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# ANIMALAB

DISCOVERY PARTNER

Animalab is a trading and service company developing its activity in the life science market since 2004. As a well-coordinated team of specialists with education and interests in various areas of natural sciences, we have extensive experience enabling effective consulting and comprehensive service for university centers, scientific units, pharmaceutical and biotechnological companies. We specialize in:

- selling devices for in vivo and in vitro research,
- supplying laboratories with animal models,
- equipping animal facilities and laboratories.

To meet the expectations of our customers, in 2014 we opened a branch in Prague, dealing with the area of the Czech Republic and Slovakia, and since 2016 we have had a branch in Vac near Budapest, serving customers from Hungary and Romania. Since 2019, our wide range of products and services has been also available in the Baltic countries from the regional office in Riga, Latvia. In 2022, we expanded our operations to the Balkans by opening an office in Zagreb, Croatia, and in 2023, we opened an office in Germany, in Teltow near Berlin.

We focus on the diversity of our offer and its adaptation to the requirements and needs of our customers. We provide full assistance in selection of the right solutions. With many years of experience, we support our customers in making key investment decisions related to the design, construction and reconstruction of laboratory facilities and their equipment.



We specialize in transport of laboratory animals, carrying out intra-EU transports, as well as imports from non-European countries. We have our own fleet of vehicles adapted to long-term animal transport, and Animalab branches are entered in the appropriate national lists of suppliers of laboratory animals.

By providing our customers with research equipment, we guarantee full technical and service support. We perform warranty and post-warranty repairs, technical inspections and validations. We have service points in each branch, which ensure efficient and direct service.

We look forward to cooperating with you!

# ANIMAL FACILITY



# Animal housing

## Conventional housing

Animalab is a well-known supplier of wide range of housing products for the laboratory animal market. Next to standard line of housing products like polycarbonate and polysulfone, autoclavable cages for mice and rats, we offer stainless steel racks for guinea pigs, rabbits and dogs, all compliant with guidelines, easy to use and handle.

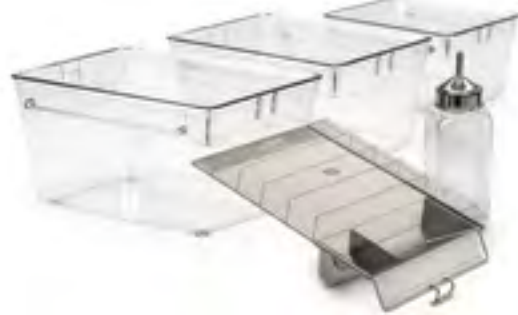
### Rabbit rack AK47001



 Velaz

- Conventional cages type I – IVS, in accordance with current, international legislation, especially Directive 2010/63/EU;
- stainless steel wire lids compatible with all cage models;
- water bottles with silicone ring and stainless steel cup from 200 ml to 750 ml;
- trolleys with drinking bottle baskets;
- stainless steel racks, stand-alone or mobile;
- custom-made, stainless steel furniture and equipment for animal facility.

### Polycarbonate cages, lid & bottle



 UNO  
Life Science Solutions

### E-Rack Educational rack



 Aquaneering

## Aquatic animals – racks & breeding systems

Aquaneering company designs large-scale, multi-rack aquatic facilities, used for zebrafish and other aquatic research models. The systems are designed to maximize housing capacity and meet animal facility needs. Whether designing for existing buildings or new construction, Animalab and Aquaneering engineers work closely with customers and architects, ensuring the best system design to help researchers achieve their goals and provide comprehensive after-sales service.

### Stand-alone system ZT350R



 Aquaneering

### BCU-2™ Sealed Negative Pressure IVC



**Allentown**  
Improving Life – it's in our DNA.™

### EasyCage® Mouse disposable cage



**Allentown**  
Improving Life – it's in our DNA.™

### NexGen™ Mouse 500 IVC with tower blower



**Allentown**  
Improving Life – it's in our DNA.™

## Rodents - individually ventilated cage systems, IVC

Allentown is an American manufacturer of IVC systems and cages for laboratory animals. Since 1968, has been updating systems for maintaining mice, rats, rabbits and guinea pigs, creating comprehensive solutions for animal facilities with BSL2 and BSL3 biosafety levels. **NexGen™ IVC** rack series offers many variations and models, single and double sided, dedicated to creating set-ups that match different customer demands.

**Sentry SPP™ IVC** rack is a convenient alternative to isolators, dedicated for gnotobiotic and germ-free mice, with installed positive pressure system with additional sealing.

Smart WiVarium Plus software provides clients safety control and management of all Allentown IVC racks.

- Unique and patented solution - airflow at the cage bottom, ensuring effective ventilation and reduction of ammonia and CO<sub>2</sub> level inside each cage;
- blowers' configuration allowing great space management in your facility, besides standard tower and wall blowers, rack top mounted blowers;
- integration with **Sentinel™ Colony Health Monitoring** mounted in each IVC rack.

Animalab ensures service and regular replacement of HEPA filters for all offered Allentown systems.

### NexGen™ Mouse 500 IVC with rack mounted blowers



**Allentown**  
Improving Life – it's in our DNA.™

# Autoclaves & decontamination solutions

## Autoclaves

### Horizontal & vertical models

We offer a broad selection of autoclave models with functions that streamline the sterilization process. Thanks to close cooperation with Italian company Steelco, which is a part of Miele Group, we provide solutions for laboratories, animal facilities and industry.



AUTOCLAVES CATALOG

For small laboratories, we offer a dedicated, slim, 110 liter autoclave, and for customers expecting high throughput, we offer devices with a chamber volume up to 920 liters, also pass-through models. For sterilization of large-

sized loads we install bulk autoclaves up to 9.070 liters, providing customization and turnkey solutions to meet all demands of our customers.

### Important features of Steelco autoclaves:

- a full cooling jacket (chamber coverage of over 90%), which, thanks to its continuous construction, ensures uniform temperature distribution and rapid cooling;
- PT1000 probes installed in the chamber, enabling precise temperature control;
- doors opened manually or automatically;
- fulfilled GMP requirements.

By providing our customers with a wider range of options when choosing autoclaves, we offer German quality autoclaves, guaranteed by HP Labortechnik, available in two distinctive product lines – BlueLine and GreenLine.

### Horizontal autoclave VS-L-262639



**Steelco**  Group Member

### Steelco autoclaves series



**Steelco**  Group Member

### BlueLine autoclaves



  
HP LABORTECHNIK

**BlueLine** autoclaves are available in versions from 75 to 175 liters of chamber capacity. They are characterized by an easy-to-clean, smooth sterilization chamber without internal, protruding heating elements and possibility of connection to the feed water. Models from this series can be optionally equipped with lifting, vacuum, cooling, drying, filtration and media temperature control modules.



**GreenLine autoclaves**



**GreenLine** autoclaves in versions from 80 to 180 liters are simple, low-cost solutions for solid and liquid sterilization without the necessity of connection to a water source and a steam generator.



HP AUTOCLAVE CATALOG

**TICHE 60 I autoclave**



**Medical class B autoclaves**

For those who need small sterilization instruments, surgical tools and others, we offer tabletop autoclave from the Italian company Newmed. They can be equipped with an optional, internal water purification system. Chamber capacities are available between 6 to 60 liters. Newmed autoclaves are also available as **medical, class B autoclaves**.

**KRONOS 18 I autoclave**



**Hot bead sterilizer 18000-50, deep 14 cm**



**Hot bead sterilizer 18000-45, deep 8 cm**



**Hot bead sterilizers**

**Hot bead sterilizers** by Fine Science Tools have been designed for rapid thermal sterilization of surgical instruments and other small laboratory equipment. The glass ball bed heats up to 270°C, providing ideal sterilization conditions within 20 seconds.

### Decontamination hatcher



**ortner**  
clearrooms unlimited

## Decontamination pass-through boxes & locks

Decontamination airlocks are used to transport products or objects sensitive to high temperature and pressure, in aseptic conditions, between zones. **Ortner**, an Austrian manufacturer, offers a fully automated solution. The innovative nozzle system additionally accelerates the gas inlet and outlet, as well its distribution in the chamber. Controlling the airlock is simple and easy via an intuitively designed user interface using a touchscreen panel.

**Steelco Decontamination Lock** has many customizable options: single door or double door pass-through versions, both in a full glass or stainless steel door version with glass window. The access doors are equipped with integral inflatable gaskets in order to grant the tightness of the chamber in SPF barrier facilities as well as during the decontamination cycles. The unit can be provided with an onboard hydrogen peroxide vapor generator or can be connected to an external generator. It can also use chlorine dioxide.

Another manufacturer from Sweden, **Nordic Labtech** offers airlocks providing passive, active or with built-in decontamination spray systems. These airlocks are equipped with microprocessor controller with intuitive interface, pneumatic door seals and bioseal to secure barrier as an option.

### Decontamination lock



**Steelco** **Miele** Group Member



**nordic labtech**



**ortner**  
clearrooms unlimited

## H<sub>2</sub>O<sub>2</sub> decontamination systems

In clean areas, requiring high hygiene conditions and protection against pathogens, sterilization cannot always be used. Equipment sensitive to high temperatures and pressure, e.g. packaged disposable materials, drug delivery devices or stainless steel tools, machine parts, laboratory materials made of plastic and electronic devices are subjected to hydrogen peroxide in decontamination chambers. Airborne Surface Disinfection (ASD) is a popular technique of decontamination. Hydrogen peroxide converts completely into H<sub>2</sub>O and O<sub>2</sub>, so biocides are therefore 100% biodegradable. As there is no residue, the biocide has no residual effect.

### H<sub>2</sub>O<sub>2</sub> generator Phileas® 75



### Mobile H<sub>2</sub>O<sub>2</sub> generator ISU 2.0



### Decontamination mats



 SANIMAT

- The process of evaporation of liquid hydrogen peroxide takes place via a generator fully integrated with the technical part of the main equipment;
- the ventilation system guarantees even distribution of H<sub>2</sub>O<sub>2</sub> in the chamber and on the loading, ensuring a fast aeration phase and higher throughput;
- after low-temperature treatment, decontamination reaches a sterility assurance level (SAL) of up to 10<sup>-6</sup>;
- the device complies with GMP assumptions.

We offer hydrogen peroxide gas generator from **Devea** and Ortner company.

Devea **Phileas**® is a well-known brand offering many mobile generator models. Phileas® 5 is dedicated for very small volumes from 50 to 1000 liters. Phileas® 15 can be easily inserted into the structure of tanks or silos. It is especially adapted for treating high volumes of tank from 20 up to 1000 liters. It can also be used in spaces without electrical outlets (truck cabins, planes, etc.). **Phileas**® **One** is specially designed to adapt to the constraints of communities. It is perfect for hospital or health care premises, retirement homes and nurseries, as well as the food industry, veterinary homes or research laboratories.

**Phileas**® **25** provides exclusive multi-cycle programme, that enables to treat equipment such as isolators, RABS, BSC, and treat volume from 1 to 40 m<sup>3</sup>. High throughput systems such as **Phileas**® **75**, **Phileas**® **250**, **Phileas**® **285** are dedicated to treat bigger volumes, even up to 1665 m<sup>3</sup>. All Phileas® systems work with a ready-to-use, bactericidal, yeast, fungicidal, sporicidal and surface disinfectant **O2SAFE**®7.4.

**No budget for device? Ask Animalab about professional decontamination service! More at the page 95.**

## Decontamination mats

**Decontamination mats** are made of 30-layer polyethylene film attached to the floor at the entrance to the protected area. Ideal for laboratories, animal houses, hospitals, healthcare facilities, the food and energy industry and all clean areas in factories.

- Available in several models and sizes;
- the active substance on the mat surface contains a bactericidal agent and effectively prevents the growth of mold and bacteria;
- the mats adhere directly to the substrate without the need for additional frames.

