

## HISTORY OF NEPHROLOGY

### FP906 PHOSPHORUS IN CHRONIC KIDNEY DISEASE PATIENTS FROM 1669 TO 2014

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**Introduction and Aims:** The actual history of phosphorus in Nephrology began in 1669 when alchemist H.Brandt obtained 120 grams of white powder distilling 5500 liters of horses urine.He was impressed during a dark night by the light coming out ampoules containing the powder.This was the first link between kidney and phosphorus and it was interpreted as philosopher's stone.

**Methods:** Subsequently A.Godfrey,D.Kraft and J. Kunkel along with Brandt , began to make advantage of the properties of phosphorus,light production and self ignition.In 1719 T.Hensing associated phosphorus in the brain and concluded that phosphorus was related to mental ability.

**Results:** In 1769, JG. Gahn showed that bones contained calcium phosphate; the relationship between bones and kidney was start to be noted. In 1868 F. Miescher and in 1962 JD. Watson and F.Crick detected a phosphorus as critical component in cells DNA.

**Conclusions:** Today the importance of phosphorus is well defined as cardiovascular promoter both in CKD patients and in patients free of renal disease. It is a key element in trasforming arterial smooth muscle cell in "bone " cell throught molecular mechanism.