

## **Criteria for admitting students to write their master thesis in the Department of Technology and Biotechnology of Drugs**

**in the academic year 2024/2025**

1. Students who are interested in the research topics conducted at the Department (computer methods in drug design, chemical synthesis, pharmaceutical biotechnology) may apply for the MA thesis.

2. In the case of more applicants than the number of places, admission will be decided in turn:

a) Membership and active participation in a student club operating at the Department (Medicinal Chemistry Club, Medical Biotechnology Club, Computer methods in the search for medicinal substances)

b) The grade average after the first semester

c) Association of the course selected by student with the topic of the thesis

- Preferred students of the Medicinal Chemistry course (MA thesis on design and organic synthesis)

- Preferred students of the MIDD course (MA thesis on CADD&D)

- Preferred students of the Molecular Pharmacology course (MA thesis on Biotechnology/ADMET)

d) the order of applying to a given supervisor, taking into account the recommended division of places (presented in point 3 of the criteria)

3. The fixed number of places for a master's thesis of DDD students at the Department of Technology and Biotechnology of Drugs in 2024/25 will be provided by Dean office after 19 April 2024.

**The final decision on admitting a student is made by the Head of the Department**

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**Registration Schedule:**

- Students should have an interview (in life or via MS Teams) with the potential supervisor of the thesis before deciding to enter on the list of the Department
- Students enter for MA thesis in the Department only by e-mail to the address of Head, i.e. Prof. J. Handzlik ([j.handzlik@uj.edu.pl](mailto:j.handzlik@uj.edu.pl)).
- A student entering to the list should indicate in the email the subject (one or more) of his/her interest and the name of proposed Supervisor (one or more) as well as the following information about:
  - the course he/she will choose in 2nd year (if he/she already knows),
  - participation in a student club operating at the Department
  - the grade average after the first semester

### **I round**

- Registration by e-mail is open from **April 22 to April 23, 2024**

**April 24** (until 15:00.)- students will receive confirmation of their qualification or refusal at the Department

**by April 25** (until 16:00) enrolled students are required to confirm their final decision

**April 26** – The Department submits the list of master students for 2024/25 to the Dean's Office

### **II round (in case any free place after I round)**

- Additional registration by e-mail is open from **May 8 to 9, 2024**

**May 10** (until 22:00.)- students will receive confirmation of their qualification or refusal at the Department

**by May 13** (until 23:00) enrolled students are required to confirm their final decision

**May 15, 2024** - The Department submits the final list of master students for 2023/24 to the Dean's Office

## Proposed Supervisors and topics for master's theses at the Department of Technology and Biotechnology of Drugs in 2024/25

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### 1. Name of the supervisor of the thesis

[Prof. dr hab. Jadwiga Handzlik](#)

### 2. Contact details

[j.handzlik@uj.edu.pl](mailto:j.handzlik@uj.edu.pl)

### 3. Research topics topic – MedChem

Design and synthesis of new compounds acting as GPCR ligands/CNS targets agents/MDR modulators

### 4. Information about the type of research within the thesis

Experimental

### 5. Requirements:

Interest in medicinal chemistry, organic chemistry, CADD. Diligence in laboratory work, regularity, punctuality

### 6. Additional information

The obtained results may be presented during domestic or international conferences related to Medicinal chemistry

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### 1. Name of the supervisor of the thesis

[Dr hab. Gniewomir Latacz, prof. UJ](#)

### 2. Contact details

[glatacz@cm-uj.krakow.pl](mailto:glatacz@cm-uj.krakow.pl)

### 3. Research topics topic – MIDD, Experimental Pharmacology

The determination of ADME-Tox parameters using in vitro methods based on biochemical and cell-culture based methods (research are a part of several ongoing grants and projects).

### 4. Information about the type of research within the thesis

Experimental

### 5. Requirements:

Interest in medicinal chemistry and biotechnology. Diligence in laboratory work, regularity, punctuality

### 6. Additional information

The obtained results may be presented during domestic or international conferences related to Medicinal chemistry

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**1. Name of the supervisor of the thesis**

[Dr Tadeusz Karcz](#)

**2. Contact details**

tadeusz.karcz@uj.edu.pl

**3. Proposed research topic**

**MedChem, Experimental Pharmacology**

Evaluation of anticancer drugs resistance mechanism in selected human cancer cell lines.  
ADMET *in vitro*.

**4. Information about the type of research within the thesis**

Experimental project, involving the application of animal cell culture and gene expression analysis techniques

**5. Requirements:**

Interest in topic of study, strong motivation to learn new laboratory techniques, ability to follow the arrangements and to keep the deadlines

**6. Additional information**

If you have a specific idea for your master project – shoot me an e-mail and we may arrange your study according to your proposal.

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**1. Name of the supervisor of the thesis**

[Dr inż. Ewelina Honkisz-Orzechowska](#)

**2. Contact details**

ewelina.honkisz@uj.edu.pl

**3. Proposed research topic**

- search for compounds with anti-inflammatory activity in a mouse model of LPS-induced neuroinflammation
- search for compounds with neuroprotective activity in Alzheimer's and Parkinson's *in vitro* models

**4. Information about the type of research within the thesis**

Experimental work using cell culture *in vitro* techniques, gene expression analysis (qPCR), biochemical assay (mitochondrial membrane potential, reactive oxygen species, phagocytosis)

**5. Requirements:**

willingness to work in the laboratory, availability, open mind, commitment to the subject, willingness to continue scientific development

**6. Additional information**

Possibility of presenting the obtained results at scientific conferences and in the form of publications

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**1. Name of the supervisor of the thesis**

[Dr hab. Kamil Kuder](#)

**2. Contact details**

[kamil.kuder@uj.edu.pl](mailto:kamil.kuder@uj.edu.pl)

**3. Proposed research topics**

Computer aided drug design / discovery. Design and/or docking of small molecules libraries to selected protein targets in the group of GPCRs and selected enzymes

**4. Information about the type of research within the thesis**

Experimental project, involving computational methods in drug discovery

**5. Requirements**

Interest in topic of study, medium level computer skills, easy-going attitude

**6. Additional information**

However, the area of scientific interest has been more or less outlined, ingenuity, an open mind and new ideas for research paths are welcome and taken into account when working on the topic of the proposed research. Feel free to contact me via e-mail.

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