

Bioinformatics and Computational Staff Scientists at the University of Oklahoma

The University of Oklahoma (OU), Norman campus, seeks to fill two newly created, full-time professional staff positions in bioinformatics/computational science to support its renowned research and education programs in environmental microbiomes/genomics/ecology. These positions are part of a broader effort to establish a multi-disciplinary core of permanent professional staff in informatics, computational science, statistics, and visualization. Specific emphasis for these first two positions will be given to individuals having experience in metagenomics studies related to bioenergy, climate change, environmental science and human health. Opportunities exist for the successful candidates to participate in grant proposal development as a PI or Co-PI, and they may also hold adjunct faculty positions within relevant academic departments such as Microbiology and Plant Biology, Biology, or Computer Science. Specific details regarding each of the two positions are described as follow.

Bioinformatician/Computational Biologist. The main responsibilities of this position are to: (i) use various existing advanced mathematical and computational tools to analyze big microbiome data (e.g., sequencing, microarray, proteomics and metabolomics); (ii) update and manage various pipelines (e.g., sequencing, gene chip, network analysis) and web sites by working with the **Computational Scientist** detailed below; (iii) develop new theoretical and mathematical frameworks and approaches for advanced microbiome data analysis; (iv) train students and postdocs for microbiome experimental design and data analysis by working with the Consolidated Sequencing Laboratory Manager; and (v) coordinate development and use novel experimental and computational approaches for microbiome research across different Campuses at OU.

Candidates should have a PhD in a bioinformatics or related disciplines (e.g., microbiology, ecology, environmental sciences and engineering, biochemistry), and have strong background and experience in microbiology, metagenomics, ecology, computation, and/or statistics. Additionally, candidates should have demonstrated experience coordinating large interdisciplinary projects, and experience in proposal development and/or performing wet lab experiments are desirable, but not required. Essential to this position is excellent oral and written communication skills, and the ability to independently solve biological problems using bioinformatics approaches.

Computational Scientist. The main responsibilities of this position are to: (i) develop novel mathematical/computational algorithms, and methods for big microbiome data analysis (e.g., network analysis, machine learning, modeling, prediction); (ii) design and develop computational pipelines for sequencing and gene chip analysis; (iii) manage different servers/systems with cloud computing at the Consolidated Sequencing Laboratory; (iv) coordinate the efforts for applying super-computing on the OU campus to microbiome studies; and (v) train postdocs and graduate students for advanced computational and statistical approaches.

Candidates should have PhD in computational science or related disciplines (e.g., mathematics, statistics, biological and environmental engineering, microbiology, biochemistry) with substantial knowledge/experience in microbiology and metagenomics. The successful candidate should have strong research experience and skills in algorithm development, pipeline development, numerical computation and/or computer system management. Also important is excellent oral and written communication skills and a demonstrated ability to interact and collaborate with other scientists and students.

The University of Oklahoma. The University of Oklahoma (<http://www.ou.edu>) is a Carnegie Very High Research institution that comprises three campuses: the Main Campus in Norman, the Health Sciences Center Campus 20 miles to the north in Oklahoma City, and the Tulsa Campus, which houses a

School of Community Medicine and several other programs from both the Norman and HSC Campuses. The positions being filled in this announcement will be located on the Main Campus in Norman.

The University was established in 1890 and enrolls over 30,000 students and more than 2600 full time faculty. It ranks first among all universities in the number of National Merit Scholars enrolled and has developed an award-winning Research Campus, contiguous to the Main Campus, that houses more than a dozen private companies, several Federal agencies, and numerous research programs in a unique synergistic ecosystem. More than a million square feet of new, fully-occupied space now exists on the Research Campus, with the latest additions including a Radar Innovations Laboratory, Life Sciences Complex, and an Innovation Hub that will open in about a year. Norman, with a population of 110,000 has a vibrant arts community with outstanding public schools and a variety of recreational resources. It was ranked #6 among the best places to live by CNN/Money Magazine on America's best small cities (<http://money.cnn.com/magazines/moneymag/bplive/2008/snapshots/PL4052500.html>).

Application Process. Interested individuals are invited to send (1) a letter of application describing how their capabilities fit each the position requirements enumerated above, (2) a curriculum vitae, (3) a description of research interests and accomplishments, and (4) the names and contact information for at least three references who will be contacted only upon approval from the applicant. Interested individuals for either position should send the application package to both Drs. Jizhong Zhou (jzhou@ou.edu) and Zhili He (zhili.he@ou.edu). Salary will be highly competitive and commensurate with qualifications. Further information can be found on the IEG web site: <http://ieg.ou.edu/>. Confidential review of applications will begin December 1, 2015 and continue until both positions are filled.

Inquiries regarding the positions should be directed to:

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The University of Oklahoma is an Affirmative Action/Equal Opportunity employer and encourages diversity in the workplace. Protected veterans and individuals with disabilities are encouraged to apply. See <http://www.ou.edu/eoo> for more information.