Ophthalmology Sales Deck

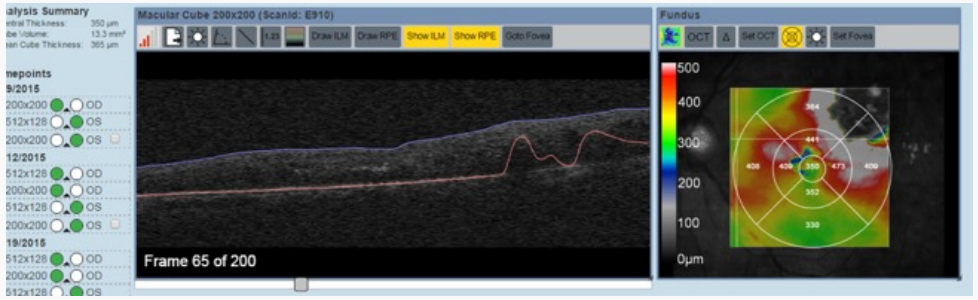
Overview and Capabilities

April 2022

CLARIO.

Key Components in Ophthalmology Trials

Advanced Quantitative Analysis using AI Technology and Expertise



ADVANCED QUANTITATIVE ANALYSIS USING AI

With the rapid development in Artificial Intelligence, sophisticated ocular imaging investigations, which use Quantitative Analysis, have now become essential parts of ophthalmic clinical trials.

Sponsors are now deploying this advanced Quantitative Analysis early on in trials (Phase 1 & 2) to prove drugs are working, for 'Go/No-Go' decisions, and in some cases in Phase 3 & 4 trials.

These investigations are being used to generate both high quality endpoint data, and in some cases additional exploratory endpoint data.

SO WHAT?

It is crucial to choose a provider who is able to offer advanced Quantitative Analysis using AI and able to support new endpoints as investigations continue to evolve.

EXPERT OPHTHALMOLOGISTS & TECHNOLOGISTS

Ophthalmology is a complex field and clinical trial assessments are evolving quickly. Sponsors need support from expert ophthalmologists and specialist graders throughout the trial. For example at:

- Protocol review and study design to ensure studies are designed specific to sponsors' needs, meet regulatory requirements, and minimize patient burden
- Image grading to perform highly accurate measurements
- Regulatory submission to assist preparing for regulatory submission and presenting to regulators

SO WHAT?

It is important to choose a provider who has a team of expert ophthalmologists and specialist graders with experience across indications.

CLARIO.

Hidden Risks

From using Alternative Reading Centers

Viewing Images

✗ *Sponsors unable to view images in real time to monitor how drugs are working.*

Downloading Images

✗ *Sponsors unable to download images in real time to present to industry & regulators.*

Monitoring Site Quality

✗ Sponsors unable to identify if sites are submitting poor quality images to reading centers.

Displaying Images from all Modalities

✗ *Sponsors timelines may be delayed if reading centers do not have the software to display images from different vendors.*

Quality Review

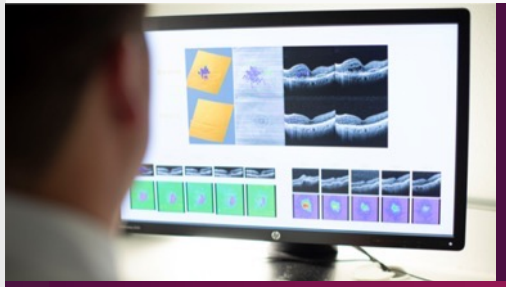
✗ *Sponsors may wait months after database lock to receive final images whilst reading centres perform quality review.*

Testing Emerging Therapies

✗ *Sponsors may be unable to test emerging therapies if reading centers are unable to perform advanced quantitative analysis.*

Non-Compliant Platforms

✗ *Sponsors may fail an FDA inspection due to unreliable data as a result of a reading center's non-compliant platform.*

