Michael Sobel, M.D.

The Vascular Research Program at the VA Puget Sound Health Care System

The VA Puget Sound has a robust research infrastructure that supports two principal investigators in the Division of Vascular Surgery: Dr. Michael Sobel, Professor of Vascular Surgery, and Errol Wijelath, Research Associate Professor.

Current projects include the following:

Dr. Sobel and Dr. Katie Moreno, a University of Washington surgery resident on a research fellowship, are conducting this study. This is a prospective, longitudinal observational study of patients undergoing infrainguinal bypass surgery. The leading hypothesis is that derangements in a patient’s thrombo-inflammatory responses are associated with pathological vascular healing and clinical events like vein graft stenosis and graft failure. We are developing novel methods to measure the co-activation of platelets and monocytes in the circulating blood, and trying to define phenotypic and clinical subgroups. The long-term goal is to identify the thrombo-inflammatory pathways associated with vein graft failure, for drug targeting.

2. Oncostatin M in Atherosclerosis and Vascular Disease.
Dr. Wijelath has identified this little known cytokine as a key player in the pathological proliferation and migration of vascular smooth muscle cells during the evolution of atherosclerosis and the response to injury. Through the study of atherosclerotic plaques and vascular lesions, as well as advanced molecular biological manipulations of oncostatin M (OSM) receptors in vitro, Dr. Wijelath is mapping the pathways of OSM action, and defining its roles in vascular disease.

As its funding ends, this joint project involving several Division of Vascular Surgery faculty members is winding down. In this project we discovered and refined a family of novel angiogenic proteins that enhance the effects of vascular endothelial growth factor, and can be used to promote natural endothelialization of prosthetic grafts.
RELATED PUBLICATIONS


DEPARTMENT CO-INVESTIGATORS

Errol Wijelath, Ph.D. / Katie Moreno, M.D.