

# Curriculum vitae

**František Sedlák, M.D., Ph.D.** \* 3<sup>th</sup> May 1986, Prague, Czechia

## Education, degrees:

**Ph.D.:** Biochemistry and Patobiochemistry, 1<sup>st</sup> Faculty of Medicine, Charles University, Prague, 2022

**MUDr. (M.D.)** 1<sup>st</sup> Faculty of Medicine, Charles University, Prague, 2012

## Clinical specialization:

Haematology and transfusion medicine, attestation exam passed 11/2017

Functional license of the Czech Medical Chamber F016: Artificial Nutrition and Metabolic Care 10/2019

## Courses:

Practical course of confocal microscopy: multiple fluorescent labeling, deconvolution, co-localization, 3D reconstruction (Charles University, 1st Faculty of Medicine, 2008)

Application of DNA Chips in diagnostics of genetically determined diseases (Charles University, 1st Faculty of Medicine, 2008)

Requalification course for sport a recondition massage, sauner (Charles University, 1st Faculty of Medicine, 2009)

Practical course of biochip technology (The Institute of Hematology and Blood Transfusion, Prague, 2012)

Infrafrontier training course “Mouse Blood and Lymphatic Vessels Phenotyping“ (CBATEG and the Veterinary school, Universita Autònoma de Barcelona, 2014)

Training course to obtain a certificate of professional competence for designing experiments and project trials (Faculty of science, Prague, 2015)

EMBO Practical Course: High-Throughput Microscopy for Systems Biology (EMBL Heidelberg, 2016)

**ICH GCP E6 (R2) Training (The Global Health Network, 26.3.2020, 25.5.2022)**

## Professional career:

- since 2022: postdoctorand, head of Theranostic laboratory (joined laboratory), Institute of Organic Chemistry and Biochemistry AS CR, v.v.i., Prague
- since 2022: assistant professor, head of Theranostic laboratory (joined laboratory), Institute of biochemistry and experimental oncology, 1<sup>st</sup> Faculty of Medicine, Charles University
- 2015 - 2023: research worker, Department of Genetics and Microbiology, Faculty of Science / BIOCEV, Charles University
- since 2014 - ongoing: assistant professor, 1<sup>st</sup> Department of Medicine - Dep. of haematology, 1<sup>st</sup> Faculty of Medicine, Charles University
- since 2012: physician, 1<sup>st</sup> Department of Medicine - Dep. of haematology, General University Hospital in Prague – therapeutic area: plasma cell diseases, AL amyloidosis
- 2012 - 2022: PhD student, Institute of Organic Chemistry and Biochemistry AS CR, v.v.i., Prague
- 2008 - 2012: technician, Institute of Organic Chemistry and Biochemistry AS CR, v.v.i., Prague

## Clinical Trials Experience

- 2020 - ongoing: Sub-Investigator of several studies in Therapeutic Area – multiple myeloma, Phase – III
- 2022 - ongoing: Sub-Investigator in Therapeutic Area – multiple myeloma, Phase – I
- 2023 - ongoing: Principal Investigator in Therapeutic Area – AL amyloidosis, Phase – III

