



**Glasgow Oximetry Workshop Program 7-8 January 2016**  
Yudowitz Seminar Room, Wolfson Medical Building  
University Ave, Glasgow G12 8QQ

**7 January**

**10:00 – 11:00 Coffee in Atrium**

**11:00 Welcome**

**Physiology I**

**Chair: Andy Harvey**

11:05 Calculation of retinal oxygen extraction

Doreen Schmidt

University of Vienna, Austria

11:30 Effect of increased oxygen tension on flicker-induced vasodilatation in the human retina

Gerhard Garhofer

University of Vienna, Austria

11:55 Functional testing of retinal oxygen supply regulation under neuronal stimulation by flicker light

Martin Hammer

University Hospital Jena, Germany

**12:20 – 1:20 Lunch break in Atrium**

**Physiology II**

**Chair: Sveinn Hardarson**

1:20 Current and future applications of retinal oximetry

Einar Stefansson, University of Iceland

National University Hospital, Iceland

2:05 Retinal vessel oxygen saturation in myopic eyes

Rebekka Heitmar

Aston University, UK

2:30 Clinical use of oximetry in severe retinal hypoxia

Sveinn Hardarson

University of Iceland, Iceland

2:55 Perturbation of retinal vessel oximetry by retinal anatomy

Martin Hammer

University Hospital Jena, Germany

**3:20 – 4:00 Coffee break in Atrium**



### **Oximetry, Intervention and Diagnosis of Disease I**

**Chair: Andy McNaught**

- 4:00 Oximetry as a cardiovascular risk factor  
Evelien Vandewalle and Karel Van Keer  
Laboratory of Ophthalmology, KULeuven, Belgium
- 4:25 Retinal oximetry of CRVO after surgical interventions  
Atsushi Hayashi  
University of Toyoma, Japan
- 4:50 Changes in local and global retinal venous oxygen saturation after panretinal photocoagulation predicts progression of proliferative diabetic retinopathy  
Thomas Lee Torp, Department of Ophthalmology  
Odense University Hospital, Denmark
- 5:15 Retinal oximetry in diabetic retinopathy. Regional variations  
Christina Jørgensen and Toke Bek  
Department of Ophthalmology, Aarhus University Hospital, Denmark

**7:30 Dinner followed by whisky tasting at the Brasserie at Oran Mor, Corner of Great Western Road (entrance) and Byers Road, Glasgow G12 8QX, Tel: 0141 357 6226**

**8 January**

### **Methodology I**

**Chair: Laurence Brewer**

- 9:00 20 degree macular oximetry  
Martin Sin  
University Hospital, Olumouc, Czech Republic
- 9:25 Classifying retinal vessels in fundus camera and Optomap images in VAMPIRE  
Enrico Pellegrini  
University of Edinburgh, UK
- 9:50 Analysis protocols in retinal vessel oximetry: impact of number of vessel's included and camera angle  
Rebekka Heitmar, Aston University, UK
- 10:15 The on line and real time optic nerve blood oxygenation mapping  
Vasil Diaconu  
University of Montreal, Canada

**10:40 – 11:00 Coffee break in Atrium**



**8 January**

**Methodology II**

**Chair: Rebekka Heitmar**

- 11:00 Eight wavelength calibration-free oximetry  
Javier Fernandez Ramos  
School of Physics and Astronomy, University of Glasgow, UK
- 11:25 Oximetry using laser speckle  
Laurence Brewer  
School of Physics and Astronomy, University of Glasgow, UK
- 11:50 Translating eye imaging techniques as diagnostic and prognostic tools for health  
Derek Ball  
Heriot Watt University, UK

**Oximetry beyond the Retina**

- 12:15 Oxygen physiology of the vitreous  
Einar Stefansson  
University of Iceland, National University Hospital, Iceland
- 12:40 Post vitrectomy oximetry  
Martin Sin, Olumouc, Czech Republic

**1:05 – 2:05 Lunch break in Atrium**

**Chair: Andy Harvey**

- 2:05 Deep tissue *in vivo* oximetry of rats and mice with multispectral imaging  
Marieke Van Der Putten  
School of Physics and Astronomy, University of Glasgow, UK
- 2:30 Bulbar conjunctival and episcleral oximetry  
Lewis Mackenzie  
School of Physics and Astronomy, University of Glasgow, UK
- 2:55 Spectroscopy of skin in systemic sclerosis  
Ian Poxon  
University of Manchester, UK

**3:20 – 3:40 Coffee break in Atrium**



**8 January**

**Oximetry, Intervention and Diagnosis of Disease II**

**Chair: Martin Hammer**

3:40 Retinal oximetry in systemic diseases  
Thorunn S. Eliasdottir, Landspítali  
University Hospital, Iceland

4:05 Dye-free angiography  
Lewis Mackenzie  
School of Physics and Astronomy, University of Glasgow, UK

4:30 Retinal oximetry in children  
Wouter Vehmeijer  
Department of Ophthalmology, Leiden University Medical Center  
Netherlands

4:55 ROP oximetric ophthalmoscope  
Guillem Carles, School of Physics and Astronomy  
University of Glasgow, UK

**5:20 Farewell**