



## **Job Description: Post-doctoral Fellow**

Date: July 27, 2020

<b>Job Title</b>	Post-Doctoral Research Fellow	<b>Radford Title</b>	
<b>Reports to</b>	VP Research	<b>Radford Job Code</b>	
<b>Exempt</b>	<input checked="" type="checkbox"/>	<b>Non-Exempt</b>	<input type="checkbox"/>

### **Company Description**

Ankasa Regenerative Therapeutics is a venture-backed biotech company based in the San Francisco Bay area that is developing novel protein-based stem cell activation therapies to improve tissue repair and regeneration. Stem cell renewal, maintenance and tissue regeneration are critical for normal health and well-being. Wnt pathway interactions are crucial to maintenance of these processes. Ankasa is the first to produce human Wnt proteins in a GMP manufacturing setting suitable for use in humans.

Our first clinical approach, under FDA regulation, is the demonstration of improved outcomes after spinal fusion surgeries. Our product has expansion opportunities to other bone reconstructive procedures including osseointegration of dental and orthopedic implants (knee and hip replacements), fracture repair, total joint arthroplasty revisions, and others.

### **Summary / Overall Purpose**

We seek a highly motivated PhD level scientist with deep expertise in bone regeneration for a post-doctoral position at Ankasa Regenerative Therapeutics. The primary focus of the role will be the characterization of bone cells / grafts *in vitro* and *in vivo* following treatment with our lead regenerative agent. Successful candidates will implement robust, reproducible and cost effective protocols to monitor the viability and regenerative capacity of bone cells / grafts from human and animal bone following treatment, utilizing both *in vitro* and *in vivo* models of bone repair, while developing a broad based awareness of the requirements and complexities of the regulatory and commercialization processes for novel biologic and “device-like” therapeutics.

### **Essential/Primary Duties, Functions and Responsibilities**

- Independently design and implement robust, reproducible and cost-effective protocols for the isolation, culture, treatment and analysis of cells / grafts from human and animal bone with meticulous aseptic technique.
- Design and implement *in vivo* studies investigating the regenerative capacity of implanted bone grafts in mice and/or rats (e.g., subrenal capsule implantation, fracture healing, spinal fusion, etc.).
- Design and implement *in vivo* studies looking at the levels of bone regenerative agents detectable following *in vivo* delivery.
- Utilize a battery of assay technologies to characterize bone cells / grafts and therapeutic product disposition, including ELISA, qPCR, flow cytometry, immunofluorescence microscopy and histology.
- Independently identify and implement new assays and assay technologies that have an impact



- on project workstream, assay throughput and/or performance.
- Independently design, execute, and perform basic analysis of experiments, including troubleshooting.
- Prepare detailed SOPs that enable transfer of validated assays to project team members and collaborators.
- Report results internally to supervisor, executive leadership, and peers at group meetings, externally at medical, scientific, and/or investor conferences.
- Other duties as required, including the management of laboratory equipment/supplies and interfacing with vendors

**Requirements**

**Work Experience:**  
Minimum 4 years laboratory experience as part of a PhD degree program specializing in bone biology/regeneration.

**Management of Staff**  
Not required; however, ability to work well within a team environment is critical

**Functional/Technical Knowledge and Skills**

- Isolation and culture of cells from human and animal bone
- Isolation, manipulation and implantation of bone grafts (mice, rats)
- Experience with a battery of analytical techniques including qPCR, ELISA, immunofluorescence microscopy, immunohistochemistry and histology

**Education/Training**  
PhD in biology, biomedical engineering, biochemistry, molecular biology, or closely related field, with specific training in bone biology / regeneration

**Licenses/Certifications**  
None required

**Other**

Work independently on experimental design, execution, and analysis; however, position is well supported by leadership with strong mentoring track record and medical/scientific as well as technology specific expertise; backed by state-of-the-art JLABS infrastructure

Excellent verbal and written communication skills and track record of ability to effectively present scientific data

Detail oriented; proven track record of detailed, reproducible protocol generation that can be readily transferred to other scientists

Positive attitude

Keeps calm under pressure

Occasional weekend work may be required