

Les mardis de
L'IAB

TOMAS ETRYCH


**Institute of Macromolecular Chemistry,
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HYDROPHILIC AND AMPHIPHILIC COPOLYMERS FOR THERAPY AND DIAGNOSTICS

23.APRIL 2024 – 11 AM – LECTURE HALL

The conjugation of low-molecular-weight therapeutics with water-soluble or amphiphilic polymer carriers have several advantages, e.g. reduced drug toxicity, prolonged drug circulation in blood and higher accumulation of low-molecular-weight therapeutics in tumor or inflamed tissue, and enable highly effective tumor and anti-inflammatory therapy with minimized side effects. In our group we study synthetic polymer carriers based on the methacrylamides as suitable drug delivery vectors. The accumulation of these polymer carriers in tumor or inflamed tissue is molecular-weight dependent. In addition, the size and shape of the polymer carriers is crucial for their biological behavior, therefore various structures were synthesized and will be presented. Importantly, such polymer vectors can be advantageously used also as diagnostics or theranostics. Amphiphilic conjugates with photosensitizers and hydrophilic conjugates with fluorescent near-infrared dyes will be shown and their effect in photodynamic therapy or navigated surgery will be mentioned. Last, but not least, the results of collaborative research with companies will be presented during the lecture.

Invited by : Xavier Le Guevel

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