

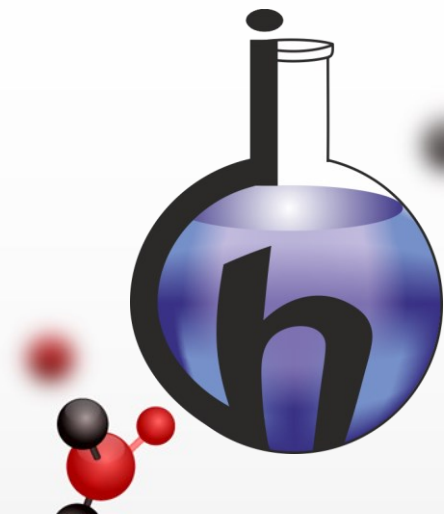
JAN KOCHANOWSKI UNIVERSITY  
OF KIELCE  
INSTITUTE OF CHEMISTRY

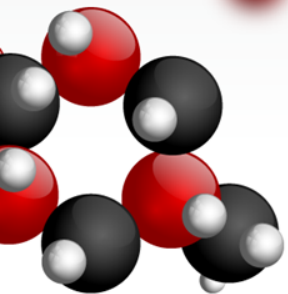
**BIOTECHNOLOGY**



Jan Kochanowski  
University  
of Kielce

*Biotechnology your key to the future*





# TRAINING OFFER

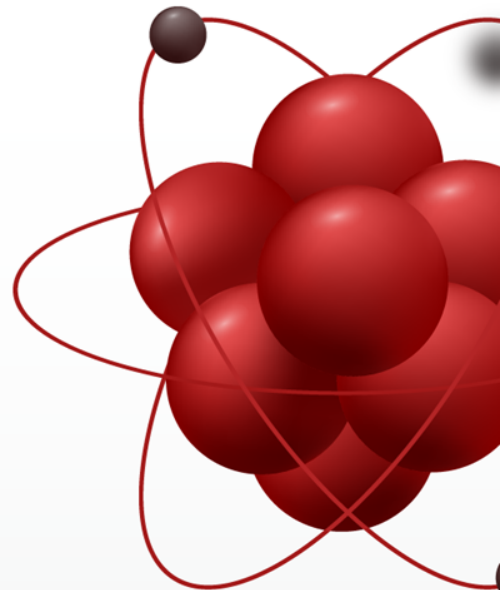
FIRST-CYCLE STUDIES

BACHELOR'S DEGREE (3-year)

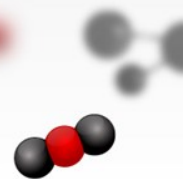


SECOND-CYCLE STUDIES

MASTER'S DEGREE (2-year)



# GRADUATE PROFILE



Graduates of the Bachelor's and Master's programs possess knowledge and skills in advanced and in-depth biotechnology topics, based on foundations in mathematical and natural sciences. This educational model provides practical and theoretical preparation for graduates to design biotechnological processes, knowledge of the latest experimental biology methods, and opportunities to collaborate with specialists in related fields.

In their professional careers, graduates of the Bachelor's and Master's programs can effectively apply their acquired knowledge and skills while adhering to ethical principles and legal regulations. They have a proficient command of a foreign language at the B2 level (Bachelor's studies) and B2+ level (Master's studies), as well as the ability to use specialized language in the field of biotechnology. This proficiency is crucial for accessing the latest scientific information and self-development.

Graduates have opportunities for employment in the biotechnology industry and related sectors such as food, chemical, and pharmaceutical industries. They can also work in industrial, technological, analytical, and research laboratories dealing with biological and environmental materials, utilizing state-of-the-art research and analytical equipment (physical, chemical, biochemical, molecular biology techniques) with the support of information and bioinformatics techniques.

Students of this program undertake their classes with the support of the faculty and resources of the Institute of **Chemistry** and the Institute of **Biology** at WSiP-UJK.





