Jacopo Airapetyan

Riverside, CA
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SUMMARY

Experienced biochemist with more than 7 years in an academic lab setting. Trained and skilled at biochemical/biophysical and molecular biology techniques, including protein purifications, cloning, custom smFRET assays, and enzymatic assays. 4 years of experience in analyzing large data sets using mathematical and computational approaches, strong problem solving and data analysis skills, experienced in equipment operation and repairs. Looking to transition to a fast-paced industry position and apply my skill set to the advancement of disease therapies.

RESEARCH SKILLS

BROAD KNOWLEDGE OF BIOLOGY AND CHEMISTRY

Working in a multidisciplinary laboratory environment. Research methods integrated from molecular biology, biochemistry, and biophysics.

PROTEIN PURIFICATION

E. coli system protein expression, including protein purification techniques such as IMAC/ion-exchange/size-exclusion chromatography (primarily using a Biorad FPLC, and some experience with AKTA HPLC) for a multitude of proteins (Pab1p, eIF4A, eIF4E, and also the recalcitrant yeast eIF4G). Validation of protein activity with enzymatic assays, gel shift assays and single-molecule FRET experiments. Molecular cloning (PCR and Gibson assembly based), including primer and oligo design, bacterial transformations, and plasmid isolation. NCBI, RefSeq, SwissProt, and BLAST database use. Protein gel electrophoresis (SDS-PAGE, native PAGE), and electrophoretic mobility shift assays (TAE, TBE, or THEM based gels). Limited experience with western blotting and matrix-assisted laser desorption/ionization mass spec.

ENZYMATIC ASSAYS

NADH-dependent coupled enzyme assays.

SPECTROSCOPY

UV-Vis, fluorescence spectroscopy (custom smFRET assays).

COMPUTER SKILLS

Matlab, Linux, Adobe Suite, Prism, Microsoft Office, and Python.

EXPERIENCE

ADMINISTRATION

Coordinated between professor, five lab members, and office staff to facilitate ordering, personnel hiring and management, budget monitoring and grant management, and compliance with university regulations.

OPERATIONS

Taught other lab members proper lab procedures, especially related to scientific equipment and computers. Instituted standardization of tests. Organized shared duties among lab members and monitored progress.

Maintained and repaired equipment of diverse types either by self or with the assistance of campus technicians or company service representatives.

COMPUTER SKILLS

Designed, assembled, and maintained networked PC's. Software applications setup and training. Familiar with Linux, Matlab, Python, Prism, Adobe and Office suites.

GRANT WRITING

Initiated search for new grant opportunities, initiated conceptualization and writing of grants, co-wrote with PI. Written over 4 grants to agencies including NIH, NSF, and UC grants.

TEACHING

Taught five UC undergraduate courses: Introduction to Biochemistry, Nutritional Biochemistry, Biochemistry (x2), and Biochemistry laboratory. Mentored two graduate rotation students and three undergraduate students in laboratory techniques.

SCIENTIFIC PRESENTATIONS

- Interdepartmental Symposium in CMDB, September 2020.
- 64th BPS meeting, San Diego, California, Feb 2020.
- RNA Society, Glendora, California, 2019.

EDUCATION

M.S. in CMDB
University of California, Riverside
Expected Graduation ~ April 2022

Cellular, Molecular, and Developmental Biology (CMDB)
Research on molecular mechanism of mRNA circularization
in Eukaryotic translation initiation
Professor Sean O'Leary

B.S. in Biochemistry
California State University, Los Angeles
May 2017

B.S. in Biochemistry
Research on Expression of Arabidopsis thaliana recombinant LTP4
in Escherichia coli
Professor Robert Vellanoweth