KEMIJSKI INŠTITUT

Vabilo na Preglov kolokvij / Invitation to the Pregl colloquium

Prof. Dr. Wilfried Weber

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Četrtek / Thursday 18. 11. 2021, ob / at 13:00

NA DALJAVO / ONLINE WEBEX
Povezava/link:
https://ki-ljubljana.webex.com/ki-ljubljana/j.php?MTID=m4b1e024b58f80bd8698cd0cd6610192d
Meeting number: 2733 409 4039
Password: KI2021

Chemistry meets Synthetic Biology - Towards Communicating with Cells and Materials

The convergence of synthetic biology, chemistry and engineering is gradually blurring the borders between living and non-living matter. Living matter is rationally re-designed by applying engineering principles whereas chemical and synthetic biological tools and strategies are applied to endow non-living matter with properties previously limited to the living world. In the first part of the presentation, we will describe how the fate and function of cells can be programmed using chemically and optically triggered synthetic biological switches to control cellular decision making at every level of the signal transduction cascade. The second part will focus on engineering approaches at the interface of polymer chemistry and synthetic biology to endow materials systems with information-processing function. Examples range from simple drug- and chemically responsive materials to materials systems with built-in signal propagation and amplification or the ability to decode binary serial information input. We will present a perspective of how this convergence could inspire innovations in biology and materials sciences.

Info: Prof. Dr. Roman Jerala roman.jerala@ki.si

Vljudno vabljeni / Kindly invited