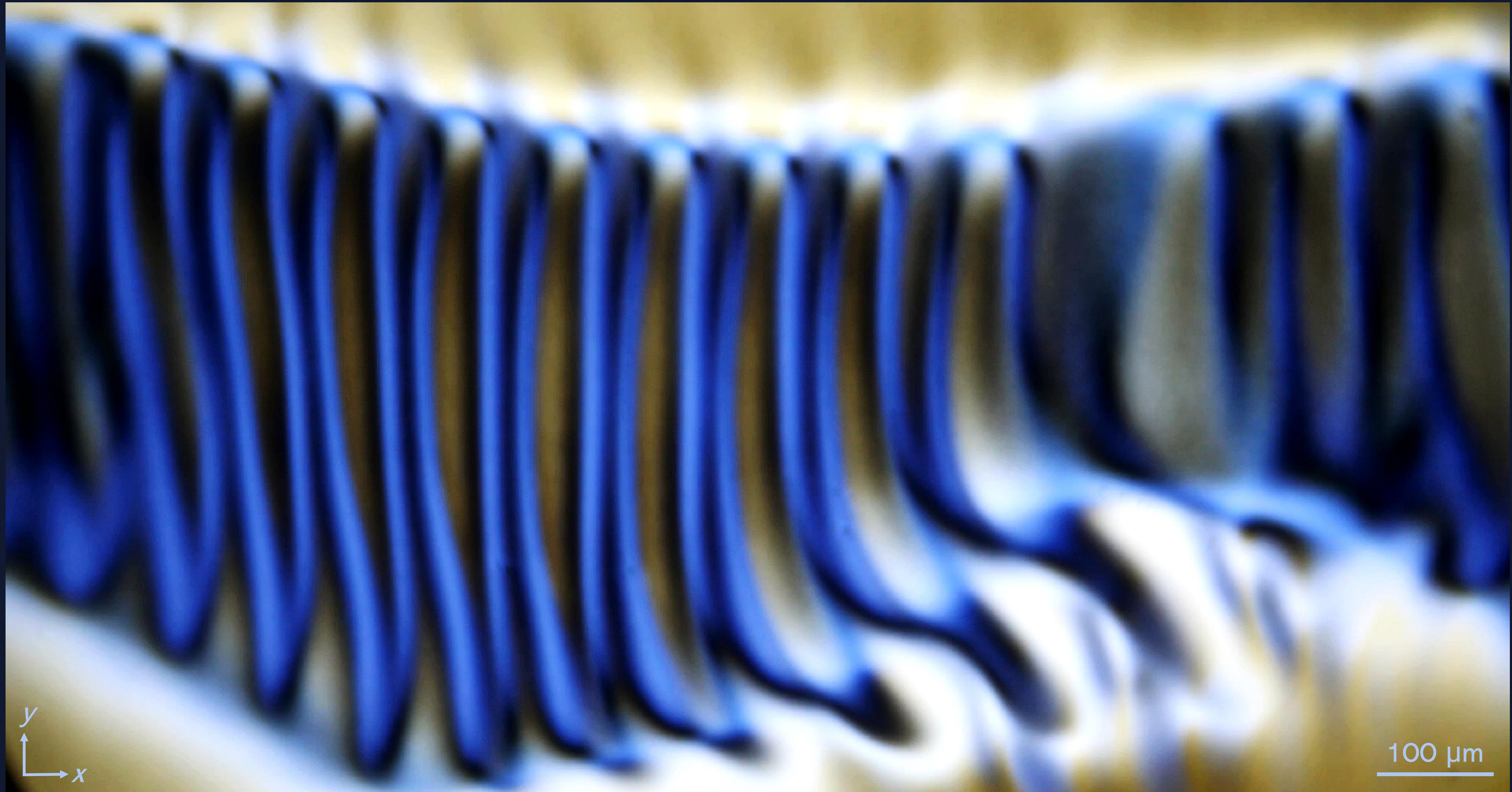


# Winding snakes in flowing nematic liquid crystals: chiral structures built from achiral building blocks

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When an achiral nematic liquid crystal flows in a microfluidic channel, a snake-like structure emerges.

The structure originates from a periodic double-twist deformation of the liquid crystal; the liquid crystal exhibits twist deformations both in the flow direction ( $x$ ) and the gap direction ( $z$ ).

The resulting structure breaks symmetry: It is *chiral* structure built by *achiral* units; a rare phenomenon.

