

An ASCRS New Product Review

Here are some of the most notable products and instruments rolled out at this year's meeting.

AT THE AMERICAN SOCIETY OF Cataract and Refractive Surgery meeting in April, ophthalmic companies from across the country rolled out a plethora of new products, instruments and prescription drugs. Following is a sampling of what they showcased on the trade-show floor at the Moscone Center.

A Cataract-removal System

Alcon Inc. unveiled its new Infiniti Vision System, touted as the world's first tri-modal cataract-removal surgical instrument. The device allows ophthalmologists to remove cataracts in three ways: through ultrasound phacoemulsification, by combining ultrasound and oscillation with the NeoSoniX hand-piece and by generating pulses of surgical solution with the new AquaLase liquefaction device to safely break up and remove lens material.

The touch screen affords surgeons the freedom to interact with software and hardware capabilities. The tray arm enables doctors to position the equipment adjacent to the



surgical field, and the adjustable footswitch holds up to six programmable features to suit a variety of preferences.

"The Infiniti is the most versatile platform ever developed for lens-removal surgery," says David Eister, Alcon's global marketing manager of cataract equipment. "It caters to all of the needs of the surgeons, nurses and assistants in the ophthalmic surgical environment. The fluid-based lens-removal technology is the most advanced in the marketplace, opening up a whole new era in cataract surgery. It will empower surgeons to refine and elevate their art of lens removal to a new level." For more information, visit alcon-labs.com.

Compact Phaco

The Sovereign Compact cataract-removal machine by Advanced Medical Optics Inc. made its debut as the newest member of its Sovereign line of phacoemulsification systems.

The compact device uses microbursts of ultrasound separated by brief, cool-

ing micro-resting periods to achieve low temperatures while maintaining optimal cutting power. The software provides a broad range of options to

disassemble the nucleus quickly and efficiently. The Compact also offers solid chamber stability

through digital fluidics, and the programmable occlusion mode allows you to vary machine settings intraoperatively.

The new platform basically provides ophthalmologists with the same superior fluidics and advanced power control as the flagship Sovereign system, including the option to use Whitestar technology, only it's much smaller in size, easier to operate and more affordable, says Becky Cope, senior product manager.

Additionally, AMO has obtained exclusive distribution rights for a capsular tension ring manufactured by Ophtec BV. Under the terms of the agreement, Ophtec must get Food and Drug Administration approval for the capsular tension ring before it's marketed in the United States. The product will be called StabilEyes and will enable ophthalmologists to perform more successful posterior-chamber intraocular lens implantations during cataract procedures when capsular-bag integrity is compromised by weakened or broken zonules. For more information, call 1 (800) 366-6554 or visit amo-inc.com.

Judith Springer Riddle
Associate Editor

Disposable IOL Inserter

Bausch & Lomb added the SofPort System's single-use, three-piece IOL inserter to allow surgeons to insert IOLs with one hand through a sub-3.0 mm incision for less invasive surgery. The smaller incision reduces the amount of trauma to the eye, thus improving patient recovery time.

The SofPort System's design gives ophthalmologists more control over the IOL insertion process. And its proprietary planar delivery method reduces the amount of lens unfolding to increase overall safety of the procedure, unlike other traditional delivery systems. For more product information, call 1 (800) 531-2020 or visit bausch.com.

Fluoroquinolone Power

Allergan Inc. launched gatifloxacin (Zymar), the first FDA-approved fourth-generation fluoroquinolone for the treatment of bacterial conjunctivitis. Allergan reports that, unlike its third-generation cousins, gatifloxacin eradicates resistant bacterial strains, covers a broader range of gram-negative and positive pathogens and offers extended coverage against atypical organisms.

The drug has a low MIC 90 profile, or minimum inhibitory concentration, and it contains .005% of the preservative benzalkonium chloride to help prevent fungal infections. It's highly soluble for maximum penetration at the infection site and slows the development of resistant bacteria. Gatifloxacin also protects against *Pseudomonas aeruginosa*, a virulent microorganism that can cause corneal melting and blindness.



Zymar is positioned as "the surgeon's choice for powerful protection against ocular bacterial infections," says senior product manager Jane Wolf. "We believe that it will replace all third-generation fluoroquinolones and become the standard of care in ophthalmic surgery." Visit their website, allergan.com.

Additionally, Alcon introduced moxifloxacin (Vigamox), the second fourth-generation fluoroquinolone to receive FDA approval this year, for the treatment of bacterial conjunctivitis. "Vigamox will bring to market unique attributes that will make it stand out in the ophthalmologist's armamentarium," says Seba Leoni, senior product manager. The drug has a pH level of 6.8, offering improved comfort and increased solubility. And it has a 0.5% concentration to deliver



more of the active drug to relevant ocular structures.