# Diet & bedding

## Altromin diets



## Diet

Elevate your research with Altromin's high-quality diets, where precision and care ensure optimized nutritional solutions for your scientific success.

With over 50 years of experience, Altromin's diets for laboratory animals are designed to meet the highest standards in laboratory research. Altromin products are ISO and GMP certified, ensuring quality and reliability in every batch. Using carefully selected raw materials, diets are produced entirely in-house, guaranteeing consistency and excellence.

Our extensive range of diets caters to various species, including mice, rats, rabbits, guinea pigs, minipigs, and more. We offer **standard diets for breeding and maintenance**, specialized diets for transgenic and nude animals, and **high-fat diets** for obesity and diabetes research. Additionally, our portfolio includes **medicated diets** for easy drug administration, custom formulations, and options like autoclavable and irradiated diets.

## Selected raw ingredients in Altromin diets



## Bedding, nesting materials & enrichment

Animalab proudly offers a range of premium bedding, nesting materials, and environmental enrichment products, designed to enhance the welfare and research outcomes of laboratory animals. **Tapvei's aspen bedding** is a standout choice, characterized by high absorption and low dust content, ensuring a safe and pleasant environment for both animals and technicians. It is meticulously processed to remove sharp edges, making it ideal for sensitive species (e.g. hairless animals).

## Aspen wood bedding, nesting material & enrichment



**Nesting materials** from Tapvei offer a comforting and stimulating habitat, allowing animals to express natural behaviors such as nesting, which reduces stress and enhances their overall welfare. Made from pure aspen, these materials are soft, clean, and long-lasting, providing a perfect shelter and resting place for various species.

A research environment can be a stressful and unnatural setting for laboratory animals. Environmental enrichment enhances the animal's physiological and psychological well-being, prevents stereotypical behavior, promotes the expression of species specific behavior and improves animal welfare. Therefore, environmental enrichment is an essential component of a successful research program. Animalab offers a wide variety of enrichment products including disposable chewing bricks and cardboard homes as well as **Datesand reusable polycarbonate toys**.

### Aspen bricks



 **TAPVEI**<sup>®</sup>  
Quality answers in aspen

### Aspen tunnel



 **TAPVEI**<sup>®</sup>  
Quality answers in aspen

### Playing balls



 **TAPVEI**<sup>®</sup>  
Quality answers in aspen

### Mouse tent



 **datesand**  
group

### Mouse tunnels



 **datesand**  
group

### Play tunnels



 **datesand**  
group

# Flow systems

nLAF Air shower



**nordic  
labtech**

## Air showers

**Nordic Labtech air showers** prevent the transfer of contamination when entering a clean area or leaving a contaminated area without changing clothes. The system works by blowing a stream of filtered air onto the user to remove dirt particles. 100% of the air is recirculated through pre-filters and HEPA H14 main filter. The operation of the device does not affect the ventilation of the room. Animalab delivers and installs mostly air showers from Swedish company, Nordic Labtech.

### Characteristics:

- air speed 35 m/s;
  - air exchange 1800 m<sup>3</sup>/h;
  - a pressure chamber surrounded by negative pressure;
- G3 pre-filters or optional H 13 filters;
- 24 pcs. air blowing nozzles in total, 12 pcs. on each side. The lowest row, only 250 mm from the floor, ensures high spray performance even in the lower part;
  - sound level at an air speed of 33 m/s approximately 55 dB (A) outside the device and 83 dB (A) inside the device;
  - material: powder-coated steel sheet, AISI 316 stainless steel.

We also offer **JET Personnel air showers** from Austrian company - Ortner, providing personnel showers: wet showers, fog showers and emergency showers.



### Bedding supply & disposal system



Healthy Business  
**Dustcontrol**

## Bedding dispensers & disposal stations

Thanks to cooperation with **Dustcontrol** we design variety of supply and disposal systems in animal facilities. A large number of options and customized solutions guarantee full adaptation to the building design and smooth workflow of the animal facility:

- easy supply to the dispensing silo with BigBags;
- interim storage of clean bedding in the silos;
- disposal of contaminated animal bedding into a feed hopper directly at the washer and other options;
- bedding disposal into a vacuum sealed lorry container;
- technical central unit with dust separator, vacuum producer and controls.

### FlexFlow Bedding dispenser



**Allentown**  
Improving Life – It's in our DNA.

### Bedding dispensers

Unparalleled dispensing accuracy with a tolerance of  $\pm 4\%$ .

- Compatible with all free-flowing rodent bedding, with sizes ranging from 0,9-10 mm, as well as all commonly used wood and paper-based bedding (including corn cob);
- custom-built, automatic bedding filling station – SychemFILL XL.

### SychemFILL Bedding dispenser



**SYCHEM**

### Phantom Bedding disposal station



**Allentown**  
Improving Life – It's in our DNA.

### Bedding disposal stations

- Triple stage filtration allows quiet operation;
- double chute & sliding worksurface.

### SychemWASTE Bedding disposal station



**SYCHEM**

## Cage changing stations, cage transfer stations

Depending on the equipment implemented in the project, we can offer different modes of cage replacement stations from **Allentown**, **Nordic Labtech** or **Sychem**. All of them are characterized by HEPA H14 filtration system, with prefilters and ISO class 3 airflow. All models are super silent during operation, achieving noise level even below <math><52\text{ dB (A)}</math>!

### Phantom2 Animal Transfer Station



**Allentown.**  
Improving Life – it's in our DNA.

### Mobile cage changing station



**nordic  
labtech**

### SychemCHANGE Cage changing station



**SYCHEM**

## Isolators, glove boxes

Class III chambers are glove boxes providing excellent user protection and complete safety. Due to the fact that each laboratory has its own needs, research ideas and solutions, all our partners: **Nordic Labtech**, Erlab and Plas-Labs provide customization possibilities.

- Easy to operate touch screen presenting important data about workflow status, including emergency;

- supply and exhaust air is filtered using a HEPA H14 filter;
- easy service access from the front of the device;
- equipped with locks for safe sample transfer;
- many options: anti-vibration weighing station, double HEPA-14 filtration for exhaust air, gas-tight supply and exhaust valves, connection with class II cabinet.

Our devices fulfill EN 14644 ISO standard which describes requirements for clean rooms in respect of particles concentration.

### I.Box Zoo Isolator



**erlab**  
You can breathe.

### Isolator 870-CLC



**PLAS LABS®**



Animal Recovery Unit



Recovery & isolation units for animals

Isolation and recovery units are indispensable when you have to separate an animal from the group. In our portfolio, you will find various devices: from small, mobile individually ventilated cage systems with HEPA filtered air to one-cage boxes. **Animal Recovery Unit** is dedicated for usage with Allentown cages and is a great addition to the IVC racks equipment in your animal facility. **Thermacage** is the ideal solution for post-operative care and blood sampling procedures with small rodents. For procedures requiring many frequent manual manipulations on separated laboratory animals, **I.Box Zoo** glove boxes are the best solution. Erlab provide also ventilated **A.BOX** cabinets.

Maxi Thermacage



Mini Thermacage



Ventilated cabinet A.Box 120



Glove Box I.Box Zoo 3



# Washers & detergents

## Washers

Steelco has been actively operating on the global market for more than 20 years and is constantly improving its products to provide users with high quality workflow. They have broad range of products bringing high quality washing solutions that may be applied in laboratories (glass washing), animal facilities (washers for rodent cages and aquatic tanks) and industry, and pharma (parts of machines). This huge experience allows us to deliver standard as well as turnkey solutions.

## Laboratory washers

Lab washers occur in a range from small undercounter to bulk sized models (600 liters). Steelco provides a wide selection of nozzles for various glassware types and a self-centering system (new!) enabling one-handed operation. Worth to mention features are:

- acceleration of the cycle while saving time and energy;
- the Fast Cycle option ensuring acceleration of the cycle while saving time and energy;
- thanks to the variable speed pump (new!), the circulation pressure and water consumption are optimized for the individual loads;
- efficient water recycling.

### Small and medium laboratory washers



LABWARE  
SMALL & MEDIUM  
WASHING  
SYSTEMS

## High capacity laboratory washers



LABWARE  
HIGH CAPACITY  
WASHING  
SYSTEMS



**Steelco**  Group Member

## AC 1500 washer



**Steelco**  Group Member

## Washers for rodent cages and aquatic tanks

Steelco also brings solutions for medium-size (**AC 1500**) and big-size animal facilities (**AC 8500**) for washing rodent cages and aquatic tanks.

Features that lead to effective results:

- single door or pass-through model;
- automatic vertical space-saving sliding up door made of double HST tempered glass, granting total visual monitoring of the process;
- highest levels of cleaning efficacy, final rinse temperature - 85°C, water sprayed through an independent rinsing circuit;
- 2 chemical dosing pumps.

## Rack and tunnel washers



**Steelco** Miele Group Member

The washer can be equipped with dedicated accessories for the optimized loading of animal cages, feeding bottles, aquatic tanks and rabbit pans. For rack washing, Steelco bulk models work the best.

- Step or continuous operation versions;
- separated washing and rinsing circuits;
- dedicated water jets for high temperature final rinse;
- visual inspection of each chamber;
- suitable for integration with robotic technology;
- water filtering system with easy maintenance;
- all solutions can be provided with GMP fulfilment.

**If you want to take your animal facility to the next level and are looking for automated solutions, we have something for you!**



**WASHING & STERILIZATION SOLUTIONS FOR ANIMAL FACILITY**

### Washer AC 7500 with glass door



**Steelco** Miele Group Member

### Washer AC 8000, with stainless steel door



**Steelco** Miele Group Member

All in one solution, **MITO FB COMBI**, is a great solution for automated bottles washing. Up to 1440 bottles and caps per hour!

- Automatic loading table: automatic or robotic loading systems;
- decapping and emptying: the caps of the bottles are removed and placed on the dedicated washing line. The remaining water in the bottles is automatically emptied;
- washing phase: bottles and caps are washed separately in interlocked chambers;
- sanitization phase: sanitization is performed by rinsing with individual nozzles for bottle and caps;
- filling phase: bottle filling automatically starts once the crate is correctly positioned;
- recapping phase: at the end of the process, the bottles are automatically capped with the same initials caps.

For rodent cages, model **AC 3500** as an automated tunnel washer provides up to 750 clean cages per hour!

**MITO FB COMBI automated washer**



**Steelco**  Group Member

**MITO FBS in-line configuration**



**Steelco**  Group Member

**MITO AC 3500 washer**



**Steelco**  Group Member

## Detergents

For perfect washing effects the highest quality agents are needed. Chemical Products R. Borghgraef s.a. provides solutions for laboratory and industrial applications. RBS detergents are dedicated for cleaning glassware and laboratory equipment made of, among others, plastic, ceramic, stainless steel. They efficiently remove most of residues such as greases, oils, chemical and distillation residues, proteins, blood and derivatives, biological residues and radioactive contaminants.

- **Safety:** in normal working conditions, RBS cleaning solutions do not produce either atmospheric emissions, or health risks or unpleasant smells for user. The surfactants involved in the formulae are biodegradable;
- **efficacy:** RBS cleaning agents constitute safe alternatives to hazardous acid mixtures (e.g. chromic acid). They present high emulsifying, wetting and dispersing powers which allow efficient removal of stubborn residues from glassware;
- **rinsing:** RBS products rinse away easily and completely to leave the cleaned surfaces free from any interfering residues or films;
- **cost effective:** RBS detergents are economical and present favourable benefit/cost ratio due notably to the low working concentrations.

### Low foam acid detergent IND 950



RBS A 156 should be considered for glassware washing in automatic washer (alkaline non-foaming) and RBS A 375 as a rinsing aid. For animal facilities, depending on contamination type, solutions are as follows:

- **RBS A 156:** Highly alkaline detergent;
- **RBS A 375:** Acidic neutralizing agent - Based on organic acids;
- **RBS NA 2:** Acidic neutralizing agent - Based on phosphoric acid;
- **RBS IND 950:** Acid cleaning agent all in one.