# ERASMUS+ at UJK

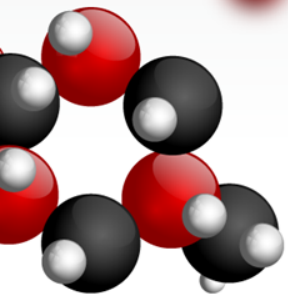
Within the Erasmus+ KA171 program, UJK students have the opportunity to participate in student exchange programs with partner universities in EU member countries with which UJK has bilateral agreements.

Educational mobility with partner countries involves the arrival and departure of students for the purpose of completing one semester of studies at a foreign partner university or undertaking internships at a selected institution.

According to the project's guidelines, participants in mobility programs, both from partner universities and UJK, receive a scholarship disbursed by UJK in Kielce.

Erasmus+ - UJK w Kielcach ([erasmus.ujk.edu.pl](https://erasmus.ujk.edu.pl))

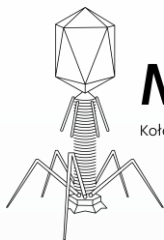




# STUDENT SCIENTIFIC ASSOCIATIONS

At the Faculty of Natural Sciences, there are numerous student scientific associations in which students can actively participate.

Within the Institutes of Chemistry and Biology, the most popular scientific associations among Biotechnology students are:



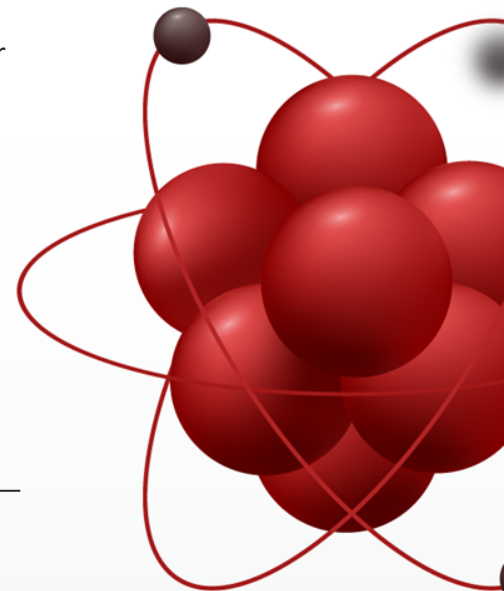
**Mikroby**

Koło Naukowe Biotechnologów

[www.facebook.com/mikroby.ujk](https://www.facebook.com/mikroby.ujk)



[www.facebook.com/kalcyt](https://www.facebook.com/kalcyt)

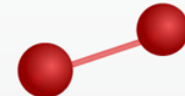




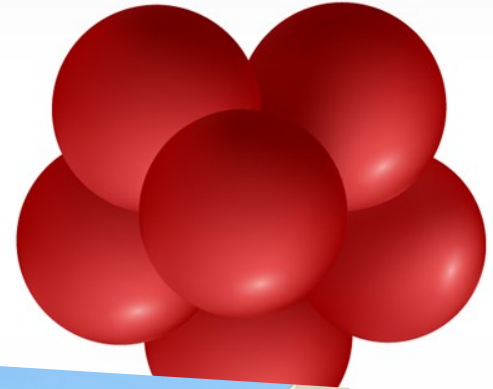
# An Institution with Traditions

## Timeline of the Institute of Chemistry

- 1971 - Establishment of the Department of Chemistry as part of the Faculty of Mathematics and Natural Sciences at the Higher School of Education (later known as WSP).
- 1975 - Creation of the Institute of Chemistry by the resolution of the Senate of WSP.
- 2008 - Relocation from Chęcińska Street to a new building on Świętokrzyska (now Uniwersytecka) Street, along with the expansion of infrastructure and equipment as part of operational programs: „Innovative Economy” and „Eastern Poland.”
- 2009 - Authorization to confer doctoral degrees in the discipline of chemistry.
- 2010 - Introduction of the second field of study at the Institute of Chemistry - **Biotechnology**.
- 2011 - Expansion of accommodation base and opening of second ICh building.
- 2022 - Attaining the scientific category "A" by the Institute of Chemistry.



