



European  
society for  
paediatric  
nephrology

# ESPN RESEARCH CONFERENCE

FLORENCE 2025  
20-22 MARCH



oic  
group

**Metabolic bone disease  
and cardiovascular  
health in kidney disorders**



## THURSDAY 20 MARCH

**14:00** *Arrival at the Hotel Mediterraneo and check-in*

**16:00**

### MEETING ROOM SALONE DEGLI OCEANI

**16:00** Welcome from the ESPN President  
**Dieter Haffner** (*Hannover Medical School, Germany*)

**16:05** Introduction from the Chairs  
**Stella Stabouli** (*Aristotle University of Thessaloniki, Greece*) and  
**Maren Leifheit-Nestler** (*Hannover Medical School, Germany*)

**16:10** **KEYNOTE SESSION**

**17:30** Discussion Leaders: **Stella Stabouli** (*Aristotle University of Thessaloniki, Greece*) and  
**Maren Leifheit-Nestler** (*Hannover Medical School, Germany*)

**16:10** Phosphate homeostasis and endocrine regulators  
**Clemens Bergwitz** (*Yale University School of Medicine, USA*)

**16:40** Discussion

**16:50** Understanding of metabolic bone diseases: lessons from genetic animal models  
**Carsten Wagner** (*University of Zurich, Switzerland*)

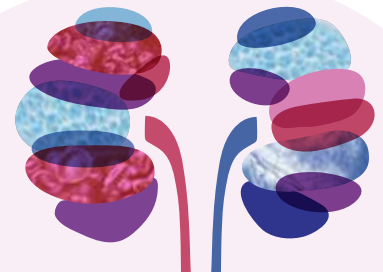
**17:20** Discussion

**17:30** **POSTER SESSION 1**

**18:30** *Coffee will be served during the poster session*

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## THURSDAY 20 MARCH

### **18:30** INNOVATION IN INDUSTRY RESEARCH + BEST ABSTRACTS

**20:00** Discussion Leaders: **Dieter Haffner** (*Hannover Medical School, Germany*) and **Jun Oh** (*University Medical Center Hamburg-Eppendorf, Germany*)

**18:30** New XLH European Guidelines: evolving clinical practice  
**Dieter Haffner** (*Hannover Medical School, Germany*) and  
**Francesco Emma** (*Bambino Gesù Children's Hospital, Rome, Italy*)

**19:15** Discussion

**19:30** Markers of metabolic bone disease in children with X-linked hypophosphatemia: a real-world study in Germany and Switzerland  
**Ineke Böckmann** (*Hannover Medical School, Germany*)

**19:40** Discussion

**19:45** Naturally occurring stable calcium isotopes predict changes in bone (de)mineralisation in children and young adults with CKD and on dialysis  
**Rukshana Shroff** (*UCL Great Ormond Street Hospital and Institute of Child Health, London, United Kingdom*)

**19:55** Discussion

**20:00** Dinner

## FRIDAY, 21 MARCH

**07:30** *Breakfast*

**08:45**

### MEETING ROOM SALONE DEGLI OCEANI

**09:00** **CARDIOVASCULAR SYSTEM IN KIDNEY DISEASES**

**10:30** Discussion Leaders: **Dieter Haffner** (*Hannover Medical School, Germany*) and **Marc Vervloet** (*Radboud University, Netherlands*)

**09:00** Cardiovascular biomarkers: FGF23, klotho and beyond (cause or marker)  
**Justine Bacchetta** (*University of Lyon, France*)

**09:20** Discussion

**09:30** Functional analyses of the calcium-sensing receptor (CaSR) in the cardiac system and the impact of high phosphate  
**Louise Baer** (*Hannover Medical School, Germany*)

**09:40** Discussion

**09:45** Cardiovascular health in CKD: addressing the gaps  
**Rukshana Shroff** (*Great Ormond Street Institute of Child Health, University College London, UK*)

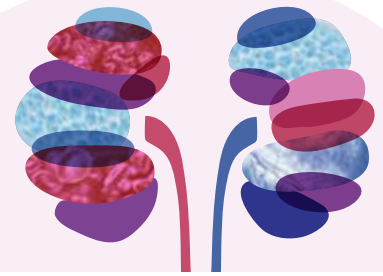
**10:05** Discussion

**10:15** High phosphate diet-induced cardiac dysfunction: importance of sodium-dependent phosphate cotransporters Pit1 and Pit2  
**Andrea Grund** (*Hannover Medical School, Germany*)