# Publication list

## In impacted journals

1. Tykvart J, Navrátil V, **Sedlák F**, Corey E, Colombatti M, Fracasso G, Koukolík F, Bařinka C, Šácha P, Konvalinka J. **Comparative analysis of monoclonal antibodies against prostate-specific membrane antigen (PSMA)**. *Prostate*. 2014 Dec;74(16):1674-90. **IF (2014) = 4,051**
2. Šácha P, Knedlík T, Schimer J, Tykvart J, Parolek J, Navrátil V, Dvořáková P, **Sedlák F**, Ulbrich K, Strohalm J, Majer P, Šubr V, Konvalinka J. **iBodies: Modular Synthetic Antibody Mimetics Based on Hydrophilic Polymers Decorated with Functional Moieties**. *Angew Chem Int Ed Engl*. 2016 Feb 12;55(7):2356-60. **IF (2016) = 11,994**
3. Knedlík T, Vorlová B, Navrátil V, Tykvart J, **Sedlák F**, Vaculín Š, Franěk M, Šácha P, Konvalinka J.: **Mouse glutamate carboxypeptidase II (GCPII) has a similar enzyme activity and inhibition profile but a different tissue distribution to human GCPII**. *FEBS Open Bio*. 2017 Aug 29;7(9):1362-1378. **IF (2017) = 1,81**
4. Vorlová B, **Sedlák F**, Kašpárek P, Šrámková K, Malý M, Zámečník J, Šácha P, Konvalinka J.: **A novel PSMA/GCPII-deficient mouse model shows enlarged seminal vesicles upon aging**. *Prostate*. 2019 Feb;79(2):126-139. **IF (2019) = 3,279**
5. **Sedlák F**, Šácha P, Blechová M, Březinová A, Šafařík M, Šebestík J, Konvalinka J.: **Glutamate carboxypeptidase II does not process amyloid-β peptide**. *FASEB J*. 2013 Jul;27(7):2626-32. **IF (2013) = 3,188**
6. Neburková J, **Sedlák F**, Žáčková Suchanová J, Kostka L, Šácha P, Šubr V, Etrych T, Šimon P, Bařinková J, Kryštufek R, Španielová H, Forstová J, Konvalinka J, Cígler P: **Inhibitor-GCPII Interaction: Selective and Robust System for Targeting Cancer Cells with Structurally Diverse Nanoparticles**. *Mol Pharm*. 2018 Aug 6;15(8):2932-2945. **IF (2018) = 4,65**
7. Šlegerová J, Hájek M, Řehoř I, **Sedlák F**, Stursa J, Hrubý M, Cígler P.: **Designing the nanobiointerface of fluorescent nanodiamonds: highly selective targeting of glioma cancer cells**. *Nanoscale*. 2015 Jan 14;7(2):415-20 **IF (2015) = 7.76**
8. Sívá M, Svoboda M, Veverka V, Trempe JF, Hofmann K, Kožíšek M, Hexnerová R, **Sedlák F**, Belza J, Brynda J, Šácha P, Hubálek M, Starková J, Flaisigová I, Konvalinka J, Šašková KG: **Human DNA-Damage-Inducible 2 Protein Is Structurally and Functionally Distinct from Its Yeast Ortholog**. *Sci Rep*. 2016 Jul 27;6:30443. **IF (2016) = 4,59**
9. Fassmannová D, **Sedlák F**, Sedláček J, Špička I, Grantz Šašková K: **Nelfinavir Inhibits the TCF11/Nrf1-Mediated Proteasome Recovery Pathway in Multiple Myeloma**. *Cancers (Basel)*. 2020 Apr 25;12(5):1065. **IF (2020) = 6,639**
10. Radocha J, Jelinek T, Pour L, Spicka I, Minarik J, Popkova T, Jungova A, Pavlicek P, Brozova L, Stork M, **Sedlák F**, Krhovska P, Maisnar V, Heindorfer A, Sykora M, Wrobel M, Mikula P, Kessler P, Ullrychova J, Hajek R: **Urine immunofixation negativity is not necessary for complete response in intact immunoglobulin multiple myeloma: Retrospective real-world confirmation**. *Int J Lab Hematol*. 2021 Oct;43(5):e244-e247. **IF (2021) = 2,877**
11. Hejdanková Z, Vaněk V, **Sedlák F**, Procházka J, Diederichs A, Kereiče S, Novotná B, Budešinsky M, Birkuš G, Šašková KG, Cígler P: **Lipid Nanoparticles for Broad-Spectrum Nucleic Acid Delivery**. *Adv. Funct. Mater*. 2021, 31, 2101391. **IF (2020/2021) = 18,808**

## In other journals

1. **Sedlák F**: Léčba epizody bolesti u pacienta s pokročilým B-buněčným lymfomem. *Acta Medicinæ*, 2016, vol. 5, s. 34-35.
2. Špička I, **Sedlák F**: Mnohočetný myelom - jsme schopni pacienta v roce 2020 vyléčit? *Postgraduální medicína*, 2020, vol. 22, s. 53-58.
3. **Sedlák, F.**, Jednoduché měření geomagnetického pole. *Jemná mechanika a optika*, 2005, 50 (5), 155-156.

## Patents, utility models

1. ÚOHC AV ČR, ÚMCH AV ČR, PŘF UK. **Macromolecular conjugates for visualization and separation of proteins and cells**. Inventors: Šácha P, Konvalinka J, Schimer J, Knedlík T, Navrátil V, Tykvart J, **Sedlák F**, Majer P, Cígler P, Šubr V, Ulbrich K, Strohalm J. European patent EP3245514B1. Published 10.července 2019, priority to CZ201520A 14.1.2015.
2. ÚOHC AV ČR. **Odběrová sada k nasálnímu steru s integrovaným imuno-chromatografickým testem**. Původci: Pokorný V, Šácha P, Kryštufek R, **Sedlák F**, Bakoš R. Utility model. CZ35263U1, priority 10.3.2021
3. ÚOHC AV ČR. **Lipidoids for nucleic acid transfection and their use**. Inventors: Cígler P, Šašková KG, Vaněk V, Kružíkova Z, Sedlák F. European patent EP3245514B1. Published 27.7.2022, priority to CZ2020529A 23.9.2020.

František Sedlák, M.D., Ph.D.

5<sup>th</sup> November 2023

