

## Special Issue

# Hypoxia Inducible Factors Prolyl-Hydroxylase Inhibitors: A Novel Treatment of CKD Patient Anemia

### Message from the Guest Editors

The pathogenesis of anemia in chronic kidney disease (CKD) patients includes decreased production of erythropoietin (EPO), often associated with iron deficiency; its current management includes iron supplementation, erythropoiesis-stimulating agents (ESAs), and eventually red blood cell transfusion.

A novel class of therapeutic agents for the treatment of anemia in patients with CKD was developed by inhibiting the enzymes that control hypoxia-inducible factors (HIFs). HIFs are controlled by a family of prolyl hydroxylase enzymes, important for maintaining the relationship between oxygen availability and HIF- $\alpha$  expression. These HIF proteins, known as 'oxygen sensors' due to their dependency upon oxygen as a direct substrate, are called PHD1, PHD2, and PHD3 based on their distinctive prolyl-4-hydroxylase domains (PHD).

Phase 3 trials recently became available for drugs of this class.

This Special Issue aims to report and discuss the efficacy and safety and clinical impact of these drugs, according to the present available data with the help of major experts in the field of treatment of anemia in CKD patients.

---

### Guest Editors

Prof. Dr. Francesco Locatelli

Dr. Lucia Del Vecchio

Dr. Ciro Esposito

---

### Deadline for manuscript submissions

closed (31 December 2024)



## Kidney and Dialysis

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 2.6



[mdpi.com/si/111330](https://mdpi.com/si/111330)

*Kidney and Dialysis*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[kidneydial@mdpi.com](mailto:kidneydial@mdpi.com)

[mdpi.com/journal/  
kidneydial](https://mdpi.com/journal/kidneydial)





# Kidney and Dialysis

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 2.6



[mdpi.com/journal/  
kidneydial](https://mdpi.com/journal/kidneydial)



## About the Journal

### Message from the Editor-in-Chief

In recent years, we have been witnessing dramatically increased interest in the treatment of chronic kidney disease, e.g., diabetic kidney disease, glomerular disease, or autosomal dominant polycystic kidney disease, but also aimed more generally on the progression of chronic kidney disease and the complications of chronic kidney disease, such as anemia, or hyperkalemia. This progress has led to changing paradigms as reflected by several recently published KDIGO guidelines which now need to be updated much more frequently than before. To personalize treatment, we also need better diagnostic methods, including validated biomarkers reflecting the activity of the disease (including response to treatment) and predicting outcomes.

*Kidney and Dialysis* aims to cover most of these areas not only in terms of feature reviews, but also original articles, and to keep the reader updated on recent progress in nephrology and dialysis.

---

### Editor-in-Chief

Prof. Dr. Francesco Locatelli

Former Director, Department of Nephrology and Dialysis, Alessandro Manzoni Hospital, 23900 Lecco, Italy

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within ESCI (Web of Science), Scopus and other databases.

#### Journal Rank:

JCR - Q2 (Urology and Nephrology) / CiteScore - Q2 (Medicine (miscellaneous))