Wide range of RBS detergents find applications in all pharma, biotech, cosmetics and industry sectors. Everywhere, where cleaning is a part of production processes.

### Acidic neutralizing agent - based on phosphoric acid NA 2



### Highly alkaline detergent A 156



# CELL & TISSUE



# Biosensors

## Four-Channel Free Radical Analyzer TBR4100



Sensor selection for application depends on few features, like response, detection limit, free radical detection, selectivity and linearity. Macro- and microsensors from WPI company, meet the highest standards in every parameter. WPI's biosensors are unique, because they offer a high selectivity and low detection limit (down to nM concentration) with a broad dynamic range; covering physiological concentration of species with different sizes from nM to mM.

WPI's biosensors are dedicated to detect species like carbon monoxide, nitric oxide, hydrogen peroxide, oxygen, hydrogen sulfide, ions and others. They work with **Free Radical Analyzer**, oxygen meters, fiber optic ph systems and DAQs. We offer complete systems chosen to meet your specific needs.

## Temperature Sensor ISO-TEMP



## Hydrogen Peroxide Sensor ISO-HPO-2



## Nitric Oxide Probe ISO-NOP



## Oxygen Sensor ISO-OXY-2





# Cell counters

## Automated cell counter



RWD  
MULTI-LINE SOLUTIONS

## NucleoCounter® NC-250



chemometec

## NucleoCounter® NC-202™



chemometec

## Cell density analyzer XcytoMatic® 40



chemometec

## Automatic cell counters & nucleocounters

The most reliable and precise range of **automated cell counters from RWD company, Chemometec NucleoCounter® systems, like NC-250, NC-202** and image analyzers, help to eliminate human error and obtain fast and consistent results. All instruments are pre-calibrated and do not require maintenance services.

- Automated cell counter in bright field or fluorescence with intelligent software and excellent microscopy optics;
- automated cell analyzer for cell count & viability with additional cell cycle and vitality assays;
- advanced **Image Cytometer** with variety of fixed and build-your-own assays;
- high-throughput automated cell counters for cGMP biomanufacturing, trypan blue-free;
- all-in-one solution for imaging, counting and characterizing adherent or non-adherent colonies, spheroids or organoids on a single integrated hardware and software.

For high-throughput tests requiring very fast data processing, we recommend the latest **XcytoMatic® Instruments** that support cGMP manufacturing of biologics, vaccines, and advanced therapies. The XcytoMatic® 40 (XM40™) is a high-throughput cell density and viability analyzer that can run 24 samples in under 14 minutes. The variation between cell counts for these samples is under 3%. If scale-out and scale-up is a concern, you can trust each XM40™ instrument in your production to deliver the same quality results. The instrument-to-instrument variation for this model lies under 5%, supporting easy tech transfer.

## Cell colony counter

The Colony Forming Assay and colony counting is universally recognized as the gold standard method for measuring the effects of radiation, chemotherapeutic drugs and other agents on mammalian cell viability. **GelCount™** is an easy-to-use, PC software-operated colony counter that automates the detection, counting and analysis of mammalian cell colonies in multi-well plates, Petri dishes and T25 flasks. Colonies and cell types can be either adherent ('2D'), or non-adherent ('3D') seeded in semi-solid matrices or indeed suspension.



OXFORD  
OPTRONIX

# Cell culture storage, transport & cell dissociation

Life Science Production (LSP) is one of the UK's leading suppliers for off-the-shelf and custom biological products, also offering contract manufacturing services for life science research requirements worldwide.

## Transport & storage medium

Innovative media for transport and short-term storage of cells and tissues at ambient temperature. They are an economical and safe alternative to cryopreservation, minimizing the number of procedures and the risk of contamination. They are xeno-free and do not contain ingredients of animal origin!

- **CellShip®**: sterile and fully defined medium for transport and storage of cells at ambient temperature for up to 120 hours. Solvent-free (DMSO-free), manufactured under ISO 13485;
- **T-Store®**: sterile, chemically defined and optimized tissue transport and storage medium. Provides a stable environment, maintaining tissue integrity, thereby reducing necrosis and apoptosis. Produced as a UKCA/CE marked product.

## Cell culture sera

**Fetal bovine serum (FBS)** is the most widely used basal media supplement for in vitro cell culture. Life Science Production offer high-quality FBS from a variety of geographies to suit both budgetary and research requirements, including South America, the USA, New

### Human ABS serum



### CellShip®



### T-Store®



Zealand, Australia, the EU and USDA-tested (Central America) origins. LSG FBS serum is covered by the ISIA certification program. Each batch of serum is rigorously controlled for origin and quality, and this information is provided on the product label and in the Certificate of Analysis. Serum collection and processing processes are in accordance with applicable European regulations, ensuring high quality and safety of the product.

**Human AB Serum (hAB)** is a vital cell culture reagent for some human cell types. It provides growth factors, vitamins, nutrients as well as trace elements and transport factors. LSG's hAB serum is derived exclusively from male donors with blood group AB lacks antibodies against the A and B blood-type antigens and is therefore commonly used when there is the need to minimize immunoreactivity. An additional advantage is the absence of the risk of antibodies against major histocompatibility class (MHC) antigens, which could be present in female or mixed plasma. The guarantee of origin exclusively from FDA-licensed facilities enhanced donor traceability and additional viral testing compared with standard grade.

### Single cell suspension dissociator DSC-800



RWD  
WWW.RWDLABORATORY.COM

## Cell dissociation

**RWD Single cell suspension dissociator** can gently dissociate fresh tissue into single cell suspension or tissue homogenate. It matches with tissue processing tubes, tissue dissociation kits, and optimization programs for different tissues from rats and mice. The device is available as 8 or 4 channel version. We offer also **Magnetic microbeads cell separation** kit dedicated to separation of, among others, CD3+, CD4+, CD8+, CD19+, CD45+ mouse and human cells.

**CellSplit® dissociation reagent**, completely xeno-free, direct replacement to porcine or bovine-derived trypsin. Its active ingredient is derived from plants and is manufactured under GMP standards, ensuring a wide range of applications in cell dissociation.

### Magnetic Microbeads Cell Separation Kit



RWD  
WWW.RWDLABORATORY.COM

### Cell Sorting Kit



RWD  
WWW.RWDLABORATORY.COM

### Single cell suspension dissociator DSC-400



RWD  
WWW.RWDLABORATORY.COM

# Electrophysiology, mapping systems

## Electrical Mapping System



## Electrical Mapping Systems

The **Electrical Mapping Systems** (EMS) are equipped with a new generation of Multi-Electrode Arrays (MEAs) and high performance amplifiers. The advanced EMapping software enables fast recording of field potentials from in vitro, in vivo and ex vivo cardiac samples. Electrical activity and conduction information can be studied in great detail at the tissue level. The precision of the data acquisition system allows the precise detection of ion channel abnormalities. It can also be grouped with other devices such as ventricular or coronary pressure probe, monophasic action potential (MAP) system, myocardial tension, perfusion temperature and optical mapping system. These features greatly enhance the ability of cardiac electrophysiology researchers to better understand the mechanisms of cardiac arrhythmias. Our system is also an ideal candidate for efficient screening of new anti-arrhythmic drugs and drug toxicity testing.

## Optical Mapping System



## Optical Mapping Systems

Dual signal **Optical Mapping Systems** are suitable for simultaneous recording of cardiac membrane potential and calcium imaging. The latest version of optical mapping system is equipped with back-illuminated scientific CMOS cameras with 95% quantum efficiency (QE) and pixel size from  $6.5 \mu\text{m} \times 6.5 \mu\text{m}$  to  $11 \mu\text{m} \times 11 \mu\text{m}$ . It provides high-speed, low-noise acquisition with a dynamic range of up to 50,000:1 (94 dB). The optical axis can be either vertical or horizontal. There are various I/O connectors to help researchers set up the communication system. An 8-channel TTL controller is designed to synchronize devices such as camera, LED light controller, stimulator, ECG, MAP, pressure and temperature probes with the optical mapping system. OMapRecord/Scope is an advanced data acquisition and analysis software with a user-friendly intuitive interface and highly efficient data management.

### Calcium & Contractility Mapping System



MappingLab®

## Calcium & Contractility Mapping System

The **Calcium and Contractility Mapping System** is designed to synchronously monitor myocardial contractions and cellular calcium transient signals. In addition, this system is capable of detecting action potentials and calcium transient signals in small cardiac models (such as isolated zebrafish hearts) and organoids, ranging in size from 0.1 mm to 3 mm.

### EVOM™ Manual



## TEER measurement

WPI's **EVOM™ Manual** is the gold standard for delivering stable and repeatable Trans Epithelial Electrical Resistance (TEER) measurements. The system qualitatively measures cell monolayer health status and cell confluence by determining an increase or a plateau in tissue resistance detected using innovative EVOM™ technology.

The STX4 electrode provides easy insertion into many 12- and 24-well plates. It is re-placeable location in the insert for repeatable and consistent measurements. Alternative Endohm chambers are available, even for better stability and reproducibility.

### 96 Well Array Station ECIS® ZΘ



## ECIS

If you are looking for a perfect solution for studying cells behavior in a deeper method, ECIS® (Electric Cell-substrate Impedance Sensing), will be the best for you! ECIS includes testing of monolayer barrier function, cell growth rates and viability, wound-healing migration and other behaviors directed by the cell's cytoskeleton. It may be applied to many research areas, like cell attachment, wound healing and cell migration, signal transduction, cell behavior under flow, measurement of metastatic potential and modeling of endothelial cell barrier function, toxicological screening.

### 16 Well Array Station ECIS® ZΘ



The **ECIS® ZΘ (Z Theta)** is capable of tracking cell behavior in real-time using electric cell-substrate impedance sensing. With an alternating current across patterned gold electrodes, a voltage potential is created which is then measured by the system. When cells cover these electrodes, the current is then impeded in different manners depending upon the overall cell morphology. ECIS is the best real-time, impedance-based method for in vitro research, being an alternative to animal testing.

# Imaging labware, live cell imaging

## ibidi Labware portfolio



Live cell imaging, obtaining perfect picture for publication, beside high-resolution microscopy, requires labware with high optical properties.

ibidi company, provides perfect quality with their slides and plates. User can choose between a glass or polymer bottom.

For TIRF, super-resolution microscopy, and single molecule microscopy, borosilicate cover-glass bottom is suggested. It is completely gas-proof and does not allow for any gas exchange. The **ibidi glass bottom labware** is available as a dish, slide and plate format.

## ibidi Bioinert labware



The most recommended bottom for phase contrast, DIC, widefield fluorescence, confocal microscopy, two-photon microscopy, FRAP, FRET, FLIM, or LSM is the **ibidi Polymer Coverslip**. Unlike glass, the ibidi Polymer Coverslip is gas-permeable. The most impressive feature of ibidi Polymer Coverslip is high optical properties without any disruptive autofluorescence. The ibidi Polymer Coverslip provides optimal growth conditions for various cell-based assays and cell types and is available with different treatments or coatings.

Depending on application and cell types ibidi offers wide options of surfaces and coatings.

**ibiTreat:** this surface is tissue culture-treated that provides excellent cell adhesion without need of additional coating but also another specific coatings can be done on this surface.

**Uncoated:** the best polymer hydrophobic surface for applying dedicated coating.

**Bioinert:** hydrophilic surface enables growing spheroids, embryoid bodies (EBs), organoids. The Bioinert surface is ideal for the culture of suspension cells and cell aggregates.

