



## Assistant professor in a group of research and teaching staff of the Institute of Applied Radiation Chemistry

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 more than 75 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*.

### 1. The requirements to be met by the candidate:

- Ph.D. in the field of exact and natural sciences in the discipline of chemical sciences or related;
- documented scientific achievements, including at least 10 scientific publications in the field of biomedical applications of Raman spectroscopy and imaging, atomic force microscopy (AFM), fluorescence microscopy, cell viability assays using MTT/XTT tests published in journals from the ISI Master Journal List;
- documented conducting of scientific research in domestic and foreign centers in the field of chemistry;
- experience in the implementation of research projects (including role of the project manager is an additional advantage);
- ability to independently conduct cell cultures, plan and perform experiments on cell cultures using supplementation with biologically active compounds or substrate functionalization;
- ability to perform measurements using fluorescence microscopy of biological samples, including the ability to select fluorescent tags in the course of planned analyses (including living cells);
- very good, practical knowledge of selected research techniques: Raman spectroscopy, Raman imaging, atomic force microscopy (AFM), fluorescence microscopy, Nano-IR, FTIR, SNOM, SERS, UV-Vis spectroscopy;
- ability to use miniaturized (portable) Raman spectrometers;
- skills confirmed by a certificate covering measurement and analytical methods: SDS-PAGE, Western Blot and visualization of protein gels using the Comassie and Stain-Free methods, (an additional advantage will be the ability to operate equipment using the Mini-Protean Tetra Cell, Trans-Blot Turbo and ChemiDoc MP systems);
- skills confirmed by a certificate covering measurement and analytical methods using a multi-channel microplate reader (an additional advantage will be the ability to operate the VarioSkan Lux equipment);
- confirmed by a certificate ability to work in accordance with laboratory procedures, operate and properly use: a CO<sub>2</sub> incubator, a laboratory centrifuge with cooling, a laminar chamber, safety class I and II, an inverted microscope;
- fluent knowledge of Polish enabling teaching;
- fluent knowledge of English enabling scientific discussions and preparation of publication texts (confirmed by a certificate, at least C1);
- experience in conducting didactic classes and in scientific charge of students;



- documented ability to work in a didactic framework that allows learning by solving real-world challenges CBL (Challenge-Based Learning);
- documented skills in the field of bioethics and obtaining consents to conduct clinical trials;
- documented skills in cooperation with the public and patients in medical research;
- ability to use graphic programs, e.g. Autodesk AutoCAD, CorelDRAW, Canva
- proficient use of Microsoft suite programs;
- ability to search chemical literature using databases such as: SciFinder, Reaxys, Scopus;
- experience in preparing manuscripts for scientific papers;
- documented acquisition of project management skills using the DMAIC methodology;
- ability to independently plan and organize experimental work, analyze results and estimate measurement uncertainty;
- ability to prepare scientific reports;
- participation in national and international scientific conferences;
- experience in organizational work and promotion of scientific and popular science events;
- strong motivation and enthusiasm for conducting scientific research and further scientific development.

Desired additional skills:

- ability to work in a scientific team;
- ability to make decisions independently;
- openness to new concepts, ease of acquiring knowledge, communication skills;
- good cooperation with students during didactic classes.

2. Specification of the terms and conditions of employment and authority associated with the position:

- full time,
- work start date: 18.11.2024

3. Description of the expected responsibilities and duties.

Research topics carried out by the employee will include:

- conducting interdisciplinary research in the field of chemistry, biology and medicine using advanced measurement techniques including: Raman spectroscopy, Raman imaging, atomic force microscopy (AFM), fluorescence microscopy, Nano-IR, FTIR, SNOM, SERS, UV-Vis spectroscopy;
- designing and applying for funding for scientific research projects;
- cooperation with domestic and foreign research centers;
- participation and presentation of research results at scientific congresses, conferences and symposia in Poland and abroad;
- measurements using techniques including: Raman spectroscopy, Raman imaging, atomic force microscopy (AFM), fluorescence microscopy, Nano-IR, FTIR, SNOM, SERS, UV-Vis spectroscopy;
- performing measurements using measurement and analytical methods: SDS-PAGE, Western Blot, protein gel visualization using the Coomassie and Stain-Free methods;
- conducting experiments using measurement and analytical methods using a multi-channel microplate reader;
- performing measurements using fluorescence microscopy of biological preparations, including the ability to select fluorescent markers during planned analyses (including for living cells);
- conducting research using miniaturized (portable) Raman spectrometers;
- independently conducting cell cultures, planning and performing experiments on cell cultures using supplementation with biologically active compounds or substrate functionalization;



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- performing tasks in the field of bioethics and obtaining consents to conduct research;
- cooperating with the public and patients in medical research;
- preparing scientific reports;
- conducting classes with students in Polish and English using CBL (Challenge-Based Learning) methods and scientific supervision of students;
- preparing manuscripts for publications;
- managing projects and tasks using the DMAIC methodology;
- estimating budgets and performing risk analysis of measurements.

