



## Agata Kubickova

**Date of birth:** 06/05/1992 | **Nationality:** Czech | **Gender:** Female | **Phone**

**number:** (+420) 585632171 (Work) | **Email address:** [agata.kubickova@upol.cz](mailto:agata.kubickova@upol.cz) |

**Address:** Institute of Molecular and Translational Medicine, Hněvotínská 1333/5, 77900, Olomouc, Czechia (Work)

### WORK EXPERIENCE

30/09/2016 – CURRENT Olomouc, Czechia

**PH.D. STUDENT, RESEARCH ASSISTANT AND TEACHING ASSISTANT** INSTITUTE OF MOLECULAR AND TRANSLATIONAL MEDICINE, FACULTY OF MEDICINE PALACKY UNIVERSITY OLOMOUC

Molecular and cell biologist focused on the fields of CRISPR-mediated genome editing and transcription regulation, oncology, and hematology. Possessing practical experience with a screening of the biological activities of the small molecules and identification of their molecular targets, lentivirus-mediated gene delivery, methods development, and data analysis.

2019 – 2021 Olomouc, Czechia

**MEDICAL LABORATORY TECHNICIAN** OLOMOUC UNIVERSITY HOSPITAL

SARS-CoV-2 diagnostics and work in BSL 3 safety condition.

30/11/2015 – 30/12/2015 Olomouc, Czechia

**SCIENTIFIC LABORATORY TECHNICIAN** INSTITUTE OF EXPERIMENTAL BOTANY AS CR

HPLC MS data analysis

### EDUCATION AND TRAINING

30/09/2016 – CURRENT Olomouc, Czechia

**DOCTORAL STUDY IN ONCOLOGY** Institute of Molecular and Translational Medicine, Faculty of Medicine Palacky University Olomouc

**Address** Hněvotínská 1333/5, Olomouc, Czechia | **Website** <https://imtm.cz/>

2013 – 2016 Olomouc, Czechia

**MASTERS STUDY IN MOLECULAR AND CELLULAR BIOLOGY** Faculty of Science Palacky University Olomouc

**Address** 17. listopadu 1192/12, Olomouc, Czechia | **Website** <https://www.prf.upol.cz/> |

**Thesis** Biological characterization of novel 2,6,9-substituted purines

2010 – 2014 Olomouc, Czechia

**BACHELOR STUDY IN MOLECULAR AND CELLULAR BIOLOGY** Faculty of Science Palacky University Olomouc

**Address** 17. listopadu 1192/12, <https://www.prf.upol.cz/>, Olomouc, Czechia |

**Thesis** The prognostic impact of RBPMS2 expression in GIST

### LANGUAGE SKILLS

Mother tongue(s): **CZECH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C2	C2	C1	C1	C1
<b>GERMAN</b>	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## DIGITAL SKILLS

Snapgene | FACS Diva | Kaluza | Zeiss ZEN microscope software | Microsoft Word | Microsoft PowerPoint | Microsoft Excel | Microsoft Teams | Microsoft Outlook | Microsoft Office | Google Applikace | Adobe | ImageJ | Columbus | knowledge of database systems, bioinformatics software and web tools | GraphPad Prism. | Dotmatics

## ADDITIONAL INFORMATION

### PUBLICATIONS

1. Kotulova J, Lonova K, Kubickova A, Vrbkova J, Kourilova P, Hajduch M, et al. 2-Cl-IB-MECA regulates the proliferative and drug resistance pathways, and facilitates chemosensitivity in pancreatic and liver cancer cell lines. *Int J Mol Med.* 2022 Mar;49(3):31. IF = 4.1

2. Macečková Z, Kubičková A, Sanctis JBD, Hajdúch M. Effect of Glucocorticosteroids in Diamond-Blackfan Anaemia: Maybe Not as Elusive as It Seems. *Int J Mol Sci.* 2022 Feb 8;23(3). IF = 5.9

3. Kubickova A, Maceckova Z, Vojta P, Ondra M, Volejnikova J, Koralkova P, et al. Missense mutation in RPS7 causes Diamond-Blackfan anemia via alteration of erythrocyte metabolism, protein translation and induction of ribosomal stress. *Blood Cells Mol Dis.* 2022 Nov;97:102690. IF = 2.372

4. Hodoň J, Frydrych I, Trhlíková Z, Pokorný J, Borková L, Benická S, et al. Triterpenoid pyrazines and pyridines - Synthesis, cytotoxicity, mechanism of action, preparation of prodrugs. *Eur J Med Chem.* 2022 Dec 5;243:114777. IF = 7.088

### CONFERENCES AND SEMINARS

2016 - 2022

**17 presentations/posters at national conferences and 4 at international conferences of oncology, hematology, and genome editing. International conferences:**

1. Kubičková A, Hajdúch M Tracing c-Myc Endogenous Expression for Small Molecules Discovery. EACR Conference Cancer Metabolism, Bilbao, Spain, 2022

2. Kubičková A, Hajdúch M CRISPR/Cas9 technology as a tool for the development of Diamond Blackfan Anemia cellular models. The International CRISPR and Gene Editing Symposium, on-line, 2020.