## ibidi Pump System



**ibidi Stage Top Incubator for Slide & Dish, with CO<sub>2</sub> & O<sub>2</sub> control  
- Silver Line**



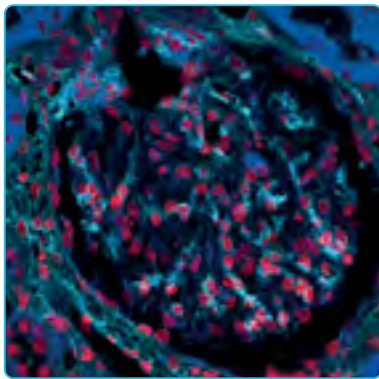
During cell colony live imaging, especially in long-term experiments, maintaining appropriate conditions is crucial. To provide controlled environment with temperature, humidity, CO<sub>2</sub> and O<sub>2</sub> levels, ibidi comes with **ibidi Stage Top Incubator**. Game changing solution is also **ibidi Pump System** that ensures in vivo-like conditions for the cultivation of cells under flow.

ibidi products are dedicated for inverted microscopes.



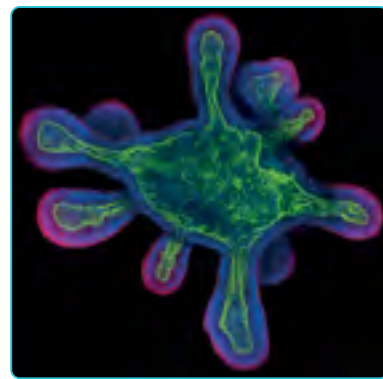
IBIDI PRODUCT  
GUIDE CATALOG

See live cell images taken using ibidi labware and medium.



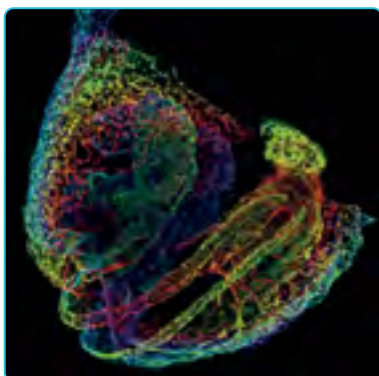
**Immunofluorescence of a human glomerulus using ibidi Mounting Medium with DAPI**

Lindsey Fitzsimons, University of New England, University of Maine, USA



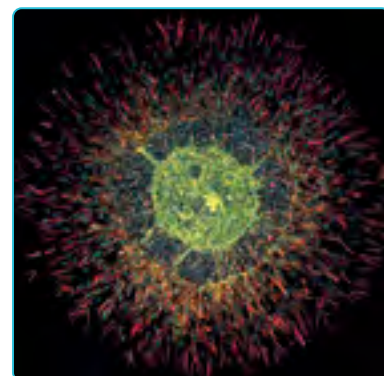
**3D murine ileum organoid cultured in the μ-Slide 8 Well**

Felix Scharte, University of Osnabrück Germany



**3D whole-mount of a day 8.5 mouse embryo in the μ-Slide 8 well Glass Bottom**

Anahi Binagui-Casas, University of Edinburgh, United Kingdom



**Spheroid of human intestinal fibroblasts and endothelial cells in the μ-Slide 4 Well**

Henrique Nogueira Pinto, Universidade do Porto, Portugal

# Isolated tissue & organ systems

## Tissue-Organ Bath Systems, Langendorff, Working Heart Systems

Advanced tissue and organ bath systems by ADInstruments and Radnoti are designed to elevate your research capabilities in physiology and pharmacology studies. These systems provide precise control and measurement of isolated organs, ensuring reliable and reproducible data.

**Radnoti Tissue-Organ Bath Systems** are the gold standard for isolated tissue research, featuring innovative designs that enhance experimental protocol and performance. Their pre-warming coil ensures optimal solution temperature control, while quick-disconnect fittings allow for easy attachment and detachment. These systems are indispensable for pharmacological and physiological research, offering flexibility and precision.

### Rodent Langendorff Foundation System with PowerLab C RSBC007-V



**ADINSTRUMENTS**  
making science easier

**ADInstruments Rodent Langendorff System** is tailored for small animal hearts like those of mice and rats. This system enables precise control of perfusion pressure or flow, and its modular design allows flexible experimental setups. The system includes a powerful peristaltic pump and double-walled glassware to maintain stable temperature and clear perfusate pathways, ensuring accurate measurements of cardiac parameters.



RESEARCH  
SYSTEMS CATALOG



### Working Heart System RSBRAD220-V



**ADINSTRUMENTS**  
making science easier

**Radnoti Isolated Heart Systems**, in collaboration with ADInstruments, provide exceptional solutions for cardiac research. The Langendorff systems offer high-quality glassware for perfusing isolated rodent hearts, allowing measurement of various parameters such as pressure, biopotentials, and temperature. These systems feature modular designs for easy adjustments and customizations, water-jacketed circuits for uniform temperature control, and options for perfusate recirculation. The **Working Heart Systems** support small animal hearts, providing comprehensive data on cardiac function including LVP,  $dP/dt_{max}$ , and heart rate. Both systems are designed for seamless integration with PowerLab and LabChart for powerful data acquisition and analysis.

### Isolated Perfused Rodent Liver System RSBRAD810-V



**ADINSTRUMENTS**  
making science easier

**ADInstruments Isolated Perfused Rodent Liver System** is a comprehensive solution for studying physiology and pathophysiology of rodents. With features like water-jacketed circuits for uniform temperature maintenance and ports for bile sample removal, it is ideal for liver disease studies and transplantation research. The system combines high-quality Radnoti glassware with the versatile PowerLab and LabChart data acquisition system, enabling precise and consistent recording of liver functions. In the offer you will find **Radnoti Isolated Rodent Liver/Kidney Apparatus**.



RESEARCH  
SYSTEMS CATALOG

#### Comprehensive data acquisition and analysis

ADInstruments' systems, including the Rodent Langendorff System, Radnoti Isolated Heart Systems, and the Isolated Perfused Rodent Liver System, integrate seamlessly with the **PowerLab data acquisition system** and **LabChart software**. This combination ensures precise and consistent data recording, allowing comprehensive and sophisticated analysis. Researchers benefit from the powerful and flexible tools provided by LabChart, making these systems indispensable for innovative and groundbreaking research.

## Myograph systems

DMT myograph systems have been designed for cutting-edge research in muscle and vascular physiology. Our selection includes wire myographs, pressure myographs, and muscle strip myographs, each engineered to provide unparalleled precision and ease of use for scientific professionals.

### Automated Multi-Myograph System - 630MA



DMT

### Wire myographs

DMT's Wire Myographs are the epitome of precision in vascular research. These systems facilitate the study of small vessel reactivity and morphology by mounting the vessel as a ring preparation. The **Single Wire Myograph System - 320A**, for instance, allows manual control of vessel circumference and tension, providing high-resolution data on vessel contractility. The **Dual Wire Myograph System - 420A** enables simultaneous testing of two vessels, perfect for comparative studies. The **Multi Wire Myograph System - 620M**, with four chambers, is ideal for high-throughput pharmacological investigations, offering automated normalization and precise force measurements (**630MA**).

### Pressure Myograph System - 114P



DMT

### Pressure myographs

For researchers focused on understanding vascular function under physiological conditions, DMT's Pressure Myographs are indispensable. These systems are designed to study isolated sections of small vessels under controlled pressure.

The **Pressure Myograph System - 114P** offers a built-in heating system and advanced software (MyoVIEW) for detailed data collection on vessel wall thickness and intravascular pressure. The 112PP model adds the capability for pulsatile flow studies, simulating heart-like conditions with precision. The **No Force Perfusion Myograph System - 114PN**, while cost-effective, retains all essential functionalities, making it ideal for studying myogenic responses and flow-mediated dilation.

### Muscle Strip System - 840MD



DMT

### Muscle strip myographs

DMT's Muscle Strip Myographs are tailored for studying the contractility and dynamics of muscle strips from various tissues. The **MyoDynamics Muscle Strip Myograph System - 840M** features four individual chambers, allowing simultaneous examination of multiple muscle strips. This system is particularly suited for research on skeletal and cardiac muscle, providing programmable stretching and retraction to simulate physiological conditions. With built-in heating and oxygenation, the 840MD ensures optimal maintenance of tissue viability during experiments.

These sophisticated systems from DMT A/S are integral tools for researchers aiming to advance their understanding of vascular and muscle physiology. Combining ergonomic designs, precise control mechanisms, and advanced data acquisition capabilities, DMT Myographs support a wide range of experimental needs, from basic research to high-throughput drug screening.

# Microinjection, injection, pumps

## Nanoliter Microinjection Pump R480 & MM-500 Micromanipulator Set



## UltraMicroPump UMP3



Our offer includes customizable microinjection systems to match your specific needs. A variety of pumps along with special syringes, stereotaxic frames, glass capillaries and needles provide many customizable options and accessories. The setup you choose depends on the size of your injection aliquots, the volume to be injected and the size of needle or glass tip you choose. In addition, we offer an electroporator for transfection procedures. For all injection systems there are micromanipulators available with dedicated microscopes.

**UltraMicroPump3** with SMARTController, is a WPI microinjection pump for precise sample delivery or extraction in low-volume applications. The touch-screen display controller offers an intuitive, user-friendly interface. From other supplier, RWD, we offer **Nanoliter Injection Pump System** with digital controller.

## MICRO-ePUMP system complete



WPI **MICRO-ePump** microinjector use precisely set air pressure for injecting cells with fluid in volumes range from picoliters to nanoliters. The port supplies positive pressure for high-pressure ejection. The pressure port maintains a low positive "compensation" pressure to the injecting pipette between injection pulses to prevent fluid uptake through capillary action.

### Syringe pumps

Standard syringe pumps available in our offer come from WPI and RWD companies. To meet the demands of a busy lab, Aladdin Pumps offer exceptional value providing versatility and reliability for accurately dispensing media, down into the nanoliter range.

#### Aladdin syringe pump AL-4000



#### Dual channel syringe pump R462



### Peristaltic pumps

Peri-Star Pro peristaltic pumps provide accurate and precise pumping with convenience and versatility. It can be run in either flow rate mode (mL/min) or rotation speed mode (rpm). **MINISTAR** compact and lightweight peristaltic pump fits just about anywhere. It can be mounted directly on the bench, in a regular rack or to a post. The more advanced **Aladdin 9000 Series** peristaltic pumps are equipped to be used in many settings from the small home based businesses to the large factory floor. Applications range from continuous flow to measured dispenses. The pump can be integrated into existing production lines or simply used stand alone.

#### Peristaltic pump PERIPRO-4LS



#### Peristaltic pump MINISTAR



WPI CATALOG

# Microscopes

## WiScan® Hermes screening system



### Hermes screening system

The WiScan® Hermes is IDEA Bio-Medical's high content screening system, designed for rapid, robust screens of biological samples to produce high quality images and reliable data.

The microscope hardware consists of an intuitively operated, high-end and cost-effective inverted microscope incorporating several patented technologies. A novel moving-objective design leaves the sample stationary while enabling the microscope to operate at extremely high image acquisition speed across multi-well plates and generate publication-grade images. A unique laser autofocus integrated with the scanner capabilities insures very accurate focus position and repeatability.

The microscope maximizes flexibility by offering compatibility with optional environmental chambers for live-cell or hypoxic conditions, and by supporting Z-stack image acquisition, up to 7 fluorescence channels and magnifications in the range of 2x to 60x with high NA (air, water and oil objectives supported).

Optionally, the microscope can be combined with the **Hermes 24/7 robotic arm**, also produced by IDEA Bio-Medical, to enable fully autonomous sample loading and image acquisition as a one-stop-shop. The accompanying proprietary image analysis software, **WiSoft® Athena**, is suitable for a broad range of biological applications based on the company's unique library of algorithms, which are continuously improved and upgraded. The software is intuitive and designed for users having any level of microscopy expertise.

## Zeiss AXIO Observer



Seeing beyond

## Trinocular microscope PZMIII-MI with camera, micromanipulator & illuminated base stand



### Research microscopes

Close cooperation with Zeiss and WPI enable us to deliver appropriate microscopy solutions to meet scientists' needs. In our portfolio you will find wide offer of optic microscopes, like **WPI Precision Stereo Zoom Microscope** most commonly used for microinjections.

