The power of Adaptive Optics in the hands of clinicians

rtx1™-e
Adaptive Optics Retinal Camera
**See the retina beyond current limits**

The rtx1™ is an infrared retinal camera that offers a lateral resolution at least 10 times higher than OCT and other conventional imaging devices.

With the rtx1™, you can examine the retina at a scale where single cells are visible.

rtx1™ images reveal retinal details that remain invisible with other techniques:

- Parfoveal photoreceptor cones
- Wall structure of arterioles
- Micro-aneurisms, micro-hemorrhages and other small lesions

![Small drusen](image1)

**Track microscopic retinal changes**

Unlike AO-SLO devices, the rtx1™ delivers distortion-free retinal images.

Building on this unique advantage, the rtx1 software AOnImage™ allows to easily capture images of the same retinal region through different visits and align these images with high accuracy.

This follow-up functionality results in enhanced sensitivity for tracking minute changes in the retina over time.

![Follow-up images of cones - MEWDS](image2)

**Enable new advances in biomarkers**

The rtx1™ has empowered clinical researchers to investigate a wide array of candidate biomarkers for assessing the micro-structural integrity of the retina.

rtx1™ images are compatible with a semi-automated application for analyzing the distribution of parafoveal cone cells and the wall structure of small arteries, for research use only.

![Follow-up images of micro-aneurisms](image3)

**Clinician-friendly adaptive optics**

The time when AO technology could be mastered only by physicists and engineers belongs to the past.

Designed in collaboration with clinicians, the rtx1™ unites ultrahigh resolution images, patient throughput and usability.

![Fast and easy to operate](image4)

**Fast and easy to operate**

Acquisition in 2 seconds with the user-friendly interface

![Comfortable for the patient](image5)

**Comfortable for the patient**

Non-mydriatic on 4mm pupil and infrared only illumination

**Cellular level follow-up**

Distortion-free AO images perfectly aligned in 2 clics

The rtx1 demonstrates that, unlike the common assumption, performing AO retinal imaging can be almost as easy as standard retinal imaging.

![Pr. Paques](image6)

**References**

1. Courtesy of Quinze-Vingt National Eye Hospital, Paris, France
2. Courtesy of Pitié-Salpétrière Hospital, Paris, France
3. Courtesy of Nippon Medical School Hokusoh Hospital, Chiba, Japan

**rtx1™-e Adaptive Optics Retinal Camera**
The image resolution achieved by this technology is superior to that of any other current diagnostic tool.


Adaptive optics retinal imaging provided non-invasive and sensitive information on the pathologic disruption of the cone mosaic, even in the absence of subjective (visual loss) or objective (diagnostic imaging) abnormalities.


TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>rtx1™-e Adaptive Optics Retinal Camera</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imaging type</td>
</tr>
<tr>
<td>Detection type</td>
</tr>
<tr>
<td>Illumination</td>
</tr>
<tr>
<td>Exposure time</td>
</tr>
<tr>
<td>Imaging field of view</td>
</tr>
<tr>
<td>Fixation stimulation range</td>
</tr>
<tr>
<td>Camera pixel pitch on the fundus</td>
</tr>
<tr>
<td>Optical resolution on the fundus</td>
</tr>
<tr>
<td>Adaptive optics control</td>
</tr>
<tr>
<td>Depth focussing range</td>
</tr>
<tr>
<td>Pupil diameter</td>
</tr>
<tr>
<td>Refractive error compensation</td>
</tr>
<tr>
<td>Total footprint (WxDxH)</td>
</tr>
</tbody>
</table>

1. The analysis application is not part of the rtx1™ product and is for research use only.

2. The rtx1™ is an approved medical device in the European Union (device class 2a) and in Japan. In the USA, the rtx1™ has not received FDA clearance. It is an investigational device and requires Institutional Review Board (IRB) oversight for use in any research application. Further information is provided in the user’s documentation.

3. Some specifications are dependent on several factors including but not limited to: ocular biometry, pupil diameter, optical defects, ocular media transparency.

4. The system can image line pairs of 2 µm in line width.