**10:25** Discussion

**10:30** *Coffee break*

**11:00**



## FRIDAY, 21 MARCH

### MEETING ROOM SALONE DEGLI OCEANI

**11:00** PATHOPHYSIOLOGICAL INSIGHTS INTO METABOLIC BONE DISEASES  
**12:30** Discussion Leaders: **Justine Bacchetta** (University of Lyon, France) and **Clemens Bergwitz** (Yale University School of Medicine, USA)

**11:00** Insight of the development of myopathy and future treatments  
**Philippos Mourikis** (Necker Institute for Sick Children, France)

**11:20** Discussion

**11:30** Bone and vessel crosstalk  
**Marc Vervloet** (Radboud University, Netherlands)

**11:50** Discussion

**12:00** Cystinosis metabolic bone disease: pathogenesis and outcome  
**Dieter Haffner** (Hannover Medical School, Germany)

**12:20** Discussion

**12:30** *Group photo*  
**12:45**

**12:45** *Lunch*  
**14:00**

**14:00** *Free time to visit the congress Poster Area*  
**15:00**



## FRIDAY, 21 MARCH

### MEETING ROOM SALONE DEGLI OCEANI

**15:00** NOVEL AND FUTURE THERAPEUTIC MEASURES FOR METABOLIC BONE DISEASE  
**16:30** AND CARDIOVASCULAR SYSTEM

Discussion Leaders: **Maren Leifheit-Nestler** (*Hannover Medical School, Germany*) and  
**Franz Schaefer** (*University of Heidelberg, Germany*)

**15:00** Novel measures for metabolic bone disease: PH1-3 and beyond  
**Michiel J. S. Oosterveld** (*University of Amsterdam, Netherlands*)

**15:20** Discussion

**15:30** Impact of the enzyme replacement therapy, INZ-701, in children with ENPP1  
deficiency: experience from an expanded access program  
**Mattia Parolin** (*University of Padua, Italy*)

**15:40** Discussion

**15:45** The heart in Fabry disease  
**Kristina Sonnenschein** (*Hannover Medical School, Germany*)

**16:05** Discussion

**16:15** Musclin as a new marker for muscle health in nephropathic cystinosis  
**Malgorzata Szaroszyk** (*Hannover Medical School, Germany*)

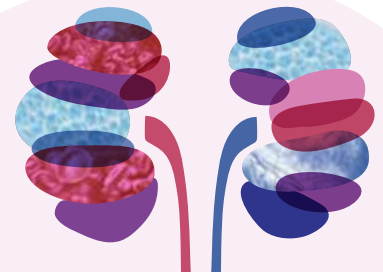
**16:25** Discussion

**16:30** POSTER SESSION 2

**18:00** Coffee will be served during the poster session

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## FRIDAY, 21 MARCH

### **18:00** EXPERIMENTAL TRANSLATIONAL STUDIES I

**19:30** Discussion Leaders: **Rukshana Shroff** (*Great Ormond Street Institute of Child Health, University College London, UK*) and **Guillaume Courbon** (*INSERM, University of Saint Etienne, France*)

**18:00** Understanding the pathophysiological signaling in cardiovascular disease  
**Jakob Vökl** (*Johannes Kepler University Linz, Austria*)

**18:20** Discussion

**18:30** Development and validation of a vascular organoid model for pediatric chronic kidney disease-associated vascular remodeling and calcifications  
**Julie Bernardor** (*University Hospital of Nice, France*)

**18:40** Discussion

**18:45** Mitochondrial involvement in cardiac, muscle and kidney disease  
**Francesco Emma** (*Bambino Gesù Children's Hospital, Italy*)

**19:05** Discussion

**19:15** Peritoneal infusion of microplastics induces over-expression of GDF15 in kidney and heart in mice  
**Marta Ferrecchi** (*University of Genoa, Italy*)

**19:25** Discussion

**19:30** *Free time*

**20:00**

**20:00** *Dinner*

## SATURDAY, 22 MARCH

**07:30** *Breakfast*

**08:45**

### MEETING ROOM SALONE DEGLI OCEANI

#### **09:00** CLINICAL SCENARIOS

**10:30** Discussion Leaders: **Oh Jun** (*University Medical Center Hamburg-Eppendorf, Germany*) and **Stella Stabouli** (*Aristotle University of Thessaloniki, Greece*)

