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## Editorials



## Original Articles

### Chronic Kidney Disease



### Clinical Immunology and Pathology



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## Ethics Series



## In-Depth Review

## Moving Points in Nephrology



**On the Cover**

*What's the diagnosis?* Renal amyloidosis is characterized by deposition of amorphous, acellular material, usually affecting all compartments of kidney parenchyma. At least 27 different kinds of proteins with amyloid properties have been described in humans, although most common proteins in renal amyloidosis include light and/or heavy chain immunoglobulins (primary amyloidosis) and serum amyloid A (secondary, reactive amyloidosis). On ultrastructural examination, these proteins all have in common the formation of irregular deposits with non-branching, randomly arranged fibrillary substructures of 8-12 nm in diameter. On light microscopy, Congo red stain reveals orange-red deposits that show the characteristic apple-green birefringence when viewed under polarized light (front page image). The left side of the image shows orange deposits in the glomeruli, tubulointerstitium, and the vasculature. On the right, the same area of the parenchyma is viewed under polarized light and one can appreciate apple-green color of the amyloid deposits; an area of interstitial fibrosis can also be appreciated in this portion of the image, with white color of the focal collagen deposits. Congo red-stained sections should always be evaluated under polarized light to look for the presence of apple-green birefringence. The origin of amyloid deposits should further be characterized by immunofluorescence microscopy or immunohistochemistry methods. (Image and text provided by Vanesa Bijol, MD, Brigham and Women's Hospital)