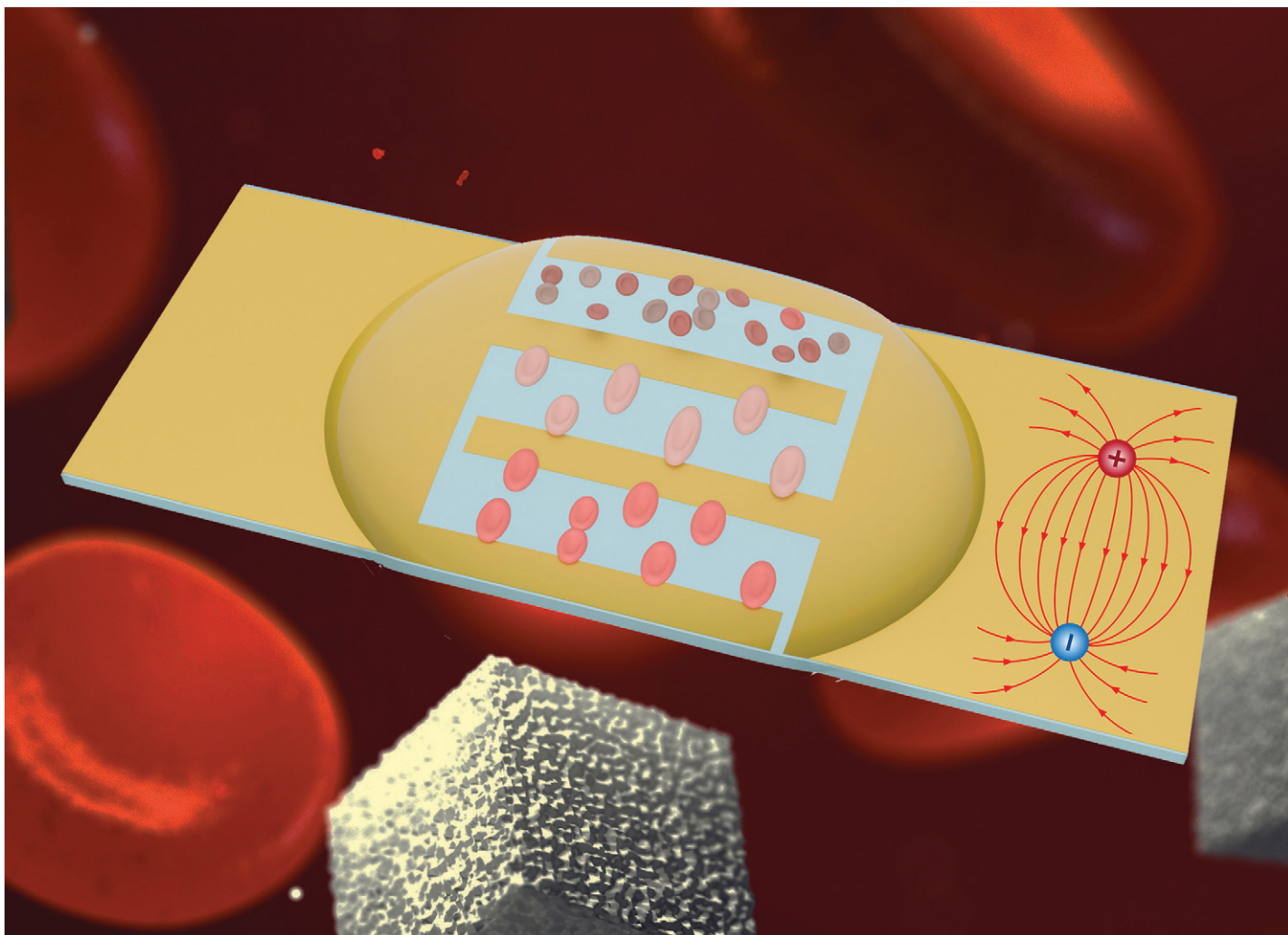
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Showcasing research from the Advanced Microfluidics and Microdevices Laboratory of Professor Mohammad A. Qasaimeh, Division of Engineering, New York University Abu Dhabi, Abu Dhabi, United Arab Emirates.

OMEF biochip for evaluating red blood cell deformability using dielectrophoresis as a diagnostic tool for type 2 diabetes mellitus

The developed open micro-electro-fluidic (OMEF) biochip is an advancement for precise measurement of deformability (elongation) of red blood cells (RBCs) using dielectrophoresis. This technology reveals distinctive characteristics in the RBCs of Type 2 Diabetes Mellitus (T2DM) patients, such as increased size and reduced stretch factor, suggesting potential biomarkers for T2DM. By providing accurate and reproducible measurements of RBC mechanics, the OMEF biochip holds promise in point-of-care diagnostics for monitoring disease progression with high sensitivity and rapid readout.

As featured in:



See Mohammad A. Qasaimeh *et al.*, *Lab Chip*, 2024, **24**, 2906.