



# Example of Post Doctoral Research Associate Job Description

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Our innovative and growing company is searching for experienced candidates for the position of post doctoral research associate. Please review the list of responsibilities and qualifications. While this is our ideal list, we will consider candidates that do not necessarily have all of the qualifications, but have sufficient experience and talent.

## Responsibilities for post doctoral research associate

- Work up reactions and purify compounds using manual or automated flash chromatography, preparative silica gel chromatography, and HPLC
- Characterize organic compounds using  $^1\text{H}$  and  $^{13}\text{C}$  NMR, IR, and UV/Vis spectroscopy
- Assist in preparation of manuscripts, grants, protocols, and presentations
- Learn and/or perform stereotaxic surgeries and intracranial neuronal tracer delivery
- Perform patch clamp electrophysiology in vitro using mouse brain slices (Whole cell recordings in current clamp and voltage clamp mode)
- Perform in vitro extracellular recordings using mouse brain slices
- Synthesis and characterization of metal halide salts and eutectics
- Conducting solubility measurement based on electrochemistry and spectroscopic techniques
- Develop an elegant synthetic pathway of the desired scaffold to create a set of analogs efficiently
- Creation of analogues with high purity for biology testing

## Qualifications for post doctoral research associate

- Record of productivity

- Strong background in solid-state and condensed matter physics, including electronic structure, single-crystal characterization, thermodynamics and transport properties
- Experience with scanning electron microscopy and other surface analytical techniques including RHEED and AES
- Experience programming software, such as Labview and MATLAB
- Evidence of substantive knowledge and background in the field of education and/or developmental science is essential