# A scientific center with dynamic development:



# Scientific equipment of the Institutes of Chemistry and Biology



Inductively coupled plasma ionization mass spectrometer with laser ablation module (LA-ICP-MS ELAN DRC II, Perkin Elmer)



Atomic absorption spectrometer, THERMO SCIENTIFIC iCE 3500Z

# Scientific equipment of the Institutes of Chemistry and Biology



Multi-purpose microscope with spectrometer FTIR,  
Perkin Elmer



Thermobalance, Perkin Elmer

# Scientific equipment of the Institutes of Chemistry and Biology

Clarus 800 Perkin Elmer Chromatograph with  
autosampler and FID + TCD detectors



Mass spectrometer, Brücker microTOF-Q II with  
Dionex liquid chromatograph

# Scientific equipment of the Institutes of Chemistry and Biology

Gas chromatograph with mass spectrometer  
Perkin, Elmer Clarus 600T



Monocrystal diffractometer Rigaku XtaLAB

# Scientific equipment of the Institutes of Chemistry and Biology

Capillary electrophoresis system  
Beckman Coulter



Liquid chromatograph with mass spectrometer  
(LC-ESI-MS) Shimadzu

# Scientific equipment of the Institutes of Chemistry and Biology



Thermobalance, Mettler Toledo



Differential Scanning Calorimeter  
Mettler Toledo

# Scientific equipment of the Institutes of Chemistry and Biology



Transmission electron microscope

# Scientific equipment of the Institutes of Chemistry and Biology

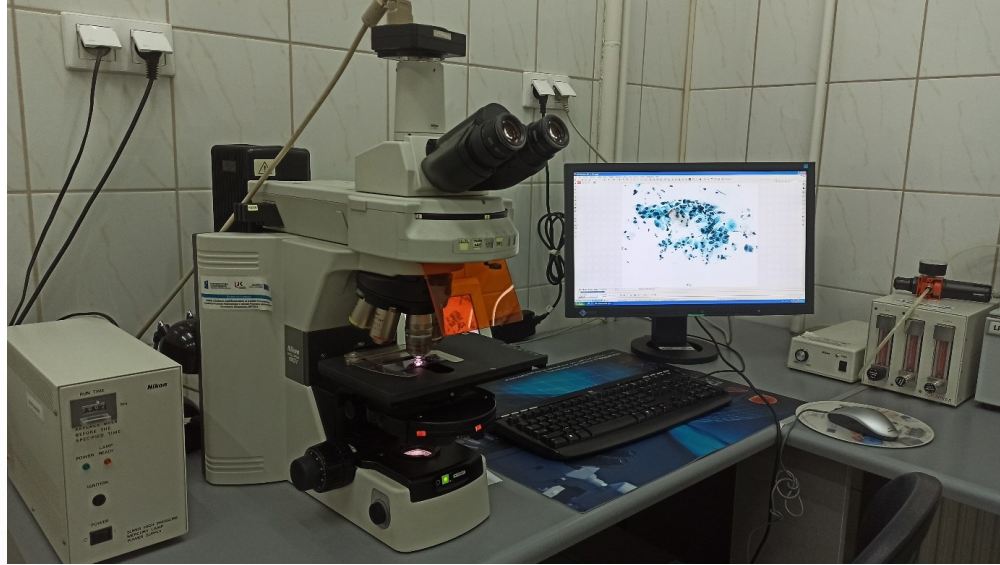


Ultramicrotome



Inverted microscope with cell culture system

# Scientific equipment of the Institutes of Chemistry and Biology



Fluorescence microscope



Inverted phase contrast microscope and cell counter

# Scientific equipment of the Institutes of Chemistry and Biology

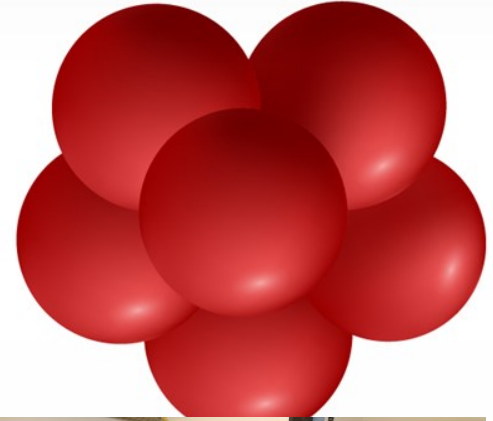
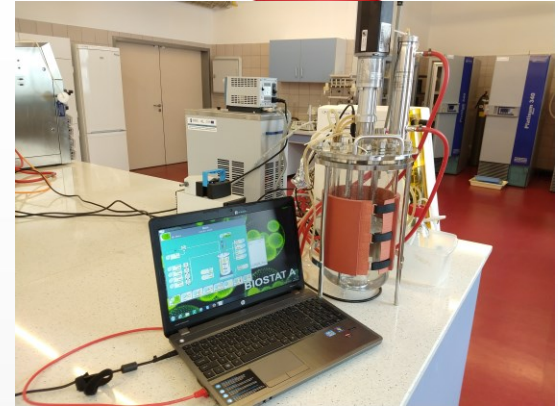
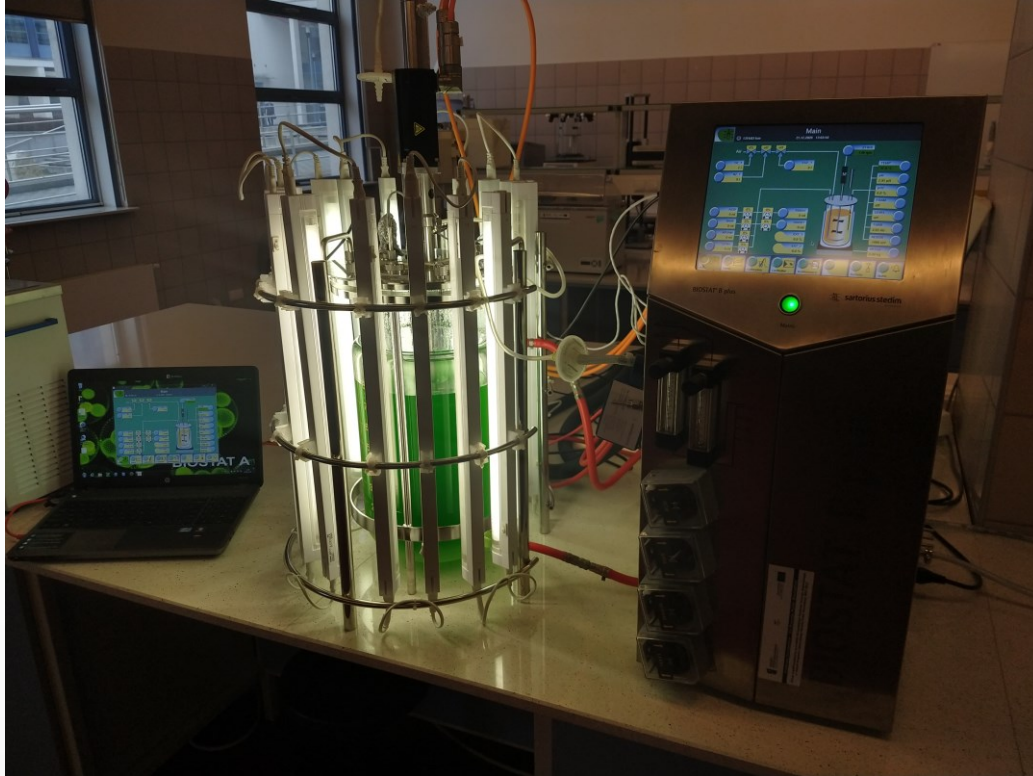