**09:00** Clinical scenarios in pediatric kidney diseases with a focus on cardiovascular and bone health

**Franz Schaefer** (*University of Heidelberg, Germany*)

**09:20** Discussion

**09:30** Longitudinal relationship between albuminuria and renal function in children and young adults from the general population

**Valentina Gracchi** (*Beatrix Children's Hospital - University Medical Center Groningen, Netherlands*)

**09:40** Discussion

**09:45** Clinical scenarios in adults with CKD and cardiovascular outcomes

**Beatriz Fernández-Fernández** (*IIS-Fundacion Jimenez Diaz UAM, Madrid, Spain*)

**10:05** Discussion

**10:15** Vitamin K2 profile in young patients with renal replacement therapy: link with vascular health?

**Lou Cryns** (*University of Antwerp, Belgium*)

**10:25** Discussion

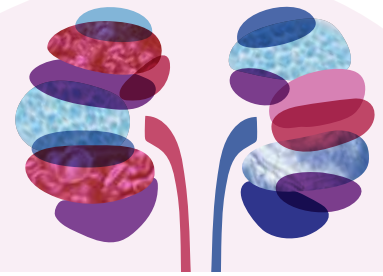
**10:30** *Coffee break*

**11:00**



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## SATURDAY, 22 MARCH

### MEETING ROOM SALONE DEGLI OCEANI

#### **11:00** EXPERIMENTAL TRANSLATIONAL STUDIES II

**12:30** Discussion Leaders: **Jakob Völkl** (*Johannes Kepler University Linz, Austria*) and **Carsten Wagner** (*University of Zurich, Switzerland*)

**11:00** Genetically modified animal models  
**Guillaume Courbon** (*INSERM, University of Saint Etienne, France*)

**11:20** Discussion

**11:30** Identification of phenotype modifier gene variants overrepresented in familial hypomagnesemia with hypercalciuria and nephrocalcinosis with a more aggressive renal phenotype  
**Julieta Torchia** (*Vall d'Hebron Institute of Research, Barcelona, Spain*)

**11:40** Discussion

**11:45** Genome editing (CRISPR/Cas and others) in kidney diseases  
**Miguel A. Garcia González** (*University of Santiago de Compostela, Spain*)

**12:05** Discussion

**12:15** Applying LNP/mRNA technology to therapy of cystinosis  
**Paul Goodyer** (*Research Institute of the McGill University Health Centre, Montreal, Canada*)

