

## ABSTRACT: 2018 ELAM Institutional Action Project

**Project Title:** Designing and Implementing the Complete Integration of Neuroscience Basic, Translational, and Clinical Research into the Neuroscience Service Line

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**Collaborators and Mentors:** Michael Stamos, Howard Federoff

**Topic Category:** Research

**Background, Significance of project:** UC Irvine has a strong basic research program in Neuroscience, and UC Irvine Health is the only academic practice in Orange County, with large practices in Neurology, Neurological Surgery, and Psychiatry. However, despite the sizable strength of numerous individual programs, there is insufficient integration between the basic sciences and the clinical departments in Neuroscience. UC Irvine Neuroscience Service Line will be established as a leading enterprise offering outstanding, integrated neuroscience care and research access for patients with neurological diseases

**Purpose/Objectives:** The objectives of this project are to develop a new paradigm of integrating science into clinical care, with the stated purpose of reducing the time between the generation of valuable scientific data and their integration into clinical care and to generate a scientific platform which can be used to engage and motivate stakeholders from multiple departments, institutes, and schools to participate in translational research.

**Methods/Approach/Evaluation strategy:** The method used included **(a)** identification of institutional stakeholders, **(b)** completion of individual interviews in order to identify the barriers to research integration and **(c)** documentation of key processes that need to be developed for successful project implementation.

Three milestones were proposed: **Milestone 1:** Identify metrics for research strengths within the neuroscience service line, **Milestone 2:** Identify current and potential collaborative relationships between research and identified clinical services lines and **Milestone 3:** Formulate a plan that maximizes the benefits from existing research strengths and addresses key deficiencies that inhibit the collaborative relationships identified in Milestone 2.

**Outcomes/Results:** A successful Neuroscience Service Line will enable our faculty to provide exceptional, innovative clinical care and cutting edge, integrated neuroscience basic, translational, and clinical research. This structure will provide clinicians with the ability to implement the latest research into clinical care, researchers with direct access to patient specimens, health information, and outcomes, and our patients with optimal care.

**Discussion/Conclusion with Statement of Impact/Potential Impact:** Integration of neuroscience research into clinical care is very beneficial for an academic institution, and the direct advantage of supporting such enterprise can be construed in three domains.

1. *Academic Reputation.* Enhancing our Neuroscience integration will increase our presentations and publications. Furthermore, it will enhance our ability to retain our translational physicians and scientists, and to recruit more leaders in the field.

2. *Clinical Trial Revenue.* Interventional Neuroscience Clinical Trials can generate revenue, which can be used to support innovative preclinical research.

3. *Clinical Revenue.* Neuroscience Clinical Trials are especially attractive, as patients are eager to travel extended distances in order to access therapies not available in other institutions. The reputation for innovative treatments is not only an academic accolade, but also a strong economic asset, generating patient care revenue from patients coming to our programs to enroll in clinical trials. Promoting our reputation as leaders in the neuroscience care, we will consolidate our position as a national and international referral center for complex and rare diseases.