New Technology
Cool Trends from Front to Back
Who has the Coolest Stuff?

Introduction
Steven Ferrucci, OD, FAAO
Chief, Optometry
Sepulveda VA
North Hills, CA
Professor
SCCO@MBKU

Marc Bloomenstein, OD, FAAO
Chief, Optometric Services
Schwartz Laser Eye Institute
Scottsdale, AZ

Disclosures
Steven Ferrucci, OD, FAAO
Marc Bloomenstein, OD, FAAO

OCT Angiography: the Next Chapter in Posterior Imaging
Images retinal microvasculature without dye injection
Displays structure and function from a single imaging system

Principles of AngioVue OCTA
OCTA uses motion contrast to detect flow from OCT data
- Rapidly acquires multiple cross-sectional images from a single location on the retina
- Flow is the difference in signal between two sequential B-scans

What's new in OCT?
- MORE SCAN PER SECOND
- WIDEFIELD
- COMBO INSTRUMENTS
- PHOTO
- IAT
- INTERNAL SEG
- Fatty amy
- Angios
- GLAUCOMA
- GCC, WSS
- ANGIO GLYPH
Vascular Imaging...No Referral Needed
- See retinal vasculature without referring patients out of the practice
- Visualize signs of disease earlier and make more intelligent referrals
- Manage more pathology to keep patients in the practice longer
- Elevate the practice with state-of-the-art imaging technology

The Utility: Applications of OCTA in the Primary Eye Care Practice
- Obtaining dry AMD for conversion to wet
- Monitoring diabetic patients
- Visualizing vascularization in PEDs
- Identifying ONV in central serous
- Examining glaucoma patients for vascular changes

A New Approach to Visualizing Blood Flow
- Patient Benefits
  - Reduces patient burden to allow more frequent imaging
  - Avoid potential side-effects of fluorescein injection
- Clinical Benefits
  - Faster than a dye-based procedure
  - Ultra-high resolution imaging of retinal microvasculature
  - 3D visualization segments retinal vasculature into individual layers

Comparison of Vascular Imaging Modalities

<table>
<thead>
<tr>
<th>Test Administration</th>
<th>FA</th>
<th>IOG</th>
<th>OCTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dye Injection Series of Photos</td>
<td>Dye Injection Series of Photos</td>
<td>Non-invasive, Ocular OCT Scan</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Image Presentation</th>
<th>FA</th>
<th>IOG</th>
<th>OCTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Dimensional</td>
<td>2-Dimensional</td>
<td>3-Dimensional, Individual layers of vasculature, allows localization of abnormal flow</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vascular Imaged</th>
<th>FA</th>
<th>IOG</th>
<th>OCTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retinal Vessels</td>
<td>Choroidal Vessels</td>
<td>Retinal and Choroidal Vessels</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Blood Flow Visualization</th>
<th>FA</th>
<th>IOG</th>
<th>OCTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic, Leakage and Pulsing Visible</td>
<td>Dynamic, Leakage and Pulsing Visible</td>
<td>Static, shows flow information at a fixed point in time</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field of View</th>
<th>FA</th>
<th>IOG</th>
<th>OCTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>30° - 150°</td>
<td>30° - 150°</td>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Procedure Time</th>
<th>FA</th>
<th>IOG</th>
<th>OCTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 Minutes</td>
<td>30 Minutes</td>
<td>30 Seconds</td>
<td></td>
</tr>
</tbody>
</table>

Enface OCTA Generated from OCTA Volume Data
- Multiple motion-contrast frames create 3D OCTA volume
- Enface visualization of layers obtained by sliding and projecting

Enface OCTA Slabs: Based on Retinal Anatomy
- En Face Visualization of Layers Based on Retinal Anatomy
**Normal**

Enface OCTA Overview: Pathology Examples (DR)

- **Superficial**
- **Deep**
- **Outer Retina**
- **Choroid**

**Enface OCTA Overview: Pathology Examples (CNV)**

Branch Retinal Vein Occlusion

- **Structural OCT Image**
- **OCT Images**

**OCTA Shows Reduced Blood Flow in Glaucoma**

- **Normal**
- **Preperimetric Glaucoma**

World’s First OCTA Quantification of Optic Disc Vasculature

- OCT and OCTA analysis from the same scan:
  - Automatic detection of RMD
  - Rim and cup area measured within RMD plane
  - Vessel density analysis based on RPC (RIM-NFL)

