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Automated Karyotyping System
and
MetaPhase Finder

Automatic MetaPhase Finder
Automatic Karyotype Analysis System
Fully Motorized 120 Slide Capacity Loader MetaPhase Scan Station
Automatic Oil Dispenser
Excellent Image Resolution
Expert Image Analysis Platform
Prime Smart Data Management System
ISCN 2009 Classified 300-400-500-550-700-850 band range ideogram
Gray Scale Profile - Smart Shortcuts - Gallery Module
Motorized and Manuel Microscopy Support
Automatic and Local Data Archive Management
All-in-one PC Support
Touch Screen Display Support
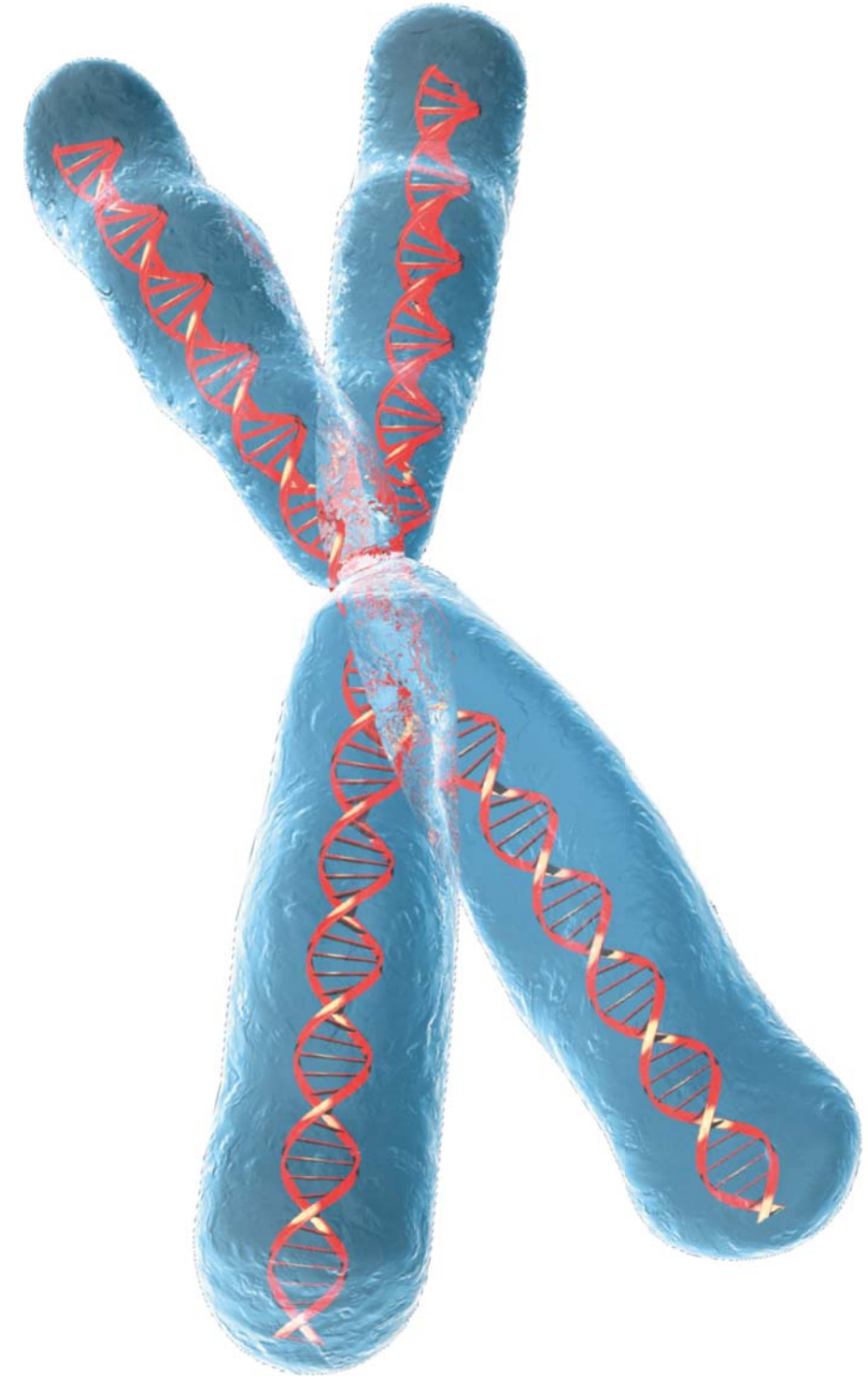XY Coordinate Reader Support
FISH Module
Multi Species Module

