ESPN
CKD-MBD working group

Spring meeting (virtual)

June 9th, 2023

Talk by Guillaume Courbon: new insights in FGF23 physiology

Assistant Professor, French national institute of health and medical research (Inserm) University of Saint Etienne, France

President award 2019 from the American society of bone and mineral research (ASBMR).

American heart association (AHA) sponsor grant 2019-2021.

Guillaume spent 6 years in the USA to study the regulations and roles of FGF23 in CKD-MBD patients and animal models. He recently opened his lab in France, where he studies FGF23 at the intersection of iron and phosphate metabolism.

Recent publications

Bone-derived C-terminal FGF23 cleaved peptides increase iron availability in acute inflammation.

Courbon G, Thomas JJ, Martinez Calle M, Wang X, Spindler J, Von Drasek J, Hunt-Tobey B, Mehta R, Isakova T, Chang W, Creemers JWM, Ji P, Martin A, David V. Blood. 2023 Apr 13:blood.2022018475.

Transcription factor HNF4α2 promotes osteogenesis and prevents bone abnormalities in mice with renal osteodystrophy.

Martinez-Calle M, Courbon G, Hunt-Tobey B, Francis C, Spindler JJ, Wang X, Dos Reis LM, Steller Wagner Martins C, Salusky IB, Malluche HH, Nickolas TL, Moyses RM, Martin A, David V. J Clin Invest. 2023 Apr 20:e159928.

Lipocalin 2 stimulates bone fibroblast growth factor 23 production in chronic kidney disease.

Courbon G, Francis C, Gerber C, Neuburg S, Wang X, Lynch E, Isakova T, Babitt JL, Wolf M, Martin A, David V. Bone Res. 2021 Aug 2;9(1):35.

Update guidelines

- **Projects**
- Calcium intake from childhood to adulthood in CKD: joined initiative between EUROD and ERN-ERA: R Shroff chair with P Evenepoel + paper submitted in NDT at the end of May 2023
- Cardiovascular guidelines with dialysis and Tx WGs, S Stabouli and R Shroffr, F-2-F organized in Lyon in April 2023, 1st part diagnosis (in process, newt meeting for the people involved on June 21st), next step management
- CKD-MBD management after a failed kidney transplant: pending data
  - A Prytula and acidosis
  - A Lalyannis and fractures
  - Z Arslan and failed Tx
  - J Bacchetta and early bone changes (biomarkers / HRpQCT)
  - Objective begin a consensus proposal by the end of 2023 / early 2024 even in the absence of the results of all these studies

Update research

- **Fractures survey**
- We would like to ask for your help with a study on fractures in children with CKD, on dialysis and with kidney transplants.
- Children with CKD are reported to have bone pain, limb deformities, short stature and a three-fold higher fracture incidence compared to their healthy peers. The cumulative burden of the mineral bone disorder that develops during the pre-transplant period may be further exacerbated after transplantation. Little is known about the prevalence of fractures in European children with CKD.
- On behalf of the ESPN Dialysis working group, we would like to invite you to participate in a survey to determine the prevalence and risk factors for fractures in European children with CKD, on dialysis and with kidney transplants.
- Please complete the survey below.
- You may open the survey in your web browser by clicking the link below:
- Fractures in European Children with CKD
- If the link above does not work, try copying the link below into your web browser:

https://redcap.slms.ucl.ac.uk/surveys/?s=TH7JTM9HFNY7DAYP

- If you do identify children who have suffered a fracture, we will send an additional short datasheet for some anonymised clinical data collection including the diagnosis, biochemical results, dialysis modality, medication and clinical information preceding the fracture. This may help us identify common risk factors that contribute to the disproportionate fracture burden.
- All respondents contributing data will be acknowledged in any presentations and publications.
- Please contact Rukshana Shroff (Rukshana.Shroff@gosh.nhs.uk) or Alex Lalayiannis (alex.lalayiannis@nhs.net) should you require any further information.
- Presentation at the next CERTAIN meeting, join with ERKNet?

Update ESPN Vilnius 2023: 27-30 September

- Chair of the scientific comitee = Rukshana Shroff
- Pre-congress CME course on CKD and dialysis on Sept 27th
  - Trouble-shooting on dialysis
  - Dialysis in special situations
  - CKD-MBD management
  - Workshops: vascular access, CKD-MBD management in real life, nutritional management
  - F2F meeting at the end of the CME day: 1 hour, CKD-MBD and dialysis WGs together
- Session CKD-MBD during the main conference
  - Mini-symposium : bone and rare diseases / obesity pandemic ans CKD
  - Guidelines session: nutrition and CKD-MBD
  - Controversies: clinical targets in MBD management : bone versus vessels

Research

- **A Prytula:** Association between the laboratory CKD-MBD markers and statural growth after kidney transplantation, submitted for the ESPN 2023 call

Research

- **Implementation of all CKD-MBD guidelines**: DAILY-MBD

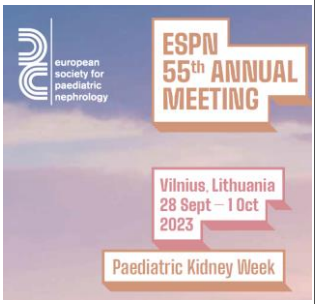
	Pre-guidelines	Post-guidelines
Pre-dialysis	4C in 2015	ERKReg inclusion (2018/2019)
Dialysis => to give physicians time to adjust	European centers from IPDN Every year from 2013 (10-year trend)	European centers from IPDN Every year from 2013 (double approach: trends in Ca PTH phosphate with the figure from DOPPS and apparition of guidelines + proportion of patients receiving native D, active D, cinacalcet, rhGH). Trends in BP and antiHTN drugs (sub question in obese) ErkReg in dialysis after at least 3 months on dialysis, "early", ERKReg and "late" ERKReg

	PMID	Since	Open Access	Page views	PDF downloads	Citations
Bone evaluation NOT	33245331	11/1/2020	Initially no, now available	2337	782	28
Cinacalcet	31641778	10/1/2019	Initially no, now available	3594	988	22
Active D analogs	28873971	8/1/2017	Yes (free PMC)	6183	1451	48
Native D	28873969	5/1/2017	Yes (free PMC)	6102	1303	68
Nutritional management in infants	35378603	5/4/2022	Yes	4664		1
Obesity and metabolic syndrome	34374836	10/8/2021	Yes	4756		3
Assessment of nutritional status	33319327	14/12/2020	Yes	9340		45
Enteral nutrition	32728841	29/7/2020	Yes	6323		15
Dietary management of Ca and phosphate	31667620	30/10/2019	Yes	13000		42
CKD-MBD in infants	36788859	14/2/2023	Yes	880		
rhGH	31197263	13/6/2019 + country regulations for reimbursement	Yes	27000		76

Comments, ideas, suggestions

- **Please send them before September 10th for discussion in Vilnius!**
- **Cross-WG activities; Dialysis and Tx, envision a link with inherited renal disorders?**
- **How to increase the number of high quality clinical studies in our field?**
- **New members?**

Chair: J Bacchetta

Board members in the board: Stella Stabouli, Claus Schmitt, Agnieska Prytula, Alex Lalayiannis, Julie Bernardor

Next steps to be in accordance with the new ESPN regulation: if we add a « white year » due to COVID: SS will have to step down in 2023, CPS & AP will have to step-down in 2024 and AL/JBe will have to step down in 2025. Chair position for JBa until 2025 (renewable one time)