## JOB OFFER

<table>
<thead>
<tr>
<th>Position in the project:</th>
<th>Post-doc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific discipline:</td>
<td>Biostatistics / Bioinformatics</td>
</tr>
<tr>
<td>Job type (employment contract/stipend):</td>
<td>Full time employment</td>
</tr>
<tr>
<td>Number of job offers:</td>
<td>1</td>
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<tr>
<td>Remuneration/stipend amount/month (&quot;X 000 PLN of full remuneration cost, i.e. expected net salary at X 000 PLN&quot;):</td>
<td>6600 PLN of full time remuneration (expected net salary ~4700 PLN) + bonuses</td>
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<tr>
<td>Position starts on:</td>
<td>5th November 2017</td>
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<tr>
<td>Maximum period of contract/stipend agreement:</td>
<td>30 months</td>
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<tr>
<td>Institution:</td>
<td>Medical University of Lodz</td>
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<tr>
<td>Project leader:</td>
<td>Wojciech Fendler MD., Ph.D.</td>
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<tr>
<td>Project title:</td>
<td>Predictive Biomarkers of Radiation Toxicity (PBRTox)</td>
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**Project description:**

Radiotherapy (RTx) is the mainstay of oncologic treatment. Interruptions of its course due to adverse effect markedly increase the probability of recurrence and death. Prediction of radiation-induced adverse effects is thus of crucial importance as it allows the doctors to tailor the treatment and provide supportive care to those in need. We will investigate whether a serum-borne family of biomarkers – microRNAs – can be used as biomarkers of adverse effects in patients with head & neck cancers. Such individuals are a group of oncologic patients with very high rates of such complications, putting them at serious risk of prognosis-altering RTx interruptions. Using a combination of clinical, laboratory and metaanalysis experiments we will propose an algorithm for RTx monitoring and identify biomarkers of radiotoxicity. Additionally, a systematic review and our own miRNA sequencing data will establish the subset of best reference miRNAs for studies on their expression in their serum. Further in depth investigation of transcription regulation of serum miRNA expression and metaanalysis of RTx biomarkers will allow for the initiation of independent projects headed by the candidate.

**Key responsibilities include:**

The team is interdisciplinary and consists of statisticians, medical doctors, IT specialists and molecular biologists. Currently we are looking for candidates proficient and willing to work in at least two areas of the project from ones listed below:

1. Bioinformatic and biostatistical analysis of high-throughput databases on circulating nucleic acid expression including gene set enrichment analysis, evolutionary homology analysis, systems biology tools and data visualization
2. Statistical analysis of clinical data of patients undergoing radiotherapy including biodosimetry analysis and predictive marker identification and model development
3. Programming of software enabling automation of the above processes and creation of open access software allowing for widespread application of the project’s results
Additionally, it will be the Post-doc’s responsibility to supervise the work of one PhD student and an MSc student recruited during later stages of the project. Design and execution of independent ancillary studies within the framework of the First TEAM project will be possible.

Given the team’s interdisciplinary composition, the candidates are expected to hold an PhD title in a field relevant to the project (statistics, bioinformatics) or a PhD in a life science specialty (medicine, biology, biotechnology or similar) supported by documented expertise in biostatistics/bioinformatics, be proficient in English, and fulfill at least one of the following requirements:

1. Theoretical knowledge and practical expertise in application of statistical tools for clinical and molecular data analysis including multivariate classifier development tools
2. Theoretical knowledge and practical expertise in application or design of bioinformatics tools for data extraction from high-throughput big data sets and automation of multi-level statistical analysis
3. Knowledge of at least one major statistical package: SAS, STATISTICA, SPSS, STATA, R

Additionally, documented experience in the following areas will be considered a valuable asset:

4. Experience in working with biological data and bioinformatics tools used in the transcriptomics field
5. Familiarity with radiation oncology procedures and principles of treatment with ionizing radiation, radiobiology and/or clinical oncology

1. Curriculum vitae (4 A4 pages max) documenting achievements, acquired scientific degrees, practical experience, research stays and other pertinent information
2. Publication list
3. Document confirming the acquired scientific degrees
4. One-page summary of the most important scientific achievement of the candidate
5. Up to 3 pdf files documenting the achievement

Scientific autonomy to find creative solutions for biomarker creation, application and evaluation. Option to supervise a PhD student recruited within the project. Opportunity to train and develop in a rapidly developing field of cancer biomarkers and radiation oncology. A structured program of professional development through participation in a varied training course programme and research visits in Dana-Farber Cancer Institute in Boston. Opportunity to work with some of the best biomedical researchers in Poland. Flexible work time.

Via the electronic system at https://services.konsta.com.pl/first-team/ by email btm@umed.lodz.pl or via mail addressed to:

“Department of Biostatistics and Translational Medicine, 15 Mazowiecka st. 92-215 Lodz, Poland”

Selected candidates will be asked to participate in talks held in the Applicant’s Department or via teleconference calls. The talks will be held after the 10th October.

10th October 2017

biostatumed.pl or email btm@umed.lodz.pl
Euraxess job/stipend offer (in case of PhD and postdoc positions):

https://euraxess.ec.europa.eu/jobs/211265

Please include in your offer:

“I hereby give consent for my personal data included in my application to be processed for the purposes of the recruitment process under the Personal Data Protection Act as of 29 August 1997, consolidated text: Journal of Laws 2016, item 922 as amended.”