



**Ruđer Bošković Institute**  
Division of Molecular Biology  
Laboratory for Cell Biology and Signalling  
Zagreb, Croatia



<http://www.irb.hr/eng/Research/Divisions/Division-of-Molecular-Biology/Laboratory-for-Cell-Biology-and-Signalling>

**Postdoctoral research position** is available for a duration of two years with the possibility of extension for additional two years. This position is intended to develop following project:

***1. Understanding cell entry pathway of Adenovirus type 26: way of improving vaccine vectors“***

in Dr Dragomira MAJHEN's team ([Dragomira.Majhen@irb.hr](mailto:Dragomira.Majhen@irb.hr))

Adenovirus based vectors have potential translational and commercial values and are currently studied as vectors for DNA transfer and vaccination. Adenovirus type 26 has fundamental differences in immunogenicity from other adenovirus vectors, which might give it advantage over other adenovirus serotypes in vaccine development. We are currently investigating adenovirus type 26 receptor usage, binding, internalization and intracellular trafficking. More specifically we are interested in understanding how adenovirus type 26 induces innate immune response in *in vitro* settings, i.e. how adenovirus type 26 infection pathway influences immune response. The postdoc will work together with a PhD student on the analysis of adenovirus type 26 and adenovirus type 35 intracellular trafficking in the context of induction of innate immune response as well as localization of adenovirus type 26 and adenovirus type 35 genome within the cell. Experience in virus and cell biology, confocal microscopy or biochemistry is appreciated.

Relevant publications to this project:

1. Majhen D, Calderon H, Chandra N, Fajardo CA, Rajan A, Alemany R, Custers J. Adenovirus-based vaccines for fighting infectious diseases and cancer: progress in the field. Hum Gene Ther. 2014 Apr;25(4):301-17. doi: 10.1089/hum.2013.235
2. Majhen D, Stojanović N, Vukić D, Pichon C, Leduc C, Osmak M, Ambriović-Ristov A. Increased adenovirus Type 5 mediated transgene expression due to RhoB down-regulation. PLoS One. 2014 Jan 22;9(1):e86698. doi: 10.1371/journal.pone.0086698
3. Wang IH, Suomalainen M, Andriasyan V, Kilcher S, Mercer J, Neef A, Luedtke NW, Greber UF. Tracking viral genomes in host cells at single-molecule resolution. Cell Host Microbe. 2013 Oct 16;14(4):468-80. doi: 10.1016/j.chom.2013.09.004
4. Abbink P, Lemckert AA, Ewald BA, Lynch DM, Denholtz M, Smits S, Holterman L, Damen I, Vogels R, Thorner AR, O'Brien KL, Carville A, Mansfield KG, Goudsmit J, Havenga MJ, Barouch DH. Comparative

seroprevalence and immunogenicity of six rare serotype recombinant adenovirus vaccine vectors from subgroups B and D. J Virol. 2007 May;81(9):4654-63.

We look forward to receiving applications (CV, copy of the PhD certificate, list of publications, a letter of motivation and two referees) via e-mail to the team leader.

Applications can be done also through Euraxess: <https://euraxess.ec.europa.eu/jobs/254771>

**Application Deadline: 25/11/2017**

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