MTG

presents:

◯CTAX

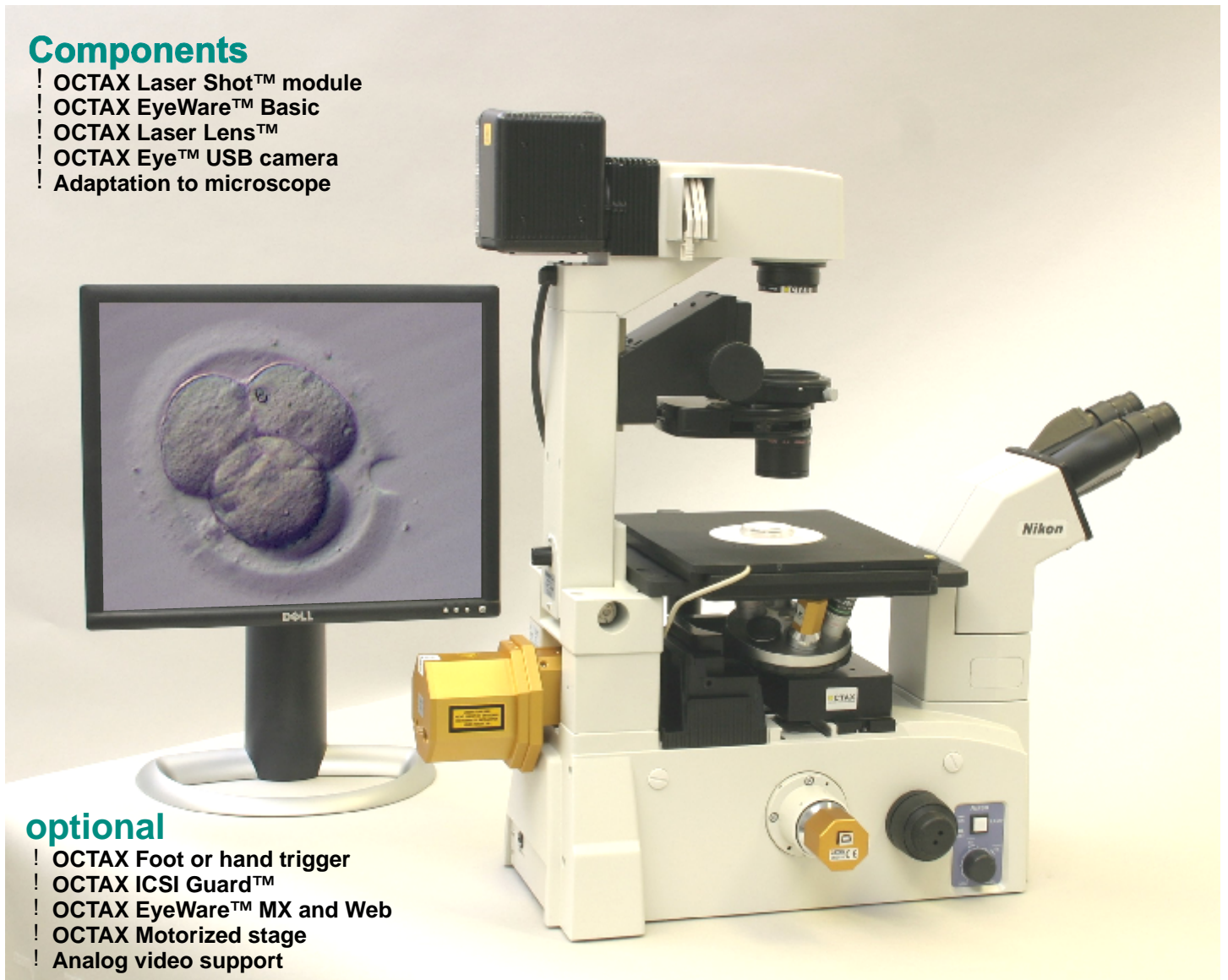## . . . the world´s reference in laser technology

OCTAX Laser Shot™ System for ART

Components
- ! OCTAX Laser Shot™ module
- ! OCTAX EyeWare™ Basic
- ! OCTAX Laser Lens™
- ! OCTAX Eye™ USB camera
- ! Adaptation to microscope

optional
- ! OCTAX Foot or hand trigger
- ! OCTAX ICSI Guard™
- ! OCTAX EyeWare™ MX and Web
- ! OCTAX Motorized stage
- ! Analog video support

Most advanced laser technology for ART featuring digital control and digital video/image processing using the latest in computer technology combined with highest optical and mechanical quality.

