Full Name:	Prof Shery Huang
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1 Personal link:	https://biointerface.eng.cam.ac.uk/
Bio	**Prof. Yan Yan Shery Huang** is Professor of Bioengineering, leading the Biointerface Group at Department of Engineering, University of Cambridge, UK. She is a Fellow of the Institute of Materials, Minerals and Mining (FIMMM)-UK; Associate Editor of ACS Applied Materials & Interfaces and Bio-Design and Manufacturing. Her group's research themes include (i) organ-on-a-chip and tissue engineering; (ii) intertwining 3D printing and AI for ethical clinical informatics; and (iii) fibre-of-things and biofabrication for bioelectronics. Shery completed her MEng degree in Materials Science and Engineering from Imperial College London, and PhD degree in Physics (Biological & Soft Systems) from University of Cambridge.
Experience in Biofabrication	Shery Huang has made fundamental technological advances in fibre printing and biomicrofabrication for biointerface fibre elements. Several of her 3D (bio)printing systems for soft materials and cells had also been made open-source and open-design for benefiting wider communities. Her key contributions to the biofabrication field are reflected by the selected publications below: [1] Wang, W., Pan, Y., Shui, Y, *et al.* Huang, Y.Y.S*. **Imperceptible augmentation of living systems with organic bioelectronic fibres**. ***Nature Electronics*** (2024). DOI: 10.1038/s41928-024-01174-4 **[Significance]** A new fibre biofabrication method to make adaptive and eco-friendly sensors that can be directly and imperceptibly printed onto a wide range of surfaces, whether that's a finger, a flower petal or a chick embryo. The fibres, at least 50 times smaller than a human hair, is spun to follow the anatomy of different shapes, at both the micro and macro scale, without the need for image recognition. Such 'Physically Intelligent' biofabrication technique opens up new possibilities of how sustainable electronics and sensors can be made and upgraded, anywhere and anytime without centralised facilities. Featured in Nature Electronics News & Views and the cover of July issue of Nature Electronics. [2] Shi, H.H., Pan, Y., Xu, L., Feng, X., Wang, W., Potluri, P., Hu, L., Hasan, T., Huang, Y.Y.S*. **Sustainable electronic textiles towards scalable commercialization**. ***Nature Materials.*** (2023). DOI: 10.1038/s41563-023-01615-z **[Significance]** We envisage a systematic design framework embodying material selection and biofabrication concepts that can unify environmental friendliness, market viability, supply-chain resilience and user experience quality. This framework establishes a set of actionable principles for the industrialization and commercialization of future sustainable e-textile products.

	[3] Mazzaglia, C., Sheng Y., Rodrigues, L.N., Lei, I.M., Shields, J.D.*, Huang, Y.Y.S*. **Deployable extrusion bioprinting of compartmental tumoroids with cancer associated fibroblasts for immune cell interactions**. ***Biofabrication*** (2023), DOI 10.1088/1758-5090/acb1db **[Significance]** The development of an open-design deployable 3D bioprinter which can perform rapid and reproducible manufacture of complex tumouroids for cancer research to test potential immunotherapy treatments close to the point-of-care. [4] Sheng Y., Lei, I.M., Lei, C.L., Leow, C., Huang, Y.Y.S*. **A hackable, multi-functional, and modular extrusion 3D printer for soft materials**. ***Scientific Reports*** (2022), 12, 12294 **[Significance]** An affordable and fully open-source 3D printer for soft materials, that could unlock innovation in diverse fields, including tissue engineering. Featured in Top 100 in Engineering of 2022 by Scientific Reports. [5] Lei, I.M., Jiang, C., Lei, C.L. et al. Huang, Y.Y.S.* **3D printed biomimetic cochleae and machine learning co-modelling provides clinical informatics for cochlear implant patients**. ***Nature Communications*** (2021) DOI: 10.1038/s41467-021-26491-6 **[Significance]** A new concept is proposed where 3D printing-machine learning co-modelling could be an ethical and privacy-respected alternative to the existing populational data collection for training machine learning algorithms. [6] Liu, Y., Dabrowska, C., Mavousian A., *et al.* Huang, Y.Y.S.* **Bio-assembling Macro-Scale, Lumenized Airway Tubes of Defined Shape via Multi-Organoid Patterning and Fusion**. ***Advanced Science*** (2021) DOI: 10.1002/advs.202003332 **[Significance]** The development of an organoid fusion protocol which created upsize airway organoid tubes, forming flowable organoid-on-a-chip and branching tubular structure.
Photo:	

Why becoming a board member	Becoming a board member of the International Society for Biofabrication offers a unique opportunity to shape the society's strategies and initiatives, fostering innovation and collaboration among researchers worldwide. My expertise could contribute to the advancement of biofabrication that continuously embraces ethical and sustainable practices beneficial to society. Moreover, it would allow me to network with professionals and academics in the biofabrication field and beyond. Serving on the board would also become a recognition of my contributions to the field of biofabrication.