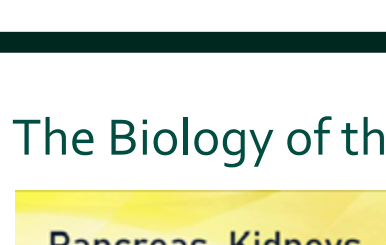


# The Kidneys: Diseases, Disorders & Treatments

This learning journey is designed to provide an introduction to a selection of diseases and disorders that inhibit regular renal function. Both well established and novel treatment methods for these conditions are also discussed in this journey.

## Introduction to the Kidney

### An Introduction to Kidney Function and Disease



Extract from:  
**'Molecular basis of genetic renal diseases'**

Dr. Paul Jennings – Medical University of Innsbruck, Austria

3 mins

### The Biology of the Kidney



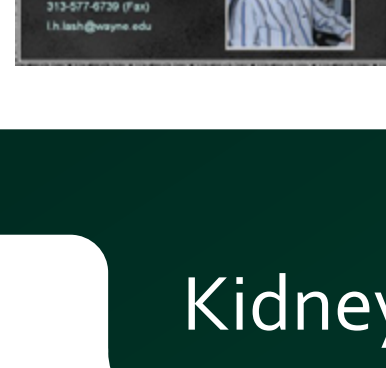
Extract from:

**'Pancreas, kidneys, and ureters'**

Prof. Emeritus Kapil S. Satyapal – University of KwaZulu-Natal, South Africa

8 mins

### Renal Structure, Function and Transport Mechanisms



Extract from:

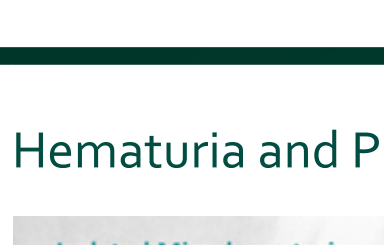
**'Toxicology of the kidney'**

Prof. Lawrence Lash – Wayne State University School of Medicine, USA

19 mins

## Kidney Diseases and Disorders

### Idiopathic Nephrotic Syndrome and the Glomerulus



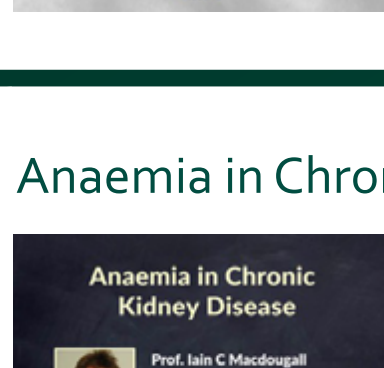
Extract from:

**'Focal segmental glomerulosclerosis'**

Prof. Moin Saleem – University of Bristol, UK

6 mins

### Hematuria and Proteinuria



Extract from:

**'Isolated microhematuria and proteinuria in adults'**

Dr. Eva Seiringer – Klinikum Wels-Grieskirchen, Austria

8 mins

### Anaemia in Chronic Kidney Disease



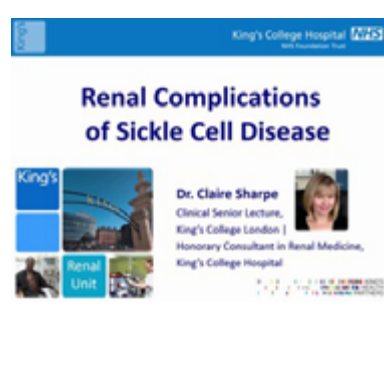
Extract from:

**'Anaemia in chronic kidney disease'**

Prof. Iain Macdougall – Kings College Hospital, UK

9 mins

### Diabetic Nephropathy and Pregnancy



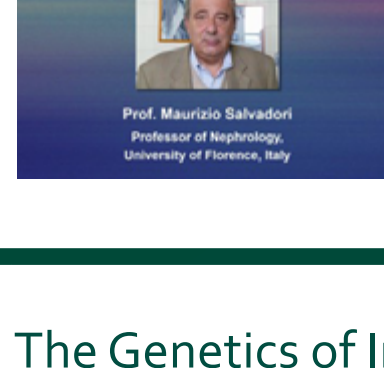
Extract from:

**'Kidney disease and pregnancy: a new era?'**

Dr. Kate Bramham – King's College London, UK

3 mins

### The Significance of the Kidneys in Sickle Cell Disease



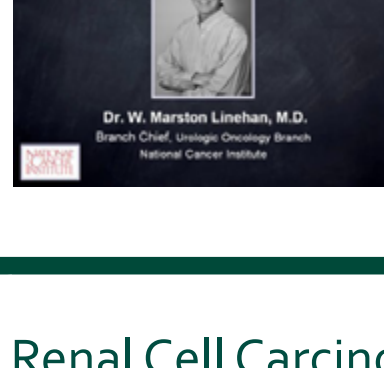
Extract from:

