

Univerza  
v Ljubljani

Fakulteta *za kemijo*  
*in kemijsko tehnologijo*

p.p. 537, Večna pot 113  
1001 Ljubljana  
telefon: 01 479 80 00  
faks: 01 241 91 44  
dekanat@fkkk.uni-lj.si



**VABILO NA PREDAVANJE  
V OKVIRU DOKTORSKEGA ŠTUDIJA  
KEMIJSKE ZNANOSTI**

**Prof. Peter J. Sadler**

*Department of Chemistry, University of Warwick, UK*

z naslovom:

**The Elements of Life and Medicines**

**v sredo, 20. aprila 2016 ob 15:00 uri**  
v predavalnici 1 v 1. nadstropju Fakultete  
za kemijo in kemijsko tehnologijo, Večna pot 113

*Vljudno vabljeni!*

## **Povzetek**

I will make an element-by-element journey through the periodic table and identify elements which are essential for human life. However, somewhat similar to Mendeleev's chemical periodic table in 1869, there are gaps and we do not have enough knowledge to fill them. Are essential elements all coded for by the human genome? In general, codes are not just for elements, but for specific chemical species, for the element, its oxidation state, type and number of coordinated ligands, and the coordination geometry. Human and microbial life are symbiotic; the periodic table of human life might therefore also include elements essential for microorganisms. The periodic table offers potential for novel therapeutic and diagnostic agents based not only on essential elements, but also on non-essential elements, and radionuclides. I will illustrate with a few examples of our recent work on the design of precious metal anticancer compounds.

## References

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3. Potent organo-osmium complex shifts metabolism in epithelial ovarian cancer cells  
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