- Enables extensive analysis of disc structure and vasculature
AngioDisc Trend Analysis

RNFL Thickness Trend Analysis

Overview Report Provides Disc Health at a Glance

Disc Overview Report Brings New Information to Glaucoma Management

**Wet AMD Case: OCT-A**
- 81 year old male
- h/o dry AMD OU for years
- Last VA: 20/40 OD, 20/30 OS
- Rarely does HAG
- Type 2 DM for years
- No retinopathy or CSME

**Wet AMD Case: OCT-A**
- In for 6 mos follow-up
- Reports lost glasses
- VA Today:
  - 20/40 OD
  - 20/70 OS
- Did not notice a change until checked in clinic
- Again, rarely does Amsler
Retina Clinic

- Stage 2 CNVM
- Avastin series x 3 OS.
- Repeat OCT/OCT-A after 3rd injection
Flow Area Measurements Provide Quantification of CNV Area

- Flow Area measurement based on Outer Retina slab (OPL - BRM)
- Manually outline a region for vessel detection
- Software extracts Flow Area (i.e., vessel area) within selected region

DM OCT-A CASE

- 50 year old male
- Type 2 DM x 20 years
  - Last A1C 8.7
  - Insulin and Sitagliptin (Vioxx 25)
- Reduced VA OD x 9 mos
- No injections OD last year
- Sold earlier this year no more injections needed
- Undrew why VA decreased OD

CNV Flow Area Multi Scan View for Follow-Up
DM OCT-A CASE

- Moderate NPLD OU
- No center involved DM OD
- Macular ischemia OD>OS on OCTA
- No need to do FA
- No treatment available
- Optimize acuity
- Optimize BP/JBS control
- RTC 3 mos. Repeat OCTA/COTA

Extensive FAZ Measurements Elevate Assessment of Diabetic Eyes

- FAZ measurements based on full retina vasculature (ILM – OPL)
  - Area
  - Perimeter
  - Foveal vessel density in a 300μm wide region around FAZ (10-300)"
Prevalence

“MGD is currently thought to be the leading cause of dry eye.”
Caroline Blackie
Donald Korb

299 normal
DED patients (M:81 F:218)
10 sites European Union & US

Prevalence

“Overall, 86% of these qualified DED patients demonstrated signs of MGD.”
Michael Lemp


**Obstruction**
- Mechanical therapy
- Masks
- Infracutaneous expression
- lid margin grafting
- Mitomycin, LipiFlow, Tear Care

**Inflammatory**
- Anti-inflammatory
- Stem cell
- Liposomal
- Doxycycline
- Omega
- Bacteriome buccal

**Cosmetics**
- Read the label
- Look up at US. Department HHS site (https://hpd.nlm.nih.gov/index.htm)
- Not all VCOs will irritate, patient dependent
- Look at order of ingredients
- Concentrations matter
- Rotate make-up if possible (decrease hypersensitivity risk)
- Remove make-up nightly for greatest comfort
- Eyelid cleansers
- Avoid exfoliation beads (Leslie Gallagher)
- Baby oil (Louise Schifan)
- Avoid fiber-based mascaras
- Use water soluble cosmetics (Glenda Secor)

**Diabetes & DED**
- 81 patients with diabetes
- 7 sites
- OSDI, Pain Sensitivity Q, LG & FL staining, meibography, NIKBUt, HA1c

**Diabetes**
- "Our study also showed a large percentage of dry eye in patients with diabetes goes undiagnosed based on DEWS II criteria."

Schwartz S, Halloran, Clare; Doll, Tracy; Harthan, Jennifer S.; Williams, Matthew T.; O’Dell, Leslie E.; Barnea, Natalie; Hon, Milton M. Does diabetes make a difference in dry eye? Invest Ophthalmol Vis Sci 2017;59(6) ARVO E-Abstract: S56-B0134
“undiagnosed rate of 51.3% of diabetic patients.”