MTG

MEDICAL TECHNOLOGY VERTRIEBS-GMBH

OCTAX Laser Shot™ System for ART

OCTAX Laser Shot™ is the next generation laser system for ART, featuring digital control, treatment, video and image processing. Highest precision components of German and Swiss origin guarantee outstanding optical and mechanical quality. Our laser is the first laser system for ART that was evaluated in a multi center study and was proven to be safe. Almost all scientific papers describing the use of a laser for ART are based on the OCTAX laser or its predecessor, Fertilase®. Today, it is the only laser whose safety was analyzed and validated in a follow-up study on children born after laser assisted hatching.

Outstanding scientific background:
- First birth after laser assisted hatching (1.48 µm)
- First birth after laser assisted blastomere biopsy and PGD
- First birth after laser assisted polar body biopsy
- First birth after laser assisted immobilization of spermatozoa
- First pregnancy after laser assisted zona drilling for ICSI
- First ongoing pregnancy after laser assisted removal of necrotic blastomeres from frozen-thawed embryos

List of scientific references available at www.mtg-de.com
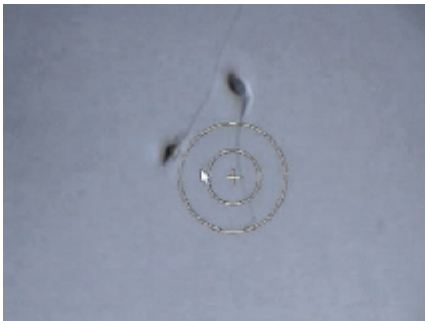
Applications

Assisted Hatching
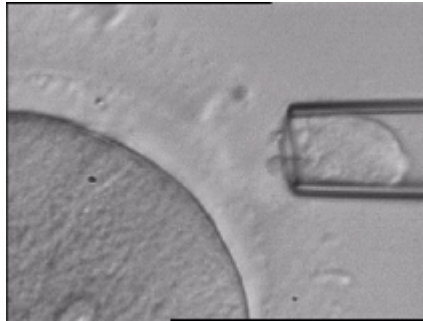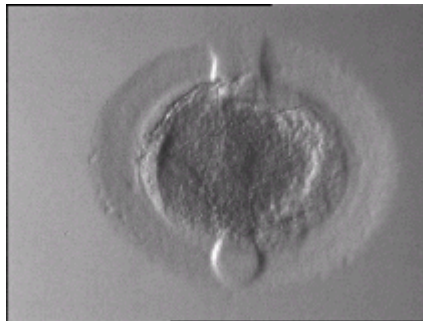

Polar Body Biopsy

Blastomere Biopsy / PGD

Sperm Immobilization

Hemi Zona Essay

Zona Pellucida Thinning

Adaptation to various microscopes

OCTAX Laser Shot™ is attachable to every major brand and type of inverted microscope. The OCTAX Laser Lens™ objective is compatible with Hoffman modulation contrast, Relief contrast and PlasDIC for high image quality and contrast.
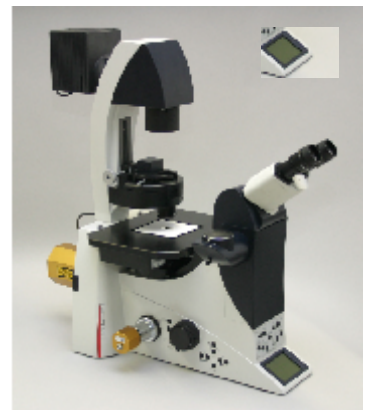

AX200, AX100, AX135

IX 50 / 70, IX 51 / 71

Diaphot 200 / 300
TE200 / 300 / 2000

DMIRB, DMIL
DMI4000 / 6000

OCTAX EyeWare™ imaging software

OCTAX EyeWare™ is the latest imaging and archival Software from OCTAX, delivering ease of use and functionality in controlling microscopic devices, microscopic imaging, measurements and documentation. It also provides the link between our OCTAX Eye™ USB digital camera and the user.

The software complements the OCTAX Laser Shot™ for advanced micro-treatment in ART. All aspects of the laser device are controlled through the OCTAX EyeWare™ interface. Special emphasis lies on the ease of use of the software. With OCTAX EyeWare™ it takes only a few minutes to become an expert in laser control and imaging.

