The development of joint scientific and educational programs and projects: universities—_institutions of the Academy of Sciences on the example of Poland_

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**NATIONAL UNIVERSITY OF “KYIV-MOHYLA ACADEMY”**

**November 16-17, 2016**

**Kyiv, Ukraine**
The development of joint scientific and educational programs and projects: universities – institutions of the Academy of Sciences on the example of Poland

"Scientific and educational cooperation of the Jan Dlugosz University in Czestochowa and the Center of Molecular and Macromolecular Studies PAS, Łódź".

NATIONAL UNIVERSITY OF “KYIV-MOHYLA ACADEMY”
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Both institutions are the same age.
The Centre of Molecular and Macromolecular Studies, the Polish Academy of Sciences (CMMS PAS), Łódź

- The Centre of Molecular and Macromolecular Studies in Łódź belongs to the network of the Polish Academy of Sciences institutes created to conduct research in selected areas of science.
- Its history traces back to 1972. At present the community is created by nearly 190 staff members, including nearly 80 academic staff members [21 Professors (including 3 full members of PAS and 19 Associate Professors)] and nearly 50 Ph. D. students.
- The research carried out in the Centre covers the range of problems from: organic chemistry, bioorganic chemistry and polymer chemistry and physics, with special emphasis on developing methods of making advanced materials, both in the field of low molecular weight and high molecular weight products.
- This includes new methods of stereoselective synthesis of complex organic molecules containing heteroatoms such as phosphorus, sulfur and silicon, new methods of stereocontrolled synthesis of modified oligonucleotides and their application in protein bioengineering as well as developing new approaches to synthetic polymers and their applications as biomaterials, materials for electronics or advanced construction materials.
The Jan Dlugosz University in Czestochowa (JDU)

- JDU is a public university, with history that traces back to 1971. At present the University community is created by nearly 5,000 students and over 450 academic staff members (150 Professors and Associate Professors).

- Our students can choose among over 60 specialities at four faculties.
  - THE FACULTY OF PEDAGOGY
  - THE FACULTY OF PHILOLOGY AND HISTORY
  - THE FACULTY OF ART EDUCATION
  - THE FACULTY OF MATHEMATICS AND NATURAL SCIENCES
THE FACULTY OF MATHEMATICS AND NATURAL SCIENCES
700 students (including 45 Ph.D. from physics and chemistry)
nearly 130 staff members, including nearly 80 academic staff members [31 Professors and Associate Professors]

• **Structure of the Faculty: (4 Institutes)**

  Institute of Technical Education and Safety

  [Institute of Physics]

  Institute of Mathematics and Computer Science

• **Institute of Chemistry, Environmental Protection and Biotechnology**
Institute of Chemistry, Environmental Protection and Biotechnology
(60 staff members - 16 Professors and Associate Professors)

• Center of Molecular and Macromolecular Studies, Polish Academy of Sciences, Lodz - 2 Prof. ; 1 Assoc. Prof.

• Ludwik Hirszfeld Institute of Immunology and Experimental Therapy Polish Academy of Sciences, Wroclaw – 1 Prof.; 3 Assoc. Prof.

• Centre of Polymer and Carbon Materials (CMPW), Polish Academy of Sciences, Zabrze- 2 Assoc. Prof.

• INSTITUTE OF ENVIRONMENTAL ENGINEERING
Polish Academy of Sciences, Zabrze- 1 Assoc. Prof.
Scientific and educational cooperation of the Jan Długosz University in Częstochowa and the Center of Molecular and Macromolecular Studies PAS, Łódź.

illustrated by examples taken from cooperation between

• Institute of Chemistry, Environmental Protection and Biotechnology

• and

• Department of Heteroorganic Chemistry, Center of Molecular and Macromolecular Studies, Polish Academy of Sciences, Lodz
The activities related to teaching and education

- Lectures
- Basic program courses for a given speciality
  Monographic courses devoted to selected topics:
  a) M.Sc students
  b) Ph.D. courses

Experimental works
- Preparation of theses (B.Sc and M.Sc) in PAS laboratories
- Student internships in laboratories of PAS (mainly during student vacations)
- selected experiments related to Ph.D. theses

Mentoring activity
- Assistance in organization of internships in laboratories abroad under the Erasmus program or informal bilateral exchanges
- Help in organization of student scientific activity (minisymposia, scientific workshops—arranging lectures delivered by foreign visitors)
Activities related to the conduct of joint research

• The use of equipment not available in cooperating laboratories

• Joint publications

• Joint grant applications
Joint scientific meetings

25th International Symposium on the Organic Chemistry of Sulfur (ISOCS-25) - 24 June 2012 to 29 June 2012 -

**200 participants from 20 countries**

57 Congress of the Polish Chemical Society - September 2014

**1000 participants including invited lecturers from 10 countries (among them Prof. Negishi - Nobel laureate from 2010)**

7th International Meeting on Halogen Chemistry (HALCHEM VII) - September 2015

**80 participants from 12 countries**
Formal cooperation between the JDU and Universities from Ukraine

- Kherson State University
- Khmelnitsky institute for Humanities and Pedagogy
- Uman State P.G. Tychyna Pedagogical University, Uman
- Kyiv Institute Slavonic University
- Crimean State Humanitarian University
- Crimean Research Centre of Humanities
- Pedagogical University Krivoy Rog
- Odessa National I.I. Mechnikov University
- Pre-Carpathian State University in Ivano-Frankivsk
- Zaporozhye State University
- National University Lviv Polytechnic

- Ivan Franko University (Lviv) and Institute for Materials SRC Carat
  - The Faculty of Mathematics and Natural Sciences

- International Seminar on Physics and Chemistry of Solids (ISPCS) and Advanced Materials
  - XXI editions (Every year, alternately in Czestochowa and Lviv)
Let us hope that we will be able to conduct cooperation between the Jan Dlugosz University in Częstochowa and the National University of Kyiv-Mohyla Academy.
• Thank you very much for attention
Joint scientific and educational programs and projects: JDU–institutions of the Polish Academy of Sciences

- **THE FACULTY OF MATHEMATICS AND NATURAL SCIENCES**

- **Structure of the Faculty:**
  
  Institute of Technical Education and Safety

  **Institute of Physics**

  Institute of Mathematics and Computer Science

- **Institute of Chemistry, Environmental Protection and Biotechnology**
Informal Cooperation

• On March 5th, 2014 Mr. Pavlo Lyutyy from G.V. Karpenko Physico-Mechanical Institute of the NAS of Ukraine defended his doctoral thesis entitled “Thermodynamical properties and crystal structure investigation of the selected ternary compounds in the 3d transition metal (Cr, Fe, Co, Cu, Ni)-Ga-Si” at the Faculty of Mathematics and Natural Sciences of the Jan Długosz University in Częstochowa.