

DEVELOPMENT SCIENTIST II

Skills

- Expert in data analysis
- PCR primer design
- Experimental design
- Nucleic Acids Isolation
- Molecular assay development
- Microbiological techniques
- Experience with sequencing
- Computer programming skills
- Technical writing and presentation
- Cross-functional teamwork

Accomplishments

- DNA/RNA Extraction and purification - Extracting DNA/RNA from a variety of sources including solid tumors/tissues, whole blood, plasma, bodily fluids, and cultured cells PCR - Designing primer/probe sets, formulating master mix, optimizing PCR conditions, designing multiplex q-PCR assays, analyzing q-PCR results, analyzing PCR products on a gel Molecular - FISH, Cytogenetics, Blotting, Restriction Enzymes Sanger Sequencing - Executing sequencing reactions and analyzing results Clinical Genetic Diagnostics - Previously ASCP (Molecular Biology) certified.
- LABORATORY Universal Precautions - Worked with a variety of infectious materials including human clinical samples and concentrated bacterial and viral specimens.
- Biological Safety Level 2 - Extensive work in BSL2 laboratories Clean Room - Experience working in and maintaining clean room environments.

Experience

Development Scientist II Nov 2012 to Jun 2017

Danaher 1/4 Danvers , MA

- Developed/programmed an Excel based (VBA) software, and was document author/manager for the validation of the software.
- Created and validated R based automated analysis scripts for quality control release of manufactured materials.
- Designed the VERIS HIV-1 quantitative PCR assay which achieved Conformit   Europ  enne (CE) marking.
- Devised and implemented a bioinformatics protocol for the design and evaluation of primer/probe sets to be used in new molecular diagnostic assays.
- Wrote verification and validation procedures based on Clinical and Laboratory Standards Institute (CLSI) guidelines.
- Executed protocols, analyzed data, and compiled, organized, and managed supporting documentation and reports for assay verification.

Research Associate Jul 2012 to Aug 2012

Federal Reserve Bank 1/4 Memphis , TN

- Performed clinical sample, dynamic range, and interference studies to assist with the development and manufacture of q-PCR molecular assays for the detection of C.
- Difficile and BK Virus.

Laboratory Technologist Apr 2012 to Aug 2012

Smithfield Foods, Inc. 1/4 Lucerne , MO

- Performed DNA extractions from a variety of tissue types.
- Executed and documented PCR and gel electrophoresis based and sequencing based clinical genetic tests.

Laboratory Technologist Mar 2012 to Apr 2012

Smithfield Foods, Inc. 1/4 Magnolia , NC

- Performed PCR clean up and Sanger sequencing set up in a high throughput genetic diagnostic laboratory.

Research Trainee in Cancer Pathology Research Aug 2011 to Feb 2012

Ascension (System Office) 1/4 Elwood , IN

- Internship to complete training in Molecular Diagnostics.
- Assisted in various lab projects by genotyping tumor samples using PCR techniques and sequencing.
- Isolated DNA and proteins from solid tumors and cell lines.
- Performed sub-cloning experiments using standard bacterial expression systems for allelic sequencing and performed FISH staining.
- Led a project on MED12 sequencing in Uterine Leiomyosarcomas and Extra-Uterine Leiomyomas by sequencing a large number of tumors followed by western blotting to gain further knowledge of the effects of mutations found. (See paper reference below)
- Performed TP53 sequencing on Ewing Sarcomas. (See paper reference below)

Student Mentor and Tutor Oct 2010 to Jun 2011

UConn GEAR UP 1/4 City , STATE

- Assisted students in 7th and 8th grade classrooms with biology and physics labs and helped them with lab report writing.
- Prepared students for the science section of the Connecticut Mastery Test.
- Lectured on topics of Genetics.

Lab Assistant Oct 2008 to Aug 2009

BRIGHAM & WOMEN'S HOSPITAL 1/4 City , STATE

- in Gastroenterology Research (PIs: Cohen & Bloomberg),.
- Assisted with the general upkeep of the lab.
- Made media and buffers, autoclaved glassware and equipment, aliquoted reagents, accessioned samples, and performed various other lab tasks as needed.

Clinical Records Assistant in Cardiomyopathy Clinic Sep 2008 to Sep 2010

BOSTON MEDICAL CENTER 1/4 City , STATE

- Updated and maintained patient records including details on medications, blood work, stress tests, EEGs, cardiac catheterizations, and recent hospitalizations.
- Maintained the clinic's Access patient database.

Education and Training

Master of Science , Bioinformatics 2016 UNIVERSITY OF ILLINOIS 1/4 City , State

Post-Baccalaureate Certificate in Diagnostic Genetic Sciences - Molecular Diagnostics 2011 UNIVERSITY OF CONNECTICUT 1/4 City , State

Bachelor of Arts , Biology Cellular/Molecular/Genetics 2010 BOSTON UNIVERSITY 1/4 City , State Biology Cellular/Molecular/Genetics Publications

High-resolution genome-wide copy-number analyses identify localized copy-number alterations in Ewing sarcoma. Lynn M, Wang Y, Slater J, Shah N, Conroy J, Ennis S, Morris T, Betts DR, Fletcher JA, O'Sullivan MJ. Diagn Mol Pathol. 2013 Jun;22(2):76-84

MED12 mutations in leiomyosarcoma and extrauterine leiomyoma. Ravegnini G, Mariño-Enríquez A, Slater J, Eilers G, Wang Y, Zhu M, Nucci MR, George S, Angelini S, Raut CP, Fletcher JA. Mod Pathol. 2013 May;26(5):743-9.

Skills

biology, Bloomberg, C, Cancer, Data Mining, Databases, database, DNA, documentation, experiments, Gastroenterology, Genetics, Linux, materials, MATLAB, Access, Excel, Windows, MySQL, Pathology, PCR, Perl, physics, protocols, Python, quality control, report writing, Research, scripts, TV, validation, VBA, western blotting, author