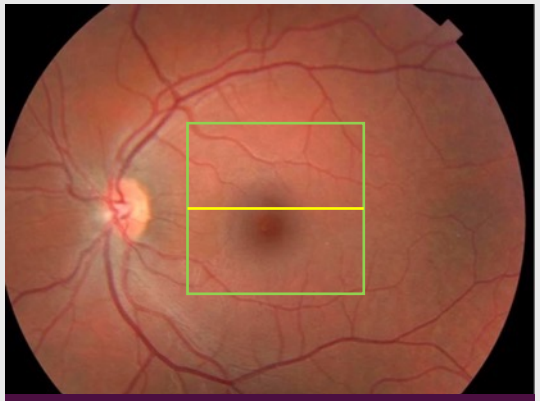


SO WHAT?

To ensure high quality data which is regulatory compliant it is key to choose a provider who has a 21 CFR Part 11 & GDPR fully compliant platform

CLARIO.

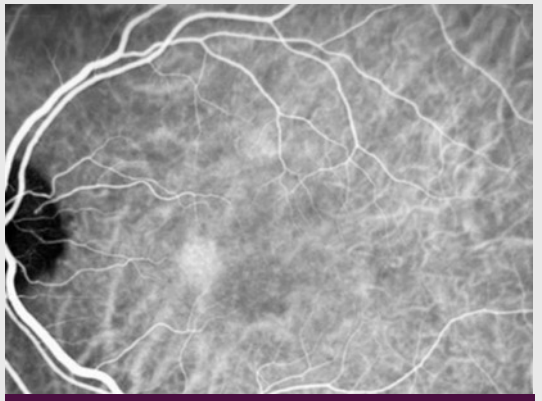
Supported Imaging Modalities



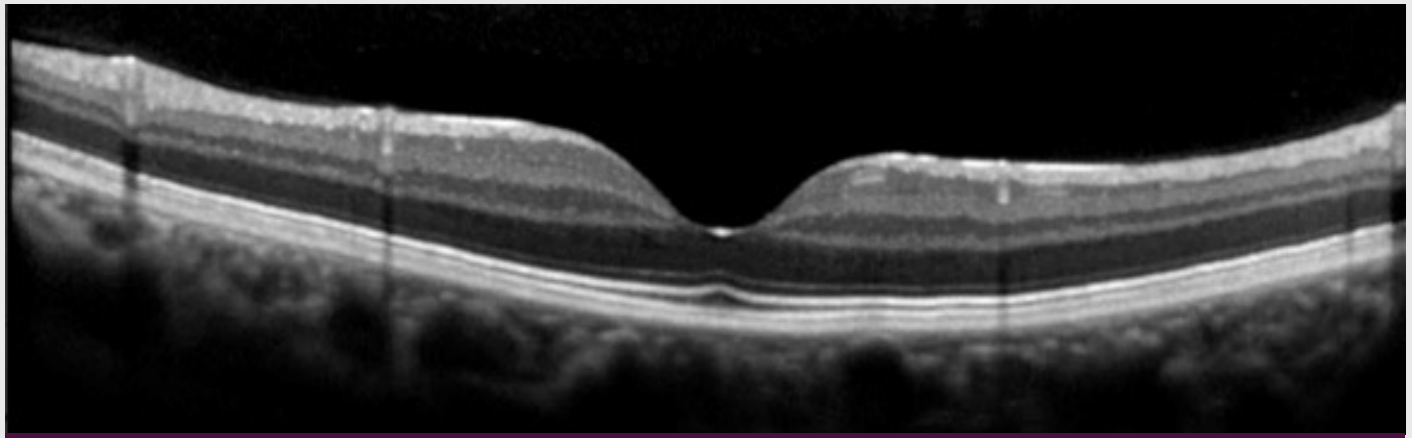
Color Fundus Photography (FP)

Fundus Autofluorescence (FAF)

