

LSSF Technology Portal

Technology Portal Overview – Phase I

Objectives of Phase I

- Catalog of items and inventory for all member institutions:
 - Piloting Institutions
 - Florida Atlantic University
 - Florida International University
 - Max Planck Florida Institute
 - Nova Southeastern University
 - University of Miami
- Technology Portal functionality
 - Designated point of contact for each instrument listed
 - Items and inventory indexed and searchable by any tagged fields
 - Members can update and manage their own shared equipment list

Homepage



Life Sciences South Florida Technology Portal

Welcome to the Shared Equipment Portal. This site contains a listing in database format of scientific instruments from the institutions shown below. Each institution web site is linked to the names below.

Florida International University	Equipment
Florida Atlantic University	Equipment
Nova Southeastern University	Equipment

The overall goals of this initiative are to continue building a South Florida life science cluster, foster collaboration, enhance education opportunities, and increase access to and utilization of expensive instruments.

Today the database includes a searchable list of scientific instruments (manufacturer, model, and specifications), institution and point of contact (e-mail and telephone). You may search by instrument (e.g. confocal microscope) or institution (e.g. Miami Dade College). If you are interested in gaining access to any of the instruments in the database, the place to start is the point of contact. In the future the site will include a uniform terms of use agreement and confirmed availability.

- Initial landing page
 - Explains objectives and goals
 - Associated link to lists of equipment by institute

Institute Focused Equipment List

Example:

The screenshot shows the 'Life Sciences South Florida Technology Portal' with logos for FIU, FAU, and NOVA. The FIU section is highlighted, showing the university's name, logo, and a brief description. Below the description, there are links for 'Institute Link' (fiu.edu) and 'Equipment At Institute' (Florida International University).

The screenshot shows the 'Life Sciences South Florida Technology Portal' with logos for FIU, FAU, and NOVA. The equipment details for FIU are listed in a table format:

Equipment Name	Last Modified	Details
IX51 Inverted Microscope	Modified: 11-25-2012	IX51 Details...
PCR Thermal Cycler	Modified: 11-25-2012	Opticon 2 Details...
Inverted Microscope	Modified: 11-25-2012	Eclipse TE2000 Details...
Genetic Analyzer	Modified: 11-25-2012	3100 Details...

- Equipment grouped by institute
- Equipment details include:
 - Name of equipment
 - Last modified date
 - Model number

Equipment Detail Page and Search

Example:

PCR Thermal Cycler

Manufacturer: DNA Engine
Make/Model: Opticon 2

The DNA Engine Opticon 2 Real-Time Cycler PCR detection system uses a fixed array of LEDs for fluorescence excitation (470-505 nm) and two photomultiplier tubes for 2-color detection (523-543 nm, 540-700 nm). The DNA Engine Opticon 2 Real-Time Cycler system is built on an iDNA Engine thermal cycler which includes a thermal gradient feature. This item includes the thermal cycler 96-well sample block, optical lower analysis software with real-time computer and monitor. Complete system requires purchase of a DNA Engine chassis and an option-specific 96-well Alpha unit.

Protocols are entered using a 5 x 7" touch screen and with room for 80 protocols you'll have plenty of memory.

Like most BioRad Instrumentation the software exceeds all your requirements & expectations is very intuitive therefore reaching for the manual will be a thing of the past... thank goodness!

Real time PCR enables both detection and quantification (as absolute number of copies or relative amount when normalized to DNA input or additional normalizing genes) of a specific sequence in a DNA sample. The procedure follows the general principle of polymerase chain reaction; its key feature is that the amplified DNA is quantified as it accumulates in the reaction in real time after each amplification cycle.

Multiplex capability allows detection of SVBR Green 1 and FAM in the first channel and a range of fluorophores in the second channel including TET, HEX, VIC and TAMRA for a multitude of applications such as RT-PCR and allelic discrimination.

