

WEEK 1: AUGUST 24th TO AUGUST 29th 2026

	MONDAY 24		TUESDAY 25		WEDNESDAY 26		THURSDAY 27		FRIDAY 28		SATURDAY 29					
07:30-08:30 am				Kidney biopsy Procurement @ bed side Group 1 Loreto Gesualdo, Jeffrey Hodgkin		Kidney biopsy Procurement @ bed side Group 2 Loreto Gesualdo, Jeffrey Hodgkin		Kidney biopsy Procurement @ bed side Group 3 Loreto Gesualdo, Jeffrey Hodgkin		Kidney biopsy Procurement @ bed side Group 4 Loreto Gesualdo, Jeffrey Hodgkin	Pathology of lupus nephritis and other autoimmune diseases Jeffrey Hodgkin					
08:30-09:00 am	Registration															
09:00-09:30 am	Clinical indication & research kidney biopsy Loreto Gesualdo		Independent review of cases Laura Barisoni		Independent review of cases Laura Barisoni		Independent review of cases Laura Barisoni		Independent review of cases Laura Barisoni							
09:30-09:45 am	Standardization of preanalytics & tissue procurement Jeffrey Hodgkin		Independent review of cases Laura Barisoni		Independent review of cases Laura Barisoni		Independent review of cases Laura Barisoni		Independent review of cases Laura Barisoni		Computational image analysis in lupus nephritis Jeffrey Hodgkin					
09:45-10:00 am			Algorithmic approach to glomerular diseases Laura Barisoni		ML introductiyon + general concepts - Conventional versus foundation AI Andrew Janowczyk		Implementation of digital pathology and image analysis in clinical practice Andrew Janowczyk		Challenging case presentation Yihe Yang							
10:00-10:15 am	Diagnostic kidney biopsy protocol Laura Barisoni															
10:15-10:30 am	Systemic reporting of medical kidney diseases Sabine Leh		Pathology of podocytopathies Laura Barisoni		HistoTools Andrew Janowczyk		Image analysis / Feature extraction / Labeling / Classification / Trajectories Andrew Janowczyk		Electron microscopy lab Michele Rossini		Hands on Image analysis lab Andrew Janowczyk		Ultrastructural pathology Interactive exercise Leal Herlitz			
10:30-10:45 am			Pathology of obesity-related glomerular diseases Laura Barisoni													
10:45-11:00 am	Introduction to digital pathology & image analysis Andrew Janowczyk		Pathology of mitochondriopathies Laura Barisoni													
11:00-11:30 am	Coffee break		Coffee break		Coffee break		Coffee break		Coffee break		Coffee break					
11:30-11:45 pm	Introduction to Omics Paola Pontrelli		Pathology of collagenopathies Laura Barisoni		Batch effect Andrew Janowczyk		Hands-on Image analysis Lab Andrew Janowczyk		Hands on Image analysis lab Andrew Janowczyk		Electron microscopy lab Michele Rossini		Bring your difficult cases Discussion with instructor Jeffrey Hodgkin		Independent review of cases Jeffrey Hodgkin	
11:45-12:00 pm			Descriptor scoring Laura Barisoni		Annotation best practices Andrew Janowczyk											
12:00-12:15 pm	Ontologies Avi Rosenberg		Genetic: podocytopathies, collagenopathy, mitochondriopathies Adele Mitrotti		Hands-on Image analysis lab Andrew Janowczyk		Immunofluorescence and Ultrastructural pathology - Interactive exercise Laura Barisoni				Nutrition in kidney diseases and Peritoneal Dialysis Pietro Cirillo					
12:15-12:30 pm			Anti nephrin podocytopathy Diagnostic testing & teraputic approaches Felicitas Hengel, Nicola Martin Tomas													
12:30-12:45 pm																
12:45-01:00 pm											Vaxination in compromised CKD patients Simona Simone					
01:00-02:00 pm	Lunch		Lunch		Lunch		Lunch		Lunch		Lunch					
02:00-02:15 pm	Kidney Structure & Molecular Anatomy Sanjay Jain		Integrated case presentation David Thomas		Vasculopathies & vasculitis Renate Kain		Membranous nephropathy Pierre Ronco		Pathology of infection-associated GN Leal Herlitz		LEGEND INTRODUCTORY MODULE Lecture Practice RENAL PATHOLOGY MODULE Lecture Practice IMAGE ANALYSIS MODULE Lecture Practice OMICS MODULE Lecture Practice DATA INTEGRATION Case Presentation VIRTUAL LECTURE					
02:15-02:30 pm			Statistical methods applied to kidney diseases Jarcy Zee		Pathology of crescentic GN Renate Kain				Pathology of complement dysregulation Leal Herlitz							
02:30-02:45 pm					Pathology of IgA NP & Vasculitis Michele Rossini		Storage & inherited metabolic disease. Pathofisiology in Fabry disease & others Laura Barisoni		Pathology of TMA Leal Herlitz							
02:45-03:00 pm	Genetics of IgA NP Lili Liu				Genetic: storage & inherited metabolic disease Adele Mitrotti		Challenging case presentation Bangchen Wang									
03:00-03:15 pm	Tissue procurement & processing Practice lab Jeffrey Hodgkin		Case presentation - IgA endophenotypes Vincenzo Di Leo, Loreto Gesualdo		Challenging case presentation Avi Rosenberg											
03:15-03:45 pm							Image analysis - The big picture Maxmilian Koeller		Independent review of cases Laura Barisoni				Independent review of cases Laura Barisoni		Onconeurology Steven Salvatore	
03:45-04:00 pm	Coffee break		Coffee break		Coffee break		Coffee break		Coffee break							
04:00-04:30 pm	Ontology lab Avi Rosenberg	Tissue procurement & processing Practice lab Jeffrey Hodgkin	Digital Pathology Scalability and regulations Stephen Hewitt		Optional - Independent review of cases		Optional - Independent review of cases		Pathology of MGRS & organized deposits Maryam Alexander							
04:30-05:00 pm			Optional - Independent review of cases						Special technologies applied to diagnose kidney diseases Maryam Alexander							
05:00-07:00 pm									Optional - Independent review of cases							
							Social Dinner at Villa Romanazzi									

