

Space Biology Laboratory, Beijing, China

Space Biology Laboratory is a subsidiary of Chinese Academy of Space Technology, focusing on life science research on the ground and in space in the areas of cell and tissue adaptation to microgravity, cancer biology, muscle and bone loss, hematopoietic differentiation, microbial system, and plant development. Much of the research is aimed towards biomedical and biotechnological applications, using space environment as a research tool to accelerate or retard physiological processes, to create new technologies or improve existing ones for better diagnostic, preventative and pharmaceutical products.

Space biology laboratory is conveniently located at 61 Zhichun Road, Haidian District, close to the best universities and research institutions in China. It currently has 150,000 S.F. newly renovated lab and office space, and is expected to grow rapidly in the next few years. Currently we have openings for the following positions:

Director for Biomarker Discovery

Primary Responsibilities include:

- Lead a team of scientists to conduct research in biomarker discovery. Participate in clinical studies for quantitative and qualitative biomarker analysis.
- Develop assays for biomarker detection, including RNA, DNA and protein-based assays. Validate biomarkers in clinical settings.
- Work closely with bioinformatics scientist to design, conduct, and analyze biomarker studies in clinical trials. Use gene expression profiling, genotyping and copy number analysis in clinical studies to develop biomarkers for diagnostic purpose.

Requirement for this position:

- Ph.D. with 3 to 5 years of experience in Molecular Biology, Genetics, or Biostatistics.
- Strong working knowledge of gene expression profiling, genotyping and copy number analysis in clinical studies.
- Knowledge of biomarker detection technologies, including sequencing, PCR, QPCR, Taqman, SNP detection, Mass Spec, HPLC.
- Strong leadership with excellent organization and communication skills.
- Experience in clinical studies is highly desirable.

Senior Bioinformatics Scientist

Primary Responsibilities include:

- Lead the analysis of gene expression data from clinical studies for the purpose of developing diagnostic products for specific diseases.
- Applies bioinformatics techniques and develops software scripts to analyze gene expression data.
- Conceives and develops algorithms and analytical approaches to solve the key challenges for analysis of gene expression data in a clinical setting.
- Validates results, modifies algorithms or analysis protocols as needed. Supports development of and analysis for required clinical control parameters.

Requirement for this position:

- PhD in Bioinformatics, Statistics, or Statistical Genetics, with 1 to 3 years of working experience.
- Experience in statistical data analysis, including genome-wide expression data and gene copy number analysis.
- Experience with computer programming. Familiarity with bioinformatics tools, databases, and pathway analysis.
- Attention to details and excellent organizational skills.
- Ability to work independently and in a team environment. Proven ability to communicate effectively with colleagues from a range of disciplines.
- Prior experience in clinical data analysis would be advantageous.

Principal Scientist-Hematopoietic stem cell

Primary Responsibilities include:

- Lead a team of scientists to investigate hematopoietic stem cell renewal and differentiation, and space flight associated anemia and cardiovascular disease.
- Develop cellular and animal models to investigate the formation and proliferation of progenitor cells, erythroid lineage specification and/or maturation.
- Investigate the mechanistic regulation of hematopoietic differentiation under the conditions of space flight or ground simulations.

Requirement for this position:

- Ph.D. or MD degree with 3 or more years of working experience.
- Knowledge of cell culture, molecular biology, stem cell differentiation, animal models, gene expression profiling is required.
- Experience with disease models or drug discovery is highly desirable.

Principal Scientist-Bone Biology

Primary Responsibilities include:

- Lead a team of scientists to investigate the regulation of bone remodeling under the condition of spaceflight and ground-based simulation of microgravity.
- Work with System Biologists to design experiments interrogating molecular mechanisms underlying bone formation and resorption.
- Generate cellular and animal models to validate targets leading to improvement of osteopenia and osteoporosis.

Requirement for this position:

- Ph.D. degree in molecular biology or related field, with 3 or more years of working experience.
- Experience in isolation and in vitro culture of bone marrow mesenchymal stem cells, primary osteoblast and osteoclast.
- Insight into the molecular pathways regulating bone formation and resorption. Familiarity with animal models of osteoporosis.
- Prior experience in applying microarray technology towards understanding bone biology is a plus.

Principal Scientist-Fermentation

Primary Responsibilities include:

- Lead a team of scientists to develop appropriate R&D fermentation projects in biomedical products or intermediates.
- Design and conduct detailed fermentation experiments inline with project objectives. Collect and interpret experimental results, and prepare timely reports.
- Develop fermentation process that can be successfully transferred from lab to pilot and manufacturing scale.
- Solve technical problems during the fermentation process. Write standard operation procedures and manage the technology transfer to our clients.
- Experience of working with bioreactors from small scale (bench top) to pilot plant scale is required.

Requirement for this position:

- Ph.D. in microbiology or related field with at least 3 years experience in a fermentation or similar environment.
- Hands-on experience in operating fermentation equipment.
- Knowledge of microbial physiology and relevant genetic engineering technologies, and familiarity with downstream process development.
- Experience in designing and conducting laboratory or commercial fermentation processes and development of programs.
- Working independently with strong leadership, good organization skills.

- Previous experience of fermentation as well as working within a GMP manufacturing environment would be advantageous.

Please send a cover letter, brief description of research experience and interests, curriculum vitae and contact information for three references to spacebio@163.com