Fluorescein Angiography (FA)



Indocyanine Green Angiography



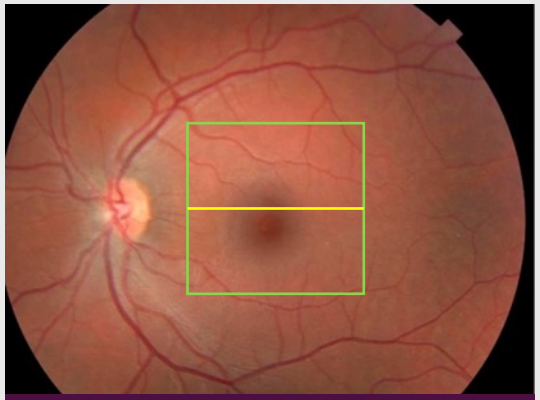
Optical Coherence Tomography (OCT)

- OCT/OCTA
- Color Fundus photography (CF)
- Fluorescein Angiography (FA)
- Indocyanine green Angiography (ICGA)
- Fundus Auto-fluorescence (FAF)
- Slit-lamp photography
- Video analysis

Clario technology displays native file formats from all modalities enabling universal viewing, comparing, and annotating of images.

CLARIO.

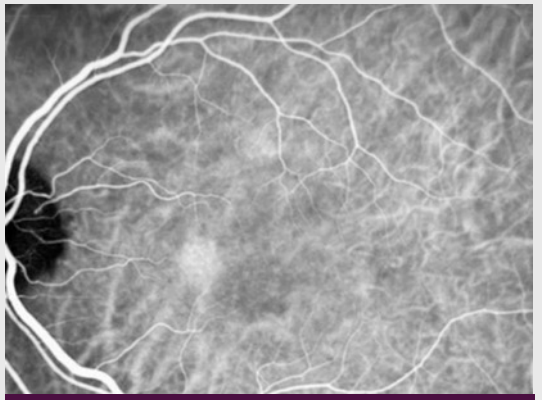
Supported Imaging Modalities



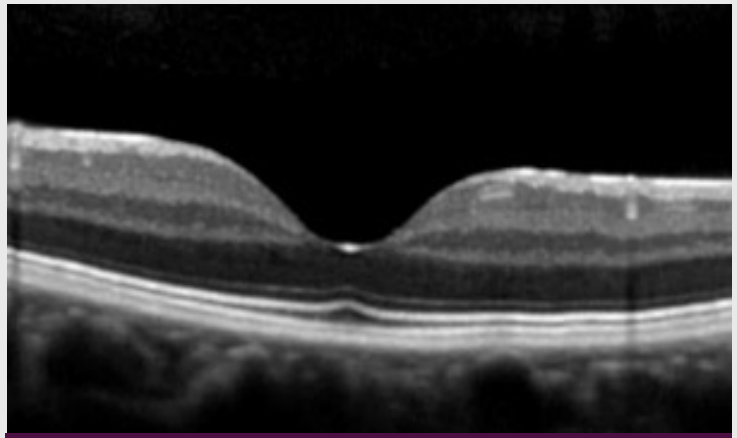
Color Fundus Photography (FP)

Fundus Autofluorescence (FAF)

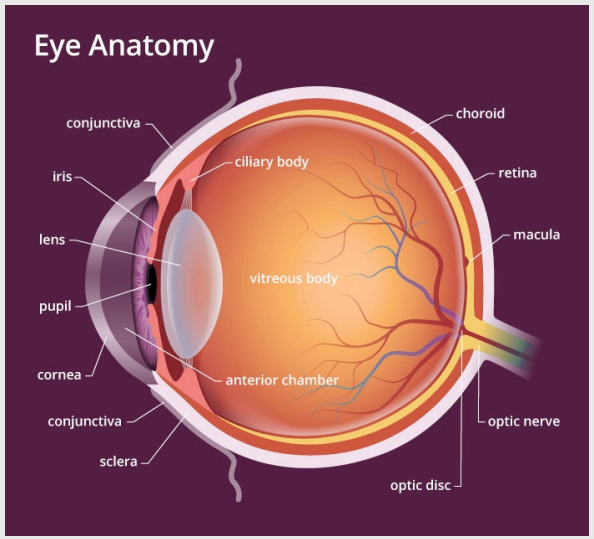
Fluorescein Angiography (FA)



