

**Blazej Wojtczak** [b.wojtczak@biogeo.uw.edu.pl](mailto:b.wojtczak@biogeo.uw.edu.pl)

## Education

- 2011** **Ph.D., Organic chemistry**, Technical University of Lodz, Faculty of Chemistry (with distinction)  
• *New methods for the synthesis of conjugates of nucleosides and oligonucleotides with boron clusters*, supervised by Prof. Zbigniew Lesnikowski.
- 2009-2010** **Postgraduate Studies, "Innovation Manager"**, Master of Science in Science and Technology Commercialization under license of University of Texas at Austin. University of Lodz, Center for Technology Transfer, Faculty of Management.
- 2008-2009** **Postgraduate Studies, Medical Pharmacy**, University of Lodz, Faculty of Pharmacy.  
• *Nucleoside derivatives as antitumor drugs*-supervised by Dr hab. Boleslaw Karwowski
- 2004-2006** **Ph. D. Studies**, Center of Macromolecular and Micromolecular Studies, Polish Academy of Sciences
- 1997-2003** **M.Sc., Chemistry**, Technical University of Lodz, Faculty of Chemistry, specialty: Chemistry of biologically active compounds.  
• *New methods for the synthesis of phosphonodepsipeptides*-supervised by Prof. Tadeusz Gajda

## Employment

- VIII.2014–present** Centre of New Technologies, Laboratory of Bioorganic Chemistry, University of Warsaw, adjunct.
- VIII.2011–VII.2014** Faculty of Physics, University of Warsaw, Laboratory of Bioorganic Chemistry, adjunct.
- I.2003–VIII.2011** Institute of Medical Biology, Polish Academy of Sciences, Laboratory of Molecular Virology and Biological Chemistry, research assistant.
- XI.2002–III.2003** Center of Microbiology and Virology, Polish Academy of Sciences, Laboratory of Molecular Virology and Biological Chemistry, laboratory technician.

## Research Interests

- Chemical synthesis and properties of modified nucleosides, nucleotides and oligonucleotides

## Selected Publications

- Malgorzata Zytek, Joanna Kowalska, Maciej Lukaszewicz, Blazej A. Wojtczak, Joanna Zuberek, Aleksandra Ferenc-Mrozek, Edward Darzynkiewicz, Anna Niedzwiecka, Jacek Jemielity. "Towards novel efficient and stable nuclear import signals: synthesis and properties of trimethylguanosine cap analogs modified within the 5',5'-triphosphate bridge". *Org. Biomol. Chem.* 12 (2014) 10.1039/C4OB01579G.
- Blazej A. Wojtczak, Agnieszka B. Olejniczak, Liya Wang, Staffan Eriksson, Zbigniew J. Lesnikowski.

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„Phosphorylation of Nucleoside-Metallacarborane and Carborane Conjugates by Nucleoside Kinases”. *Nucleosides, Nucleotides and Nucleic Acids*, 2013, 32(10), 577-588.

- K. Bednarska, A. B. Olejniczak, B. A. Wojtczak, Z. Sułowska, Z. J. Leśnikowski, „Adenosine modified with boron cluster pharmacophores as a new human blood platelet function inhibitor”, *Chem. Med. Chem.*, 2010, 5(5), 749-756.
- Andrey Semioshkin, Julia Laskova, Błażej A. Wojtczak, Agnieszka Andrysiak, Ivan Godovikov, Vladimir Bregadze, Zbigniew J. Leśnikowski, “Synthesis of closo-Dodecaborate Based Nucleoside Conjugates”, *J. Organomet. Chem.*, 694 (9-10), 2009, 1375-1379.
- Błażej A. Wojtczak, Agnieszka Andrysiak, Bohumir Grüner, Zbigniew J. Leśnikowski; „Chemical ligation” – A Versatile Method for Nucleoside Modification With Boron Clusters”. *Chemistry - A European Journal*, 2008, 14, 10675-10682.
- Błażej A. Wojtczak, Agnieszka B. Olejniczak, Marzena Przepiórkiewicz, Agnieszka Andrysiak, Zbigniew J. Leśnikowski; „Highly lipophilic adenosine phosphates bearing para-carborane (C<sub>2</sub>B<sub>10</sub>H<sub>11</sub>) modification”, *Collect. Czech. Chem. Commun.*, 2008, 73, 2, 175-186.
- Pavel Matejcek, Petr Cigler, Agnieszka B. Olejniczak, Agnieszka Andrysiak, Błażej A. Wojtczak, Karel Prochaska, Zbigniew J. Leśnikowski, “Aggregation Behavior of Nucleoside-Boron cluster Conjugates In Aqueous Solutions: Strong Dependence of Aggregation on the Size and Charge of the Cluster”, *Langmuir*, 2008, 24(6), 2625-2630.

## Ongoing Research Support

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Most important research projects from last 4 years:

**NCN UMO/2012/05/E/ST5/03893**                      PI: Jemielity  
2013-2018

Grant from Polish National Science Center

*New reagents and methods in synthesis of modified nucleotides and their application for preparation biochemical tools and nucleotides with great therapeutic potential.* Role: Co-investigator

## Research Experience

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| <b>October 2008</b>   | two-week training in prof. Vladimir Bregadze Group in the Laboratory of Organoaluminium and Boron Compounds, Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences- synthesis of boron cluster modified nucleosides.   |
| <b>November 2007</b>  | a week training in prof. Staffan Eriksson Group at Swedish University of Agricultural Sciences, Department of Anatomy, Physiology and Biochemistry – studies on enzymatic phosphorylation of boron modified nucleosides by kinases TK <sub>1</sub> and TK <sub>2</sub> .                        |
| <b>September 2005</b> | three months training in prof. Jean Paul Lellouche Group at Department of Chemistry, Nanomaterials Research Center, Institute of Nanotechnology & Advanced Materials, Bar-Ilan University, Ramat-Gan, Israel – templated synthesis of polypyrrolyl/polycarbazolyl functional polyCOOH nanorods. |
| <b>April 2005</b>     | two-week training in prof Bohumir Grüner Group at Institute of Inorganic Chemistry, Academy of Sciences of the Czech Republic – water/octanol partition coefficient estimation of boron modified nucleosides by HPLC method.  |
| <b>April 2003</b>     | two-week training in prof Jaromir Plesek Group at Institute of Inorganic Chemistry, Academy of Sciences of the Czech Republic – synthesis of boroorganic and metallaorganic compounds.  |
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## Teaching Experience

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### Teaching Assistant:

- Practicum in Chemistry (*1<sup>st</sup> year lab for B.Sc. students of Application of Physics in Biology and Medicine*)

## Distinctions and Awards

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- Marie Curie International Fellowship (Bar-Ilan University, Ramat Gan, Israel)