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In situ observation of single cell response to acoustic droplet vaporization: membrane deformation, permeabilization, and blebbing

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Research Highlights

- 1. We studied the ADV-associated cellular bioeffects at the single-cell level.
- 2. High-speed imaging observed ADV bubble dynamics and bubble-cell interactions.
- 3. Cell membrane deformation, permeabilization and blebbing was evaluated in situ.
- 4. ADV mainly led to irreversible rather than reversible sonoporation.
- 5. This work help us to develop optimal approaches for utilizing ADV in theranostics.

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