Fluorescent, inverted and confocal microscopes, are dedicated for cell super-resolution microscopy. The most popular model, **Zeiss Axiolab 5**, is designed for routine microscopic work. Thanks to its compact and ergonomic design, it takes up little space. In combination with microscope cameras, Axiocam allows you to take pictures and record videos from a tripod and maintain full digital documentation. One of the latest microscopy system is **Zeiss AXIO Observer**, inverted microscope platform with AI assisted experiment startup.

# Pathology

## Vibratome 7000 SMZ



Campden  
Instruments

## Vibrating microtomes

Animalab offers a fully automated vibrating microtomes to meet the different needs of microtomists, to produce high-quality sections across an extensive range of specimen types, even for preparations for visual patch clamping or high resolution imaging. Sophisticated **vibratomes 7000SMZ and 5100MZ** by **Campden Instruments** ensure excellent tissue section with tissue continuity and perfect uniform thickness.

- Include a Z-axis calibration unit and blade adjust minimizer;
- both ceramic and stainless-steel microtome blades to choose;
- additional accessories like Temperature Controlled Standard Tissue Bath;
- 5-inch touch screen to query the microtome usage.

## Vibratome 5100mz



Campden  
Instruments

## Rotary paraffin microtomes

The RWD Life Science rotary microtomes offers a combination of manual sectioning and semi-automated setup, meeting operators' different habits. Automated models are equipped with in patented technology of pointer identification, where the sample angle can be adjusted visually. As a result, the positioning is more accurate; the knife holder has a small lateral displacement and high accuracy.

## Microtome Minux S712



RWD  
LIFE SCIENCE

## Automated cryostats

Fully-automated and semi-automated cryostats from RWD Life Science have been designed to consistently produce high quality frozen sections of maximum quality. Featured superior capability, it is able to cut tissues very quickly at as low temperatures as  $-35^{\circ}\text{C}$ . Even with open window, the Cutting-Edge Cooling Technology achieves less than  $2^{\circ}\text{C}$  of temperature fluctuations in 3 hours.

## Cryostat Minux FS800A



RWD  
LIFE SCIENCE

- UVC disinfection to reduce the risk of contamination by infectious materials;
- quick positioning: precise positioning system with  $\pm 8^{\circ}$  visual pointer make it easy to adjust the specimen clamp to the target angle, reducing trimming and sample waste;
- equipped with a 7-inch colorful touch-sensitive screen and a joystick, integrated with coarse sample feeding, trimming and section switching, and thickness adjustment constitute an efficient operating system.

# EDUCATION



# Lt, Lt LabStation and Education Kits

## Enhance Your Educational Experience with ADInstrument's cutting-edge solutions for teaching!

Animalab is proud to offer state-of-the-art educational tools designed to transform laboratory learning. Our portfolio includes innovative Lt and Lt LabStation software platforms, along with versatile educational hardware kits from ADInstruments, providing comprehensive solutions for educators and students.

### Lt online, interactive learning platform



### Lt LabStation: Simplify and Enrich Your Labs

Lt LabStation is a robust learning platform tailored for life science labs. Combining the power of real-time data recording with a library of over 150 high-quality, customizable lessons, Lt LabStation engages students through hands-on experimentation and peer collaboration. Designed for flexibility, it seamlessly integrates with PowerLab, renowned data acquisition hardware, ensuring a modern and efficient lab experience.

### LabStation learning platform





## Lt online learning platform with PowerLab 26T & Lt sensor



### Lt: The Future of Online Learning

For a truly versatile and interactive learning environment, Lt is your go-to cloud-based platform. With over 900 ready-to-use lessons spanning life sciences, medicine, and more, Lt empowers students to learn anytime, anywhere. Its intuitive interface allows educators to create and customize content effortlessly, fostering an engaging and dynamic educational experience. Whether in the lab or remotely, Lt's integration with Lt Sensors and PowerLab provides students with real physiological data, enhancing their practical understanding.

### PowerLab: Reliable Data Acquisition

PowerLab sets the standard for data acquisition in educational settings. This robust hardware supports a wide range of physiological experiments, delivering accurate and reliable data every time. Simple to set up and built to endure the demands of student use, PowerLab ensures consistent performance, making it an ideal choice for any life science classroom.

## Versatile Education Kits

ADI's education kits are designed to meet diverse teaching needs and budgets. Paired with Lt or Lt LabStation, these kits offer a complete package of experiments, transducers, and accessories, providing everything necessary to create an engaging and effective learning environment. From cardiovascular to psychophysiology labs, these solutions are tailored to connect theory with practice, boosting student engagement and improving pass rates.



EDUCATION  
SYSTEMS BROCHURE

Choose Animalab for innovative, user-friendly educational tools that elevate learning experience and prepare students for future success.

# Student surgical instruments



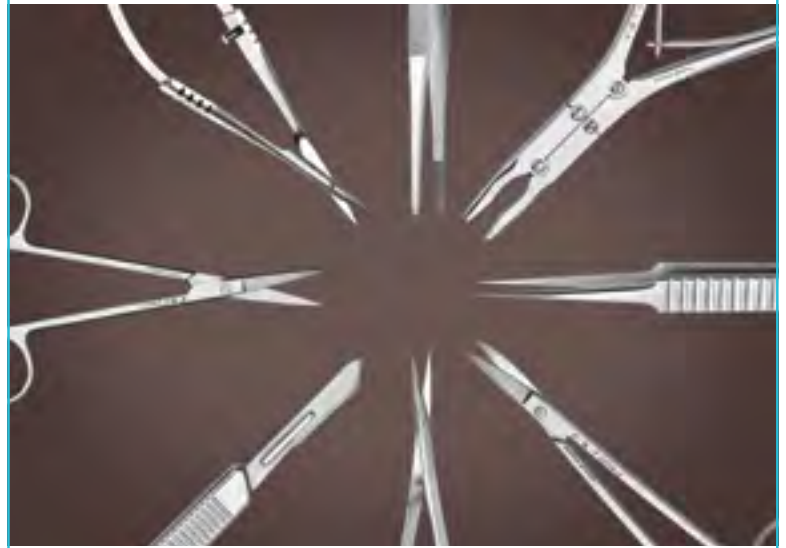
SURGICAL  
INSTRUMENTS  
CATALOG

Fine Science Tools (FST) developed a full line of student surgical instruments, specifically designed for educational settings. **FST student instruments** are made

of high-quality stainless steel, ensuring the precision and reliability FST is known for, even at a lower cost. The tools are designed with less hand finishing, making them a cost-effective choice for educational use without sacrificing essential quality.

FST maintain high quality standards despite the reduced price. Key features of student line include affordability, quantity discounts, and durable construction.

FST student instruments



F · S · T  
FINE SCIENCE TOOLS

## Surgery trainings



Thanks to our cooperation with many research centers, we are able to provide and organize training courses improving microsurgical skills in most applications. The participation options are few: online, in-house of training center, as a hands-on laboratory course or in the customer's laboratory. With **Instech** company, our customers have online access for wide range of trainings providing techniques of catheter implantation in rat and mouse. From **René Remie Surgical Skills Centre** we offer courses of experimental research techniques above all infusion, blood sampling, preparing cardio-vascular and stroke models, telemetry implantation and glucose clamping.

# INSTECH



**IN VIVO  
RESEARCH**



# Activity & exploration systems

## ANY-Maze software



Ugo Basile offers high quality mazes that provide optimal results with video tracking software thanks to their very high contrast and non-reflective surface. Mazes are easy to set up and clean. All mazes surface textures are selected for rodent comfort. They provide test with mice as well as with rats.

- Multi-Maze, modular, fully automated maze;
- Agora Maze - SocioBox method;
- Radial Maze 8-Arm for mice and rats, optimized for video-tracking;
- Delta Maze;
- T-Maze, Y-Maze, Zero-Maze, optimized for video-tracking;
- Barnes Maze.

### AnyMaze Video-Tracking Software

This software enables researchers to study behavior in a more reliable and consistent way and over longer time periods than if they were using direct observation or manual recording. Tracking by ANY-maze does not require special set-up or parameters: you put the animal in the apparatus and track a whole body from the head to tail.



BEHAVIOR, PAIN  
& INFLAMMATION  
SYSTEMS CATALOG

## LUX infrared (IR) Illuminator with open field



The **LUX infrared (IR) Illuminator** enables illumination from below of all Ugo Basile IR mazes, which are made of IR transparent plastic. This has the dual advantage of facilitating experiments in the dark and increasing the contrast to ensure better detection, regardless of the animal's color.

### ActiMot2

The multi-purpose ActiMot2 system is a fully automated infrared activity frame for mice and rats, detecting spontaneous or induced animal movement with a 3-dimensional grid of light-beam sensors. Horizontal and vertical movements are reliably detected with high spatial and temporal resolution. Available for Open Field experiments to study spontaneous activity, exploration and anxiety.

## ActiMot2 system

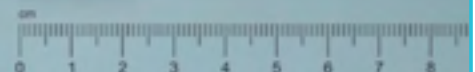


### Implantable loggers

Star-Oddi's small, implantable data loggers are ideal for studies on all animal species both captive and free-ranging animals, whether in the lab or the wild. They come with the option of three parameters: temperature, heart rate and activity. Loggers are made of leadless ceramic material to guarantee biocompatibility.

## Logger DST-micro-HRT

STAR : ODDI  
Logging Life Science



# Anesthesia & euthanasia

## Low flow vaporizer SomnoFlo®



## Anesthesia – low flow & standard flow systems

Animalab offers two different types of anesthesia, working with isoflurane and sevoflurane.

### Low flow anesthesia

Unlike traditional vaporizers, Kent Scientific low-flow vaporizers, **SomnoFlo®** and **SomnoSuite®** are engineered with solid state electronics and an integrated electronic vaporizer which uses either ambient air or compressed gas to deliver anesthetic at low flow rates proportionate to the animal's size. This advanced design eliminates the need for annual certification that is required by traditional wick design vaporizers. Using less anesthesia benefits the animal during procedures, and significantly reduces exposure of lab personnel to waste anesthetic gases (WAG) while generating impressive cost savings.

SomnoFlo and SomnoSuite systems have compatible accessory kits dedicated for rats and mice, induction chambers, masks, appropriate tubings and gas canisters. They can be used with **RoVent® ventilation system**, oxygen concentrator, intubation kit or stereotaxy system.

Features & benefits of low-flow anesthesia:

- saves money by using less than 1 mL/hr of isoflurane;
- built-in air compressor;
- uses room air or compressed gas;
- automated anesthetic delivery system directly from the bottle;
- ensures precision to 0.1% delivery of anesthetic;
- no annual calibration or certification;
- provides for reproducible and uninterrupted studies.

## Low flow anesthesia syringe system SomnoSuite®



## Accessory set-up SF-RATKIT



### Anesthesia set up with ventilation



**RWD**  
RESEARCH WHEELER DUNN

### Mobile Compact Small Animal Anesthesia System



**RWD**  
RESEARCH WHEELER DUNN

### Standard-flow anesthesia

Traditional, high-flow vaporizers allow proper, safe, and effective delivery of inhalant for laboratory rodents and larger animals. They have wide application in veterinary field. Systems are available as table top or mobile.

We supply extensive equipment ensuring fast and safe operation: induction chambers, anesthetic masks dedicated to a given animal model, gas evacuation systems, filters, oxygen concentrators and air pumps.

### TAIJI Anesthesia system



**RWD**  
RESEARCH WHEELER DUNN

### VetFlo anesthesia for veterinary



**Kent Scientific**  
CORPORATION

### Euthanasia MultiOne system



**TEM SEGA**  
One touch device

### Euthanasia systems

We offer standard and custom made euthanasia solutions using CO<sub>2</sub> gas to euthanize animals. The systems are fully automated and are based on strict protocols ensuring safety for animals and staff, and fulfilling the 3R principles.