**12:25** Discussion

**12:30** Farewell

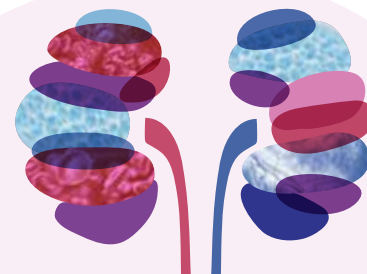
**12:45**

**12:45** Lunch

**14:00**

## POSTER SESSION

- P01 Naturally occurring stable calcium isotopes predict changes in bone (de) mineralisation in children and young adults with CKD and on dialysis  
**Alexander D. Lalayiannis<sup>1</sup>, Anton Eisenhauer<sup>2</sup>, Ana Kolevica<sup>2</sup>, Alexander Heuser<sup>2</sup>, Varvara Askiti<sup>3</sup>, Amrit Kaur<sup>1</sup>, Manish Sinha<sup>1</sup>, David Milford<sup>1</sup>, Mary Fewtrell<sup>1</sup>, Rukshana Shroff<sup>1</sup>** (<sup>1</sup>United Kingdom, <sup>2</sup>Germany, <sup>3</sup>Greece)
- P02 Fanconi-Bickel syndrome: a rare cause of pRTA with significant risk of bone fractures and deformities  
**Bahriye Atmis, Aysun Karabay Bayazit, Deniz Kor, Fatma Derya Bulut, Neslihan Önenli Mungan** (Turkey)
- P03 Secondary hyperparathyroidism and brown tumors in pediatric dialysis patients: a critical call for treatment adherence  
**Bahriye Atmis, Zahide Orhan Ok, Çağla Çağlı Pişkin, Aysun Karabay Bayazit** (Turkey)
- P06 Alterations of bone and mineral metabolism during CKD progression and impact of kidney replacement therapy: a real-world pediatric study  
**Anna Tschirner, Weber Hannah, Schermuly Katharina, Böckmann Ineke, Kanzelmeyer Nele, Drube Jens, Haffner Dieter, Leifheit-Nestler Maren** (Germany)
- P07 Markers of metabolic bone disease in children with X-linked hypophosphatemia: a real-world study in Germany and Switzerland  
**Ineke Böckmann, Maren Leifheit-Nestler, Schlingmann Karl Peter, Freiberg Clemens, Weitz Marcus, Dunstheimer Desiree, John Ulrike, Wühl Elke, Schnabel Dirk, Haffner Dieter** (Germany)
- P09 Functional analyses of the calcium-sensing receptor (CaSR) in the cardiac system and the impact of high phosphate  
**Louise Baer, Andrea Grund, Dieter Haffner, Maren Leifheit-Nestler** (Germany)
- P10 High phosphate diet-induced cardiac dysfunction: Importance of sodium-dependent phosphate cotransporters Pit1 and Pit2  
**Andrea Grund, Maren Leifheit-Nestler, Dieter Haffner** (Germany)
- P12 P-cresol and p-cresol sulphate and clinical outcomes in CKD: systematic review  
**Patrick Clarke, Matthew J. Harmer** (United Kingdom)
- P13 Impact of the enzyme replacement therapy, INZ-701, in children with ENPP1 deficiency: experience from an expanded access program  
**Mattia Parolin<sup>1</sup>, Belen Ferrer<sup>2</sup>, Ruba Rizik<sup>3</sup>, Kurt C. Gunter<sup>4</sup>** (<sup>1</sup>Italy, <sup>2</sup>Spain, <sup>3</sup>Israel, <sup>4</sup>USA)
- P14 Can oral bisphosphonates counteract mineral bone disease in Lowe syndrome? A case series of three patients  
**Elisa Manieri, Guido Zavatta, Federico Baronio, Andrea Pasini, Claudio La Scola** (Italy)

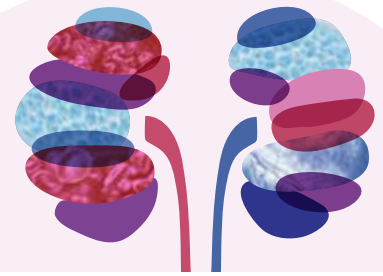


## POSTER SESSION

- P15 Musclin as a new marker for muscle health in nephropathic cystinosis  
**Malgorzata Szaroszyk, Lars Leemhuis, Dieter Haffner, Maren Leifheit-Nestler**  
(Germany)
- P16 Developing an organoid model of podocin-related nephrotic syndrome using patient-derived induced pluripotent stem cells  
**Robert Matthes, Mansoureh Tabatabaeifar, Sabine Jung-Klawitter, Franz Schaefer** (Germany)
- P18 Applying LNP/mRNA technology to therapy of cystinosis  
**Paul Goodyer, Elena Torban** (Canada)
- P19 Development and validation of a vascular organoid model for pediatric chronic kidney disease-associated vascular remodeling and calcifications  
**Matthieu Rouleau<sup>1</sup>, Justine Simonin<sup>1</sup>, Elise Larché<sup>1</sup>, Zakariya Caillot<sup>1</sup>, Claudine Blin-Wakkach<sup>1</sup>, Maria Bartosova<sup>2</sup>, Claus Peter Schmitt<sup>2</sup>, Julie Bernardor<sup>1</sup>**  
(<sup>1</sup>France, <sup>2</sup>Germany)
- P20 Effects of exercise in chronic kidney disease: crosstalk between muscle and kidney  
**Katharina Maier, Malgorzata Szaroszyk, Dieter Haffner, Maren Leifheit-Nestler**  
(Germany)
- P21 Peritoneal infusion of microplastics induces over-expression of GDF15 in kidney and heart in mice  
**Marta Ferrecchi, Decimo Silvio Chiarenza, Micaela Gentile, Paolo Cravedi, Gabriele Mortari, Pasquale Esposito, Daniela Verzola, Enrico Verrina, Noemi Rumeo, Edoardo La Porta** (Italy)
- P22 Identification of phenotype modifier gene variants overrepresented in familial hypomagnesemia with hypercalciuria and nephrocalcinosis with a more aggressive renal phenotype  
**Julieta Torchia, Mónica Vall-Palomar, Jordi Morata, Monica Duran, Mireia Ferrer, Alex Sanchez, Gerard Cantero-Recasens, Gema Ariceta, Anna Meseguer, Cristina Martinez** (Spain)
- P23 Coronavirus viroporins regulate cftr trafficking and function  
**Aparna Renigunta, Jonathan Schlegel, John Ziebuhr, Vijay Renigunta, Stefanie Weber** (Germany)
- P24 p-glycoprotein-1(abcb1) along with adenylate kinase (ak1) mediates nucleotide-gated channel regulation of kcnj1  
**Vijay Renigunta<sup>1</sup>, Imran Shaikh<sup>1</sup>, Nils Renfordt<sup>1</sup>, Siegfried Waldegger<sup>2</sup>, Martin Koemhoff<sup>1</sup>, Stefanie Weber<sup>1</sup>, Aparna Renigunta<sup>1</sup>** (<sup>1</sup>Germany, <sup>2</sup>Austria)
- P25 Biomarkers predictive for the renal graft survival - Romanian experience  
**Andreea Liana Bot (Rachisan)** (Romania)

