## BIOENGINEERING INNOVATIONS IN MEDTECH FOR EYE REPAIR



PROF ANDREA O'CONNOR SHANAHAN CHAIR IN FRONTIER MEDICAL SOLUTIONS, BIOMED. ENG. UOM



PROF MARK DANIELL HEAD OF CORNEAL RESEARCH, ROYAL VICTORIAN EYE & EAR HOSPITAL



DR RUSSELL TAIT POLYACTIVA

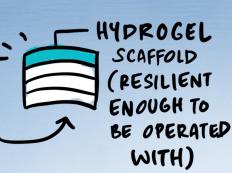


PROF GREG QIAO CHEMICAL ENGINEERING UOM



CORNEA CLEAR WINDOW To SIGHT)

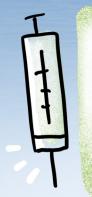
CORGEL: MANUFACTURING TISSUE ENGINEERED CORNEAL TRANSPLANTS



DONOR

= TRANSPLANTS

MANY



POLYACTIVA: BESPOKE, INJECTABLE DRUG POLYMER IMPLANTS

TRANSPARENT,

STABLE & WELL-TOLERATED

CONTROLLABLE QUANTITIES & TIME PERIOD OF DRUG ADMINISTRATION

USED IN GLAUCOMA TREATMENT

(NO FOREIGN BODY RESPONSE



SCAFFOLD TO GROW TISSUE

(Sanss)



SYNTHETIC CORNEAL TRANSPLANT

GROWING SYNTHETIC SCAFFOLDS



UNMET CLINICAL CHALLENGES





ENGINEERING

REQUIRES SPECIALISED PROCESSES (STERILE, NO FOREIGN BODIES,

PURE)

MANUFACTURING IN OPTHALMOLOGY NO

DEDICATED THE FACILITIES IN AUS

TALENT

IMPORT BARRIERS \_ SEND OUT,

& BRING BACK

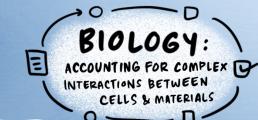
DEMAND DRIVES CLINICAL

IN RESEARCH, IT'S IMPORTANT TO COMMUNICATE

WITH CLINICIANS!

WHAT DO YOU NEED?

> WHAT WE CAN OFFER



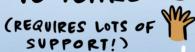


TIMELINES

TO DEVELOPING COMMERCIAL PRODUCTS

A MINIMUM OF 10 YEARS

CHALLENGES IN

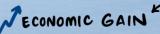


APPLICATION





MUCH AS YOU CAN!







INVENTOR + COMMUNITY