**'Renal complications of sickle cell disease'**

Dr. Claire Sharpe – King's College London, UK

12 mins

### IgA Nephropathy



Extract from:

**'What's new for IgA nephropathy part 1: epidemiology and pathogenesis'**

Prof. Maurizio Salvadori – University of Florence, Italy

5 mins

### The Genetics of Inherited Kidney Cancers



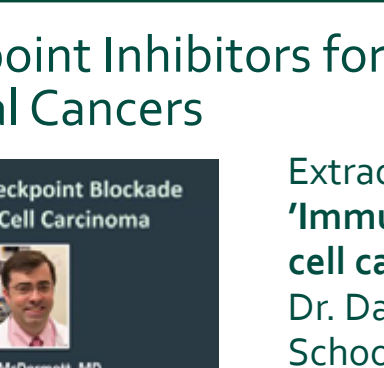
Extract from:

**'The genetic basis of kidney cancer'**

Dr. W. Marston Linehan – National Institutes of Health, USA

5 mins

### Renal Cell Carcinomas and Von Hippel-Lindau Disease



Extract from:

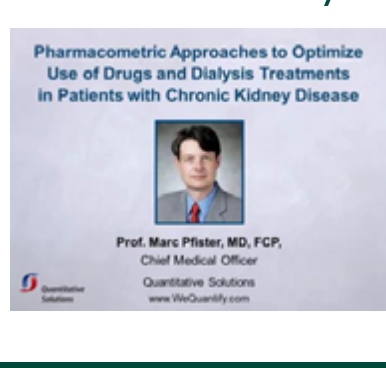
**'The genetics and genomics of familial renal carcinoma'**

Prof. Eamonn Maher – University of Cambridge, UK

11 mins

## Treatment Methods and Therapeutics

### Checkpoint Inhibitors for the Treatment of Renal Cancers



Extract from:

**'Immune checkpoint blockade in renal cell carcinoma'**

Dr. David McDermott – Harvard Medical School, USA

15 mins

### Challenges and Approaches to the Treatment of Chronic Kidney Disease



Extract from:

**'Pharmacometric approaches to optimize use of drugs and dialysis treatments in patients with chronic kidney disease'**

Dr. Marc Pfister – Quantitative Solutions, USA

10 mins

### The Treatment of Anaemia in Chronic Kidney Disease



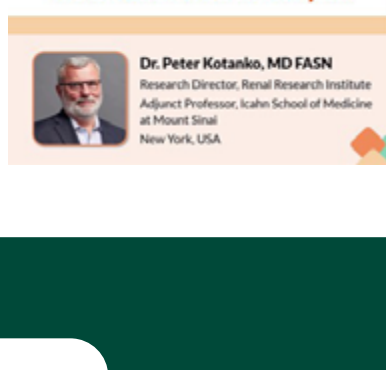
Extract from:

**'Anaemia in chronic kidney disease'**

Prof. Iain Macdougall – Kings College Hospital, UK

9 mins

### Continuous Renal Replacement Therapy



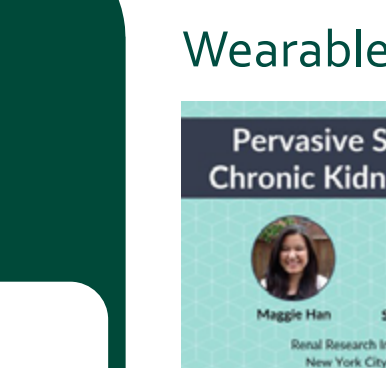
Extract from:

**'Continuous renal replacement therapy (CRRT) in children'**

Prof. Timothy E. Bunchman – VCU School of Medicine, USA

6 mins

### Treating End-Stage Renal Disease



Extract from:

**'Allo-hemodialysis: a novel approach to address the global shortfall in dialysis'**

Prof. Peter Kotanko – Renal Research Institute, USA

9 mins

## Additional Material

### Wearable Devices for Chronic Kidney Disease Patient



Extract from:

**'Pervasive sensing in chronic kidney disease'**

Ms. Maggie Han & Ms. Schantel Williams – Renal Research Institute, USA

14 mins

### Kidney Xenotransplantation: An Interview with Dr. Douglas Anderson



Whole interview:

**'Kidney xenotransplantation'**

Dr. Douglas J. Anderson – University of Alabama at Birmingham, USA

13 mins