Mobile and tabletop version of the CO<sub>2</sub> **TemSega euthanasia devices** are equipped with a simple and intuitive interface, pneumatic circuit, electronically controlled and self-regulating pressure for better respect for the animal.

# Animal research models

Animal models are the foundation of biomedical research, providing critical insights into disease mechanisms, therapeutic efficacy, and biological processes. Animalab is proud to offer an extensive portfolio of high-quality animal models in partnership with **Charles River Laboratories** and **The Jackson Laboratory**.

Our comprehensive portfolio includes different species (mice, rats, guinea pigs, rabbits, hamsters and gerbils) catering to a wide array of research needs such as metabolic studies, cardiovascular research, neuroscience, oncology, and immunology. **Charles River's Model Evaluation Program** helps researchers assess the suitability and compatibility of models before making a commitment. This program is designed to support the research journey every step of the way, ensuring access to the best possible tools for scientific endeavours.

Health and genetic integrity are paramount for Charles River Laboratories and The Jackson Laboratory. All models adhere to the highest health standards, with classifications such as Specific Pathogen Free (SPF) and Specific and Opportunistic Pathogen Free (SOPF). These classifications ensure that the animals are free from specific infectious agents and parasites, maintaining the integrity of research. The International Genetic Standard (IGS) program further guarantees genetic uniformity and stability across colonies, minimizing genetic drift and enhancing reproducibility.

  
charles river



ANIMAL RESEARCH  
MODELS & SERVICES  
CATALOG

Animal welfare is at the core of all operations. The principles of the 3Rs (Replacement, Reduction, Refinement) are strictly followed, and rigorous standards set by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) are adhered to. The facilities and practices are designed to ensure the highest level of care and ethical treatment for animals, reflecting a dedication to responsible research.

**Animalab logistic** capabilities ensure seamless delivery of models across Europe. Transportation is managed through a dedicated fleet and air transport services, ensuring that animals arrive at facilities in optimal condition. This logistical excellence demonstrates a commitment to providing reliable and efficient support to the research community.

Animal models distributed by Animalab are not just products - they are integral tools that drive scientific discovery and innovation. The commitment to quality, ethical standards, and customer support ensures access to the best models and resources, empowering research to make groundbreaking advancements.

## Immunodeficient, nude mouse



## C57BL/6J mouse



## Wistar Han IGS rat



## Zucker Diabetic Fatty rat



# Behavior, cardio & genetic studies

## Operant Fear Conditioning system with ANY-maze software



## Rodent studies

Whether your research involves the study of memory, learning, anxiety, depression, fear, stress, social interaction, addiction, or more complex behavioural protocols, we have the answer: Ugo Basile line of conditioning and avoidance cages, mazes, video tracking system, etc. keeps growing thanks to always new devices and methods.



BEHAVIOR, PAIN & INFLAMMATION SYSTEMS CATALOG

- **Operant Fear Conditioning (OFC)** combines a classic skinner box with sound and light cues for complex experiments, as well as standard operant tests and fear conditioning protocols;
- **Pre-Pulse Inhibition of Startle Reflex (PPI)** to work with pre-pulses and pulse stimuli of several kinds (white noise, frequency noise, light, air puff), where a PC software enables flexible programming of any kind of procedure with randomizations and seamless data capture;
- **Operon** (for attentional set-shifting) - a fully automated version of the ID/ED task to study the ability of mice to shift attention through different rules, using two or three different dimensions (i.e. lights, odours, and textures);
- Active/Passive Avoidance, Learned Helplessness, Conditioned Place preference, Porsolt Test, Tail Suspension Test.

## Startle PPI system with ANY-maze software



## Operon system





### Passive Avoidance system



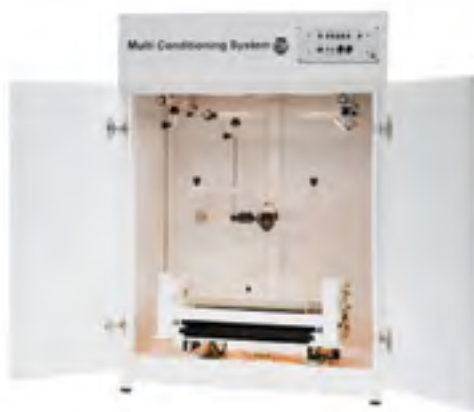
**u**go basile®  
TRANSFORMING IDEAS  
INTO INSTRUMENTS

### Conditioned Place Preference system



**u**go basile®  
TRANSFORMING IDEAS  
INTO INSTRUMENTS

### Multi Conditioning System



**TSE**  
systems

TSE Systems offer multipurpose platform for ten behavioral paradigms - **MultiConditioning System** enabling comprehensive behavioral testing (learning, memory, emotion, anxiety) within a single, automated platform. The main benefits of test made by MultiConditioning System are reduced costs, minimized space requirements, enhanced data accuracy and superior reproducibility. The powerful software, with 3 comprehensive packages allows running and analyzing over 10 behavioral tests: fear conditioning, open field and activity, active and passive avoidance, place preference, light/dark test, learned helplessness, latent inhibition, panic response and hole-board exploration.

### IntelliCage system



**TSE**  
systems

### IntelliCage - new standard for rodents behavioral & cognitive phenotyping

The IntelliCage system is a versatile platform for studying a broad spectrum of rodent behaviors. From spontaneous activity, circadian rhythms to spatial preferences and corner exploration patterns, or intricate patrolling behaviors.

- 24/7 continuous testing;
- group housing of 16 mice or 8 rats in a social home cage environment;
- multiple paradigms & minimum human interference;
- customizable experimental setups.

### ZebraBox



**ViewPoint**  
Behavior Technology

## Aquatic animal studies

**Behavioral studies** of adults, larvae and embryos of fish and other species can be performed in a very wide range by **ZebraBox**. This video tracking system is a well-known tool for many research applications, including safety pharmacology, toxicology, ecotoxicology, drug screening and drug development, behavioral genetics, ethology, muscle disorders, rare diseases, seizures, cytotoxicity, photoresponse, vision testing... and many more.

- Temperature control unit;
- sound and light stimulation module;
- optogenetic TopLight;
- shoaling tests, rotations, social contacts, place preference.

The **CardioPhys™ ECG system** is a highly versatile tool for measuring ECG of a wide spectra of animals – as small as a zebrafish embryo to animals as large as an alligator. It is a bioamplifier that is designed to amplify the sum of electrical potentials from cardiac muscle, and other extracellular signals. The signal produced from cardiac recordings tracks the depolarisation and repolarisation of the cardiomyocytes, as they contract in succession to pump blood through the heart.

### MICRO-ePORE Cell penetrator



**WPI**  
WORLD  
PRECISION  
INSTRUMENTS

### Microinjection Tool Box

Microinjection is a popular laboratory technique used for many applications, including cellular injection. WPI meets the need of lab budgets with efficient, cost-effective stations for microinjection and transfection. WPI injection system consist of most popular pumps, the **MICRO-ePUMP** with Integrated Cell Penetrator and internal pressure source, microscope with lighted base, appropriate micromanipulators with stand and many other accessories.

### WPI Microinjection & transfection system



**WPI**  
WORLD  
PRECISION  
INSTRUMENTS

# Blood pressure & flow, oxygenation, hypoxia

## Human NIBP Nano System



**ADINSTRUMENTS**  
making science easier

## CODA® High Throughput NIBP System



**Kent Scientific**  
CORPORATION

## Mikro-Tip™ BP Foundation System



**ADINSTRUMENTS**  
making science easier

## Non-Invasive Blood Pressure (NIBP) systems

**Human NIBP Nano System** utilizes advanced Finapres technology, allowing continuous, non-invasive blood pressure monitoring through finger arterial pressure changes. This system is ideal for applications such as cardiorespiratory studies, exercise physiology, and sleep studies. The integrated LabChart software facilitates seamless data acquisition and analysis, providing real-time insights into systolic, diastolic, and mean arterial pressures. The system is designed for comfort during long sampling periods, making it suitable for both clinical and research environments.

The **CODA® system** powered by Kent Scientific's Volume Pressure Recording (VPR) technology, offers non-invasive blood pressure measurement for rodents. This system ensures accurate readings by detecting tail blood volume and pressure. It is perfect for applications including drug screening, surgical monitoring, and cardiovascular research. The CODA® Monitor's ability to stream data directly into LabChart makes it an invaluable tool for capturing comprehensive hemodynamic data over extended periods, whether the animals are awake or anesthetized.

## Invasive Blood Pressure (IBP) systems

Research, invasive blood pressure systems for humans are designed for precise cardiovascular experiments, allowing direct measurement of arterial and vascular pressures through catheter insertion. These systems provide unparalleled accuracy and sensitivity, essential for studies involving acute cardiovascular monitoring and time-sensitive data analysis.

The **Mikro-Tip™ BP Foundation System** from Millars offers the gold standard of invasive blood pressure measurement. This system includes Mikro-Tip™ pressure catheters that can be placed directly into an animal artery or heart to capture highly accurate pressure data. It is ideal for studies on pulmonary hypertension, cardiac hypertrophy, and ischemia or reperfusion. The system's integration with LabChart software enables detailed data analysis and real-time monitoring, making it a cornerstone for advanced cardiovascular research.



RESEARCH  
SYSTEMS CATALOG

Read more about blood pressure measurement by Stellar telemetry (p. 73).

### Laser Speckle Imaging System



## Blood flow monitoring

**Laser Speckle Imaging System** is an even better tool for microcirculation research based on laser speckle contrast imaging technology (LSCI).

With the advanced optical design and improved image processing algorithm, RFLSI-ZW shows greater performance in imaging field size, image quality, full-field frame rate and optical resolution, and provides a powerful and efficient means for human and animal tissue blood flow measurement.

The LSCI technology advantages are its non-contact, no contrast agent required, high frame-rate, high spatial resolution features. They can be used to observe and record blood perfusion of any exposed tissues or organs for microcirculation study or pre-clinical researches like ischemic stroke, lower limbs, mesentery, etc. Multi-Output includes blood perfusion images and videos (500+ million pixels), quantified data for perfusion unit and vessel diameter.

### Laser Doppler Blood FlowMeter INL191



Doppler systems for microvascular blood perfusion measurements: **Laser Doppler Blood FlowMeter** from ADInstruments and the from Oxford Optronix. Both systems offer cutting-edge technology for accurate, real-time assessment of tissue-blood perfusion.

Utilizing laser Doppler flowmetry (LDF), these non-invasive systems continuously measure microvascular blood perfusion. Ideal for monitoring blood flow in applications like peripheral vascular disorders, cerebral perfusion in stroke models, tumor perfusion, and wound healing, they cater to both invasive and non-invasive needs.

Supporting a variety of probe types, these systems offer flexibility for multiple specialist disciplines. The Doppler Flowmeter's compatibility with LabChart software ensures seamless data acquisition with preloaded configurations, eliminating extensive calibration.

### OxyFlo™ microvascular blood flow monitor



**OxyFlo™** excels at motion artifact rejection technology for stable readings despite movement. Its multi-channel capability allows simultaneous monitoring from several tissue sites, enhancing productivity. The intuitive touchscreen interface and one-time probe calibration simplifies its use.

OxyFlo™ also integrates with **OxyLite™** oxygen monitors for simultaneous tissue oxygen and blood flow measurements. Both systems provide robust data logging options with analog and digital outputs compatible with LabChart Pro software, ensuring data integrity and easy analysis.

### OxyLite™ Pro oxygen monitor



## Oxygenation

**OxyLite™** sets the gold standard for tissue  $pO_2$  and dissolved oxygen monitoring, renowned globally for its accuracy and reliability in hypoxia and ischemia research. This sophisticated device measures oxygen in absolute units (mmHg or kPa), providing a direct readout of oxygen availability to cells. OxyLite's advanced fluorescence-based 'optode' sensor technology ensures unmatched sensitivity and stability, crucial for applications in cancer biology, stroke, and wound healing, etc.

