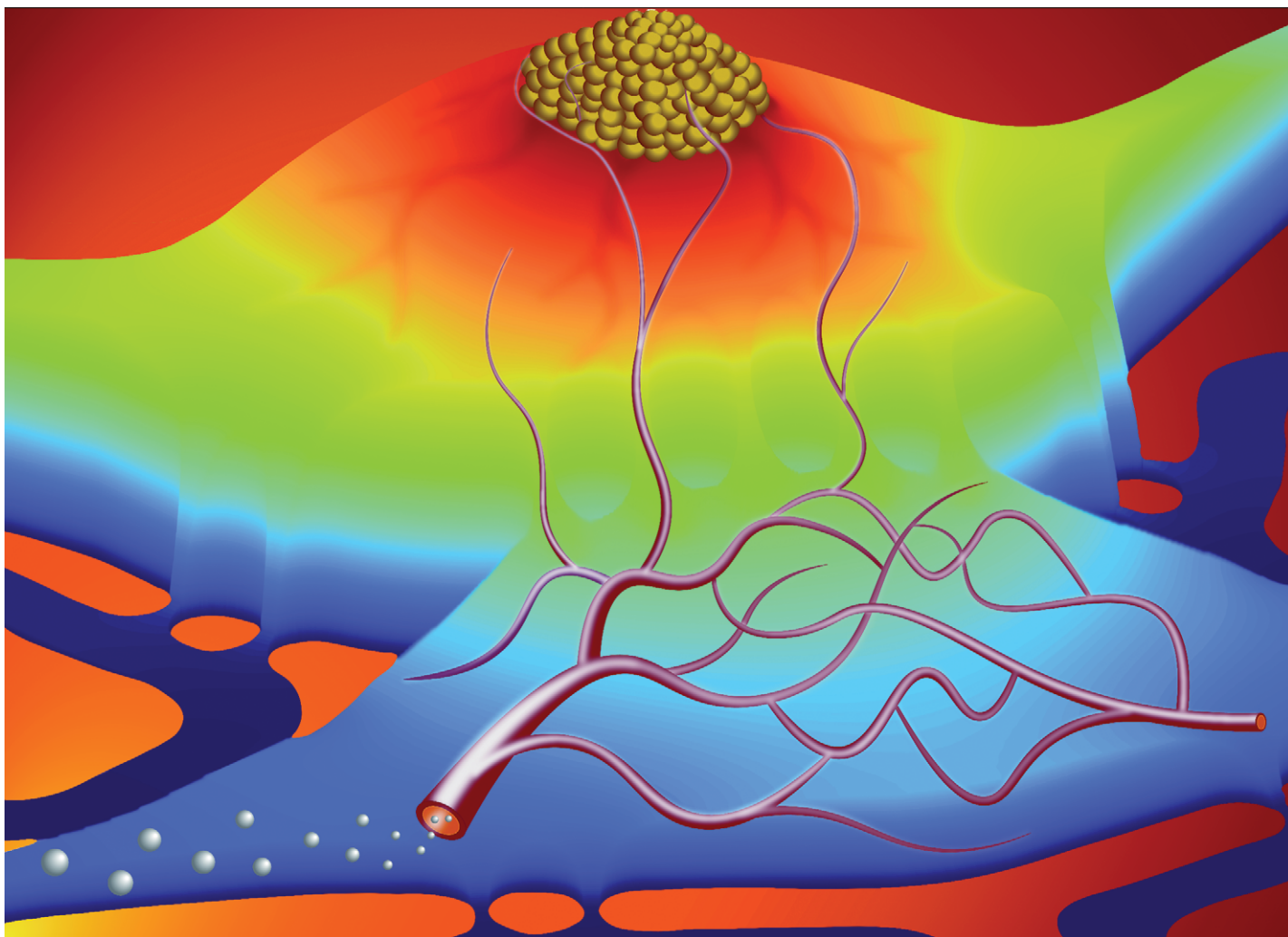




Showcasing research from the Microphysiological System & Smart Wearables Laboratory of Professor Yu-Hsiang Hsu, Institute of Applied Mechanics, National Taiwan University, Taipei, Taiwan (R.O.C).

Spatially controlled diffusion range of tumor-associated angiogenic factors to develop a tumor model using a microfluidic resistive circuit

This paper reports a new microfluidic method that uses a steep concentration gradient to create a partition for simultaneously developing a vessel network and a tumor in a 3-D co-culture system. This steep concentration gradient also becomes a directional cue for tumor angiogenesis at the tumor post-development stage for developing a tumor model. This study suggests that the interactions between a developing vasculature and a growing tumor must be controlled differently at the early stage when vessels are still forming and at the later stage when the tumor needs to interact with the vessels.

As featured in:



See Yu-Hsiang Hsu *et al.*,
Lab Chip, 2024, **24**, 2644.