ISO 9000 - ISO 13485 - CE Certified - TM Certified

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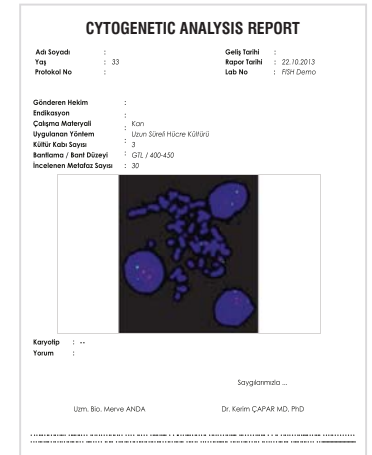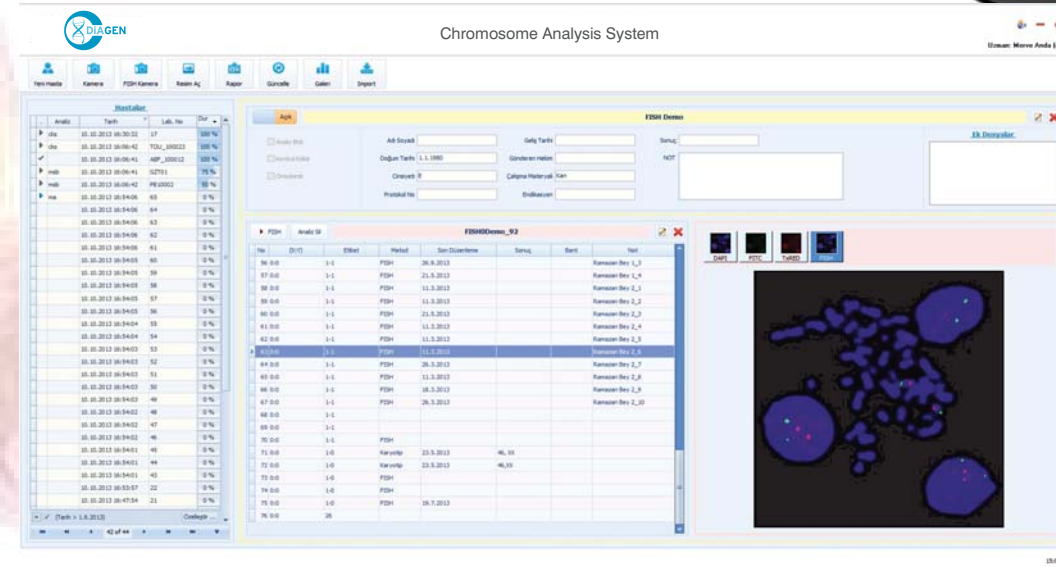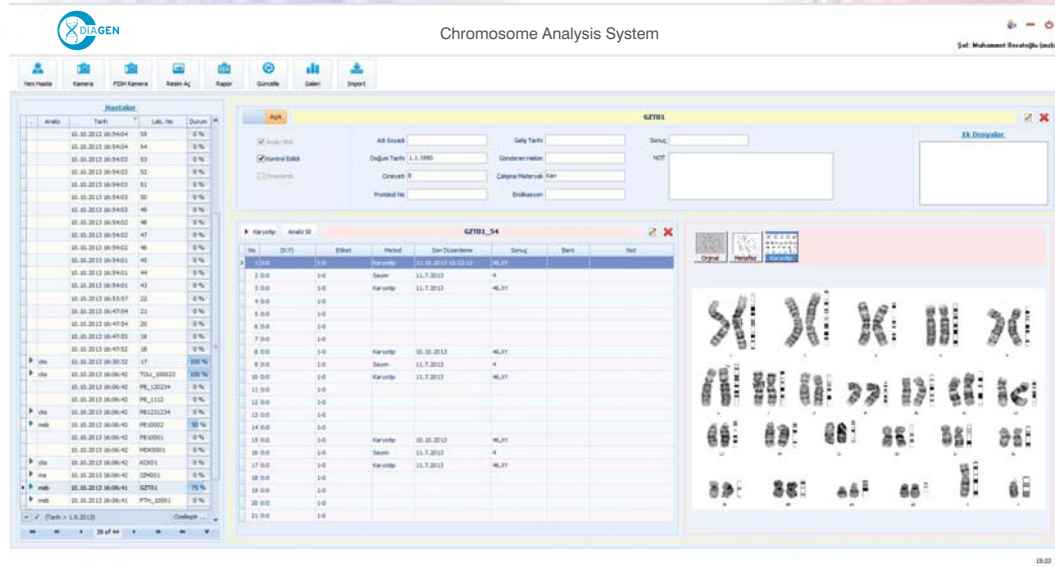## Automated Chromosome Analysis System
and
FISH Analysis System

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Automated Karyotyping System
and
FISH Anaysis System

PRIME is a software platform for chromosome analysis, offering cytogenetic labs with accurate, repeatable and standardized analysis with user-friendly Capture & Review workflow. Smart and robust interface allows users to fully customize the workflow and diagnosis according to their preference. The wide range of tools allows users to perform multiple tasks with a single click for unmatched ease of use and workflow efficiency.