Offering both single and multi-channel options, OxyLite can monitor up to four sensors simultaneously, displaying data on an intuitive touchscreen. The plug-and-play design eliminates the need for sensor calibration, enhancing ease of use. OxyLite's compatibility with the HypoxyLab enables integrated oxygen measurement and control, making it a versatile addition to any laboratory focused on hypoxia-related studies.

### MouseOX® Plus



**MouseOX® Plus** is vital sign monitoring system dedicated up to 16 mice or rats. It collects data of heart rate, temperature, gross activity and oxygenation  $SpO_2$ , breath parameters, arterial blood and breath distension. Wide selection for paw, throat, foot and collar sensors enables effective in vivo monitoring of parameters. MouseOX® Plus is clinically validated and has been used and cited in a multitude of published studies.

### HypoxyLab - normoxia & hypoxia workstation



## Hypoxia studies

**HypoxyLab** is an innovative physiological oxygen incubator and workstation, meticulously engineered to maintain optimal conditions for cell and tissue cultures. Unlike standard incubators, HypoxyLab regulates the environment using partial pressure of oxygen ( $pO_2$ ), ensuring true 'physoxia' by simulating in vivo oxygen levels. This approach not only avoids the metabolic side effects associated with high oxygen exposure but also guarantees reproducibility across different climatic conditions and altitudes. The integrated HEPA filtration and UV source safeguard against contamination, while the intuitive touchscreen interface, simplifies operation and monitoring.

Together, HypoxyLab and OxyLite provide a comprehensive solution for researchers aiming to accurately replicate and study hypoxic conditions. Combined capabilities of these systems, in maintaining and measuring precise oxygen levels, make them essential tools for advancing our understanding of hypoxia in various biological and medical contexts. Choose HypoxyLab and OxyLite for reliable, high-performance hypoxia research.

# Data Acquisition Systems

Animalab offers a diverse range of Data Acquisition (DAQ) systems from ADInstruments and WPI, designed to meet various needs of scientific research professionals. Our portfolio includes accessible LabTrax/ LabScribe system from WPI and the versatile, advanced PowerLab/ LabChart system from ADInstruments.

## Data Acquisition System Lab-Trax 8-16



### WPI LabTrax/ LabScribe systems

WPI's LabTrax systems, such as the **Lab-Trax-4**, are ideal for researchers seeking reliable, simple data acquisition solutions. These systems provide 16-bit resolution over a  $\pm 10V$  input range, ensuring precise measurements with minimal noise interference. The LabTrax series offers seamless data straightforward communication and power management via USB, making it compatible with laptops and desktops without expansion slots. Equipped with front-panel-mounted BNC connectors, these devices are user-friendly and versatile. Combined with WPI's signal conditioners and the **LabScribe** software, they are perfect for a variety of applications including cardiovascular studies, blood pressure monitoring, cardiac electrophysiology, and isolated tissue studies. LabScribe software enhances the user experience with features like automated task macros, experiment builders, and advanced analysis modules for diverse research needs.

## Data Acquisition System - PowerLab C



### ADInstruments PowerLab/ LabChart systems

ADInstruments offers the renowned **PowerLab** series, which has been a staple in scientific research for over three decades. PowerLab systems are engineered for high-speed, precise, and reliable data acquisition, making them ideal for a broad range of physiological measurements. The traditional **PowerLab 26** series and the modern digital **PowerLab C** series provide researchers with unparalleled flexibility. The PowerLab 26 series offers high-quality, reproducible data from analog signals, with options for 2 to 4 channels and sampling rates up to 100kHz per channel. These systems are known for their robustness and time synchronization capabilities.

The innovative PowerLab C series introduces a modular approach, allowing the integration of multiple C Series interfaces for both analog and digital data acquisition. With features like adaptive mains filtering and sub- $\mu S$  time synchronization, PowerLab C supports up to 32 channels, offering researchers the ability to configure their systems precisely according to their needs.

LabChart & LabChart Lightning Software



LabChart Software

Both PowerLab series are complemented by ADInstruments' LabChart software. **LabChart 8** is a traditional analysis software, providing comprehensive data acquisition and advanced calculation capabilities. The latest version, enhances the user experience with a re-imagined interface focused on power, ease of use, and data integrity. It supports cross-recording analysis, custom calculations, and unlimited channels, making it a flexible tool for innovative research.

For LabChart 8, customers have variety of extension and modules dedicated for wide range of research applications. Nearly forty add-ons ensure that LabChart is one of the most comprehensive research software in the world.

PowerLab C with Front End & Instrument Interface



**LabChart Lightning** runs on Quark, the same reliable and robust engine that powers LabChart 8. So not a lot has changed, except everything. LabChart Lightning has been completely re-imagined to focus on combining power, ease of use, and data integrity. This means that LabChart Lightning has some awesome new features like unlimited channels, cross recording analysis, custom calculations, and data management. LabChart Lightning also runs exactly the same version on both Windows and Mac. However, it does not yet have any of the extensions or modules that LabChart 8 has.

PowerLab C with Bio Amp Front End & Instrument Interface



RESEARCH SYSTEMS CATALOG



BASICS DATA ACQUISITION BROCHURE

# Electrophysiology, physiology

## LabChart software



**ADINSTRUMENTS**  
making science easier

ADInstruments offers a comprehensive range of electrophysiology systems designed to facilitate the study of electrical properties in biological cells and tissues in both human and animal research. These systems are essential for measuring and analyzing biopotentials such as ECG, EEG, EMG, and EOG.

**ADInstruments' Bio Amps** are galvanically isolated, high-performance differential biological amplifiers, optimized for measuring a wide variety of biological signals such as ECG/EKG, EMG, EOG, and EEG. These amplifiers are designed with high-quality noise specifications and a range of filter settings, ensuring precise and accurate recordings. The Bio Amps are available in Single, Dual, Quad, and Octal configurations and are supplied with Bio Amp Connection Cables

and Lead Wires, making them suitable and safe for both human and animal research. An audio output is also available to help monitor signals. These amplifiers work in conjunction with the PowerLab data acquisition systems and LabChart software, offering a wide range of filters for processing biosignals from various research areas, including autonomic and sympathetic nervous system function, cardiovascular disease, muscle activation, evoked responses, and heart rate variability. The high input impedance and common mode rejection ratio (CMRR) support improved noise reduction, facilitating easier experiment setup and data acquisition. The seamless integration with analog transducers and signal conditioners promotes a streamlined workflow, empowering researchers to acquire and analyze biological data with ease and precision.

## PowerLab C with Bio Amp



**ADINSTRUMENTS**  
making science easier



# Identification of animals



## RFID microchips

**UID Microchips** offer a reliable, convenient and permanent method for positive identification and accurate temperature measurements of laboratory animals. UID leverages cutting-edge RFID technology alongside innovative software solutions to simplify the identification and monitoring of research animals and laboratory assets. Our comprehensive product offer not only automates data collection but also optimizes workflow efficiency and streamlining processes for enhanced lab productivity.

- High quality and cost effective RFID readers to match your specific process or application: handheld, desktop, with base station and high power console;
- microchip injectors in form of syringe or pistol grip.

## Labstamp® tail tattooing system

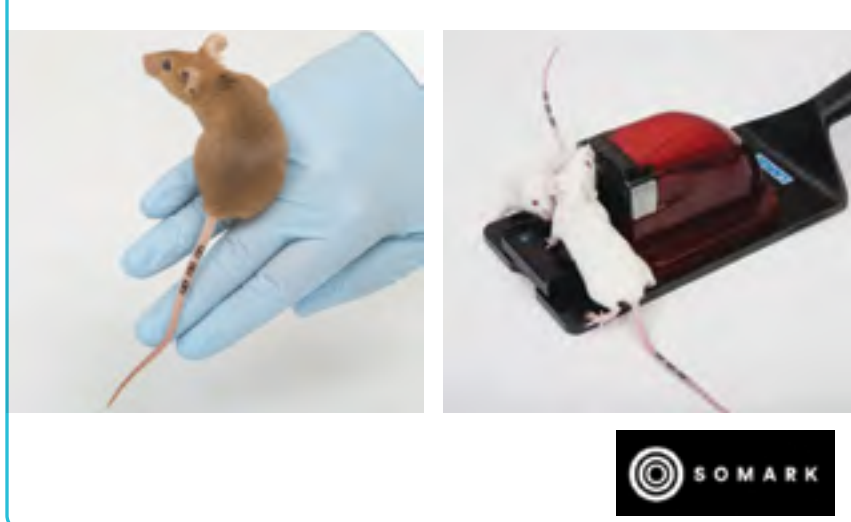


## Other animal identification techniques

Animalab offers many other products for animal identification, like ear tags, ear punches, skin markers or tattooing systems. We deliver simply and handy **Micro tattoo systems** as well as sophisticated Labstamp system.

The **Labstamp® tail tattooing system** comes complete with the electronic application system, which you program adding chosen 3 characters of ID value. The restrainer keeps the tail in place and ensures minimal stress for the mouse. The tattoo needle and our special TriCell ink slide contain the specially formulated, sterilized by irradiation ink. Unique and patented Labstamp® design guarantees the tattoo ink is precisely applied to the middle of the dermal layer of the tail (225-275m microns/ $\mu\text{m}$ ). The tattoo ink can be black for albino colonies or UV for non-albino colonies, ensuring the ID is readable for the lifetime of the mouse.

## Labstamp® Mouse ID

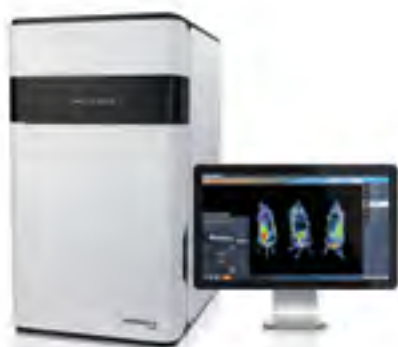


## Micro tattoo system



# Imaging

## Newton 7.0 FT500



**VILBER**

## Bioluminescence & fluorescence imaging

The unrivaled **NEWTON 7.0** is ideal for bioluminescence and fluorescence imaging of in vivo, ex vivo and in vitro applications. Thanks to the unique fluorescence illumination architecture, the NEWTON 7.0 accommodates 8 excitation channels in the Visible (RGB) and Near-Infrared (NIR) spectrums. Signals can be overlaid so that several reporters can be visualized simultaneously in the same animal.

A large number of molecular reagents and fluorophores can be used such as GFP, YFP, FITC, DAPI, mCHERRY, Alexa Fluor® 680, 700, 750, Cy® 3, 5, 5.5, DyeLight, IRDye® 800CW, VivoTrack 680, VivoTag 750 etc.

## IRIS CT/PET



**inviscan**

## CT/PET scan imaging systems

The **IRIS scanner** is dedicated to in vivo preclinical research on small animals such as mice and rats. High performance and high throughput ensures comfortable workflow during imaging procedure and cost effective maintenance.

IRIS is available in single modality PET, CT or dual modality PET/CT. IRIS technology is extremely flexible and IRIS PET or CT scanner can be upgraded to PET/CT at a later stage.

- PET spatial resolution near 1 mm;
- full mouse FOV;
- best energy resolution;
- CT optimized for speed;
- low dose and high resolution;
- sensorless cardiac and respiratory gating;
- 4D CT imaging technology.

## Irradiator XCELL-160



**KUBTEC®**  
SCIENTIFIC

## X-ray irradiating systems

X-ray irradiators are utilized by scientists to irradiate animal models to create immunocompromised systems and study the adverse effects of cancer cells, and develop new therapies. It gives researchers the ability to test novel research techniques.

**KUBTEC® XCELL® irradiation systems** are available in sizes from benchtop to free-standing. The XCELL® line of high-dose irradiators are powerful, safe, and reliable systems designed for applications ranging from small animal and cell irradiation in the life sciences to seed irradiation to prevent bacterial contamination in the agricultural sciences and food research. The irradiators are a safer, and cost-effective alternative to gamma irradiators- CIRP eligible.