Advanced features:

- multilanguage support. OCTAX EyeWare™ is available in German, English, French, Chinese, Hungarian and Japanese.
- patient database module without limitation in number of datasets and stored images per patient
- image capturing in high resolution, up to 1280x1024 pixel, supporting analog and digital cameras
- instant printing of photos directly from live video
- easy report printing, exporting reports as PDF or RTF file for e-mail forwarding and word processing
- data import / export from and to external database systems, online connectivity to patient data residing on SQL server
- image export in JPG and BMP format, interface to RecDate (Germany)
- controllable by mouse, keyboard short cuts, foot and hand operated triggers and others
- multiple monitors (CRT, TFT, video) are supported on selected hardware

Software screenshot gallery

Laser targeting: live video display with crosshair and calibrated measurement grid overlay
Biometric measurements: direct calibration and direct interactive measurement
Imaging software: one button instant image capture, background image gallery
Image database: access to image data via database organized per patient and treatment, multiple search features
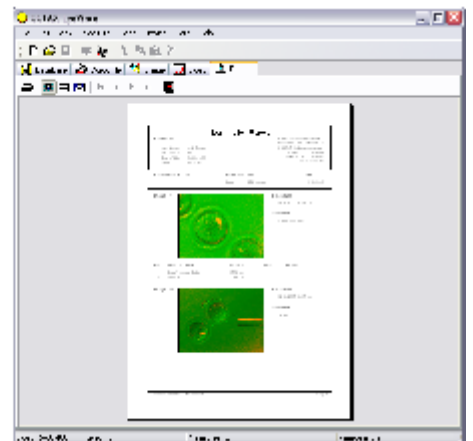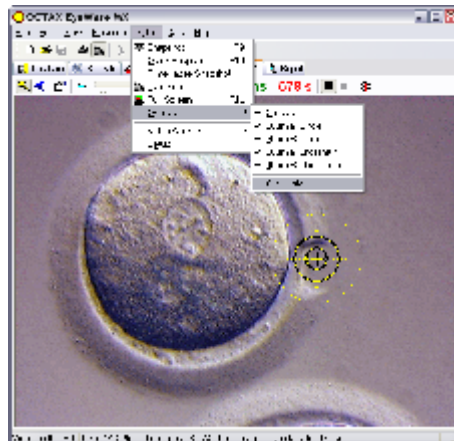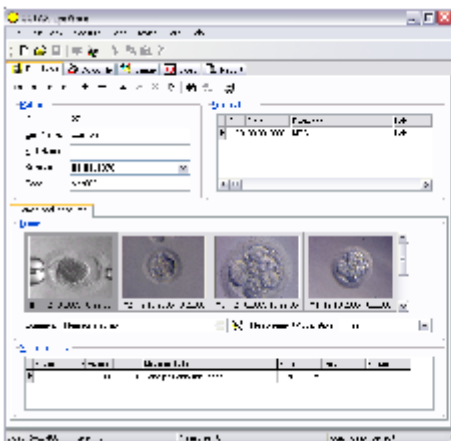

Additional features of EyeWare™ MX

Digital video recorder: Record and archive live video sequences in Windows Media™ Video format
Network broadcast function: Broadcast live video into local area network or the internet
PowerPoint slide show: Export contents of **Quick File** to PowerPoint and run a slide show in seconds
Time lapse recording: Automatic image recording in selectable intervals
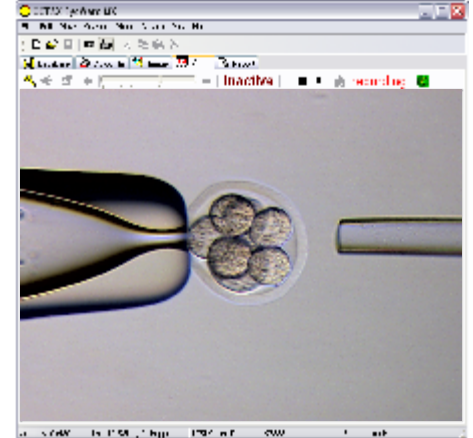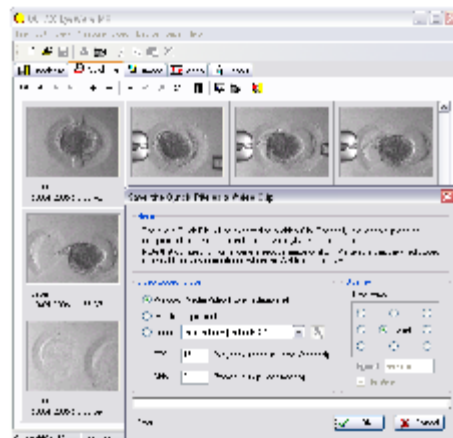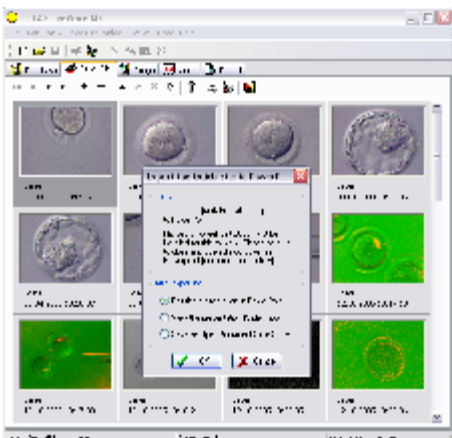
Laser module specification

