




Jakub Zeman

 May 17, 1989

 Czech

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 Laboratory of Regulation of Gene Expression,
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RESEARCH EXPERIENCE

- 2013 – present PhD student, Institute of Microbiology, AS CR, v.v.i., Prague
[Laboratory of Regulation of Gene Expression \(Dr Leoš Valášek\)](#)
- 2009 – 2013 Faculty of Science, Charles University, Prague
[Laboratory of RNA Biochemistry \(Dr Martin Pospíšek\)](#)

EDUCATION

- 2013 – present [Doctoral degree](#) (PhD), Faculty of Science, Charles University, Prague
thesis defence on September 11
- 2011 – 2013 [Master degree](#) (Mgr.), Faculty of Science, Charles University, Prague
Diploma thesis "Variability of the IRES elements of the hepatitis C virus"
- 2008 – 2011 [Bachelor degree](#) (Bc.), Faculty of Science, Charles University, Prague
Bachelor thesis "Novel hepatitis C virus proteins"

SKILLS

- [Practical skills](#) protein expression and purification, FPLC, PAGE, Western blot, dot blot,
protein-protein cross-linking, sample preparation for mass spectrometry, sucrose
gradient and sucrose cushion centrifugation, pull-down assay
- PCR, *in-vitro* transcription and translation, cloning, gel-shift assay, yeast two-hybrid
screening, TGGE, RNA structure probing, radioactive labelling
- bacterial, yeast, and tissue culture techniques

Computer skills	Basics of Python, R, Linux, PHP, HTML, CSS, and XML
	Expert in Adobe CS & MS Office; mass spectrometry data analysis, PyMOL, Autodesk 3Ds, protein & structural bioinformatics

LANGUAGES

Czech	First language
English	Full professional proficiency
German	Limited working proficiency

PUBLICATIONS

Jakub Zeman, Yuzuru Itoh, Zdeněk Kukačka, Michal Rosůlek, Daniel Kavan, Tomáš Kouba, Myrte Jansen, Mahabub Pasha Mohammad, Petr Novák, Leoš Shivaya Valášek: **Binding of eIF3 in complex with eIF5 and eIF1 to the 40S ribosomal subunit is accompanied by dramatic structural changes**, *Nucleic Acids Research* 2019 (accepted)

Petra Beznosková, Zuzana Pavlíková, **Jakub Zeman**, Colin Aitken, Leoš Valášek: **Yeast applied readthrough inducing system (YARIS) An in vivo assay for the comprehensive study of translational readthrough**, *Nucleic Acids Research* 2019; doi: 10.1093/nar/gkz346/

Mahabub Pasha Mohammad, Vanda Munzarová Pondělíčková, **Jakub Zeman**, Stanislava Gunišová, Leoš Shivaya Valášek: **In vivo evidence that eIF3 stays bound to ribosomes elongating and terminating on short upstream ORFs to promote reinitiation**, *Nucleic Acids Research* 2017; 45 (5): 2658-2674. doi: 10.1093/nar/gkx049 **Times Cited: 21**

Leoš Shivaya Valášek, **Jakub Zeman**, Susan Wagner, Petra Beznosková, Zuzana Pavlíková, Mahabub Pasha Mohammad, Vladislava Hronová, Anna Herrmannová, Yaser Hashem, Stanislava Gunišová: **Embraced by eIF3: structural and functional insights into the roles of eIF3 across the translation cycle**, *Nucleic Acids Research* 2017; 45 (19): 10948–10968. doi: 10.1093/nar/gkx805 **Times Cited: 15**

Vladislava Hronová, Mahabub Pasha Mohammad, Susan Wagner, Josef Pánek, Stanislava Gunišová, **Jakub Zeman**, Kristýna Poncová, Leoš Shivaya Valášek: **Does eIF3 promote reinitiation after translation of short upstream ORFs also in mammalian cells?**, *RNA Biology* 2017, 14:12, 1660-1667, doi: 10.1080/15476286.2017.1353863 **Times Cited: 6**

SPECIAL TRAININGS

- June 2018 [Summer School on Experimental Biology](#); CEITEC, Brno, Czech Republic
CRISPR/Cas9 editing design, basic genomic data analysis, MALDI MS profiling, fluorescence labelling
- September 2017 [Synthetic Biology in Action: Programming Bacteria to Do Amazing Things](#); EMBL, Heidelberg, Germany
Advanced genetic tools for genome engineering (CRISPR, MAGE), Multiple assembly/synthesis/editing of DNA segments

ORAL PRESENTATIONS

- September 2018 RNA Club 2018, Prague

POSTER PRESENTATIONS

- September 2019 Protein Synthesis and Translational Control 2019, Heidelberg, Germany
- January 2019 Ribosome 2019, Mérida, Mexico
- August 2017 ICYGMB/Yeast 2017, Prague
- June 2017 RNA 2017, Prague
- September 2016 RNA Club 2016, Brno
- September 2015 RNA Club 2015, České Budějovice
- September 2015 Protein Synthesis and Translational Control 2015, Heidelberg, Germany

ORGANISATION OF EVENTS

Promotional and educative events organized by Public relations department of the Institute of Microbiology AS CR and by Faculty of Science, Charles University.

Administrative and technical help with organizing of two conferences (RNA Club 2012, IBRC 2010).

OUTSIDE THE LAB

Sports enthusiast, musician, passionate cook and gourmet, amateur photographer, art lover, wine grower, beer & whisky taster, blood donor.