Vigamox is protective against 12 gram-negative and positive microorganisms as well

as *Chlamydia trachomatis*, which is more than any other fluoroquinolone on the market, says Mr. Leoni. And its dosing schedule is convenient: just three times a day for seven days.

"[The drug] not only meets but exceeds all United States pharmacopoeia tests without the need for benzalkonium chloride," says Mr. Leoni. "This is a direct result of its inherent antibacterial and antifungal activity." For more product information, visit their website, alconlabs.com.

A Laser for LASIK

Lumenis Ltd. finalized its agreement with WaveLight Laser Technologie AG of Erlangen, Germany to distribute the Allegretto Wave Excimer

Laser System to the United States once the product receives FDA approval. Its makers call the Allegretto Wave the only excimer laser engineered specifically for custom LASIK surgery with the speed and precision necessary to incorporate wavefront technology.

The laser boasts a space-saving design, a high fluence scanning spot for even distribution of energy during ablation, and an eye-tracking technology that enables precise monitoring of the laser beam. A pulse rate of 200 Hz allows for quicker procedure times. The 200 Hz synchronous eye tracker ensures accurate centration and placement of each shot even in cases of rapid, saccadic eye movements. For more product information, visit their website, ophthalmic.lumenis.com.

Digital Imaging

Nidek introduced the MP-1 Micro Perimeter, a compact stand-alone unit that combines perimetry and fundus imaging, computerized microperimetry and 45-degree nonmydriatic digital fundus photography. Other features include quantitative assessment of fixation, high-speed online image



tracking, scotoma mapping, built-in or custom perimetry programs and fully automated examinations with selected target strategies.

The MP-1 also maps retinal visual function, assists in diagnosing age-related macular degeneration, choroidal neovascularization, diabetic retinopathy, maculopathies and scotomas. It evaluates retinal therapies such as photodynamic therapy, transpupillary

thermotherapy, dye-enhanced photocoagulation and others, as well as tracking fundus movements.

Further, Nidek rolled out what it calls the industry's first digital 3-Dx Simultaneous Stereo Fundus Camera for high-resolution retinal imaging. The digital camera comes with Nidek's NAVIS-3D Imaging and Database Software package for on-screen viewing of images in 3D stereo. It produces repeatable, simultaneous stereo color images of the optic disc, fundus and external eye.

Both the 3-Dx (color) and 3-DxF (color and fluorescein) are available in digital format. Current owners of the film-based cameras can request digital upgrades. "The digital camera gives ophthalmologists instant images. They won't have to get the film developed and wait for the pictures," says Nidek's camera sales specialist Tom Russo. "In addition, the camera saves time and money and has the capability of increasing patient flow and patient comfort, because they won't have to sit for additional picture taking." For more information, call 1 (888) 626-4590 or visit nidek.com.

All-in-one Microkeratome

CIBA Vision agreed to distribute BioVision AG's Centurion SES (subepithelial separator), an all-in-one blade-cartridge microkeratome to be used in refractive-surgery procedures such as LASIK. The SES design integrates both the blade and cartridge into one component and has the ability to flatten the cornea through a unique bar applanator.

Unlike traditional microkeratomes that flatten large surfaces of the cornea, the SES applanates only the section directly in front of the blade, resulting in corneal flaps with feathered cuts and smoother edges. Call 1 (800) 845-6585 (option 3) or visit their website, cibavision.com.

Rotating Camera

Oculus Inc. introduced the Pentacam Imaging System, the first rotating Scheimpflug camera in the world. The Pentacam photographs the anterior segment through a rotation process that supplies pictures in three dimensions. In two seconds or less, the camera provides 50 3D scans with 500 images on each scan for a total of 25,000 measurements of the anterior chamber. The 3D chamber analyzer measures the chamber angle, volume and size. The pachymetry feature gauges corneal thickness that's



displayed as a color scheme over the entire area. Corneal topography of the front and back surfaces is available in sagittal (axial), tangential and elevation

dimensions across the complete cornea from limbus to limbus. The lens densitometry feature allows ophthalmologists to scrutinize the crystalline lens for possible early opacification.

The Pentacam is awaiting FDA approval. For more product information, call 1 (888) 284-8004 or e-mail: sales@oculususa.com.

Handheld Pupil Tracker

The Pupillometer for Refractive Surgery is available from NeuroOptics Inc. Distributed by BD Ophthalmic Systems, this hand-held device is a convenient tool for screening patients and planning surgical procedures. With the press of a button, the tracking system captures 40 pupil positions per second during the three-second

test period. It instantly and accurately records, measures and tracks pupil size in natural light or in total darkness. Further, it audibly confirms a successful measurement and prints out the information for verification. It also reduces or eliminates the effects of hippus or accommodative reflex as well as accounting for vertex distance. Visit their website, neurooptics.com or e-mail: info@neurooptics.com.



