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## JDCA West Coast Research Trip

Last week we completed a West Coast visit to meet a few of the largest type 1 diabetes research centers in person and to attend the 2014 JP Morgan Healthcare Conference. The objective of the trip was to gain first-hand contact with research centers and corporations who may be doing Practical Cure research.

We met principal investigators at their research facilities at Benaroya Research Institute, Stanford University, and the University of California, San Francisco. At the JP Morgan conference, we met with the leaders of ten different private companies doing type 1 diabetes research.

On the institutional side, we discussed potential and emerging Practical Cure projects, as described below. This is just a quick snapshot that we will expand upon later in the year.

**Stanford University:** Stanford is working on closed loop artificial pancreas systems. Their work with different algorithms currently focuses primarily on achieving night-time blood glucose stability. They are also starting a collaboration with an East Coast researcher who is attempting to achieve 24/7 glucose stability.

**The University of California, San Francisco:** UCSF is pursuing combination drug regimens that include ATG + GCSF. Last year the JDCA dropped an ATG + GCSF project at UCSF from our list of Practical Cure projects in human clinical trials after ATG failed to show a prolonged increase in c-peptide production in phase II trials. But a leading PI at UCSF is currently testing modified ATG + GCSF therapies, which have demonstrated success abroad. UCSF is also testing pharmacological immunosuppressant therapies targeting CD3, which would provide protection from the autoimmune attack that triggers type 1.

**The Benaroya Research Institute (Virginia Mason University in Seattle):** The Benaroya Research Institute is investigating immune tolerance and looking at a variety of pathways to stop the autoimmune attack. Researchers are also working on developing an artificial pancreas.

On the corporate side, potential Practical Cure initiatives are varied in approach, sophistication, and capability. Viacyte, a company we have featured on the list of Practical Cure projects in human clinical trials, focuses on stem cell regeneration of the beta cells. It has raised approximately \$100 million since its inception, and has the backing of private venture capital. Other companies are developing technology for the artificial pancreas and faster acting insulin to complement closed loop systems, but these are at an earlier phase of development or funding capacity. An upcoming JDCA report will provide a more detailed assessment of Practical Cure efforts by corporations.