## POSTER SESSION

- P28 Vitamin K2 profile in young patients with renal replacement therapy: link with vascular health?  
**Lou Cryns<sup>1</sup>, Van Eyck Annelies<sup>1</sup>, Leon Schurgers<sup>2</sup>, Dominique Trouet<sup>1</sup>** (<sup>1</sup>Belgium, <sup>2</sup>Netherlands)
- P29 Variant analysis in a cohort of pediatric patients with congenital anomalies of the kidney and urinary tract (CAKUT) after extended next generation sequencing (NGS)  
**Dana Blasi, Mansoureh Tabatabaeifar, Christian Sutter, Franz Schaefer** (Germany)
- P30 Insulin resistance in young patients with autosomal dominant polycystic kidney disease  
**Olil Van Reeth, Inès Vanderheyden, Jean-Paul Decuyper, Rudi Vennekens, Peter Janssens, François Jouret, Djalila Mekahli** (Belgium)
- P31 Longitudinal relationship between albuminuria and renal function in children and young adults from the general population  
**Valentina Gracchi<sup>1</sup>, Hiddo Lambers Heerspink<sup>2</sup>, Henk Groen<sup>3</sup>, Richard Coward<sup>2</sup>, Henkjan Verkade<sup>1</sup>** (<sup>1</sup>Netherlands, <sup>2</sup>United Kingdom)
- P32 Pediatric nephrolithiasis-clinical manifestations and metabolic profiles from a dedicated multidisciplinary clinic  
**Shelly Levi, Roy Morag, Daniel Landau, Miriam Davidovits, Abigail Lazar, Lotem Goldberg, Efrat Talgam Horshi, Gili Koren, Adi Chezana, Yael Borovitz** (Israel)
- P33 Percutaneous kidney biopsy associated risks in children: a 10 years clinical experience  
**Donatella Simone, Diletta Domenica Torres, Vincenza Carbone, Luisa Santangelo, Marida Martino, Mario Giordano** (Italy)
- P34 Evaluation of carnitine concentration in blood and urine in children with diseases of the kidneys and urinary tract  
**Agnieszka Jędzura, Paulina Wysocka-Wojakiewicz, Martyna Jasielska, Anna Rokowska-Oleksi, Monika Dębowska, Katarzyna Sedlaczek, Piotr Adamczyk** (Poland)
- P35 Pediatric reference values for novel urinary biomarkers of kidney health in the HARP cohort  
**Hannah Weber, Katharina Schermuly, Anna Tschirner, Ineke Böckmann, Ulrich Baumann, Anibh M. Das, Nele Kanzelmeyer, Jens Drube, Dieter Haffner, Maren Leifheit-Nestler** (Germany)
- P36 Office blood pressure and obesity in children with X-linked hypophosphatemia  
**Ineke Boeckmann, Maren Leifheit-Nestler, Mirko Rehberg, Marcus Weitz, Ulrike John, Ludwig Patzer, Miroslav Zivcinkjak, Elke Wühl, Dirk Schnabel, Dieter Haffner** (Germany)
- P37 Long-term follow-up of patients with cyp24a1, slc34a1 and slc34a3 mutations: a retrospective study  
**Ruth Schreiber, Asaf Lebel, Shelly Levi** (Israel)