Indocyanine Green Angiography



Optical Coherence Tomography (OCT)



- OCT/OCTA
- Color Fundus photography (CF)
- Fluorescein Angiography (FA)
- Indocyanine green Angiography (ICGA)
- Fundus Auto-fluorescence (FAF)
- Slit-lamp photography
- Video analysis

Clario technology displays native file formats from all modalities enabling universal viewing, comparing, and annotating of images.

CLARIO.

Supported Indications

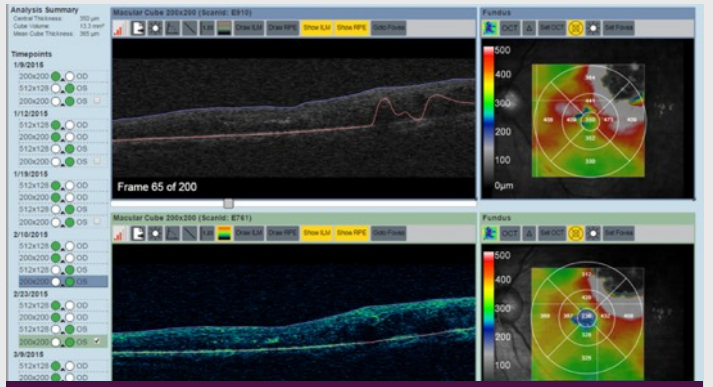
- Diabetic retinopathy
- Wet/Dry AMD
- Uveitis
- Retinal Vein Occlusion
- Vitreomacular Traction
- Epiretinal Membrane
- Macular Hole
- Inherited retinal degenerations (eg retinitis pigmentosa)
- Glaucoma
- Optic neuropathies
- Neurology (MS studies)
- Systemic therapies with ocular side effects
- Oncology for safety

CLARIO.

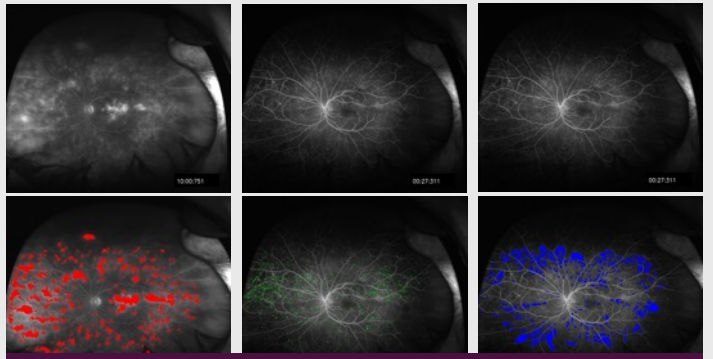
Supported Quantitative Endpoints

Key Quantitative Assessment Endpoints driven by AI technology

- OCT layer line segmentation
- RPE integrity/Geographic atrophy (OCT/FA/FAF/CF)
- CNV location, area, classification (OCT/OCTA/FA)
- Macular edema, subretinal/intraretinal fluid, pigment epithelial detachment, drusen analysis, ellipsoidal zone disruption (OCT)
- Ischemia, leakage, microaneurysms (FA)
- Zonal retinal nerve fiber layer thickness (OCT)
- Cup-to-Disc Ratio (CDR) (CF)
- Macular hole volume/dimensions (OCT)
- Diabetic Retinopathy Severity Score (DRSS)



OCT Layer Line Segmentation



[Description tbc]

CLARIO.

