Prediction of renal function in living kidney donors and recipients of living donor kidneys using quantitative histology

**Study participants**
- Kidney transplantation
  - 49 living donors
  - 51 recipients

**Pre-donation investigations**
- Cortex volume by CT-angiography
- Single-kidney GFR
  - $^{51}$Chrome-EDTA
  - Renography

**Peri-operative graft biopsies**
- Quantitative histology
  - Glomerular number and volume
  - Interstitial fibrosis

**Study outcome:**
- Measured GFR after 1-year

**Main findings:**
- Cortex volume independently predicts 1-year renal function in donors
- The amount of interstitial fibrosis predicts 1-year graft function in recipients
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- Cortex volume
  - CT-angiography

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51 living kidney donor recipients

Study outcome:
Measured GFR after one year

Conclusion
Cortex volume independently predicts one-year graft function in donors, while the amount of interstitial fibrosis predicts one-year renal function in recipients.