Laser: 1.48 µm Infrared Diode Laser, Class 1M

Power in focus: 100 - 150 mW +/- 5% (depending on microscope model, optics and heating stage), guaranteeing high laser efficiency with low energy

Irradiation time: 0.1 - 50.0 ms, in 0.1 ms steps

Laser targeting: live video display with crosshair and calibrated measurement grid overlay

Video display: with OCTAX EyeWare™ on computer monitor

Status indication: LED on OCTAX Laser Shot™ module, user interface on computer (OCTAX EyeWare™)

Release of laser irradiation: via computer mouse or external foot/hand trigger, repetitive single shot, acoustic feedback

Laser irradiation indication: LED on laser module, user interface on computer (OCTAX EyeWare™)

Drilling precision: < 1 µm, drilling reproducibility < 1 µm

Drilling range with one shot: ≈1 µm to ≈50 µm (depending on zona pellucida characteristics)

Drilling range with multiple shots: arbitrary size

Beam position stability: < 5 µm per month

External connectors (laser module): connection to computer via USB cable, and power supply

Supply voltage: 100 - 240 V AC, 50 or 60 Hz, 15 VA

Mechanical dimensions laser module: 9.0 x 9.0 x 10.0 cm

Objectives: OCTAX Laser Lens ™ 40x with long working distance (ELWD), optional: 25x ELWD biopsy objective for simultaneous micro manipulation and laser use, compatible with Hoffman modulation contrast

Hardware integration / customized solution

Easy integration of OCTAX ICSI Guard™

For more information about ICSI Guard please consult the brochure "Microdevices and Imaging Software"

Integration of epi-fluorescence
Easy and convenient use of laser and fluorescence specimen analysis on the same microscope.
Available for Olympus IX71 series microscope (right) and Nikon TE2000 microscope (left).

Requirements
- Computer Intel® Pentium 4™ based, min. 3 GHz, 128 MB graphic board
- 512 MB RAM, 80 GB hard disk, CD-RW drive, min. 3 x USB 2.0 port
- Microscope with video port and c-mount adapter
- Operating System Microsoft® Windows™ XP professional (recommended)
- Microsoft® DirectX 9, Microsoft® Windows™ Media Player 9 or higher

Support and maintenance
- Laser system free of maintenance, allowing low running costs
- Superior mechanical and optical precision makes realignment unnecessary during routine use
- No wearing parts or components that need replacement on a regular basis
- Minimum of 2 years period of warranty
- Free software maintenance updates
- Multilanguage speaking service personnel
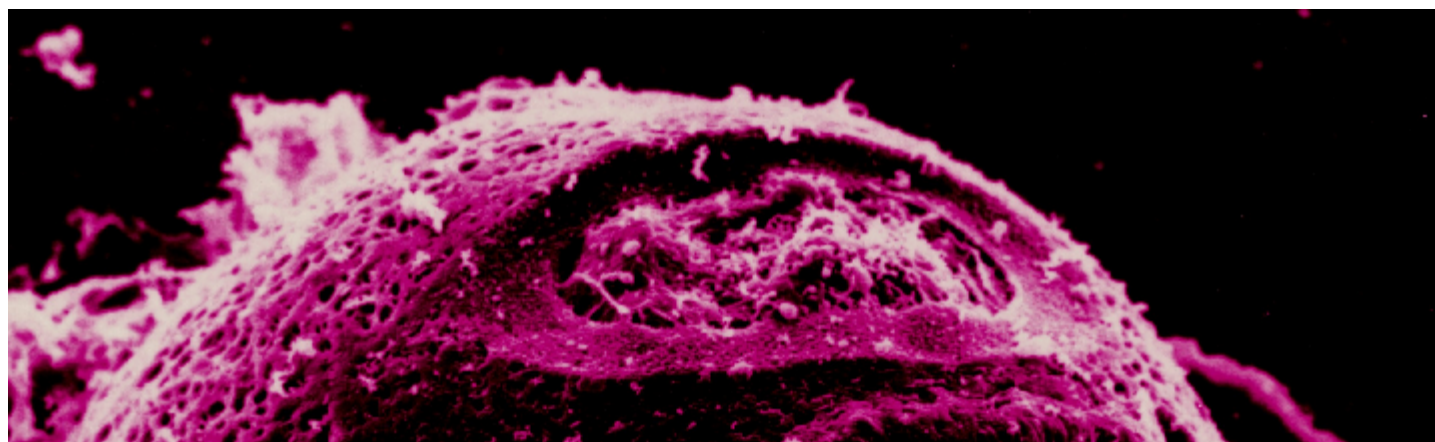- Spare parts are available for a period of min. 8 years

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Photo courtesy CHUV, Lausanne, Switzerland; University Womans Clinic Bonn, Germany

Your local MTG agent or distributor is: