



University of Eastern Finland

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ESR7

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Fields of the lab

Drug delivery

Delivery system design

Physical, chemical and biological characterization

Pharmaceutical nanotechnology

Pharmacokinetics

ADME in vitro

ADME/PK in silico

ADME/PK in vivo

Special focus in the eye



Personnel: about 40 persons

Personnel

Multidisciplinary

International

University of Eastern Finland

eye, in vivo, PK

University of Helsinki

screening, nanotech

St. Petersburg State University

chemistry

Relevant infrastructure / UEF

Cell culture labs with eye cells, *ex vivo* ocular tissues

Analytics : LC/MS, thermophoresis, fluorometry etc.

Modeling: chemoinformtics, PBPK, PK-PD, COMSOL

Animal care centre

Ocular instrumentation

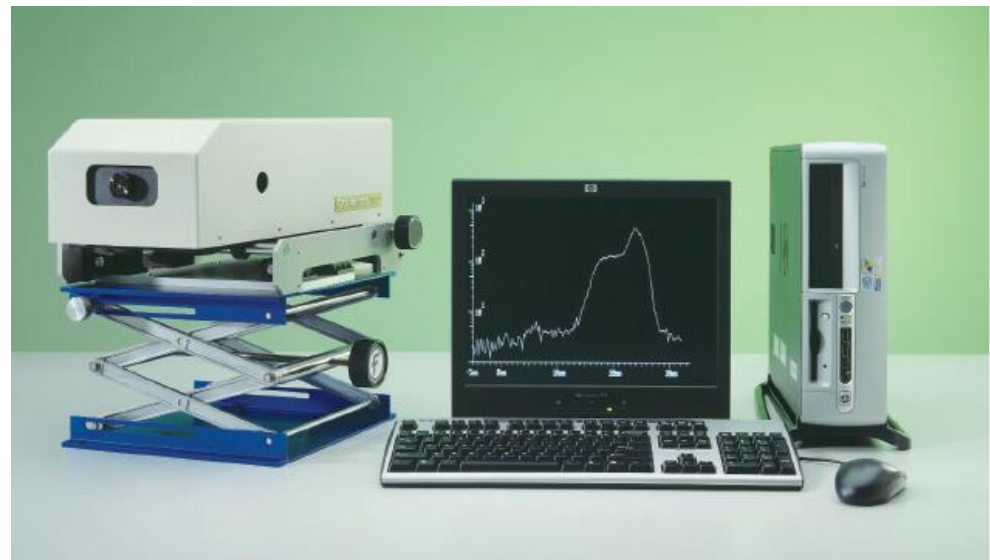
OCT

ERG

Fluorotron

MRI

Histology



ESR7 : Drug penetration to ocular surface tissues

Contents:

Corneal and conjunctival cell uptake and permeation of compounds

Test prodrugs and formulations *in vivo* (ocular surface retention and PK)

Model use and building (chemoinformatics, PK)

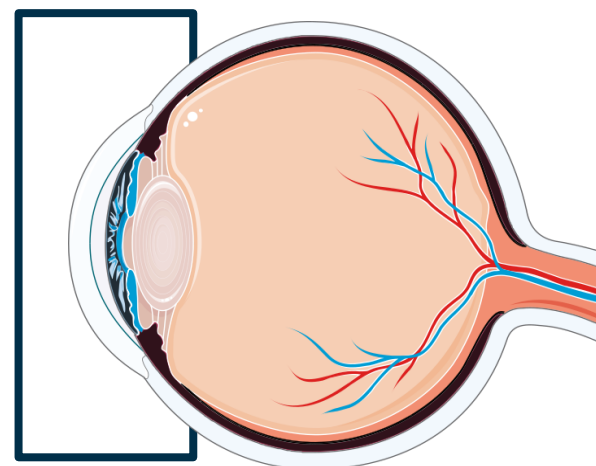
Methods:

Cell culture

Animal testing (fluorometry, PK)

Formulation

Analytics





Secondments

Lentimed: industrial (3 months)

UA2: dry eye model (2 months)



Doctoral school

Drug research

Four year program

40 credit points + thesis

[Logo(s) Beneficiary]



Thanks for your attention