



# Václav Hořejší

vaclav.horejsi@img.cas.cz

For more information, publications and grants please visit:

[www.img.cas.cz/research/vaclav-horejsi](http://www.img.cas.cz/research/vaclav-horejsi)



LABORATORY OF

## MOLECULAR IMMUNOLOGY

membrane microdomains, chimeric antigen receptors, Evi2b [CD361]

**In the picture:**

1. Jana Pokorná | 2. Eva  
Tvrzničková | 3. Václav Hořejší |  
4. Pavla Angelisová

**Not in the picture:**

Pavel Otáhal

In 2015-2016 our laboratory was dealing with three topics:

### 1. Membrane rafts and immunoreceptor signalling [principal investigator Václav Hořejší]

For many years a major topic of our laboratory has been signalling molecules present in membrane rafts and their involvement in immunoreceptor signalling. In the past two years we have been working on development of novel approaches to solubilisation and biochemical characterization of these membrane microdomains using styrene-maleic acid copolymers [SMA].

### 2. Chimeric antigen receptors [CARs] [principal investigator Pavel Otáhal]

In collaboration with a clinical research institution we have been dealing with construction of chimeric antigen receptor constructs subsequently expressed in T lymphocytes capable of [a] specific recognition of e.g. tumour antigens, and [b] effective signalling resulting in killing of the recognized tumour cell.

### 3. Leukocyte surface glycoprotein Evi2b

In collaboration with the lab of Meritxell Alberich-Jorda we have been working on elucidation of functional aspects of leukocyte surface glycoprotein Evi2b [CD361], namely its association with other leukocyte molecules.

**Selected recent papers:**

Zjablovskaja P, Kardosova M, [Angelisova P](#), Benoukrat T, Kalina T, Balastik M, Delwel R, Brdicka T, Tenen D G, Fiore F, Malissen B, [Horejsi V](#), Alberich-Jorda M: [2016] EVI2B is a C/EBP target gene required for granulocytic differentiation and functionality of hematopoietic progenitors **Cell Death Differ.**, in press.

Kralova J, Fabisik M, [Pokorna J](#), Skopцова T, Malissen B, Brdicka T: [2016] The transmembrane adaptor protein SCIMP facilitates sustained dectin-1 signaling in dendritic cells. **J Biol. Chem.** 291: 16530-16540.

Drobek A, Kralova J, Skopцова T, Kucova M, Novák P, [Angelisová P](#), Otáhal P, Alberich-Jorda M, Brdicka T: [2015] PSTPIP2, a protein associated with autoinflammatory disease, interacts with inhibitory enzymes SHIP1 and Csk. **J. Immunol.** 195: 3416-3426.

