

## Research project and supervisor team

<b>Supervisory Team</b>	Yong Ren: <a href="https://research.nottingham.edu.cn/en/persons/yong-ren">https://research.nottingham.edu.cn/en/persons/yong-ren</a> Liang Xia: <a href="https://research.nottingham.edu.cn/en/persons/liang-xia">https://research.nottingham.edu.cn/en/persons/liang-xia</a> Yuying Yan: <a href="https://www.nottingham.ac.uk/engineering/people/yuying.yan">https://www.nottingham.ac.uk/engineering/people/yuying.yan</a>
<b>Short introduction &amp; description of research project</b>	<p>Microfluidic chips possessing responsivity properties present burgeoning potential in diverse applications such as pathology, organ-on-a-chip technology, and biomedicine. This research delineates the integration of rapid prototyping with responsive 4D printing methodologies, aiming to fabricate microfluidic chips at low cost with multifunctional integration. The architecture of the channel structures in the proposed microfluidic chips is pivotal, profoundly influencing both function and performance. The project focuses on development of 4D printed microfluidic chips with adaptable channel structures. The investigation will include the selection, advancement, and optimization of smart materials; the engineering and fabrication of modifiable channel structures; and the control of fluid flow rates and mixing dynamics. The project will advance the development of 4D printed smart microfluidic technologies.</p>
<b>Contact points</b>	Yong Ren, <a href="mailto:yong.ren@nottingham.edu.cn">yong.ren@nottingham.edu.cn</a>