

Yu Kiu Victor Chan

victor.chan@dpag.ox.ac.uk | Lady Margaret Hall, Norham Gardens, Oxford, U.K., OX2 6QA

EDUCATION

University of Oxford

Oxford, U.K.

Department of Physiology, Anatomy and Genetics, Medical Sciences Division

2024–2027

- DPhil Physiology, Anatomy and Genetics supervised by Prof. Dame Molly Stevens FRS FREng
- Topic: “Engineering of cerebral organoids to model aging and neurodegeneration”
- Funded in full by Oxford-Croucher Scholarship (2024-2027)

Imperial College London

London, U.K.

School of Medicine

2020–2023

- Bachelor of Science in Medical Biosciences; Overall mark: 72.77 (**First Class Honours**)
- Relevant modules: Regenerative Medicine, Nanobiology and Biomaterials, Cancer Biology, Neuroscience, Stem Cells and Reproductive Biology, Cardiovascular and Thoracic Biology, Genetics and Genomics, etc.

PUBLICATIONS

- Speidel, A. T., Chivers, P. R. A., Wood, C. S., Roberts, D. A., Correia, I. P., Caravaca, A. S., **Chan, Y. K. V.**, Hansel, C. S., Heimgärtner, J., Müller, E., Ziesmer, J., Sotiriou, G. A., Olofsson, P. S., Stevens, M. M. Tailored Biocompatible Polyurethane-Poly(ethylene glycol) Hydrogels as a Versatile Non-fouling Biomaterial. *Advanced Healthcare Materials*, p.2201378
- Wang, C., **Chan, Y. K. V.**, Wang, D., Tuan, R. S., & Ker, D. F. E. (2021). Design optimization and mechanical verification of a stress-reducing, enthesis-mimicking bone-tendon graft for rotator cuff repair [Abstract]. *Orthopaedic Research Society*. Abstract retrieved from <https://www.ors.org/Transactions/67/399.pdf>
- **Chan, Y. K. V.** (2020). Artificial Blood: Current Development and Challenges. *Imperial Bioscience Review*.
- **Chan, Y. K. V.** (2020). Smart Watch: How Smart Is It?. *Imperial Bioscience Review*.

RESEARCH EXPERIENCE

Prof. Molly Stevens' Group, Department of Materials, Imperial College London

London, U.K.

Laboratory Technician

July 2023 – June 2024

- Supported heart regeneration research by culturing iPSCs for cardiomyocyte differentiation and heart tissue synthesis
- Supported organoid research by culturing cerebral and motor neuron organoids from iPSCs and ESCs
- Raised purchase orders for laboratory supplies, managed inventory, and ensured appropriate storage of materials

Final Year Laboratory Placement Project

October 2022 – March 2023

- Optimised exosome isolation from bladder, kidney, ureter cancerous and non-cancerous cell lines for cancer diagnostics
- Performed exosome characterisation through immunoblotting, NanoFCM, and Raman spectroscopy (SPARTA[®])
- Conducted PLSDA modelling to compare Raman spectra from exosomes of different organs and disease states

Prof. Pierre-Alexis MOUTHUY'S Group, Soft Tissue Engineering Group, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford

Oxford, U.K.

Summer Research Intern

July 2022 – September 2022

- Optimised the design of a soft bioreactor to improve visual monitoring of cell growth in electrospun polycaprolactone
- Performed laser scanning confocal microscopy to observe cell growth in soft bioreactor over seven days

Avant Meats Company Limited

Hong Kong

Summer Research Intern

May 2020 – September 2020

- Conducted cell culture studies to examine growth of yellow croaker fish cells in the presence of different growth factors
- Engineered an edible scaffold with plant-based materials for optimal adhesion and growth of yellow croaker fish cells
- Assisted in the harvesting of zebrafish embryo and established an embryo-harvesting protocol

Prof. Molly Stevens' Group, Division of Biomaterials, Karolinska Institutet

Stockholm, Sweden

Gap-Year Research Assistant

May 2019 – March 2020

- Optimised synthesis protocol of polyurethane-poly(ethylene) glycol hydrogel for tissue engineering applications
- Conducted rheology to characterise the mechanical properties of hydrogels and compared different formulations
- Conducted ISO biocompatibility tests to investigate the presence of residual toxic substances in hydrogels
- Conducted degradation studies to understand the degradation profiles of hydrogels in physiological conditions
- Exposed to wide range of topics in bioengineering by attending weekly internal group meetings and skype presentations with research group in Imperial College London