



# JARMILA STANKOVÁ



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16 Personalities

ENTP-A Debater / ENFP-A Campaigner



Talent compass:

Performance – Ability to develop others

Reliability – Responsibility

Sense for purpose – Growth initiation

Insight – Empathy

Strategic and Foresight thinking

## BIO

I am a research assistant and postdoc at the Institute of Molecular and Translational Medicine, Faculty of Medicine, UP. I finished my master's studies at the Faculty of Science, Palacky University in Olomouc in 2016, since then I have been working on the research program chemical biology and experimental therapeutics at the IMTM. I mainly focus on new methods for identifying molecular targets, such as microscopic and proteomic methods. In 2020, I became part of the multi-omics group, where I work on proteomic profiling of plasma samples within the EATRIS-Plus project of the international EATRIS consortium. As part of this, I participated in the preparation of the multi-omics toolbox (<https://motbx.eatris.eu/>), which serves scientists from the field of translational medicine. I am a former rugby 7s player (hooker) and lover of all sports.

## WORK EXPERIENCE

### **ASSISTENT | INSTITUTE OF MOLECULAR AND TRANSLATION MEDICINE | 2016–NOW**

Cell analysis: fluorescence confocal microscopy, live cell imaging, flow cytometry

Proteomics: HPLC-MS, proteomic profiling, SILAC analysis, thermophoresis

Data analysis: Columbus, ImageJ, Proteome Discoverer, MaxQuant, Skyline, Spectronaut, Perseus

Lab management: preparation of SOPs and public tenders, operation of instrumentation (RM and PM)

Teaching: undergraduate and graduate students

Presentation and organizational skills and experience working in an international team

### **LAB TECHNICIAN | FACULTY HOSPITAL OLMOUC | 2020–2022**

Covid-19 diagnostics, PCR testing, BSL 2-3 Safety Workflow

## EDUCATION

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### **PHD DEGREE • 2024 • FACULTY OF MEDICINE AND DENTISTRY UPOL**

Localization and identification of molecular targets of biologically active substances using microscopic methods

### **MSC DEGREE • 2016 • FACULTY OF SCIENCE UPOL**

Proteomic profile of CCRF-CEM cell line treated by 5-fluorouracil

## SUPERVISION

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### **ELIŠKA KŘEŠŤANOVÁ • DEFENSE JUNE 2024**

MSC thesis - Development of a DIA method suitable for proteomic analysis of plasma and a large cohort of samples

### **ELIŠKA HLADÍKOVÁ • 2020**

BC thesis - Use of lentiviral reporter systems for fluorescence visualization of subcellular structures

### **KATEŘINA JEČMEŇOVÁ • 2018**

BC thesis - Chemical-physical characteristics of approved drugs and their use in the identification of their molecular targets

## THE DEAN'S AWARD

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Award for significant publishing activity, QD publication (2023)

Award for student scientific work (2021)

## TRAINING

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### **DIA DATA ANALYSIS WORKSHOP • PROTEOMICKÁ SEKCE ČSBMB • BRNO • 2022**

Responsible person – Pavel Bouchal, Training subject – Data-independent acquisition (DIA) methods, dia PASEF data, DIA data analysis in the program Spectronaut, Skyline and DIA-NN

### **YOKOGAWA USER MEETING • 2018 • 2019**

Responsible Person - David Lorenz, Training subject - CV7000 and CV8000

### **ADVANCED PRACTICAL PROTEOMICS • EUROPEAN PROTEOMICS ASSOCIATION • VIENNA, AUSTRIA • 2018**

Responsible Person - Karl Mechtler, Training subject - Quantification of TMT, Cross-linking (XL-MS), Targeted Proteomics PRM, Proteomic Bioinformatics

### **CHEMICAL PROTEOMICS • SCIENCE FOR LIFE LABORATORY, KAROLINSKA INSTITUTET • STOCKHOLM, SWEDEN • 2017**

Responsible Person - Massimiliano Gaetani and Roman Zubarev, Training Subject - Thermal Proteome Profiling (TPP), Functional Target Identification Using Expression Proteomics (FITeXP), Elucidation of the Interaction Interface and Mapping of the Binding Site of a Drug with Its Target Protein Using Hydrogen/Deuterium (H/D) exchange mass spectrometry (HDX MS)

