Post-Doctoral Researcher, International Centre for Research on Innovative Bio-based Materials (ICRI-BioM), Politechnika Łódzka; Łódź, Poland.

Lodz University of Technology is one of the finest universities of technology in Poland. Its tradition and experience in training professionals and conducting research date back 80 years. It is an attractive partner for business. It cooperates with the largest national and international corporations. It conducts research of a European standard, develops new technologies and creates innovation in collaboration with the leading research centres all over the world. One of the pillars of Lodz University of Technology management is equal treatment of staff regardless of their gender, age, race or other demographic and social characteristics. In 2016, TUL was the first technical university in Poland to receive the HR EXCELLENCE IN RESEARCH award certifying that the University adheres to the principles of *the European Charter for Researchers* and *the Code of Conduct for the Recruitment of Researchers*.

ELIGIBILITY CRITERIA:

- A doctoral degree in the field of computational chemistry/bioinformatics/quantum chemistry/computer science/computational biology/other related computational sciences
- Experience in conducting molecular mechanics (MM) molecular dynamics (MD) simulations using selected software packages (e.g., AMBER, GROMACS, or NAMD), including system setup, equilibration, and production runs.
- Hands-on experience in performing density functional theory (DFT) computations for geometry optimizations, energy calculations, and electronic structure analysis.
- Post-Ph.D. experience in molecular dynamics (MD) and density functional theory (DFT) calculations related to the interaction of materials with biological system.
- Demonstrated openness and willingness to acquire new knowledge related to the research project
- Proven scientific achievements, with at least three publications in international peer-reviewed journals indexed in the Web of Science database.
- Participation in national and international scientific conferences.

SCOPE OF WORK:

- Investigate the key molecular interactions, photothermal effect, NIR-light-driven reaction mechanisms, and antibacterial effects of nanomaterials with microbial membranes using MD and DFT calculations.
- Investigate structural changes in the membrane, and specific interactions of lipids with the materials and multifunctional coatings through MD simulations using AmberTools, VMD, and in-house Python scripts.

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THE APPLICATION MUST CONTAIN:
- A brief motivation letter (one page) outlining the interest of the candidate in the post-doctoral position
- Application for employment to the Rector of the Lodz University of Technology.
- CV including previous research projects, work experience, career goals & a complete list of conference abstracts and/or publications.
- Copies of degree certificates and transcripts in English.
- Consent to the processing of personal data according to the following statement: for the purpose of the recruitment process, please attach a declaration of consent to the processing of personal data for recruitment purposes should include the following clause: "I consent to the processing of my personal data for the purposes necessary to carry out the recruitment process in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (GDPR)."
- Personal questionnaire for a person applying for employment at Lodz University of Technology, as provided in Annex no. 1.1 to the OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT;
- Data Privacy Statement as provided in Annex no. 1.2 to the OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT;
- Consent to the processing of personal data, as provided in Annex no. 1.3 to the OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT;
- other documents proving the qualifications.

HOW TO APPLY
Please send your application in English as a **single PDF file** with the subject line "**Post-doctoral position in the NIR-CURATOR project**" and send it to: vignesh.kumaravel@p.lodz.pl

Deadline for applications: 17th September 2025
Planned start date of the position: December 2025 / January 2026

ADDITIONAL INFORMATION
The best candidates will be invited for a 20-minute job interview that will be organized on the Microsoft Teams/Zoom platform.

The evaluation process will be carried out in two stages. The first stage is based on the analysis of the submitted documents. The second stage is an interview with the selected candidates. Successful candidates will only be notified of their progress to the second stage by email.
If the successful candidate does not accept the position, it will be offered to the next person on the recruitment list. The condition for the validity of the competition results is the Rector's approval.

Politechnika Łódzka

PERSONAL INFORMATION FORM FOR APPLICANTS FOR EMPLOYMENT AT LODZ UNIVERSITY OF TECHNOLOGY

1. First name(s) and family name ………………………………………………………………………
2. Date of birth ……………………………………………………………………………………………
3. Contact details …………………………………………………………………………………………
4. Education (where required for specific duties or jobs) ………………………………………………
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<div align="center">(name of school and graduation date)</div>

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<div align="center">(occupation, specialisation, degree, professional title, academic title)</div>

5. Professional qualifications (where required for specific duties or jobs) ……………………………
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<div align="center">(courses, postgraduate education, other forms of further development of knowledge and skills)</div>

6. Employment history (where required for specific duties or jobs) …………………………………..
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<div align="center">(employment periods and jobs held at previous employers')</div>

7. Additional personal information, where the right or the duty to disclose it exists under specific regulations ………………………………………………………………………………………………...........
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(place and date)   (signature of the applicant)

Politechnika Łódzka

Data Privacy Statement for job candidates

1. The administrator of your data processed as part of the recruitment process is Lodz University of Technology (address: 90-924 Lodz, 116 Żeromskiego St., phone: +48 42 631 29 29), represented by the Rector as the employer.

2. At the Lodz University of Technology you can contact the Data Protection Officer at: iod@adm.p.lodz.pl phone: +48 42 631 20 39.

3. Lodz University of Technology will process your personal data to the extent indicated in the labor legislation for the purpose of the current recruitment procedure (Article 6(1)(b) of the GDPR), while other data, including contact data, on the basis of consent (Article 6(1)(a) of the GDPR), which may be revoked at any time.

4. Lodz University of Technology will process your personal data, also in subsequent recruitment of employees, if you give your consent (Article 6(1)(a) GDPR), which may be revoked at any time.

5. If the documents include data referred to in Article 9(1) of the GDPR, your consent to their processing will be required (Article 9(2)(a) of the GDPR), which may be revoked at any time. (Article 22 of the Labor Code and §1 of the Regulation of the Minister of Family, Labor and Social Policy of December 10, 2018 on employee records).

6. Personal data will be disclosed to persons acting under the authority of the controller and having access to personal data, processing them only on the instructions of the controller, unless required by European Union or Member State law.

7. Your data collected in the current recruitment process will be stored until the end of the recruitment process. In the case of your consent to the use of personal data for future recruitment, your data will be used until the end of the calendar year in which the recruitment process for which your application was submitted ended.

8. You have the right to:
   a) the right to access your data and to receive a copy of it;
   b) the right to rectify (correct) your personal data;
   c) the right to restrict the processing of your personal data;
   d) the right to delete your personal data;
   e) the right to lodge a complaint with the President of the Personal Data Protection Office (to the address of the Personal Data Protection Office: 2 Stawki St., 00 - 193 Warsaw)

Information on data requirement: Your submitting personal data to the extent of Article 221 of the Labor Code is necessary to participate in the recruitment procedure. Your provision of other data is voluntary.

……………………………………
(date and signature of the candidate)

Candidate's consent to personal data processing under Article 7 GDPR

I consent to the processing of my personal data for the purpose and to the extent necessary to carry out the recruitment for the job in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation), publ. Official Journal of the EU L No. 119, p. 1. Consent is voluntary. Failure to give consent entails the inability to participate in the recruitment process. Consent may be withdrawn at any time, but without affecting the legality of the processing of personal data carried out on the basis of consent before its withdrawal.

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(date and signature of applicant)

* delete as appropriate