Schwartz S, Hallett, Clare; Doll, Tracy, Herthan, Jennifer S., Williams, Matthew T; O’Dell, Leslie B; Barnea, Natalie; Horn, Milton M. Does diabetes make a difference in dry eye? Invest Ophthalmol Vis Sci. 2017;59(5):ARVO E Abstract: 956 - B0134

Lesson: diabetes = dry eye

“Ocular surface disease (OSD) is prevalent among glaucoma patients and is one of the biggest reasons for noncompliance”

Micheal Brown

Brown M. 5 things about glaucoma care that frustrate me. Optometry Times December 20, 2017

The MGD link

Meibomian gland dysfunction (MGD)
80% of patients on long-term GLC meds
96% of patients on PGA


MGD

“Long-term use of antiglaucoma eye drops was associated with alterations in meibomian gland morphology and function.”


Your glaucoma patients have MGD

BAK

BAK
Benzalkonium chloride or Buy Another Kind?
Toxic effects


BAK is cytotoxic
Corneal staining (inferior) is the key diagnostic cue

Multiple meds
IOP RE 25 LE 23
Multiple meds: Lumigan, Combigan, Azopt
Severe MGD/OSD
Tx: Lotemax & oral doxy
IOP dropped to mid-teens
Stopped Combigan

Multiple meds
Uncontrolled IOPs
Multiple meds: latanaprost, Cosopt
Severe OSD
Tx: Stopped glaucoma meds; Lotemax
One month: IOP lowered, OSD improved
Multiple meds

“OSD exacerbated glaucoma”
Increased IOP with severe OSD
Increased conjunctival inflammation
Inflammation of trabecular meshwork


Multiple meds

“OSD exacerbated glaucoma”
4 cases
Multiple meds
MGD, hyperemia, papillae,
decreased TBUT, decreased tear meniscus, SPK


Multiple meds

“OSD exacerbated glaucoma”
Tx: MGD therapy
Doxycycline
PF glaucoma drops


Multiple meds

“OSD exacerbated glaucoma”

<table>
<thead>
<tr>
<th>Before Tx</th>
<th>After Tx</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 28</td>
<td>RE 9</td>
</tr>
<tr>
<td>LE 42</td>
<td>LE 9</td>
</tr>
<tr>
<td>RE 20</td>
<td>RE 14</td>
</tr>
<tr>
<td>LE 28</td>
<td>LE 10</td>
</tr>
<tr>
<td>RE 20</td>
<td>RE 12</td>
</tr>
<tr>
<td>LE 19</td>
<td>LE 12</td>
</tr>
<tr>
<td>RE 34</td>
<td>RE 18</td>
</tr>
<tr>
<td>LE 36</td>
<td>LE 18</td>
</tr>
</tbody>
</table>


Multiple meds

Severe OSD + Multiple Meds
= Can increase IOP

MEIBOGRAPHY-LipiScan

Lid Transillumination
Static Illumination
Dynamic Illumination
Dry Eye Treatment in the Palm of Your Hand

See for Yourself

See It
View the blocked meibomian gland orifices through the magnifying lens.

Turn up the Heat on Dry Eye Treatment

Heat it
Apply LED light to raise the eyelid temperature and melt the blockages.

Put the Squeeze on Dry Eye Disease

Treat It
Gently compress the eyelid as much as you need to clear the blocked orifices.

You’re in Control

iLux allows you to select only the eyelid regions that need treatment.
You control the heat and compression — all under visual guidance.
Apply as much or as little as you need to get the desired results.
Intuitive User Interface

The iLux MGD treatment system:

- Consists of the handheld Lux device, and the sterile, single-patient use disposable Smart Tip.
- Uses light energy to warm meibomian glands quickly and comfortably.
- Lets you manually adjust gland compression based on your clinical judgment.
- Lets you view meibomian gland offaxis, so you can tailor your treatment to each patient’s needs.
- Is great value for patients and practices, bringing relief to more eyes while boosting your bottom line.