## PUBLIKACE

(9) **J. STANKOVÁ**, M. HAJDÚCH, M. JURÁŠEK, P. DŽUBÁK, TERPENES AND TERPENOIDS CONJUGATED WITH BODIPYS: AN OVERVIEW OF BIOLOGICAL AND CHEMICAL PROPERTIES. JOURNAL OF NATURAL PRODUCTS IF: **5.051** – ACCEPTED MANUSCRIPT

(8) **J. STANKOVÁ**, M. HAJDÚCH, P. DŽUBÁK, IDENTIFIKACE BUNĚČNÝCH CÍLŮ AKTIVNÍCH LÁTEK POMOCÍ MIKROSKOPICKÝCH METOD A FLUORESCENČNÍCH SOND. CHEMICKÉ LISTY IF: **0.595** – ACCEPTED MANUSCRIPT

(7) D. BARUCIC\*, S. KAUSHIK, J. KYBIC, J. **STANKOVÁ**, P. DŽUBÁK, M. HAJDÚCH, CHARACTERIZATION OF DRUG EFFECTS ON CELL CULTURES FROM PHASE-CONTRAST MICROSCOPY IMAGES, COMPUTERS IN BIOLOGY AND MEDICINE, 2022, 151, 106171, 0010-4825, IF: **6.698**, PMID: 36306582.

(6) D. KODR\*, **J. STANKOVÁ\***, M. RUMLOVA, P. DŽUBÁK, J. ŘEHULKA, T. ZIMMERMANN, I. KRIZOVA, S. GURSKÁ, M. HAJDÚCH, P. DRAŠAR, M. JURÁŠEK, BETULINIC ACID DECORATED WITH POLAR GROUPS AND BLUE EMITTING BODIPY DYE: SYNTHESIS, CYTOTOXICITY, CELL-CYCLE ANALYSIS AND ANTI-HIV PROFILING, BIOMEDICINES, 2021, 9, 1104, 2227-9059, IF: **6.081**, PMID: 34572290.

(5) M. PORUBSKÝ\*, K. VYCHODILOVÁ, D. MILICEVIC, M. BUDESINKY, **J. STANKOVÁ**, P. DŽUBÁK, M. HAJDÚCH, J. HLAVÁČ, CYTOTOXICITY OF AMINO-BODIPY MODULATED VIA CONJUGATION WITH 2-PHENYL-3-HYDROXY-4(1H)-QUINOLINONES, CHEMISTRYOPEN, 2021, 10, 1104-1110, 2191-1363, IF: **2.911**, PMID: 34427046.

(4) M. PORUBSKÝ\*, S. GURSKÁ, **J. STANKOVÁ**, M. HAJDÚCH, P. DŽUBÁK, J. HLAVÁČ, AMINOBODIPY CONJUGATES FOR TARGETED DRUG DELIVERY SYSTEMS AND REAL-TIME MONITORING OF DRUG RELEASE, MOLECULAR PHARMACEUTICS, 2021, 18, 2385-2396, 1543-8384, IF: **3.500**, PMID: 33961440.

(3) M. PORUBSKÝ\*, S. GURSKÁ, **J. STANKOVÁ**, M. HAJDÚCH, P. DŽUBÁK, J. HLAVÁČ, AMINO-BODIPY AS THE RATIOMETRIC FLUORESCENT SENSOR FOR MONITORING DRUG RELEASE OR "POWER SUPPLY" SELECTOR FOR MOLECULAR ELECTRONICS, RSC ADVANCES, 2019, 9, 25075-25083, 2046-2069, IF: **3.119**, PMID: 35528670

(2) S. KRAJČOVIČOVÁ\*, **J. STANKOVÁ**, P. DŽUBÁK, M. HAJDÚCH, M. SOURAL, M. URBAN, A SYNTHETIC APPROACH FOR THE RAPID PREPARATION OF BODIPY CONJUGATES AND THEIR USE IN IMAGING OF CELLULAR DRUG UPTAKE AND DISTRIBUTION, CHEMISTRY- A EUROPEAN JOURNAL, 2018, 24, 4957-4966, 0947-6539, IF: **5.317**, PMID: 29411907.

