

**Faculty Position in Premium Research Institute for Human Metaverse Medicine (PRIME),
The University of Osaka**

1. Position	Specially Appointed Assistant Professor (Full-Time)
2. Number of Positions	1 (One)
3. Affiliation	Premium Institute for Human Metaverse Medicine (PRIME), The University of Osaka (Information and Mathematical Sciences Group, Statistical Modeling)
4. Work Location	Suita Campus (2-2 Yamadaoka, Suita-City, Osaka, Japan)
5. Specialized Field	Data analysis, algorithm developments, and bioinformatics
6. Responsibilities	<p>Recent efforts in AI-driven bioinformatics are increasingly focused on applying large language models (LLMs), particularly those based on Transformer architectures, to high-dimensional biological datasets. One such data type is single-cell RNA sequencing (scRNA-seq), a powerful technique that measures gene expression at single-cell resolution. A typical scRNA-seq experiment yields a matrix with tens of thousands of genes measured across tens of thousands of individual cells — an ideal setting for advanced machine learning approaches capable of handling complex, high-volume data. Recent research has begun to harness the power of LLMs to analyze such complex biological datasets at scale. The successful candidate for this position will work at the intersection of these technologies and contribute to the following tasks:</p> <ul style="list-style-type: none"> (1) Analyzing scRNA-seq data from liver-disease organoid models generated by the wet-lab collaborators led by Prof. Takebe. (2) Developing methods specialized for analyzing the pathology of liver diseases by combining Transformers with existing bioinformatics algorithms. <p>No prior knowledge of biology, bioinformatics, liver disease is required of the candidate.</p>
7. Requirements	<ul style="list-style-type: none"> - A PhD in a related field (computer science, bioinformatics, computational biology, computational physics) or equivalent. - Expertise at data analysis using mathematical models and machine learning. Experience with deep learning models, especially Transformers, is a plus. - Proficiency in programming skills (e.g., python, R). - Excellent communication skills in English or in Japanese.
8. Starting Date	November 1, 2025 (or as soon as possible thereafter)
9. Term of employment	<p>From the starting date to March 31, 2026</p> <p>*Following completion of the term, the contract may be extended subject to continuity of work and performance evaluation. (The extension limit is March 31, 2028.)</p> <p>*The total contract period at the University of Osaka is based on “Regulations Pertaining to Contract Period of National University Corporation Osaka University Fixed-term Staff, etc.”</p>
10. Probationary Period	6 months

11. Employment Form	<p>Based on “38. Regulations Pertaining to Working Hours, Holidays and Leave for National University Corporation Osaka University Limited Term Staff”</p> <p>https://www.osaka-u.ac.jp/en/guide/information/joho/kitei_shugyou.html</p> <p>*The Discretionary Labor System, Special Work Type will be applied with the applicant’s consent (deemed working hours: 8 hours a day).</p>
12. Salary	<p>Based on “48. Salary Regulations for National University Corporation Osaka University Limited Term Staff (Specially Appointed Staff, etc.) Subject to Annual Salary System”</p> <p>https://www.osaka-u.ac.jp/en/guide/information/joho/kitei_shugyou.html</p> <p>Remuneration: 5,003,400 JPY ~ per annum. (monthly payments are made in one-twelfth of the annual salary)</p> <p>*The salary will be decided according to the responsibilities assigned based on the applicants’ qualifications and experience.</p> <p>Commuting allowance is available.</p> <p>*Bonuses and allowances for housing, dependency, and retirement are included in the above-mentioned annual salary and will not be paid separately.</p>
13. Insurance	<p>Medical insurance and employee’s pension insurance of the Federation of National Public Service Personnel Mutual Aid Associations, Employment Insurance and Industrial Accident Compensation Insurance</p>
14. Application Documents	<p>Applications must be written in English or Japanese.</p> <ol style="list-style-type: none"> 1. A Curriculum Vitae, publication lists (original papers, review papers, books, patents, presentations at international and domestic conferences, etc.) and contact details of potential referees. 2. A short summary of conducted research and current interest (within two A4 pages). 3. Possible starting date. <p>*Personal information in the application documents will only be used for the purpose of screening and hiring procedures and will not be disclosed to any third party.</p>
15. Sending Address and Contact Information	<p>Please send the application documents in pdf format (under adequate security measures) to</p> <p>Prof. Takahiro Nemoto (nemoto.takahiro.prime@osaka-u.ac.jp)</p> <p>Prof. Takanori Takebe (Takanori.Takebe@cchmc.org).</p> <p>with the subject line as “Application for Specially Appointed Assistant Professor (Full-Time) in PRIME”.</p> <p>Informal inquiries are also welcome.</p> <p>We will send back an acknowledgement email upon receiving the application. In case you do not receive it, please contact Ms. Nishioka (Nemoto lab., Premium Institute for Human Metaverse Medicine, Tel: +81-6-6879-7936, Email: nishioka-ma@office.osaka-u.ac.jp).</p>
16. Application Deadline	<p>Until a suitable candidate is selected.</p>

17. Selection Process	<p>Document screening will be followed by an interview. Candidates who pass the document screening will be notified within 4 weeks after we receive their application documents. Only those who pass the document screening will be contacted for an interview.</p> <p>Travel and accommodation fees necessary for interviews are to be covered by the applicant. Applicants may request an online interview.</p>
18. Additional Information	<p>- Concerning work conditions other than above-mentioned, please refer to “36. Work Regulations for National University Corporation Osaka University Limited Term Staff” and/or related regulations. https://www.osaka-u.ac.jp/en/guide/information/joho/kitei_shugyou.html Please note the above-mentioned work conditions are as of the day this employment offer is posted, and subject to change.</p> <p>- In principle, there will be no changes to the affiliation, work location, or responsibilities after employment.</p> <p>- “Deemed exports” related to security export control are based on “Regulations Pertaining to Security Export Control”. Osaka University Security Export Control Regulations .pdf</p> <p>- We also particularly encourage applications from female candidates. The University of Osaka is committed to promoting gender equality and providing various support for female academic staff members. https://www.di.osaka-u.ac.jp/en_lp/</p> <p>- The University of Osaka campuses and related facilities are smoke-free, except for designated areas.</p>
19. Recruiter	National University Corporation Osaka University