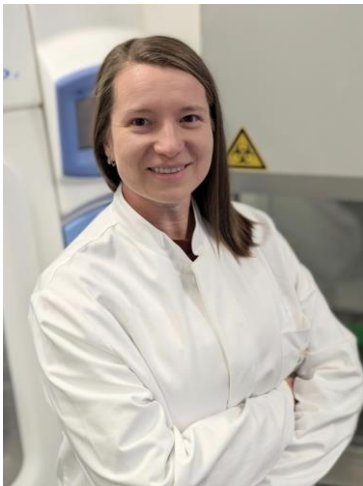


**15<sup>th</sup> Summer Academy “Infection and Immunity”**  
**Lecture 9 on Friday, 31 July, 2026**

***Dr. rer. nat. Anna Malyshkina***



**Institute for Physiology**  
University of Duisburg-Essen

<https://www.uni-due.de/physiologie/personal-ag-fandrey.shtml>

[anna.malyshkina@uk-essen.de](mailto:anna.malyshkina@uk-essen.de)

## ***Interplay between Hypoxia and Viral Infections***

**Publications for seminar preparation:**

<https://www.nature.com/articles/s41598-026-53319-4#Abs1>

<https://www.nature.com/articles/s41420-025-02675-7>

Richard Huang, Melissa Huestis, Esther Shuyi Gan, Eng Eong Ooi and Michael Ohh

[Hypoxia and viral infectious diseases](#)

JCI Insight. 2021 Apr 8; 6(7): e147190., Published online 2021 Apr 8. doi: 10.1172/jci.insight.147190

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8119216/>

Sara Shayan, Arash Arashkia, and Kayhan Azadmanesh

[Modifying oncolytic virotherapy to overcome the barrier of the hypoxic tumor microenvironment. Where do we stand?](#)

Cancer Cell Int. 2022; 22: 370. Published online 2022 Nov 24. doi: 10.1186/s12935-022-02774-w

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9686061/>

<https://www.nature.com/articles/3302459>