
Regular Wednesday IMG seminar



Mgr. et Mgr. Evžen Bouřa, Ph.D.

**Institute of Organic Chemistry and Biochemistry
of the Czech Academy of Sciences**

**“RNA cap methylation in poxviruses and coronavirus – differences
and similarities”**

RNA methyltransferases (MTases) are responsible for synthesizing the 5' RNA cap, which plays a crucial role in RNA stability and efficient translation. Over the past two years, both our research team and others have developed numerous inhibitors targeting coronaviral MTases. Through our efforts, we have successfully determined the crystal structures of these inhibitors bound to the coronaviral nsp14 and nsp16/nsp10 MTases. Additionally, we recently elucidated the crystal structure of the monkeypox virus MTase VP39, in complex with the broad-spectrum MTase inhibitor sinefungin and several other inhibitors. These structural studies have unveiled notable distinctions between coronaviral and poxviral MTases, while also highlighting the potential for targeting these enzymes with the same or closely related compounds.

The seminar will be held

on Wednesday 29th January 2025 at 15:00

in the Milan Hašek Auditorium at IMG

(Institute of Molecular Genetics of the Czech Academy of Sciences, Vídeňská 1083, Prague 4)