MONDAY 31				TUESDAY 1				WEDNESDAY 2				THURSDAY 3				FRIDAY 4							
07:30-09:00 am	Independent review of cases Leal Herlitz		Kidney biopsy Procurement @ bed side Group 5 Loreto Gesualdo, Paola Pontrelli	Algorithmic approach to tubulointerstitial diseases Leal Herlitz				Pathology of diabetic kidney disease Leal Herlitz				Update on BANFF scoring and diagnosis of TMR & AMR Jasper Kers				Challenges in nephrology for the next 20 years Loreto Gesualdo							
Integrated Pathology of DKD and clssification Loreto Gesualdo																							
09:00-09:15 am				Independent review of cases Leal Herlitz				Pathology of tubulointerstitial diseases Leal Herlitz				Case presentation - CKD/DKD endophenotypes Loreto Gesualdo, Michele Rossini				Image analysis of tranplant pathology Jasper Kers							
09:15-09:30 am	Secure & Sustainable AI Peter Boor											Molecular analysis in tranplant pathology Steven Salvatore											
09:30-09:45 am																Pathology of CKD of unkown etiology Leal Herlitz				Infections in tranplantation Steven Salvatore			
09:45-10:00 am	Introduction and Overview From Genes to Transcripts: Technologies and Analytical Approaches in Kidney Tissue and Biofluids Matthias Kretzler				Independent review of cases Leal Herlitz				Electron microscopy lab Michele Rossini														
10:00-10:15 am													Independent review of cases Leal Herlitz				Independent review of cases Leal Herlitz						
10:15-10:30 am																					Independent review of cases Leal Herlitz		
10:30-10:45 am	Overview From Proteins to Metabolites to Pathway Mapping: Technologies and Analytical Approaches in Kidney Tissue and Biofluids Sean Eddy				Independent review of cases Leal Herlitz				Independent review of cases Leal Herlitz														
10:45-11:00 am													Independent review of cases Leal Herlitz				Independent review of cases Leal Herlitz						
11:00-11:30 am	Coffee break				Coffee break				Coffee break												Coffee break		
11:30-12:00 am	Overview Bringing it All together Multiscalar Data Integration for Molecular Disease Definition Matthias Kretzler				Group 1 Exploring genetic variations in Kidney Disease NephQTL Felix Eichinger	Group 2 Transcriptomic Analysis in Kidney Disease: NephroSeq Heather Ascani	Group 3 Understanding Molecular Mechanisms: KPMP Explorer, Spatial Viewer Sean Eddy	Group 4 Analyze and Annotate Single Cell Data: CellxGene Viji Nair	Group 5 Working with consortia datasets: TransSMART Matthias Kretzler	Group 1 Working with consortia datasets: TransSMART Matthias Kretzler	Group 2 Exploring genetic variations in Kidney Disease: NephQTL Felix Eichinger	Group 3 Transcriptomic Analysis in Kidney Disease: NephroSeq Heather Ascani	Group 4 Understanding Molecular Mechanisms: KPMP Explorer, Spatial Viewer Sean Eddy	Group 5 Analyze and Annotate Single Cell Data: CellxGene Viji Nair	Group 1 Analyze and Annotate Single Cell Data: CellxGene Viji Nair	Group 2 Working with consortia datasets: TransSMART Matthias Kretzler	Group 3 Exploring genetic variations in Kidney Disease: NephQTL Felix Eichinge	Group 4 Transcriptomic Analysis in Kidney Disease: NephroSeq Heather Ascani	Group 5 Understanding Molecular Mechanisms: KPMP Explorer, Spatial Viewer Sean Eddy	Next generation nephropathology Andrew Janowczyk			
12:00-12:15 am																				Closing Remarks Laura Barisoni, Loreto Gesualdo, Andrew Janowczyk, Mathias Kretzler			
12:15-01:00 pm																				Overview How to Gain Knowledge from Data: Introduction and Principles in Data Mining Strategies to Interface with Nephropathologists Viji Nair			
01:00-01:15 pm	Lunch				Lunch				Lunch				Lunch										
01:15-02:00 pm																	Lunch						
02:00-02:15 pm																					Overview Finding Knowledge in Data Specific Tools and Resources (Nephroseq, TransSMART, KPMP Explorer and Spatial Viewer, CellxGene, NephQTL) Heather Ascani, Sean Eddy, Felix Eichinger Viji Nair, Matthias Kretzler		
02:15-02:30 pm	Image analysis: Usability quality and safety John Tomatzewski																						
02:30-02:45 pm					Image analysis: risk management & Education John Tomatzewski																		
02:45-03:00 pm									Standardization of image analysis Peter Boor														
03:00-03:15 pm	Genetic of kidney diseases: Guidelines for testing Simone Sanna Cherchi																						
03:15-03:30 pm					The aging kidney Andrew Rule																		
03:30-04:00 pm									Molecules in their kidney home: Opportunities & challenges in spatial molecular analyses Tarek Ashkar														
04:00-04:15 pm	Pathology of cystic diseases of the kidney Carrie Phillips																						
04:15-05:00 pm					Pathology-radiology integrated case presentation Lindsey Johnstone, Carrie Phillips																		
05:00-07:00 pm									Social Dinner at Villa Romanazzi														
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