Forensic Scientist II (Biology/DNA and/or Drug Chemistry Unit)
Jefferson County Sheriff's Office Crime Laboratory
Pevely, Missouri | Full-time
Salary: $66,974- $87,500.00 annually
Application deadline: Open until filled

Help build the future of forensic DNA and Drug Chemistry services in Jefferson County
The Jefferson County Sheriff's Office Crime Laboratory (JCSOCL) seeks an experienced forensic DNA scientist and/or Drug Chemist to serve as Forensic Scientist II. Applicants for DNA must meet the FBI Quality Assurance Standards qualifications.

This position offers an opportunity to help shape a developing crime laboratory, guide implementation of modern forensic methods, mentor scientists, and support the laboratory's pursuit of accreditation. Working with the Laboratory Director and lab personnel, the selected candidate will establish and maintain scientifically sound practices that support reliable, impartial forensic services.

Location
Located in Pevely, Missouri, the Jefferson County Sheriff's Office Crime Laboratory combines small-community living with access to the St. Louis region. The area offers an affordable cost of living, a range of suburban and rural housing options, and nearby parks, trails, and outdoor recreation in the scenic Ozarks foothills. Employees can enjoy Jefferson County's relaxed pace of life while remaining within reach of St. Louis's dining, professional sports, cultural attractions, and major airport.

DNA Laboratory Technology
The laboratory's DNA workflow combines automated sample processing, expanded STR testing, and advanced interpretation tools:

- **AutoMate Express** — automated DNA extraction.
- **Hamilton NIMBUS Presto** — automated sample processing and liquid handling.
- **QuantStudio 5 and Quantifiler Trio** — real-time PCR quantification and assessment of human DNA.
- **SeqStudio Genetic Analyzer** — capillary electrophoresis.
- **PowerPlex 35GY System** — Autosomal STR and YSTR amplification
- **FaSTR** — DNA profile analysis.
- **STRmix** — probabilistic genotyping and mixture interpretation.
- **DBLR** — likelihood-ratio evaluation, kinship analysis, and database comparison applications.

Drug Chemistry Laboratory Technology
The laboratory's Drug Chemistry Unit follows SWGDRUG guidelines, including the use of the following methods:

- **Gas Chromatography**
- **Mass Spectrometry**
- **Fourier Transform Infrared Spectroscopy**
- **Flame Ionization Detection**
- **Thin Layer Chromatography**

The successful candidate will help with the continued development of these technologies.

Primary Responsibilities

- Perform examinations, interpret data/results, prepare reports, and provide expert testimony as assigned and authorized.
- Conduct technical reviews and mentor laboratory personnel.
- Develop and evaluate procedures, conduct validation studies, and support accreditation preparation.
- Participate in quality assurance, proficiency testing, audits, and technical troubleshooting.

Minimum qualifications

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

Education and Experience

- Bachelor's degree in chemistry, biology, forensic science or related field.
- At least two years of experience as a qualified analyst in a forensic field.
- Current or previous analyst qualification in each technology used by the laboratory, or completion of documented training in each technology within one year of appointment.

Professional skills

- Strong knowledge of forensic DNA analysis, mixture interpretation, statistical evaluation, contamination prevention, and quality assurance.
- Knowledge of basic theoretical principles and applications of the instrumentation and methodologies used to analyze controlled substances.
- Knowledge of laboratory safety procedures, quality assurance/quality control, and laboratory practices; instrumental analysis and experience in forensic drug analysis.
- Ability to evaluate scientific data, document defensible decisions, and communicate technical information clearly.
- Ability to lead collaboratively, mentor personnel, and maintain confidentiality and impartiality.

Preferred qualifications

- A master's degree or higher in a biology-, chemistry-, or forensic science-related area .
- Previous service as a senior analyst or technical reviewer.
- Experience with validations and accreditation preparation.
- Familiarity with one or more of the laboratory's listed instruments and software systems.
- Experience providing expert testimony and training forensic scientists.

Additional Qualifications for DNA
Applicants for DNA must meet the applicable qualifications for a DNA Analyst under the current **FBI Quality Assurance Standards for Forensic DNA Testing Laboratories**, including:

- Successful completion of at least 9 credit hours of coursework in biology- or chemistry-related areas; that provides an understanding of the foundation of DNA analysis.
- Additional coursework in statistics or population genetics.
- At least two years of experience as a qualified analyst performing human DNA analysis on forensic samples; current or previous qualifying experience is acceptable.
- Experience with STRmix, probabilistic genotyping validation, and complex DNA mixtures. (Preferred)
- Experience with kinship statistics, likelihood-ratio interpretation, or DBLR. (Preferred)

How to apply
Submit a cover letter, résumé or curriculum vitae, and academic transcripts documenting the required degree and coursework to kkellogg@jeffcomo.org

Applicants should identify the courses used to satisfy each coursework requirement and provide course descriptions or syllabi when the subject matter is not clear from the transcript.

Applicants relying on a documented educational waiver or previously accepted Technical Leader qualifications should include supporting documentation.