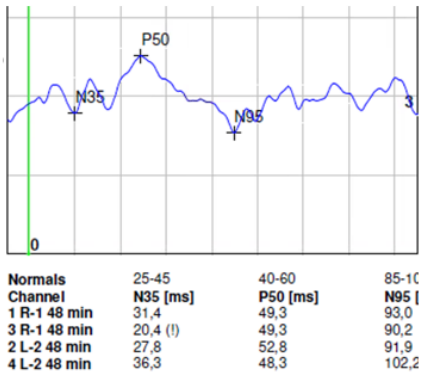
BSc/MSc-project for students in Biomedical Engineering, DTU/KU

Title: Follow-up functionality and user-friendly presentation of electroretinography (ERG) results

Description: (n.a. if confidential): A method (software) needs to be developed to present and print the ERG results (a curve) overlaid on normative data and enable to compare results from multiple follow-up examinations. The current commercial ERG software (Roland Consult) allows to export ERG examination data in CSV format. By using a third-party software (f.ex. R-project or similar) the CSV data would be used to generate a curve of the ERG responses and to project the patients curve on top of the curve of normative data. A method to compare and present results of follow-up examinations also is very desirable.

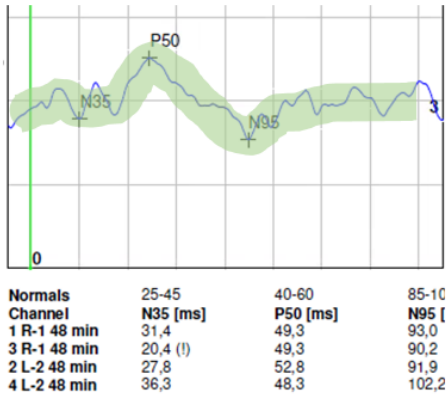
ERG (electroretinography) is a method of recording electrical signals from the light sensing part of the eye, the retina. It is used for diagnosing diseases that affect the function of the retina.

Current output of ERG examination



Normals	25-45	40-60	85-1(
Channel	N35 [ms]	P50 [ms]	N95 [
1 R-1 48 min	31,4	49,3	93,0
3 R-1 48 min	20,4 (!)	49,3	90,2
2 L-2 48 min	27,8	52,8	91,9
4 L-2 48 min	36,3	48,3	102,2

Desired output of ERG examination



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Required qualifications: Knowledge of statistical computing and graphics

Responsible institution: KU and DTU

Contact information:

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Allowed no of students per report: 1-2

KU supervisor: Line Kessel/Tomas Ilginis