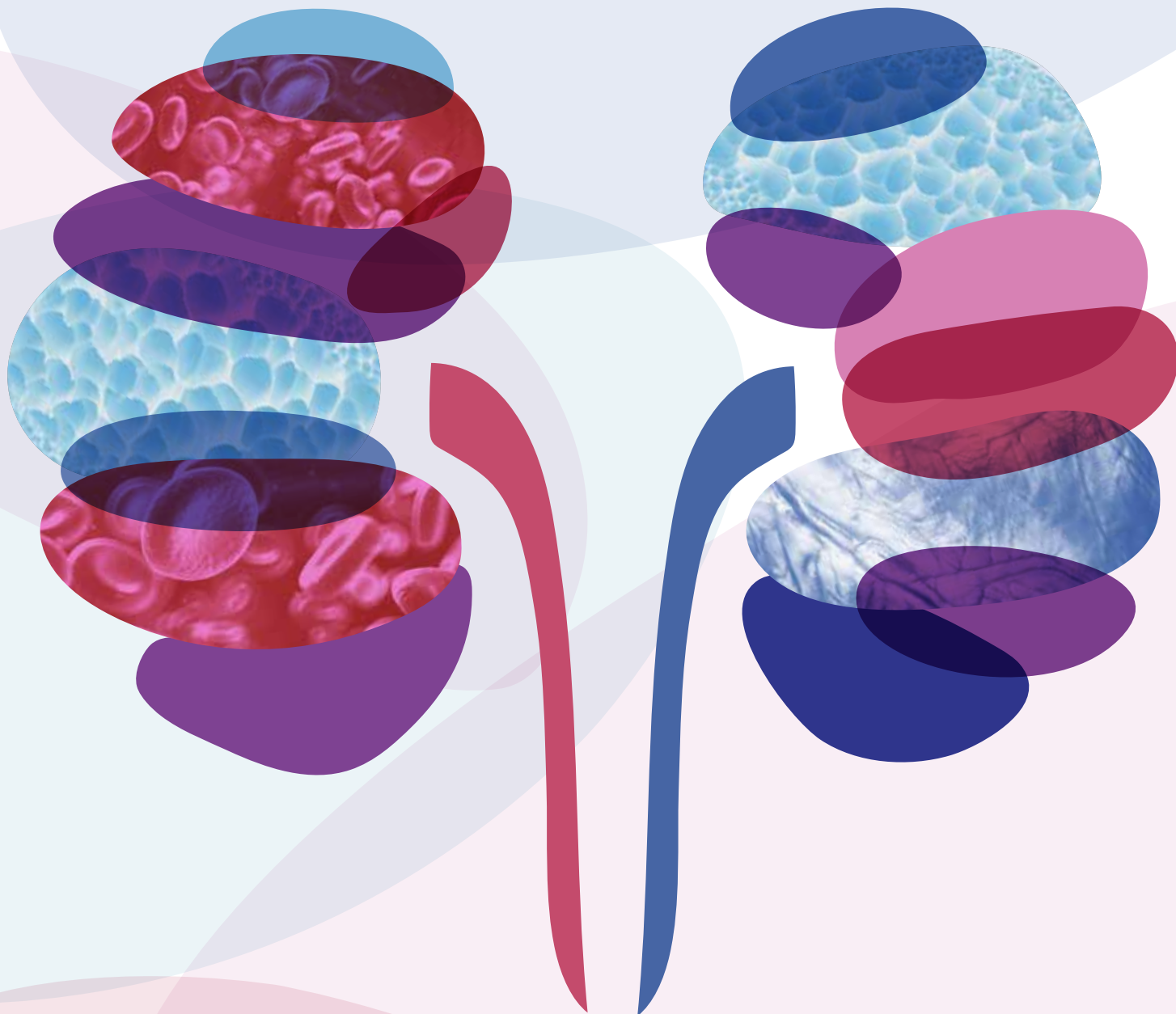


## POSTER SESSION

- P38 Obesity as a risk factor for kidney injury in a cohort of children in treatment for acute lymphoblastic leukemia: a multicenter retrospective analysis  
**Miriana Guarino, Paolo Giordano, Mario Giordano, Letizia Pomponia Brescia, Nicola Santoro, Francesco Chiarelli, Valerio Cecinati** (*Italy*)
- P39 Impact of mineral bone disease on quality of life in children with stage 5 chronic kidney disease  
**Branko Lutovac<sup>1</sup>, Brankica Spasojevic<sup>2</sup>** (<sup>1</sup>*Montenegro*, <sup>2</sup>*Serbia*)
- P40 Regulation of serum parameters of renal osteodystrophia and hypertension in pediatric patients on chronic hemodialysis  
**Kristina Matijas, Mirjana Cvetkovic, Dusan Paripovic, Gordana Milosevski-Lomic, Ivana Gojkovic, Ana Petrovic, Milica Vukanovic, Tanja Gaus, Brankica Spasojevic** (*Serbia*)



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