

## **UCLA Scholars in Translational Medicine 2012 Awardees**

### **Reza Ardehali, MD, PhD**

Dr. Ardehali is an Assistant Professor in the UCLA Division of Cardiology within the Department of Medicine. In his clinical practice, Dr. Ardehali treats patients with advanced heart failure who require circulatory assist devices or transplantation. In addition, he directs an active research group with emphasis on novel regenerative therapies for heart disease. Of particular interest to his lab are the signaling pathways that trigger heart regeneration early in life. He and his group recently showed, for the first time, that cardiac cells derived from human embryonic stem cells structurally and functionally integrate into human heart muscle tissue after cell transplantation. Dr. Ardehali has recently generated a novel animal model which allows him to longitudinally follow the birth and proliferation of new cardiac cells both during development and after injury to the heart. The STMP award will enable his lab to study the extent of cardiac cell expansion in order to determine the cell type responsible for the limited regenerative potential of the heart. His findings could identify a discrete population of dormant cells with regenerative capacity, which will be a significant step forward to cell therapy and possible regeneration of healthy heart tissue after heart injury.

### **Egea Pascal, PhD**

Dr. Egea is an Assistant Professor in the UCLA Department of Biological Chemistry. He is also a member of UCLA's Molecular Biology Institute. Dr. Egea's research focuses on the discovery and design of novel drugs to treat malaria. Each year, this parasitic disease affects 500 million individuals worldwide causing 1.5 million deaths. The medical challenges posed by malaria reside in the rapid emergence of resistance to existing anti-malarial therapies and the poor diversity of drugs available. Dr. Egea studies an assembly of several malarial proteins that enables the parasite to hijack the infected red blood cell and thrive in its human host. The goal is to inhibit this essential process and destroy the parasite before the severe clinical symptoms and fatalities occur. The STMP award will enable Dr. Egea to determine the structures of these key proteins so he can design novel molecules that can bind to and inhibit them. Findings from his research may ultimately lead to novel therapies to treat and eradicate malaria.