

Biochemist - protein purification and affinity chromatography - Kelly Government Solutions - NIH - Rockville, Maryland

For consideration, send resumes to siscoro@kellyservices.com

TASKS/SERVICES. The contractor shall:

1. Perform protein purification with affinity, size exclusion, gel filtration chromatography
2. Perform experiments involving the molecular and cell biological characterization of G-protein-coupled receptors
3. Perform a wide variety of molecular, cell biological, recombinant DNA, biochemical and pharmacological techniques
4. Construct expression plasmids to express membrane proteins in E. coli, amplify genes, ligate, transform DNA; perform PCR, DNA purification, site-directed mutagenesis, analysis by restriction digests run on agarose gels; evaluate constructs using restriction digests
5. Grow small and large scale bacteria and insect cultures using minimal, rich or specialized growth media; evaluate expression using Western blots, SDS-PAGE, and other assays
6. Grow/perform insect cell cultures
7. Perform large scale membrane protein isolation by lysing cells with French press or Avestin cell disruptor, isolating membranes using ultracentrifuge, solubilizing membrane proteins with detergent large scale chromatographic purification of proteins using aqueous buffers containing detergents, concentration of protein using microconcentrators
8. Analyze and present data to staff; present research progress to work group
9. Maintain chromatography equipment; train others in chromatographic techniques; contribute to other research projects in the lab through scientific and technical support
10. Evaluate new types of experimental approaches/analyses and recommend changes to protocols based on knowledge of scientific literature, available facilities, and research needs
11. Develop working details of assignments; prepare materials necessary for experiments; determine when modifications and adjustments are necessary
12. Record details of experimental procedures, results and protocols
13. Analyze, summarize and interpret data obtained from research studies; evaluate for completeness and validity; draw conclusions about the results as related to the ability of the experiments to answer the questions posed
14. Present results and conclusions in written, tabular and graphic form; prepare accumulated data and conclusions for publication in professional journals
15. Inventory and maintain laboratory stocks and supplies
16. Coordinate general laboratory maintenance
17. Maintain laboratory safety certifications and instruct all new staff members on safety requirements

REQUIREMENTS. The contractor must have:

1. BS in Biology, Biochemistry or related field with minimum of one year experience in the above TASKS
2. MS in Biology, Biochemistry or related field with the skills in TASKS welcome to apply
3. One year PRACTICAL experience with PROTEIN PURIFICATION with AFFINITY, SIZE EXCLUSION, GEL FILTRATION CHROMATOGRAPHY
4. Experience with membrane proteins, chromatographic purification and radio-ligand binding assays
5. Experience with insect cell culture, tissue culture, and lysing cells
6. Complex knowledge of the principles, practices, techniques, current research developments and regulations related to pharmacological, molecular and cell biological studies; skill in applying laboratory pharmacological, molecular and biochemical techniques
7. Comprehensive knowledge of methodologies relevant to research problems and evaluation in order to independently develop new techniques and/or procedures
8. Knowledge of state-of-the-art molecular, cell biological and pharmacological techniques and the ability to convey techniques to staff
9. Skill in analyzing and summarizing data obtained from research in order to draw conclusions and present results
10. Evidence of competence and scientific productivity as indicated by authorship on papers and informal presentations to the work group: LIST YOUR PUBLICATIONS /POSTERS ON YOUR RESUME
11. Experience with laboratory maintenance and equipment upkeep
12. Proficient with Microsoft Office Suites (MS Word, Excel, Photoshop, PowerPoint)