ROBERT SMITH

Research Fellow III

info@qwikresume.com | https://Qwikresume.com

Self-motivated and detail-orientated Protein Biochemist with more than 10 years research experience, excellent academic qualifications, and strong analytical and problem-solving skills.

OCTOBER 2006 – JUNE 2011

RESEARCH FELLOW III - ABC CORPORATION

- Conducted research on the identification of novel proteins and elucidation of biochemical functions of these proteins in mRNA export from the nucleus to the cytoplasm.
- Managed research processes, experimental design and execution, data analysis, and complex-problem solving.
- Expressed and purified recombinant proteins from bacteria and yeast.
- Generated numerous rae1 mutants and analyzed the roles of the mutants in mRNA export, cell division, and microtubule cytoskeleton organization.
- Demonstrated that rae1 genetically interacts with mph1, a component of the spindle assembly checkpoint, indicating a role for Rae1 in the spindle assembly checkpoint pathway.
- Identified nucleoporins that are associated with Rae1 and required for mRNA export.
- Demonstrated that Rae1 is co-purified with translation initiation and elongation factors, indicating a role for Rae1 in coupling mRNA export to translation machinery.

2004 – 2006

RESEARCH FELLOW - GENETICS AND BIOCHEMISTRY BRANCH, NATIONAL INSTITUTES OF HEALTH

- Investigated the role of a novel identified disease-associated gene depdc5 in mammalian spermatogenesis using the testis specific in vivo knockdown and protein complementation techniques.
- Constructed genome-wide, temperature-sensitive recombination initiation maps using in vitro spermatogenesis and CHIP-sequencing, and applied to the extensive evaluation of the effectiveness of a chemotherapy drug, cisplatin, on the chromosome break initiation.
- Investigated the involvement of msh2 gene in mammalian hybrid sterility using Chip-sequencing and the mammalian testis specific in vivo knockdown and protein complementation techniques.
- Investigated the association of human recombination hotspots and disease associated genetic structural variants using CHIP-sequencing and targeted sequencing.

- Developed in vivo synchronization of mammalian spermatocytes and enriched particular germ cell populations, by applying the drug WIN 18,446, which inhibits spermatogenesis via blocking vitamin A metabolism, and by an Optimized Fluorescence-Activated Cell Sorting system for the enrichment of stage-specific germ-cell marker positive cell populations.
- Presented achievements in scientific conferences.
- Played a key role in supervising and training junior postdoctoral fellows, hiring new lab personnel, ordering and organizing reagents, equipment and new instrumentation for entire lab..

EDUCATION

Ph. D. in Biochemistry - (University of Basel - Basel, BS)

SKILLS

Protein Expression, Purification From.