FDA/Pivotal Clinical Study: 142 pts, 8 sites

TEARCARE
Sight Sciences

APPLYING THE SMARTLIDS™
Widefield Imaging

- Future of Retinal Imaging
- Larger field, up to 200 degrees (82% of retina)
- 1/3 of all DM foci outside standard 7 fields
- Misdiagnose grade of DR in 50% of cases if not looking at periphery
- NV ischemia found 10x more with UWF FA vs standard FA

NuLid

Widefield Imaging

- Optos
- Eldon by Centervue
- Clarus by Zeiss
ZEISS CLARUS 500
HD Ultra-Widefield Fundus Imaging

Widefield without Compromise

Sample Cases for Quick Preview
Greg Hoffmeyer
ZEISS

Clarus 500
1. Non-Myd 2.5 mm pupil, 133° (1 shot) and 200° (2 shot) images
2. Legendary ZEISS Optics, 7 micron, 1.2 MP resolution
3. True Clinical Color – Green and Blue FAF – FAIV in pipeline

Clarus 500 Expand your Field of View

Field of View Comparisons

Clarus Wf
133°

Same Pt,
Other Eye - Clarus UWF 100°
Optos FA

- Uses Optos Panoramic 200i ultra-widefield instrument to produce real-time high resolution images with 200 degree view.
- May allow disorders in the mid to far peripheral to be detected which may be of clinical significance.
- May lead to new treatments as well as diagnoses.
Why Would a Clinician Buy an Automated Digital Phoropter?

- **Speed & Ease of Use**
  - Programming the flow of the exam
  - Quicker phoropter setup for each test
  - Anticipatory "thinking" by software
  - Easy comparison of A/R & LM with subjective refraction data

Main Display

- Intuitive placement of elements
- Maximized use of screen "real estate" without crowding
- Input keys sized correctly for easy touch screen interaction
- Less frequently used buttons and information are in smaller font size

Why Would a Clinician Buy an Automated Digital Phoropter?

- **Clinician ergonomic**
  - Avoids repetitive strain injury from stretching, straining, standing
  - Provides better interaction with patient, clinician can watch facial expressions or movement of patient during exam
  - Clinician can read the letter chart
  - Can locate themselves strategically within the exam lane

Exams from anywhere... Digital Optometrics

**Fundus Autofluorescence Imaging (FAF)**

- Relatively new non-invasive imaging modality developed over past decade
- Has been area of interest in ophthalmic research for over 40 years
- Uses fluorescent properties of lipofuscin
Lipofuscin

- Aging or disease to photoreceptors causes accumulation of lipofuscin
- Lipofuscin is composed mainly of AβE
- Excessive lipofuscin deposition is considered pathological and associated with visual loss
- Considerable evidence that accumulation of lipofuscin can cause cell death and apoptosis

Clinical Applications

- Retinal Dystrophies
- Plaquenil
- AMD/GA
- Retinal artery occlusion
- White dot syndromes
- Diabetic retinopathy

Retinal dystrophies

Table 2. Chloroquine and Hydroxychloroquine Sensing Procedures

<table>
<thead>
<tr>
<th>Not Recommended for Screening</th>
<th>Recommended for documentation, especially at baseline, but not sensitive for screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundus photography</td>
<td>Time-domain OCT</td>
</tr>
<tr>
<td>Insufficient resolution for screening</td>
<td>Use only if combination of pigmentary changes is needed</td>
</tr>
<tr>
<td>Full-field ERG</td>
<td>Important for evaluation of established toxicity, but not for screening</td>
</tr>
<tr>
<td>Amperometry</td>
<td>Use only as adjunct test</td>
</tr>
<tr>
<td>Color testing</td>
<td>Use only as adjunct test</td>
</tr>
<tr>
<td>ERG</td>
<td>Questionable sensitivity</td>
</tr>
<tr>
<td>EOG = electro-oculogram; FAF = fundus autofluorescence; mfERG = multifocal electroretinogram; SD-OCT = spectral domain optical coherence tomography.</td>
<td></td>
</tr>
</tbody>
</table>

Plaquenil

- Newer AAO guidelines recommend SD-OCT, FAF or multifocal ERG as best way to minor for early plaquenil toxicity
- Recommend screening every 2 years
- Risk factors
  - Dose < 5 mg/kg
  - Greater than 50 years
  - Concurrent tamofoxin
  - Concurrent ketoconazole
  - Incidence still low,
GA
May be useful moving towards treatment of GA