The Clario CORE Partnership

THE PARTNERSHIP

- CORE was created by Peter Kaiser (former partner at DARC). It is a spin out of the Cole Eye Institute.
- Exclusive partnership with Clario for ophthalmology assessments
- Clario and Cole Eye Institute have collaborated for 15 years with multiple grants and publications

CORE'S EXPERT TEAM

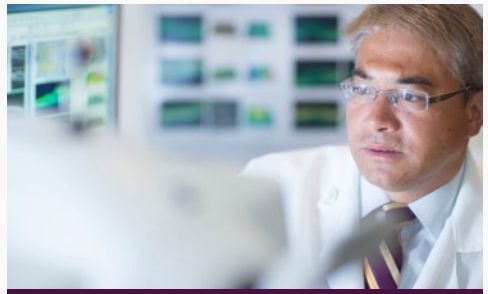
- Team of 20+ expert Ophthalmologists & Technologists to serve as readers across modalities and specialties.
- Extensive experience preparing submissions to global regulatory authorities.
- Staff support across the whole trial lifecycle:
  - Site qualification and image QC
  - Assist in study protocol reviews, acquisition parameters, and endpoint recommendations
  - On-demand incorporation of AI algorithms

CLARIO OPHTHALMOLOGY

CLARIO

- Decades of trial experience & technology
- Global footprint and 24/7 support

+



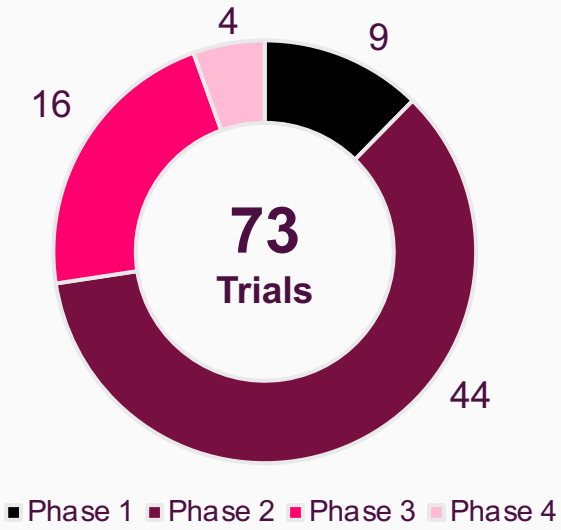
CORE

- Image Reading Center
- Specialist R&D Arm

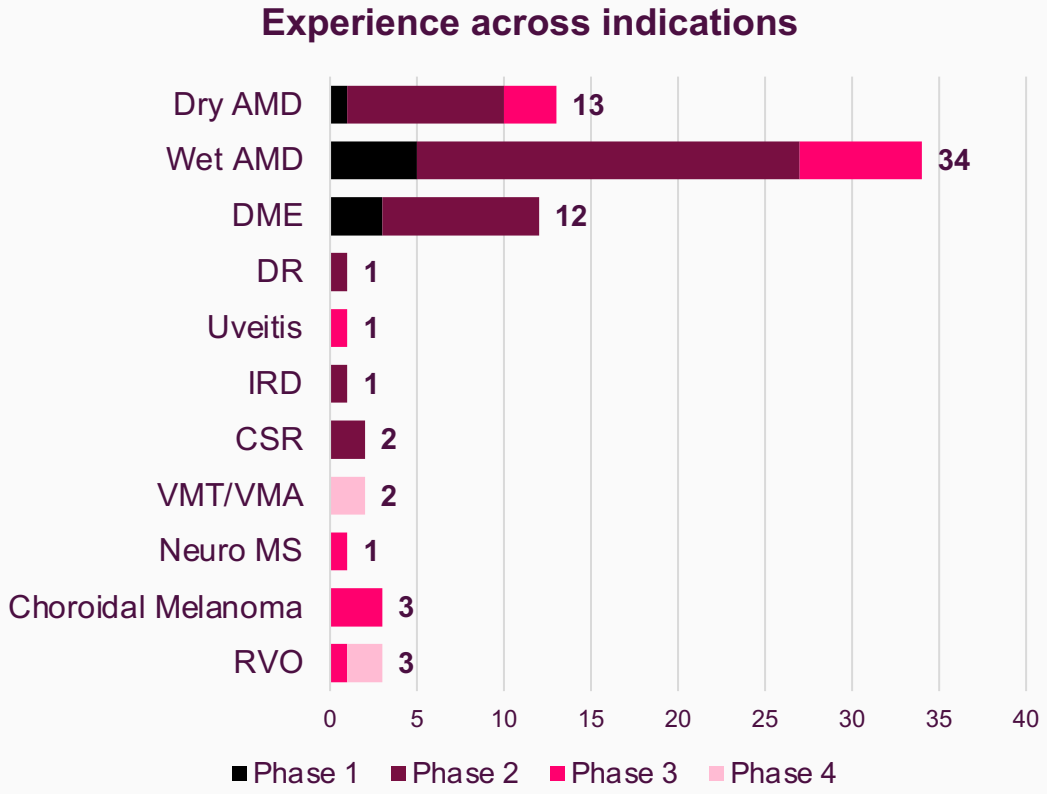
CLARIO.