(1) T. OŽDIAN\*, D. HOLUB, Z. MACEČKOVÁ, L. VARANASI, G. RYLOVÁ, J. ŘEHULKA, J. VÁCLAVKOVÁ, H. SLAVÍK, P. MOUDRÝ, P. ZNOJEK, **J. STANKOVÁ**, J. DE SANCTIS, M. HAJDÚCH, P. DŽUBÁK, PROTEOMIC PROFILING REVEALS DNA DAMAGE, NUCLEOLAR AND RIBOSOMAL STRESS ARE THE MAIN RESPONSES TO OXALIPLATIN TREATMENT IN CANCER CELLS, JOURNAL OF PROTEOMICS, 2017, 162, 73-85, 1874-3919, IF: **3.867**, PMID: 28478306.

### BOOK CHAPTERS

**J. STANKOVÁ** REPORTERS FOR SUBCELLULAR LOCALIZATION AND IMAGE ANALYSIS V KNIZE: 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

## **PARTICIPATION ON SELECTED CONFERENCES**

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(7) **STANKOVÁ J.**; HAJDÚCH M. MULTIOMICKÁ STUDIE. OPEN SCIENCE WEEK 2023 – **OLOMOUC, CZECH REPUBLIC**. 16. 10. – 20. 10. 2023

(6) **STANKOVÁ J.**; BARUČIĆ D.; KYBIC J.; DŽUBÁK P.; HAJDÚCH M. THE DRUGS' MECHANISM OF ACTION IDENTIFICATION WITH HTS BASED ON DIGITAL-PHASE CONTRAST IMAGES ANALYZED BY DEEP LEARNING METHOD. SLAS2023 INTERNATIONAL CONFERENCE AND EXHIBITION. **SAN DIEGO, USA**. 25. 2. – 1. 3. 2023

(5) **STANKOVÁ J.**; BARUČIĆ D.; KYBIC J.; DŽUBÁK P.; HAJDÚCH M. VYUŽITÍ MIKROSKOPIE FÁZOVÉHO KONTRASTU K IDENTIFIKACI MECHANISMU ÚČINKU LÁTEK. INTERDISCIPLINÁRNÍ DOKTORANDSKÁ KONFERENCE. **OLOMOUC, CZECH REPUBLIC**. 24. – 25. 11. 2022

(4) **STANKOVÁ J.**; BARUČIĆ D.; KYBIC J.; DŽUBÁK P.; HAJDÚCH M. THE DRUGS' MECHANISM OF ACTION IDENTIFICATION BASED ON DIGITAL-PHASE CONTRAST IMAGES ANALYZED BY AI. CZECH ANNUAL CANCER RESEARCH MEETING. **OLOMOUC, CZECH REPUBLIC**. 1. – 2. 12. 2022

(3) **STANKOVÁ J.**; VRBKOVÁ J.; HOLUB D.; DŽUBÁK P.; HAJDÚCH M. CZECH MULTI-OMICS COHORT FROM A PROTEOMICS PERSPECTIVE. IMTM REACTOR: 6TH ANNUAL IMTM RETREAT. **VELKÉ KARLOVICE, CZECH REPUBLIC**. 3. – 5. 10. 2022

(2) **STANKOVÁ J.**; KODR D.; RUMLOVÁ M.; DŽUBÁK P.; ŘEHULKA J.; ZIMMERMANN T.; KŘÍŽOVÁ I.; GURSKÁ S.; HAJDÚCH M.; DRAŠAR P. B.; JURÁŠEK M. BIOLOGICAL PROPERTIES OF BETULINIC ACID ANALOGUES WITH POLAR GROUPS AND BODIPY DYE. OL4PERMED. **OLOMOUC, CZECH REPUBLIC**. 25. – 27. 11. 2021

(1) **STANKOVÁ J.**; MEDVEDÍKOVA M.; ŠÁREK J.; VLK M.; URBAN M.; HAJDÚCH M.; DŽUBÁK P. MITOCHONDRIAL PROTEIN CYTOCHROME C AS A MOLECULAR TARGET OF NEW BETUNILIC ACID DERIVATE JS8 (3B,28-DIACETOXY-18-OXO-19,20,21,29,30-PENTANORLUPAN-22-OIC ACID). EUPA SCHOOL OF ADVANCED PRACTICAL PROTEOMICS. **VIENNA, AUSTRIA**. 15. – 20. 7. 2018