Retinal artery occlusion
- Occlusion is more common with increased time
- Might allow increased time as treatment
- In theory, may lead to regression of GA

Diabetes syndromes
- Not much on this front
- In animal studies, may have effects
- Expected to play a role
- Further studies needed

FAF case
- 71 yo male
- Mild decrease in distance vision
- BCVA 20/25 OU
- Early cataracts
- Posterior pole:

2013
Mild RPE changes OU
**FAF CASE**
- Dry AMD OU
- Start AR ED 2
- RTC 1 year

**EDOF!**

**INTRODUCING:**
The first and only Extended Depth of Focus (EDOF) Presbyopia-Correcting IOL for patients with and without Astigmatism.

**PROPRIETARY TECHNOLOGY**
- TECNIS Symfony IOL Merges Two Complementary Enabling Technologies
  - Proprietary End-to-End Design
  - Extends the depth of focus
  - Proprietary Aspheric Technology
  - Corrects chromatic aberration for enhanced image contrast

**DIFFRACTIVE TECHNOLOGY**
- Diffraction technology has been associated with multifocal IOLs but it can be used in different ways
- Other industries use diffractive lenses (cameras, telescopes, microscopes) to optimize optical performance under constrained conditions
EXEMPLARY DEPTH OF FOCUS

The proprietary echellette design introduces a novel pattern of light refraction that elongates the focus of the eye.

1. The echellette is the relief profile of the lens (height differential) within each ring
2. The height, spacing, and profile of the echellettes are optimized to create a diffraction pattern for an elongated focus

CONTINUOUS VISION

TECNIS Symfony IOL provides continuous, high-quality vision at all distances

TECNIS Symfony IOL delivers:

- Smooth, monocular visual acuity of 20/20 or better through ±1.0 D of defocus
- Increase in 1.0 D range of vision through the diffraction pattern compared to a monofocal

EXEMPLARY VISION AT ALL DISTANCES

TECNIS Symfony IOL delivers excellent uncorrected visual acuity at all distances.

LOW INCIDENCE OF HALO AND GLARE

Less than 3% of patients spontaneously reported incidence of severe night vision symptoms
LOW INCIDENCE OF HALO AND GLARE

TECNIS Symfony® IOL demonstrated a low incidence of halo and glare.

PATIENT SATISFACTION

TECNIS Symfony® IOL delivers high patient satisfaction.

DIGITAL OPTOMETRICS
Reichert Technology

- This is Optometry driven, patient centric, comprehensive eye exam with live doctor-patient interaction.
- The exam includes slit lamp, fundus photo, IOP, etc.
- A state licensed OD reviews and approves the exam and refraction and can refine the refraction if needed.
- All equipment can be utilized locally in the traditional way.
- And you are not in the room, you are remote!!

Is AMD Under diagnosed?
- 25% of eyes deemed normal on DFE by eye care provider (be it ODS and MDs) had macular characteristics that indicated AMD.
- Of those, 30% had level that would have been treatable with nutritional supplements.

MacuLogix’s AdaptDx
- Dark adaptation is a sensitive marker for early AMD.
- The AdaptDx measures dark adaptation.
- A rapid test of dark adaptation using the AdaptDx has been found to have a high sensitivity for detecting dark adaptation impairment associated with AMD.
- Decreased dark adaptation may preclude clinical findings of AMD.
- Dark adaptation is more sensitive than other tests such as Snellen acuity, contrast sensitivity, or visual fields which are about 25% sensitive.
AdaptDx Study at VA
- Tested whether the AdaptDx could detect AMD in a typical VA clinical setting
- Rapid test ran on 19 AMD patients (AREDS stage 1 to 3)
- 16 of 19 patients failed to adapt before the maximum test time of 6.5 minutes. The diagnostic test sensitivity was 94.7%
- AdaptDx exhibited similar sensitivity in a working VA clinic compared with a multisite clinical study
- Next step is to use the AdaptDx to find patients with undiagnosed AMD or subclinical AMD

AdaptDx Advantages
- No preadaptation required
- Protocols as rapid as 5 minutes
- Low patient burden
- Easy to operate
- CPT 92284 (164 avg.)
- FDA 510K cleared (8/16/96)

