Best Nordic Paper Awards

Submit your manuscript to be considered for the Best Nordic Paper Awards 2023 (NOK 125,000). More information on these and other awards can be found on our web page, oftalmolog.com/awards/.

Evaluation criteria

1) Interest of the subject to our readers

2) Quality of language, pictures, illustrations, and figures

Points (1) and (2) have equal weight. Articles will be evaluated by an independent panel of judges, chosen by the Editor-in-Chief. The average from the committee is used to score the articles.

Evaluation committee

Elin Bohman.

of

Vision

MD, PhD, Karolinska

Division of Eye and

2022



Dag Fosmark, Senior Consultant, PhD, Department of Ophthalmology, Oslo University Hospital, Oslo, Norway



Steffen Hamann, Clinical Research Associate Professor. Consultant Neuro-Ophthalmologist, PhD Department of . Ophthalmology, Rigshospitalet, University of Copenhagen



Jukka Moilanen.

Head Ophthalmology,

Helsinki and Helsinki

University Hospital

MD, PhD, FEBO

University of



Marta Sigrún Jóhannsdóttir, Ophthalmology resident at Landspítali, The National University Hospital of Iceland

Associate Professor Schepens Eye Research Institute/ Massachusettes Eye and Ear, Department of Ophthalmology, Harvard Medical School, Boston, US

Dong Feng Chen,



We are grateful to our committee for their diligence in evaluating the outstanding work of their peers.

*For one of the eligible articles, Elin Bohman and Steffen Ellitsgaard Hamann had co-authored work with one of the authors so recused themselves from evaluating that submission. The scores from the other evaluators were averaged to rank the article.

First Prize Award of NOK 80,000

The difference between night and day: Circadian rhythms in diabetic retinopathy

KEY POINTS

- General clock gene expression is altered in induced, pluripotent stem cell-derived endothelial cells from diabetes patients.
- Hypoxia, but not hyperglycemia, acutely changes the amplitude and patterns of expression of core circadian clock genes in retinal endothelial cells.
- A core circadian transcription factor is upregulated and peaks earlier in hypoxia.
- Conversely, an important negative regulator in the molecular clock is downregulated in hypoxia.





Hanagh Winter Wellcome-Wolfson Institute for Experimental Medicine, Queen's University Belfast



Eleni Beli Wellcome-Wolfson Institute for Experimental Medicine, Queen's University Belfast



We are deeply grateful and honored that our article has been selected to receive the Oftalmolog Gold Best Paper Award for 2022. Better understanding of circadian rhythms in the retina and how these rhythms might be affected in eye diseases might be crucial for improving our treatment strategies or even in finding new therapies. Especially since the eye is of central importance to the wider circadian system.



The full article can be found on our website at www.oftalmolog.com/articles/ For direct access, scan the QR code.

SILVER

2022

Second Prize Award of NOK 30,000

Bioengineered corneal tissue: a new hope for advanced keratoconus?

KEY POINTS

• Keratoconus is a major cause of visual impairment with the heaviest burden in low- and middle-income countries.

• Standard corneal transplantation with donor tissue is not an accessible, available, or sustainable solution for millions globally with advanced keratoconus.

• A packaged bioengineered tissue can be made from abundant natural materials to meet requirements for human use, shipped to remote areas, and stored for up to two years.

• Intrastromal implantation of the bioengineered tissue in advanced keratoconus restored vision to patients equally well as standard transplantation.

• The new intrastromal technique is less invasive, simpler to perform, and requires less immunosuppression than standard transplantation techniques



The full article can be found on our website at www.oftalmolog.com/ articles/ For direct access, scan the QR code.





Linköping University, Linköping, Sweden

Mehrdad Rafat LinkoCare Life Sciences AB, Linköping, Sweden



In their own words

We were driven to provide an alternative, accessible therapy to those in desperate need of vision restoration in under-served communities. The article describes our efforts and hopefully will contribute to the awareness of the global burden of eye disease.

BRONZE

2022

2022

Third Prize

Award of NOK 15,000

The absolute maximal vision: How well can humans see?



Atle Einar Østern, Oslo University Hospital HF (Ullevål), Oslo, Norway

KEY POINTS

• The minimum resolvable acuity (MRA) represents the fundamental limit of spatial vision when the visual system can still discern two points, which equals one arc minute (0.017 degrees).

• Humans can discriminate a tiny misalignment of two lines that far surpasses the MRA, called vernier acuity, which refers to the ability to recognize the relative location and offset of stimuli.

• Human vision is good compared with most animals, except birds of prey, whose visual acuity is about 20/4 due to many more cones, a second fovea, and an accommodative cornea.



In their own words

66 Observation of the impressive sea eagles during a visit to the beautiful Lofoten archipelago of Northern Norway in 2021 inspired me to ask some fundamental questions about the abilities of our visual system.



The full article can be found on our website at www.oftalmolog.com/articles/ For direct access, scan the QR code.

Congratulations to the winners of the Best Nordic Paper Awards!

We are very grateful to our generous sponsor, **Théa**, for their donation and support in making these awards possible.



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