

# Advance your career in science

with professional recognition that showcases  
your **experience, expertise and dedication**

## Stand out from the crowd

Prove your commitment  
to attaining excellence in  
your field

## Gain the recognition you deserve

Achieve a professional  
qualification that inspires  
confidence and trust

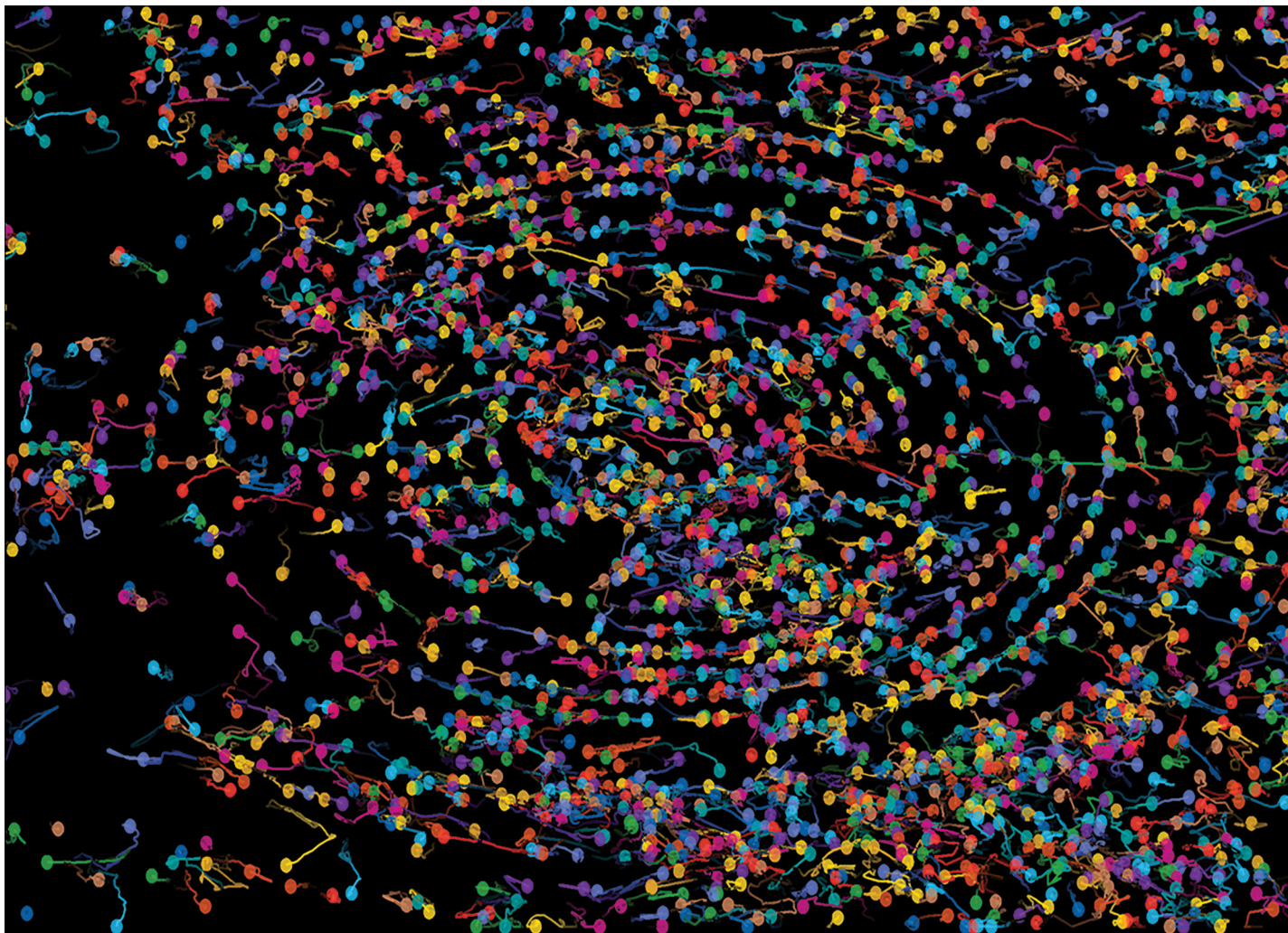
## Unlock your career potential

Apply for our professional  
registers (RSci, RSciTech)  
or chartered status  
(CChem, CSci, CEnv)

## Apply now

[rsc.li/professional-development](https://rsc.li/professional-development)





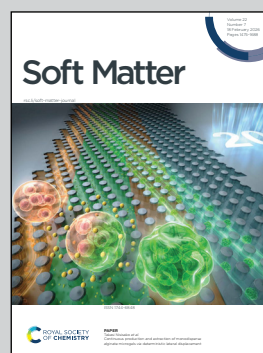
Showcasing research from Professor Bo Sun's laboratory, Department of Physics, Oregon State University, and his collaborators Professor Yang Jiao, Materials Science and Engineering, Arizona State University, Professor Yanping Liu, Chongqing Key Laboratory of Big Data for Bio Intelligence, Chongqing University of Posts and Telecommunications in China.

Cancer cell dynamics navigating the complex microenvironment: active nematics and dynamic heterogeneity

The authors study motility in micropatterned breast cancer cell monolayers and uncover robust, spatiotemporally evolving nematic order in the absence of coherent tissue flow. They identify a distinct subpopulation of highly polarized "patroller" cells that reinforce local alignment. A mean-field theoretical model incorporating this subpopulation reproduces key experimental observations. These findings suggest that nematic order in multicellular systems can arise from the dominant influence of a specialized subset of cells rather than uniform collective behavior.

Image reproduced by permission of Bo Sun from *Soft Matter*, 2026, **22**, 1504.

As featured in:



See Yanping Liu, Bo Sun *et al.*, *Soft Matter*, 2026, **22**, 1504.