

# PharmDr. Zbynek Novy, Ph.D.

**Date of birth:** July 13, 1981  
**Place of birth:** Kutna Hora, Czech Republic  
**Nationality:** Czech

## Education:

2001 – 2007 Faculty of Pharmacy in Hradec Kralove, Charles University in Prague, Czech Republic, **MSc.** in pharmacy  
2007 – 2014 Faculty of Pharmacy in Hradec Kralove, Charles University in Prague, Czech Republic, Department of Pharmacology and Toxicology, **PhD.** and **Pharm.D.** in pharmacology

## Teaching experience:

2007 – 2012 Teaching of Laboratory Part in Subjects Radiopharmaceuticals for Pharmacist and Methods of nuclear analysis (Charles University in Prague, Faculty of Pharmacy, Czech Republic)  
2015 – 2017 Fundamentals of Pharmacy and Pharmaceutical Chemistry (Palacky University Olomouc, Faculty of Science, Czech Republic)

## Internships:

January – July 2009 Institut de Recherche en Cancérologie de Montpellier (U1194), Montpellier, France

## Employment:

2012 – now Institute of Molecular and Translational Medicine, Faculty of Medicine and Dentistry, Palacky University in Olomouc, junior researcher (radiopharmacy/nuclear medicine)

**Language skills:** Czech, English, French

## Focused in:

- Preparation and analysis of radiolabeled compounds
- Biodistribution of radiolabeled compounds *in vivo*
- Preclinical PET/SPECT/CT imaging
- Evaluation of radiolabeled compounds *in vitro*

## Grant projects as PI:

Development of new exercises for subject Methods of nuclear analysis and radiopharmaceuticals. University Development Fund, 2009.

Mechanisms of membrane transport of radiolabeled derivatives of somatostatin and dimercaptosuccinic acid. Grant Agency of Charles University in Prague, 2009 – 2011.

## Publications: 27

**SCI: 263**

**H-index: 10**

## Important publications:

Reissig F, Zarschler K, **Novy Z**, Petrik M, Bendova K, Kurfurstova D, Bouchal J, Ludik M-CH, Brandt F, Kopka K, Khoylou M, Pietzsch HJ, Hajduch M, Mamat C. Modulating the pharmacokinetic profile of Actinium-225-labeled macropa-derived radioconjugates by dual targeting of PSMA and albumin Theranostics. 2022; 12(17):7203-7215. **IF: 11.600** PMID: 36438496

Barta P, Kramaraj J, Kucharova M, **Novy Z**, Petrik M, Bendova K, Hajduch M, Pavek P, Trejtnar F. Preparation, In Vitro Affinity, and In Vivo Biodistribution of Receptor-Specific <sup>68</sup>Ga-Labeled Peptides Targeting Vascular Endothelial Growth Factor Receptors, Bioconjugate Chemistry, 2022, -, -, 1043-1802, **IF: 6.069**, PMID: 36197842.

Krajcovicova S, Daniskova A, Bendova K, **Novy Z**, Soural M, Petrik M. [ <sup>68</sup>Ga]Ga-DFO-c(RGDyK): Synthesis and Evaluation of Its Potential for Tumor Imaging in Mice, International Journal of Molecular Sciences, 2021, 22, 7391, 1422-0067, **IF: 5.923**, PMID: 34299008.

Reissig F, Bauer D, Zachsler K, **Novy Z**, Bendova K, Ludik M, Kopka K, Pietzsch H, Petrik M, Mamat C. Towards Targeted Alpha Therapy with Actinium-225: Chelators for Mild Condition Radiolabeling and Targeting PSMA-A Proof of Concept Study, *Cancers*, 2021, 13, 1974, 2072-6694, **IF: 6.126**, PMID: 33923965.

Svec P, **Novy Z**, Kucka J, Petrik M, Sedlacek O, Kuchar M, Liskova B, Medvedikova M, Kolouchova K, Groborz O, Loukotova L, Konefalk R, Hajduch M, Hruby M, Iodinated Choline Transport-Targeted Tracers, *Journal of Medicinal Chemistry*, 2020, 63, 15960-15978, 0022-2623, **IF: 6.205**, PMID: 33271015.

**Novy Z**, Lobaz V, Vlk M, Kozempel J, Stepanek K, Popper M, Vrbkova J, Hajduch M, Hruby M, Petrik M. Head-To-Head Comparison of Biological Behavior of Biocompatible Polymers Poly(Ethylene Oxide), Poly(2-Ethyl-2-Oxazoline) and Poly[N-(2-Hydroxypropyl)Methacrylamide] as Coating Materials for Hydroxyapatite Nanoparticles in Animal Solid Tumor Model, *Nanomaterials*, 2020, 10, E1690, 2079-4991, **IF: 4.324**, PMID: 32867391.

Petrik M, Umlaufova E, Raclavsky V, Palyzova A, Havlicek V, Pfister J, Mair C, **Novy Z**, Popper M, Hajduch M, Decristoforo C. 68 Ga-labelled desferrioxamine-B for bacterial infection imaging, *European Journal of Nuclear Medicine and Molecular Imaging*, 2021, 48, 372-382, 1619-7070, **IF: 7.081**, PMID: 32734456.

**Novy Z**, Stepankova J, Hola M, Flasarova D, Popper M, Petrik M. Preclinical Evaluation of Radiolabeled Peptides for PET Imaging of Glioblastoma Multiforme. *Molecules*. 2019, 24(13), pii: E2496. ISSN 1420-3049. **IF: 3.060**. PMID: 31288488.

Lobaz V, Konefalk R, Panek J, Vlk M, Kozempel J, Petrik M, **Novy Z**, Gurksa S, Znojek P, Stepanek P, Hruby M. In Situ In Vivo radiolabeling of polymer-coated hydroxyapatite nanoparticles to track their biodistribution in mice. *Colloids and surfaces. B, Biointerfaces*. 2019, 179, 143-152. ISSN 0927-7765. **IF: 3.997**. PMID: 30954015.

Petrik M, Umlaufova E, Raclavsky V, Palyzova A, Havlicek V, Haas H, **Novy Z**, Dolezal D, Hajduch M, Decristoforo C. Imaging of *Pseudomonas aeruginosa* infection with Ga-68 labelled pyoverdine for positron emission tomography. *Scientific Reports*. 2018, 8(1), 15698. **IF: 4.122**. PMID:30356077.

Skriba A, Pluhacek T, Palyzova A, **Novy Z**, Lemr K, Hajduch M, Petrik M, Havlicek V. Early and Non-invasive Diagnosis of Aspergillosis Revealed by Infection Kinetics Monitored in a Rat Model. *Frontiers in Microbiology*. 2018, 9, 2356. **IF: 4.019**. PMID: 30349512.

**Novy Z**, Laznickova A, Mandikova J, Barta P, Laznicek M, Trejtnar F. The effect of chelator type on in vitro receptor binding and stability in <sup>177</sup>Lu-labeled cetuximab and panitumumab. *J Labelled Comp Radiopharm*. 2014 Jun 15;57(7):448-52. doi: 10.1002/jlcr.3204. Epub 2014 May 29. PubMed **IF: 1.187**. PMID: 24889367.