



Fondazione  
Cottino

## Prevention of Diabetic Retinopathy by Treatment with Palmitoylethanolamide (PEA)

### DESCRIPTION:

The first study ever performed to prevent the development of diabetic retinopathy through the early anti-inflammatory treatment of patients at risk for the complication.

### ABSTRACT:

There is not yet a resolutive cure for type 1 (juvenile) and type 2 diabetes and chronic complications are unfortunately the consequence. Diabetic retinopathy (DR), the first cause of blindness in working age population, develops after several years of diabetes. Prevention of DR has never been implemented for two reasons: 1) Unknown pathogenetic mechanism and 2) lack of a validated biomarker for the early identification of patients at risk of DR. The recent finding that retinal inflammation underlies the early phases of DR and that this causes a defective myogenic response of retinal vessels (biomarker) justifies a proposal aimed to prevent DR. Type 1 diabetic patients at risk of DR (biomarker-positive) will be treated for six months with the oral anti-inflammatory agent Palmitoylethanolamide (PEA). Normalization of the biomarker will confirm that DR can be prevented. We plan to complete the study in one year. Translation into clinical practice will be carried out by a dedicated Start up.