



About AOA Dx Inc.

AOA Dx exists to transform women's health. We are leading the next generation of cancer diagnostics, applying lipidomics, proteomics, and machine learning to enable earlier diagnosis of ovarian cancer for women with signs and symptoms - an area where no diagnostic tool exists today.

Associate Director/Principal Scientist, Computational Biology and Bioinformatics

We are seeking an experienced and innovative Associate Director/Principal Scientist, Computational Biology and Bioinformatics to lead the development machine learning models and computational pipelines for early detection of ovarian cancer. The successful candidate will integrate multi-modal data, design robust and reproducible predictive models, build & validate data pipelines, and support analytical verification & validation studies for cancer diagnostic applications. This role will work within R&D and involve close collaboration with regulatory, and commercial teams, as well as external consultants and academic partners, to advance our mission of developing life-saving diagnostic tools.

Key Responsibilities

Algorithm and Model Development:

- Design, implement, and validate machine learning models for early detection of ovarian cancer using proteomics, lipidomics, and metabolomics data
- Optimize algorithms for robustness, accuracy, and reproducibility across diverse patient cohorts
- Develop classifiers and predictive models that integrate multi-modal data into mechanistic insights

Biomarker and Assay Validation:

- Lead the validation of the analysis pipeline for biomarker combinations in multi-omic and multi-modal data sets for ovarian cancer detection through rigorous computational and statistical analysis
- Support the analytical verification and validation of final assay biomarker configuration leading to a successful FDA submission

Data Integration and Analysis:

- Develop computational workflows for processing and integrating multi-modal data from clinical and experimental platforms.
- Ensure high-quality data preprocessing, curation, and integration.
- Perform statistical analyses on datasets to analyze clinical performance and present data to scientists and non-scientists

Cross-Functional Collaboration:

- Partner with biostatisticians, wet lab scientists, and clinicians to refine experimental designs and interpret multi-omics data
- Foster external collaborations with academic and industry partners to advance research and enhance assay performance

Leadership and Mentorship:

- Provide technical and strategic direction to computational biology initiatives
- Mentor junior team members and contribute to a collaborative and innovative team environment

Documentation and Communication:

- Prepare technical reports, scientific manuscripts, and presentations for internal and external audiences
- Represent AOA Dx at conferences and enhance the company's visibility in the oncology diagnostics community
- Distill complex datasets into meaningful presentations and communications for non-scientists

Qualifications:

- PhD in Computational Biology, Bioinformatics, Biostatistics, Computer Science, or a related field, with 7+ years of experience in computational biology and multi-omics analysis (or equivalent MS experience).
- Expertise in machine learning, predictive modeling, and biomarker discovery, preferably in cancer diagnostics
- Strong programming skills in Python, R, or similar languages, with experience in high-performance computing environments.
- Deep knowledge of cancer biology, pathways, and statistical methods for multi-modal data analysis
- Proven track record of leading computational projects and collaborating with cross-functional teams.
- Strong communication skills to translate complex computational concepts into actionable insights. Adept at data presentation to scientists and non-scientists
- Demonstrated leadership and mentoring experience

Preferred Qualifications:

- Familiarity with proteomics (immunoassay and/or LC-MS), lipidomics (LC-MS), and metabolomics platforms is desired. Experience in building algorithms from complex data to distinguish disease states is required
- Experience with regulatory-compliant workflows and clinical assay development
- Strong publication record in top-tier journals and/or patents in cancer diagnostics

The salary range for this position is \$160,000 to \$175,000 per year, which factors in various geographic regions. The actual compensation and seniority level for this position will be determined based on relevant experience and qualifications.



AOA Dx offers competitive benefits, including unlimited PTO, group health, dental, and vision insurance, 100% employee sponsored life and disability benefits, monthly cell phone reimbursement, and a 401k plan with employer match. For consideration, please apply via LinkedIn: <https://www.linkedin.com/jobs/view/4381125339/>

Location: Denver, CO: In-Person or Remote

AOA Dx is an equal opportunity employer and welcomes candidates from all backgrounds to apply.

We foster an environment where all people are afforded the freedom to pursue their passions without regard to race, color, religion, national or ethnic origin, gender (including pregnancy), sexual orientation or expression, age, disability or veteran status or any other characteristics protected by law.