PRIME is a powerful solution for karyotyping, providing cytogenetic labs a workflow which enhances throughput and clinical accuracy. PRIME supports both automated and manual workflows for locating metaphases & image capture.

Smart Data Management:

Prime Management is a user-friendly environment, providing an easy way to find and review cases that functions as a count sheet, data storage and management tool. Prime was designed around the paperless lab concept, and provides as much data as possible in a single view for ultimate functionality.

Prime is integrated, clinical utilities for multi-application support for pathology and cytogenetics and flexible data management and storage options meet the needs of any size laboratory or multi-site laboratories Advanced multiple-user access and user permission management mechanism can be made and can support Multi-language operation.

PRIME Chromosome Analysis Platform:

Prime Chromosome Analysis Platform gives you an easy merge of chromosomes with convenient "Drag & Drop" feature and cut-paste tool for instances of chromosome translocation. Automated image enhancement and automatic separation of overlapping chromosomes is done by just one click. On screen comparison of genetic samples for determining inheritance is very easy to perform.
Prime is also makes the automatic chromosome alignment and distinct coloring of chromosomes for easy identification and separation. Annotation tools, Multi-chromosome review and comparison panel is also only one click ahead.

Multi-Species Chromosome Analysis System:

With Multi-Species Chromosome Analysis System, you can karyotype over any plant and animal genetics. You can capture the metaphase images of the selected cells and align the chromosomes to the karyotype chart due to the morphological specification.
You can also export the statistical details of the karyotypes and report as desired.
Karyotype chart, chromosome measurement details and ideogram graphics will be made automatically. You can add the new species to the ideogram library and creat the dendrogram of the observed species.

Automated MetaPhase Finder:

Prime Automated MetaPhase Finder improves workflow efficiency. The Automated MetaPhase Finder scans the entire slide, locating and capturing the best metaphases and remembering their coordinates in minutes. The Automated MetaPhase Finder is also supported by robotic slide loader, allowing up to 120 slides to be loaded in a single batch, reloaded without disrupting system operation, and providing labs with 7/24 continuous scanning and analysis.
During review, it is always possible to return to the exact coordinates under the microscope by clicking on a metaphase in the image gallery.
Built-in barcode reader and automatic oil dispenser makes the system 7/24 working high throughtput walk-away station.

Report, Archive and Data Mining:

Karyotyping Analysis Results can be exported to Report page just one click. You can design your own report page template with your corporate logo and corporate details.
Your report page can be design in various page sizes and page formats (PDF, Word, Excel, etc.). Also you can E-mail your reports.
With Our unique feature, you can hide sex chromosomes on your reports with one click.
Prime Smart Archive System, Prime, will provide you to store all the needed patient details and Karyotyping-FISH results automatically. You can upload every details and filter the needed information for Data Mining of the patients history.

DNA FISH Probes and Consumables :

* Solid Tumor Probes
* Hematologic Probes
* Microdeletion Probes
* Prenatal Probes
* Centromeric Probes
* Tissue Deparaffinization and Pretreatment Kit
* FISH Consumables

Manuel Count and XY Reader:

Prime Chromosome Analysis System is suitable with the control of touch screen technology and manuel count operations can be made with touch on a screen. Every touch will be spotted with colors. That makes counts very easy and efficiently. You can make your counts over chromosome twins and program shows you the abnormalities in different colors while you are counting.
Counted metaphases are automatically exported to Report Page. Thanks to the XY Coordinator, you can optionally adapted your manuel microscope to XY Coordinator that saves your XY Coordinates every time for your repeatability .
The XY Reader expands the capabilities of any manual microscope to automatically read and list the cell's XY coordinates in real-time.

DAPI   FITC   Texas RED

PrimeFISH Analysis Platform:

PrimeFISH is a multicolor image capture and enhancement software module. It enables users to perform image enhancements, annotations, sharing, printing and report generation. Generally used within a manual workflow, PrimeFISH allows users to perform analysis on single FISH images and cells also.
* Can be adapted manual and automatic microscopes
* Automatic Z-axis control for auto focus, Z-stacking and 3D data export
* Automatic XY motorized stage to save time
* Support for any number of filters and multiple automated filter wheels
* Easy automated multi-layer imaging
* Automatic exposure control and image enhancement, fully automatic with no user interaction
* User-defined image capture region
* Enhanced quantitative support for signals and cells intensity and morphology
* Powerful automatic and manual control over contrast, brightness, and sharpness levels of the entire image as well as individual signals
* Automatic background correction to compensate for microscope and sample non-uniformities. Robust image analysis.
* Also background subtraction is available.
* Automatic and manual segmentation to obtain the morphology and intensity of each object, complete with its color layers
* Dedicated detection and quantification of multiple small signals
* Can choose the probes from the branded charts and see the every details of the probe.