Software Upgrade

Talia Technology Inc. released RTA Version 4.2, a new software upgrade that enhances screening and the early diagnosis of glaucoma, age-related macular degeneration, diabetic macular edema and other retinal disorders.

The nonmydriatic disc topography scanning option makes the RTA (retinal thickness analyzer) easier to use and more cost effective. The 3D disc-imaging feature enables you to see a 3 x 3-mm cut section of the optic disc area, overlaid on a fundus image that can be freely rotated for extended viewing.

The software allows you to view and print previously gray-scale slits as color coded, magnifying the retinal layers and pathologies. New reports such as *Colored Slits*, *Single Slit*, *Complete Glaucoma* and *Complete Retina* are also available. Window displays of all reports generated during a specific session can be checked off and printed out.

The company's high-resolution Digital Fundus Imager, sold as an optional feature, makes it possible to customize the RTA according to your needs. For additional product infor-

mation, call 1 (800) 214-2030, e-mail: usa@taliam.com or visit taliam.com.

A Mist for Dry Eyes

Bio-Logic Aqua Technologies Bio-medical Research announced Nature's Tears Eye Mist, a new therapy designed to soothe eye irritation resulting from dry eye, contact lenses, post-LASIK surgery, smoke, dust, air pollution and other irritants.

Nature's Tears Eye Mist uses tissue-culture



grade water delivered through an ultra-fine mist to restore moisture to the eye's tear film, returning it to its normal healthy state, without disrupting the delicate structure. The product is easily applied to the eyes by misting it across the face for one to two seconds. And it doesn't disturb eye or facial makeup. For more information, call 1 (800) FOR-MIST or visit their website, naturestears.com.

Slit-lamp Adapter

Iridex Corporation offered a new slit-lamp adapter with a 50-µm spot size to its line of IRIS Medical portable slit-lamp adapters that allow laser-light delivery through a standard slit lamp. The SLA enables ophthalmologists to perform trans-



pupillary laser photocoagulation when it's attached to the Haag-Streit BM/BQ or Zeiss 30SL slit-lamp model and used in combination with the OcuLight GL or OcuLight GLx green laser photocoagulator.

The SLA features parfocal spot sizes from 50 to 500 µm, eye-safety filters to maximize resolution and color balance and a self-centering micromanipulator for precise control of the aiming/treatment spots. For more product information, call 1 (800) 388-4747 or e-mail: info@iridex.com.

Cornea Examiner

The Bluminator Ophthalmic Illuminator is available from Eidolon Optical, LLC. This bright-blue circular device detects and diagnoses corneal injuries or irregularities, streamlines contact-lens fittings and makes examina-



tions easier and more efficient. The Bluminator provides a 7x image of the eye, while a LED produces an intense beam of blue light, causing foreign material, abrasions and other epithelial defects to fluoresce during examinations with fluorescein. Nonrechargeable and battery-operated, it has an expected lifespan of three to five years with normal use, and it can be used in an office, hospital or emergency-room setting and even in the field. For more product information, call (508) 651-0015, e-mail: vjdeidolon@msn.com or visit their website, slitlamp.com.

A Twin Laser

Quantel Medical presented the Viridis Twin Laser to the U.S. market. The portable laser system features a diode-based green laser and a

parfocal continuous zoom, ranging between 50 and 500 µm. The detachable control box and laser-power controls in the footswitch are just some of the Viridis Twin's unique features. For more product information, call 1 (888) 660-6726, e-mail: info@quantelmedical.com or visit their website, quantelmedical.com.

Electrosurgical Coagulators

Kirwan Surgical Products Inc. rolled out its new Aura line that includes a 20-watt bipolar electrosurgical coagulator and a 70-watt irrigating bipolar electrosurgical coagulator.

The compact, lightweight 20-watt unit boasts adjustable display and audible tone settings that are heard when activating output power. The touch-pad controls provide feedback and allow you to easily adjust settings. The device ranges in power from 0 to 20 watts. It is footswitch operated and features an activation light and a standby mode default setting. Standard hospital plugs fit easily into the back of the coagulator. The unit weighs less than 2 pounds and sports a carrying handle.

The AURApus 70-watt irrigating coagulator has digital power-setting displays. You can increase or decrease the intensity of the interactive LCD screen for optimal viewing. Total coagulation time is shown on the unit and can be reset. The footswitch controls the output power and irrigation. The peristaltic irrigation pump is activated individually or simultaneously while coagulating. The adjustable flow rate ranges from 0 to 50 ccs per minute. Additionally, the unit features a carrying handle and optional stand. The front panel is angled upward approximately 30 degrees for easier reading of the display panel.

For more product information, call 1 (888) KIRWANS, e-mail: sales@kirwans.com or visit their website, kirwans.com.