

# Christian Doppler Laboratory for Laser Development and their Application in Medicine

Since January 2011, a Christian Doppler Laboratory (CDL) has been established in collaboration with the Department of Clinical Pharmacology **headed by Wolfgang Drexler and Leopold Schmetterer**. Novel ultrafast, ultrabroad bandwidth laser technology will be developed to enable:

- ultrahigh resolution optical coherence tomography (OCT) in order to evaluate new pharmacological drugs in patients with dry eye syndrome
- to enable 3D morphologic, molecular and functional tissue information by combining OCT with Coherent anti-Stokes Raman scattering (CARS)
- to develop Doppler (Blood flow) OCT for measurement of retinal blood vessel diameter and oxygen tension

Companies sponsoring this CDL: Femtolasers Produktions GesmbH (A); Croma Pharma (A); Imedos (D); Carl Zeiss Meditec (D and USA, *in preparation*); Thea (F, *in preparation*)