CORE Ophthalmology experience

20 years' experience across 70+ Phase 1-4 trials



20 years experience preparing submissions to regulatory authorities across the world.



CLARIO.

CORE Reading Center Team Members

Peter Kaiser MD

CORE Director and Head of Reading Team

- Staff member of the vitreoretinal faculty of the Cole Eye Institute
- Founding Director of the Digital Optical Coherence Tomography Reading Center (DOCTR) at the Cole Eye Institute
- Study chairman of 4 major, multi-center, international clinical trials and is a principal investigator in multiple other trials
- 273 peer-reviewed articles, more than 200 book chapters, original reports, electronic publications and abstracts
- Associate editor of the American Journal of Ophthalmology, and serves on the editorial boards of Retina, Retina Today, Retinal Physician and Ocular Surgery News.
- Specialties: epiretinal membranes, vitreomacular traction, macular holes, age-related macular degeneration, diabetic retinopathy, retinal detachment, vitreoretinal diseases

Alex Yuan, MD, PhD

[Job Role TBC]

- Staff, Cole Eye Institute, Cleveland Clinic
- Assistant Professor Cleveland Clinic Lerner College of Medicine
- Assistant Director of DOCTR (grader from 2016-2020)
- PI for Argus II, X-linked retinitis pigmentosa, advanced exudative/nonexudative macular degeneration studies

CLARIO.

CORE Reading Center Team Members

Justis Ehlers, MD

[Job Role TBC – R&D Arm]

- Norman C. and Donna L. Harbert Endowed Chair of Ophthalmic Research, Cole Eye Institute
- Director of the Tony and Leona Campane Center for Excellence in Image-Guided Surgery and Advanced Imaging Research, Cole Eye Institute
- 180 peer-reviewed articles and over 200 scientific abstracts. Co-chief editor for 3 books, including the Wills Eye Manual, 5th Edition
- American Academy of Ophthalmology Council and the American Society of Retina Specialists Board of Directors
- Specialties: age-related macular degeneration (ARMD), retinal vascular occlusive disease, diabetic retinopathy, retinal detachment, myopic degeneration, cystoid macular edema, ocular trauma, epiretinal membranes, vitreomacular traction syndrome, and macular holes
- PI in macular degeneration, vitreoretinal interface abnormalities, retinal venous occlusive disease, ophthalmic imaging, and intraoperative OCT studies.