3. Kubickova A, Vojta P, Ondra M, Volejnikova J, Maceckova Z, Koralkova P, Saxova Z, Mojzikova R, Cermak J, Horvathova M, Pospisilova D, Hajduch M Phenotypic changes caused by novel SNV of RPS7 gene. 25th European Hematology Association Congress, on-line, 2020.

4. Ondra M, Kubičková A, Hajdúch M Implementation of a novel HiBiT Protein Tagging System for monitoring endogenous protein expression. CRISPR 2019, Quebec, Canada, 2019.

National conferences:

1. Kubičková A, Hajdúch M Unique reporter model for c-Myc protein level monitoring under physiological conditions. Czech Annual Cancer Research Meeting, Olomouc, Czech Republic, 2022

2. Frydrych I, Hodoň J, Pokorný J, Lišková B, Kubičková A, Das V, Ligasová A, Koberna K, Hajdúch M, Urban M Synthesis, cytotoxicity and mechanism of action of triterpenoid pyrazines and pyridines and their prodrugs. Czech Annual Cancer Research Meeting, Olomouc, Czech Republic, 2022

3. Kubičková A, Hajdúch M Tracing c-Myc Endogenous Expression by NanoBiT Technology for Small Molecules Identification. IMTM Reactor, Velké Karlovice, Czech Republic, 2022

4. Kubičková A, Hajdúch M Diamond-Blackfan Anemia disease models - development and phenotypization. OL4PERMED, Olomouc, Czech Republic, 2021

5. Kubičková A, Hajdúch M CRISPR/Cas9 technology - creating cellular models for human genetic disorders. IMTM Reactor, Bystrice nad Pernštejnem, Czech Republic, 2021

6. Kubickova A, Vojta P, Ondra M, Volejnikova J, Maceckova Z, Koralkova P, Saxova Z, Mojzikova R, Cermak J, Horvathova M, Pospisilova D, Hajduch M Phenotypic changes caused by novel SNV of RPS7 gene. Interdisciplinary meeting of young life scientists, Milovy, Czech Republic, 2021
7. Kubíčková A, Hajdúch M CRISPR/Cas9 technology not only a genome editing tool. IMTM Reactor, Bystřice nad Pernštejnem, Czech Republic, 2020
8. Kubickova A, Vojta P, Ondra M, Volejnikova J, Maceckova Z, Koralkova P, Saxova Z, Mojzikova R, Cermak J, Horvathova M, Pospisilova D, Hajduch M SNV in RPS7 causes Diamond Blackfan anemia. IMTM Reactor, Bystřice nad Pernštejnem, Czech Republic, 2019
9. Kubíčková A, Hajdúch M Modulation of transcription by CRISPR/dCas9 technology. IMTM Reactor, Bystřice nad Pernštejnem, Czech Republic, 2019
10. Kubickova A, Vojta P, Ondra M, Volejnikova J, Maceckova Z, Koralkova P, Saxova Z, Mojzikova R, Cermak J, Horvathova M, Pospisilova D, Hajduch M Biological role of novel SNV of RPS7 in Diamond Blackfan anemia-model of ribosomal alterations in cancer. XV. Diagnostic, predictive and experimental oncology days, Olomouc, Czech Republic, 2019

## **BOOK CHAPTERS**

1. Agrawal K, Bouchal J, Das V, Drábek J, Džubák P, Hajdúch M, Koberna K, Ligasová A, Mistrík M, Sanctis JBD, Srovnal J Laboratory techniques in cellular and molecular medicine , 1st edition, Palacký University Olomouc, 2021, ISBN 978-80-244-6049-9

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## **PATENTS, UTILITY MODELS & OTHER IP'S**

Surface modified particles Ownership: Palacky University Olomouc and Institute of Organic Chemistry and Biochemistry of the Czech Academy of Sciences, Inventors: Cígler P, Guricová M, Hajdúch M, Jaworek H, Kubíčková A, Neburková J, Ondra M

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1,2-dithiolane compound for metal surface modification Ownership: Palacky University Olomouc and Institute of Organic Chemistry and Biochemistry of the Czech Academy of Sciences, Inventors: Cígler P, Guricová M, Hajdúch M, Kubíčková A

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Surface modified particles, Priority Appl. PV 2020-535, Patent: CZ 309422. Ownership: Institute of Organic Chemistry and Biochemistry CAS, Palacky University Olomouc; Inventors: Hajdúch Marián, Jaworek Hana, Ondra Martin, Kubíčková Agáta

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## **PEDAGOGICAL ACTIVITY**

2017 – CURRENT

**Conducting theses and seminars**

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1. Supervisor of three bachelor's students.
2. Teacher of subjects:
  - a. KBB / BAKP Bachelor Thesis
  - b. KBB / ZBAKP Introduction to Bachelor Thesis
  - c. OCH / POC Practice in Bioorganic Chemistry

## **PRACTICAL KNOWLEDGE OF LABORATORY METHODS**

genetic engineering using CRISPR/Cas9 technology and lentiviruses, cloning, development of reporter cell lines, identification of molecular targets of molecules, flow cytometry and sorting, confocal microscopy, DNA, RNA and protein analysis

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## **COURSES**

2012

**Multiplex proteins analysis - multiplex ELISA, imuno-PCR, Luminex**

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