Successful Precedent
- Glaucoma
  - Humphrey Perimeter
  - Psychophysical test
  - 5-minute duration
  - $65 reimbursement (CPT 92083)
  - Current eye care profit center
- AMD
  - MacuLogix AdaptDx
  - Psychophysical test
  - 5-minute duration
  - $65 reimbursement (CPT 92284)
  - New, possibly larger eye care profit center

AREDS 2 home study
- 1520 pt with at least one large drusen and VA 20/60 better
- 763 with home monitoring, 51 CNVM detected
- 757 standard monitoring, 31 CNVM detected
- 3 letters lost with device vs. 9 without
- 94% had better than 20/40 with device vs. 62% without
- 60% more pts had 20/40 or better with Foresee vs. Standard care

ANT MED’S
New Meds!
- **Invekys** (loteprednol etabonate ophthalmic suspension) 1%. Kal-a Pharmaceuticals
- **Cequa** (cyclosporine ophthalmic solution) 0.9%. Sun Pharma
- **Lote max SM** (loteprednol ophthalmic gel), 0.38%
- **Flarex** (fluormetholone acetate) .1%. Eyevance
- **Freshkote PF** Eyevance

GET THE R#* OUT!
Brimonidine Tartrate Ophthalmic Solution 0.025%

![Image of Lumify advertisement](image)

**A unique mechanism of action** for reducing redness
LUMIFY® is the only OTC redness reliever that primarily constricts the vessels.

Other OTC redness relievers (e.g. 0.12% HA agents)
- Commonly associated with rebound redness and tachyphylaxis
- Act on the arteriole, decreasing blood and oxygen flow to surrounding tissue.

LUMIFY® with low dose Brimonidine tartrate (0.025%)
- No tachyphylaxis and virtually no rebound redness in clinical trials
- LUMIFY® constricts the vessels, while maintaining availability of oxygen to surrounding tissue.

Low risk for tachyphylaxis or rebound hyperemia

![Image of study results](image)

Overall, six clinical studies were conducted in over 600 patients to evaluate safety and efficacy, with low risk of allergic reactions among all patient groups.
**TREHALOSE?**

A Molecule That Can Only Be Called Extraordinary

A molecule exploited by nature for millions of years with a range of desiccation resistant organisms.

---

**What is Trehalose?**

- A natural alpha-linked disaccharide formed by an alpha, alpha-1, 1-glucoside bond between two alpha-glucose units.
- Found abundantly in nature.

---

**The Miracle of Trehalose**

- 1702 Anton van Leeuwenhoek discovers that he can revive a completely dried insect with a small amount of water [http://www.chem.yale.edu/antoin/](http://www.chem.yale.edu/antoin/)

- Similarly, the Rose of Jericho can survive for years without water in a dormant state and comes back to life within hours when re-exposed to water.

---

**How does Trehalose work?**

Trehalose is both a bioprotectant and an osmoprotectant.

Trehalose protects corneal cells from desiccation and high osmolarity by protecting cell membranes and proteins from denaturation and disruption in the absence of water.

---

**Trehalose — Current and Future Use**

- **Major industries:**
  - Food, cosmetics, medicine

- **Current use:**
  - Herceptin®, Avastin®, Lucentis®, Adeva®

- **Future applications:**
  - Solid dosage formulations, most notably in quick-dissolving tablets
Trehalose Use in Dry Eye Disease

Trehalose has been shown to:

1. Rehydrate severely dry eye
   - Acts as a natural “water substitute” and structural protector
   - Retains more water even when drying out
   - Maintains cell structure during drying & rehydration. Supports
   - membrane integrity
   - protein integrity

2. Protect against future irritation
   - Helps prevent desiccation (drying, dehydration) and high osmolarity by
   protecting cell membranes and proteins from disruption in the absence of water

TheraTears X

VYZULTA Indication

- VYZULTA™ (latanoprostene bunod ophthamlic solution), 0.024% is indicated for the reduction of intraocular pressure (IOP) in patients with open-angle glaucoma or ocular hypertension

VYZULTA Mechanism of Action
THANK YOU