#### Expectations:

- conducting scientific research at a high level, confirmed by publications;
- publishing research results in international peer-reviewed journals on the JCR list and independent correspondence with editors;
- conducting didactic classes in Polish and English;
- managing and participating in research projects;
- active participation in the organizational activities of the Institute and the Faculty.

#### 4. List of the required documents:

- 1) application for employment to the Rector of Lodz University of Technology;
- 2) CV with contact details, including previous scientific achievements;
- 3) 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;
- 4) Data Privacy Statement as provided in Annex no. 1.2 to the OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT;
- 5) Consent to the processing of personal data, as provided in Annex no. 1.3 to the OTM-R POLICY - OPEN TRANSPARENT MERIT-BASED RECRUITMENT;
- 6) true copies/copies of diplomas;
- 7) other documents proving the qualifications.

#### 5. The place, form and deadline for submitting documents:

The documents should be sent electronically to the e-mail address [w3i34.adm@p.lodz.pl](mailto:w3i34.adm@p.lodz.pl) by 2024-10-30. All required documents/attachments should be sent in the form of PDF files (the total size of the attached files should not exceed 10 MB) with the note in the email subject: "Assistant professor Competition".

#### 6. Contact person details:

Additional information about the competition is provided by Helena Stańczak: [helena.stanczak@p.lodz.pl](mailto:helena.stanczak@p.lodz.pl)

#### 7. Estimated competition outcome date: 2024-11-04.



**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.....  
(provided by the applicant)
4. Education (where required for specific duties or jobs) .....  
(name of school and graduation date)  
.....  
(occupation, specialization, degree, professional title, academic title)
5. Professional qualifications (where required for specific duties or jobs).....  
.....  
(courses, postgraduate education, other forms of further development of knowledge and skills)
6. Employment history (where required for specific duties or jobs) .....  
.....  
(employment periods and jobs held at previous employers')
7. Additional personal information, where the right or the duty to disclose it exists under specific regulations.....  
.....  
.....

.....  
(place and date)

.....  
(signature of the applicant)



### Data Privacy Statement for job candidates

Pursuant to Article 13(1) and (2) of 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, Official Journal of the EU L 119/1), hereinafter referred to as "GDPR", we inform you as follows:

Lodz University of Technology with the registered office in Lodz is the Controller of your personal data;

2) We have appointed a Data Protection Officer to supervise the compliance of personal data processing, who can be contacted in matters concerning the protection of your personal data at the following e-mail address: [iod@adm.p.lodz.pl](mailto:iod@adm.p.lodz.pl); telephone number: 42 631 2039; or in writing to the address of our registered office: Lodz University of Technology, Żeromskiego 116, 90-924 Łódź;

3) As the controller, we will process your data for the purpose of the recruitment process for the position indicated, based on your consent (Article 6(1)(a) GDPR);

4) You have the right to withdraw your consent to the processing of your personal data at any time, but such withdrawal shall not affect the lawfulness of the processing effected on the basis of your consent prior to its withdrawal;

5) You have the right to lodge an objection against the processing of the data as set out above at any time. We will cease to process your data for these purposes unless we can demonstrate that there are compelling legitimate grounds for us to do so which override your interests, rights, and freedoms, or that your data will be required for the possible establishment, assertion, or defense of claims;

6) Your personal data provided in the CV, personal information form for the applicant for employment, and copies of documents supporting your professional experience, education, additional credentials and qualifications will be processed for the period in which claims related to the recruitment process may arise, i.e. for 6 months following the conclusion of the recruitment process. For individuals who have given their consent to the processing of personal data for the purposes of future recruitment, for a period of 12 months following the conclusion of the recruitment process during which the consent has been given;

7) Only individuals authorized by the Controller to process your data in the performance of their duties will have access to your data;

8) Your personal data will not undergo automated processing and will not be subject to profiling;

9) Under GDPR, you shall further have:

- a) the right to access your data and to receive copies thereof,
- b) the right to rectification (amendment) of your data,
- c) the right to erasure/to be forgotten, restriction of data processing,
- d) the right to data portability,
- e) right to file a complaint to the supervisory authority - President of the Personal Data Protection Office, Stawki 2, 00-193 Warsaw.

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



**Consent of the candidate to the processing of personal data  
(pursuant to Article 7 GDPR)**

I consent to the processing of my personal data by Lodz University of Technology, the Controller of the data included in the following documents that I have submitted:

.....  
.....

for the purpose of recruitment/employment\*.

I hereby declare that I have been informed of the right to withdraw my consent at any time, effective as of the date of submission of the withdrawal of consent.

The Controller (or an authorized representative) has also informed me that the withdrawal of consent does not affect the lawfulness of the processing performed on the basis of the said consent prior to its withdrawal.

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

\* delete as appropriate.

