Our developing vision: **Tackling kidney disease and improving patients’ quality of life**

**Research**

- **WITHIN 5 YEARS**
  - **Using a recipient’s stem cells to recondition a donated kidney prior to transplant to improve viability of the kidney**
  - **Making simple, small human kidneys in the lab for investigating renal diseases and testing novel therapies**
  - **What it means for patients**
    - Improve the condition of a transplanted kidney and extend survival
    - Increase the number of suitable kidneys for transplant and reduce the waiting list
    - Reduce the risk of rejection through increased organ compatibility
  - **Better understanding of diseases**
  - **Better therapies**
  - **Safer drugs**

- **5-10 YEARS**
  - **Using cell-based regenerative medicine therapies to repair or regenerate damaged kidney tissue ‘in situ’**
  - **Improve kidney function in damaged kidneys**
  - **Prevent or postpone the need for dialysis and transplant**

- **10+ YEARS**
  - **Using stem cells and cells from other parts of the body to engineer ‘kidney substitutes’ (e.g. renal assist devices to help improve dialysis)**
  - **Provide patients with an alternative structure or device to support renal function**
  - **New kidneys grown from a patient’s own cells to completely avoid dialysis or transplant of a donated kidney**
  - **Using bioengineering techniques to make functional human kidneys in the lab for eventual transplant into patients**
  - **Improve health and quality of life**