DNA Engine Opticon 2 Real-Time Cycler Features

- Superb sensitivity yields accurate quantitation of as little as one initial template copy
- Rapid detection with low cycle time - sequential illumination and detection of 96 wells occurs in approximately 3 seconds
- DNA Engine thermal cycler offers precise thermal control and a temperature gradient feature which permits simultaneous incubation at 13 different temperatures to optimize reactions in a single run
- Real time results allow plotting of signal intensity vs. cycle number and graphical monitoring the thermal profile during the run
- Software allows quantitation of samples and generation of melt curves to verify product identity and allows quantification of samples and generation of melting curves to verify product identity
- Innovative optical system incorporates an array of 96 LEDs for excitation and a pair of sensitive PMTs for detection in a robust non-moving-part design
- High sample capacity accommodates up to 96 samples in standard low-profile PCR plates or long tubes making specialized disposables unnecessary
- A compact footprint 34 x 47 x 87 cm (W x D x H) ensures that the DNA Engine Opticon 2 system comfortably fits on any lab bench.

What makes the DNA Engine Opticon 2 Real-Time Cycler system so great is that it has two-color detection capability and a sensitive optical system with no reaction waste. Samples are illuminated by a fixed array of 96 blue-green LEDs and detected by two photomultiplier tubes (PMTs). The first PMT detects at 523-543 nm (suitable for detecting SVBR Green 1 and FAM-labeled probes) while the second detects at 540-700 nm (suitable for detecting many commonly used fluorophores including HEX, TET, TAMRA and VIC dye-labeled probes).

The DNA Engine Opticon 2 Real-Time Cycler can be used for singleplex or multiplex reactions. Multiplexing combines two or more reactions in a single tube which saves time and reagents. Furthermore multiplexing allows you to include internal controls to improve accuracy in many applications and simplifies genotyping by allowing the detection of multiple alleles within the same tube. For full use of the power of multiplexing Opticon Monitor software permits simultaneous viewing of data from two channels allowing plotting the fluorescence output of one dye against that of another for automated scoring of genotypes and includes a function for calculating relative gene expression.

Primary Contact:

TBD
(305) 248 2000

External Link:

PCR Thermal Cycler

All Equipment at Institute

• Florida International University

Life Sciences South Florida Technology Portal

technology - future - research

FIU FLORIDA INTERNATIONAL UNIVERSITY

FAU FLORIDA ATLANTIC UNIVERSITY

NOVA SOUTHEASTERN UNIVERSITY

This Site: Life Science microscope

Try searching again in All Sites.

Result Type 1-10 of 14 results

Any Result Type

Webpage

Site

Any Site

Isisportal.lifesc...

Modified Date

Any Modified Date

Past 24 Hours

Past Week

TAGS

Any Tags

Confocal Microscope

Electron Microscope

FAU-Equipment: (no title)
Electron Microscope ... Created at 11/14/2012 5:17 PM by Chris Mootoo ... Last modified at 11/22/2012 11:05 PM by Chris Mootoo ... Home/Life Sciences South Florida Technology Portal) Size: 4KB
https://isisportal.lifesciencesfl.org/_layouts/mobile/dispatch.aspx?list=490b73bf-1946-4987-8a62-07f6556e8ff4&view=05239383-d338-4893-85a2-7d188b458117&id=1

FIU-Equipment: (no title)
Inverted Microscope ... CF160 infinity optical system, parfocal distance 60mm ... Three-layer box type, M-45 alloy material ... Direct optical system (with direct C-mount adapter ... Size: 12KB
https://isisportal.lifesciencesfl.org/_layouts/mobile/dispatch.aspx?list=d185f470-934e-49ad-8baa-b1479019db08&view=262e8e96-db75-4310-8ba0-12bcf01666cc&id=5

FIU-Equipment: (no title)
make the IX51 the user-friendly microscope for high-volume laboratories. Efficient operation ... Advanced Phase Contrast technology offers superior imaging of ... IX51 Inverted Microscope ... Size: 7KB
https://isisportal.lifesciencesfl.org/_layouts/mobile/dispatch.aspx?list=d185f470-934e-49ad-8baa-b1479019db08&view=262e8e96-db75-4310-8ba0-12bcf01666cc&id=7

isisfeed.aspx
2.0 Life Sciences South Florida Technology Portal: FAU-Equipment
<https://isisportal.lifesciencesfl.org/Lists/FAUEquipment/List/AllItems.aspx> RSS feed for the FAU-

- Detailed equipment page with point of contact and link to external content
- Descriptions, titles and tags fully searchable and sortable

Member Institutions