Laminar chamber and cell culture incubator

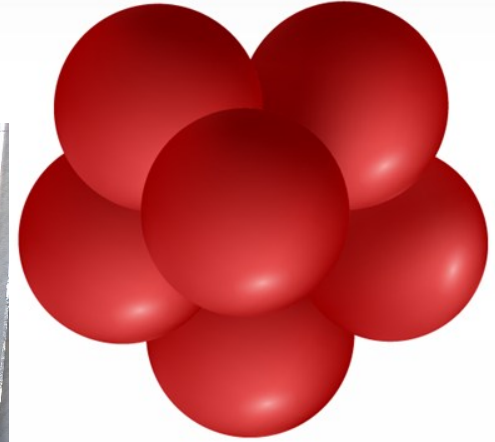


Multi-sensing microplate reader

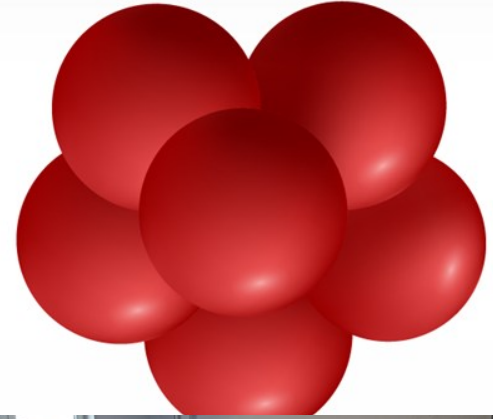
# State-of-the-art teaching facilities



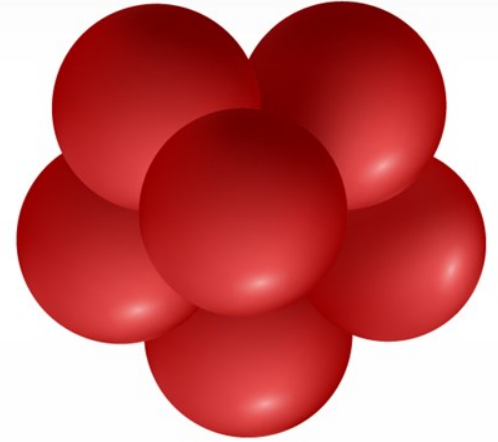
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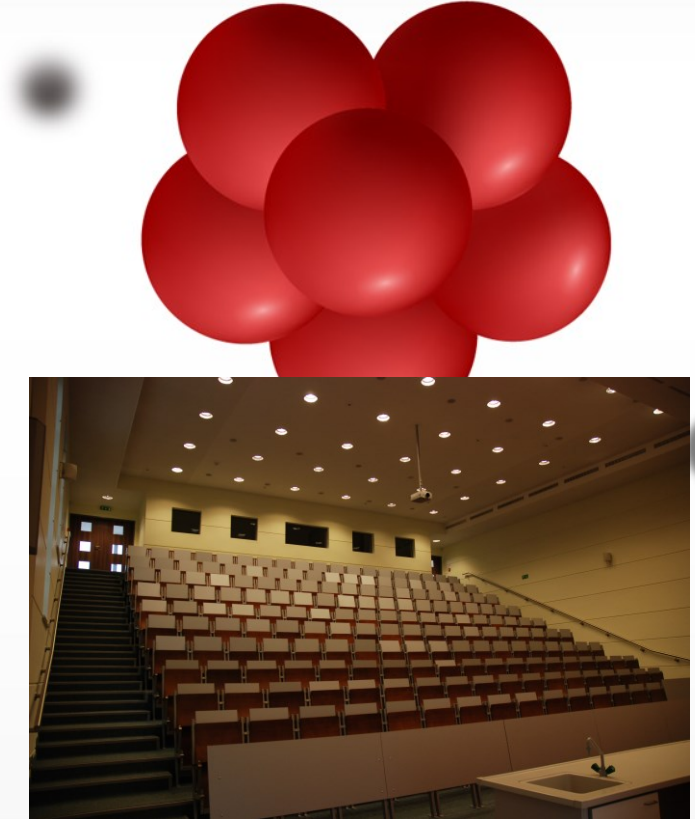
# State-of-the-art teaching facilities



# State-of-the-art teaching facilities



# State-of-the-art teaching facilities



# State-of-the-art teaching facilities



**WELCOME  
to study at**



Jan Kochanowski  
University  
of Kielce