Sunil Srivastava, MD

[Job Role TBC – R&D Arm]

- Staff Physician & Director of Vitreo-Retinal Fellowships , Cole Eye Institute
- Staff Physician, MetroHealth Hospital
- PI in over 30 Ophthalmology Studies
- 185 peer-reviewed articles
- Specialties: age-related macular degeneration, diabetic retinopathy, macular hole, retinal detachment, retinal disorders, retinal vein occlusion, retinitis, uveitis

Key Features

Driving Compliance & Transparency

Real Time Access to Images

- Real-time access to view and download images to monitor drug performance and to present to stakeholders.

Rapid Image Screening Turnaround

- Informs sites if a rescan is required using fully automated image screening for quality.

Quality Control throughout the Trial

- To check the accuracy and completeness of data at every stage to ensure smooth Database Lock.

21 CFR Part 11 & GDPR Compliant

- Comply with regulations through verified data integrity, access controls and passwords, sign-off, and audit trail.

CLARIO.

Key Features

Accelerating your Clinical Trial

Seamless Image Upload for Sites

- Upload images quickly to platform via intuitive drag-and-drop functionality.

Fully Customizable Workflows

- To incorporate 1/2/3 graders and an adjudicator if required.

Multi-Modality Capabilities

- To aggregate assessments from multiple modalities to determine eligibility.

Site Qualification and Training

- To ensure quality images from sites.

24/7 Global Support and Deployment

- Keep trials on track with 24/7 support and global footprint.

CLARIO.

Expert Support

Throughout your Trial Lifecycle

Protocol Review and Study Design

Ensure studies are designed specifically to meet sponsors' needs and regulatory requirements while minimizing patient burden.

Site and Equipment Qualification

Site surveys to ensure equipment meets quality standards.

Site Training

Training manuals and online training to educate site staff on how to take quality images.

Clinical Project Management

[Text to be inserted here.]

Clinical Data Management

[Text to be inserted here.]

Quality Review

Check accuracy and completeness of data at every step to ensure smooth and quick database lock.

Image Analysis

A team of specialist graders who perform highly accurate measurements and are able to turn images around quickly if required.

Regulatory Submission

Assistance in preparation of high-quality data, including exploratory findings, for regulatory submission and presentation.

CLARIO.

Key Benefits to Sponsors

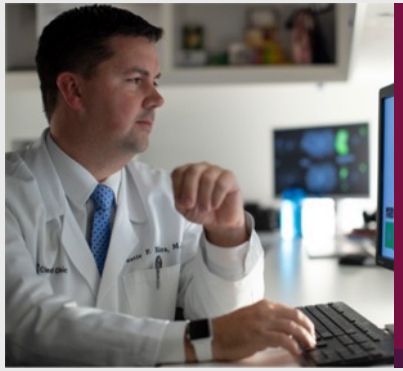
Advancing Ophthalmic Therapies

Enhanced Regulatory Submissions

- From high quality endpoint data and exploratory data
- From Part 11 compliant processes

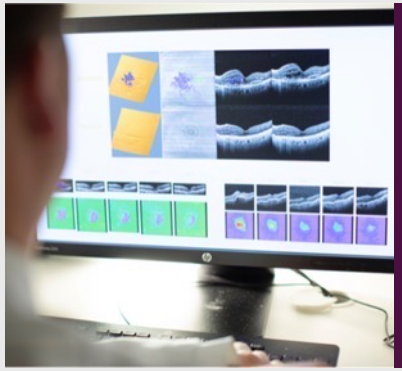
Fully Bespoke Solution & Platform Build

- From study design, quality control, image reading, to developing advanced proprietary quantitative analysis.



Ability to Prove Emerging Therapies

- Using advanced AI-driven quantitative analysis & CORE's dedicated R&D Arm.



Improved Sponsor Experience

- Real time access to images, rapid image screening, and automated Quality Control to streamline your image review process.

CLARIO.

Thank you for your time

If you have any questions please contact [insert name] at:

m + 00 44 123 456789
e namehere@clario.com
w clario.com

CLARIO.