### Tumor scanner TM900



## Tumor volume imaging

Often xenografts or subcutaneous tumors in mice are used in oncology research. Traditionally their volume growth has been monitored by using a mechanical caliper. Recently technological evolution and the increase in computing power have facilitated the development of new devices. The **Peira TM900** is such an innovative device for tumor volume measurement and monitoring. It is a lightweight handheld instrument that makes a direct optical 3D measurement of the tumor volume. It does so by acquiring a stereoscopic image and reconstructing the 3D shape of the tumor. Therefore it allows a direct 3D capture of the volume. A tumor image, its 3D shape and all geometrical data are automatically calculated and stored. The system includes database, data management and processing software and can be complemented with a weight scale.

### Vantage® NXT Research Ultrasound System



## Ultrasound imaging

The Vantage NXT is the successor to Verasonics' pioneering and industry-leading Vantage Research Ultrasound System. Continuing Verasonics' mission to provide state-of-the-art research platforms, the **Vantage® NXT Research Ultrasound System** builds upon the versatility with enhanced performance and additional features.

The transceiver is the heart of an ultrasound acquisition device, but not all transceivers are created equal. Verasonics' proprietary NXT transceiver was specifically engineered to provide the the next level of transmission and receive fidelity required for cutting-edge ultrasound research.

- Leading-edge transmit and receive fidelity;
- improved high frequency performance and imaging;
- enhanced arbitrary waveform generation;
- expanded frequency bandwidth;
- interactive help system;
- additional I/O capabilities.

### X-ray PARAMETER system



## X-ray imaging systems

Small animal X-ray imaging systems allow researchers and scientists to see the finest details of the small animal bones and tissues, allowing them to make observations that would otherwise be impossible. In vivo cabinet X-ray systems from Kubtec can support collecting of powerful datasets for longitudinal studies and optional anesthesia port makes continuous anesthesia easy.

# Infusion & sampling

## Infusion using Vascular Access Button



INSTECH

## Vascular Access for rodents

An animal welfare refinement over many other methods of vascular access, are quickly becoming the preferred method of catheter exteriorization for mice (one or two catheters) and rats (one to four catheters).

Instech **Vascular Access Buttons™, VAB™** for mice and rats are built around PinPort™ technology that simply and cleanly connects an implanted catheter to a syringe for direct access, or to a tether for continuous access. The VAB™ is a closed system as opposed to the traditional externalized or “open” systems. The PinPorts™ ensure all the ports remain closed - the magnetic cap simply allows group housing after infusion or the samples have been taken.

## Osmotic pumps

Discover Animalab's exclusive range of ALZET osmotic pumps, catheters, and brain infusion kits, designed to elevate your laboratory research. These innovative products are essential for precise and continuous delivery of test agents, ensuring reliable and consistent experimental results.

### ALZET Osmotic Pumps

Available in three sizes with twelve models, ALZET osmotic pumps offer unmatched versatility. With reservoir volumes of 100 µl, 200 µl, and 2 ml, these pumps provide continuous delivery for durations ranging from one day to six weeks. Ideal for use in mice, rats, and other laboratory animals, these implantable pumps eliminate the need for external connections and frequent handling, minimizing stress on lab animals and reducing the workload for researchers.

### ALZET Catheters

ALZET catheters facilitate targeted delivery to various tissues and organs, including the brain, spinal cord, and blood vessels. Made of medical-grade polyethylene and vinyl tubing, these catheters are sterilized, pre-cut, and ready to use, fitting all ALZET pump models. Specialized catheters with retention features ensure precise placement and stability, making them indispensable for intricate procedures.

### Brain Infusion Kits

For research focusing on the central nervous system, ALZET brain infusion kits provide a reliable method for localized drug delivery. These kits include cannulas, catheter tubes, and depth-adjustment spacers, allowing for precise targeting of brain regions. Compatible with all ALZET pumps, these kits ensure minimal trauma and maximum effectiveness in delivering experimental agents directly to the brain.

## Vascular Access Button 3 channels



INSTECH

## ALZET products



alzet  
OSMOTIC PUMPS

# Metabolic studies

## PARAMETER Supra



KUBTEC<sup>®</sup>  
SCIENTIFIC

## Body Composition Assessment

Small animal X-ray imaging systems allow researchers to see the finest details of the small animal bones and tissues, allowing them to make observations that would otherwise be impossible. KUBTEC's in vivo cabinet X-ray systems equipped with anesthesia port can help collect powerful datasets for longitudinal animal studies.

**PARAMETER Supra** with DIGIMUS<sup>®</sup> BMD software measures bone mineral density (BMD) and bone mineral content (BMC), in mice using DEXA technologies. DIGIMUS automatically calculates BMD, BMC, and the percentage of lean and fat tissue for the whole body. The DIGIMUS also has a tool for calculating fat area, tissue area, BMD and body composition for multiple regions of interest (ROI).

## PhenoMaster



TSE  
systems

## High throughput metabolic systems

**PhenoMaster** is an advanced multipurpose platform for rodent metabolic, behavioral and physiological studies. TSE Systems cutting-edge technology captures highly detailed metabolic activity of mice and rats, providing a comprehensive picture of your research subjects.

- Characterization of experimental animals under controlled conditions in the home cage;
- elimination of human bias, standardization of the environment;
- high throughput phenotyping by running large number of cages in parallel;
- food and liquid access control, weight monitoring;
- real-time measurement of O<sub>2</sub>, CO<sub>2</sub> and energy expenditure with optional 13C, CO<sub>2</sub>, CH<sub>4</sub>, H<sub>2</sub>, H<sub>2</sub>S, N<sub>2</sub>O, NH<sub>3</sub> sensors;
- optional modules: respiratory gas measurements and respirometry – indirect calorimetry.

## PhenoCage



TSE  
systems

Metabolic **PhenoCage** is used for precise urine and feces separation and collection for further microbiome analysis. A high-speed cooling unit can freeze the samples quickly following collection. You can combine drinking, feeding and body weight monitoring with Indirect calorimetry, all for your metabolic phenotyping studies.

# Motor function & coordination systems

## Treadmill with air-puff



**ub** ugo basile®  
TRANSFORMING IDEAS  
INTO INSTRUMENTS

Measurement of motor coordination and balance can be used not only to assess the effect of drugs or other experimental manipulations on mice and rats, but also to characterize the motor phenotype of transgenic or knock-out animals.

UGO Basile offers different solutions:

- **Treadmill** - for measurement and recording of endurance, distance and speed, adaptable for use with rats or mice with simple replacement of the lane assembly. Shock grid and air-puff are available;
- **RotaRod** system for mice and rats or complex wheel for mouse and rats;
- **Running Wheels** for mice and rats with counter or connected to software;
- climbing test for vertical activity measurements.

TSE System's **MotoRater** is comprehensive and versatile platform for researchers investigating fine movement and posture details, for precise tracking of overground walking, skilled ladder walking, wading, swimming, and beam walking. 3 side-view observation of 5 movement modalities ensure more than 100 kinematic gait parameters.



BEHAVIOR, PAIN  
& INFLAMMATION  
SYSTEMS CATALOG

## Rota Rod systems



**ub** ugo basile®  
TRANSFORMING IDEAS  
INTO INSTRUMENTS

## Activity wheel



**ub** ugo basile®  
TRANSFORMING IDEAS  
INTO INSTRUMENTS

## MotoRater



**TSE**  
systems

# Neuroactivity imaging

## nVue System



## Calcium imaging

Traditional neurotechnologies limit brain mapping to either fine detail in very few neurons at a time (microscale), or in large regions without the detail of their individual neurons (macroscale). To truly understand how the brain functions, Inscopix have developed technologies that can map neural circuit activity at the mesoscale, i.e. in thousands of individual neurons simultaneously during a cognitive or behavioral task. The innovation at the core of the Inscopix brain-mapping platform is the integration and miniaturization of the bulky bench-top fluorescence microscope into a 2 gm device, smaller than a fingertip, that can be mounted onto the skull of a living animal subject to observe its brain activity.

**nVue System** enables imaging of two distinct brain signals to gain deeper insight into how an ensemble of brain signals interacts during free behavior in a single imaging session.

- Image two distinct cellular populations from shallow or deep brain regions simultaneously with single-cell resolution;
- explore the relationship of up to two brain signals during naturalistic behavior;
- record multi-channel data using nVue's expanded data storage, facilitating longitudinal data acquisition over months.

## nVoke System



The **nVoke System** integrates in vivo cellular-resolution calcium imaging with simultaneous or sequential optogenetic manipulation to causally link neural circuit activity with behavior.

- Record cellular-resolution calcium imaging with optogenetic manipulation;
- visualize and manipulate the same field of view longitudinally;
- study the impact of discrete manipulation on behavior and its underlying network dynamics.

## nVista System



For large-scale experiments, **nVista** and nVista Essential systems are the best solution for in vivo calcium imaging in freely behaving animals and measurement of correlation neural activity with behavior.

**nVista** and nVista Essential systems are the best solution for in vivo calcium imaging in freely behaving animals and measurement of correlation neural activity with behavior for large-scale experiments.

- Visualize neuronal activity with a cellular resolution during free behavior;
- leverage advanced capabilities to explore new applications, including neurotransmitters, and bloodflow imaging;
- Record longitudinal data within the same field of view over months.

### Tricolor Multichannel Fiber Photometry System



RWD  
RWD MULTICHANNEL FIBER PHOTOMETRY

## Fiber photometry

The fiber photometry identifies activities in more than one brain area that need to be simultaneously recorded, as neurons in different brain areas respond in coordination during specific task execution.

**Tricolor Multichannel Fiber Photometry System** uses a low-cost implanted cannula that does not require a miniscope overhead. Simple animal surgery, lightweight implants, and smaller data files all contribute to the long-term experiments on freely-behaving animals. With high signal-to-noise ratio, and the ability to combine with a variety of behavioral paradigms, the fiber photometry system is used with GCaMP, which is one of the genetically-encoded calcium indicators (GECIs), to record neuronal activities. Despite the fact that electrophysiology generates the highest level of temporal accuracy, its performance falls short in detecting cell-type-specific population neuronal activities of the deep brain structures in behaving animals. As an alternative, fiber photometry provides the most sensitive and easiest way to achieve this function while employing one or more multimode optical fibers implanted in the brain.

### Tricolor Multichannel Fiber Photometry with Optogenetic system



RWD  
RWD MULTICHANNEL FIBER PHOTOMETRY

## Optogenetics

**NeuroLux** is the first commercially available platform allowing wireless optogenetic stimulation and physiological monitoring of central and peripheral nervous system as well as specific organs. This flexible and price-affordable solution offers, on a unique platform, a vast variety of methodologies ranging from optogenetic stimulation, drug delivery, real-time physiological monitoring and photometry, all in freely moving animals to maximize data reliability and reproducibility.

All implantable devices for optogenetic stimulation can be freely configured with different stimulation wavelengths ( $\mu$ LED of 470/ 530/ 590/ 630 nm) and probe lengths (2, 4, 6 mm) depending on our targeted region, organ and opsins.

- Safety for animals housed in groups, supporting social interactions;
- wireless system reducing handling and interventions of scientists;
- 9 implantable devices dedicated to stimulation of different animal organ or region.

### NeuroLux Optogenetic System



TSE  
systems



# Oral gavage, feeding tubes



## Plastic feeding tubes

Plastic feeding tubes, or flexible plastic feeding needles, are exactly as they sound. Rather than the traditional rigid stainless steel feeding tubes that researchers have been so accustomed to over the years, flexible feeding tubes are made from medical-grade polypropylene (the same material used in plastic syringes). There is a plastic hub that securely attaches to your syringe via luer lock or slip fit, then a long flexible tube of varying lengths and widths, that ends in a soft rounded bulbous tip that tip, gently delivers the material into the animal.

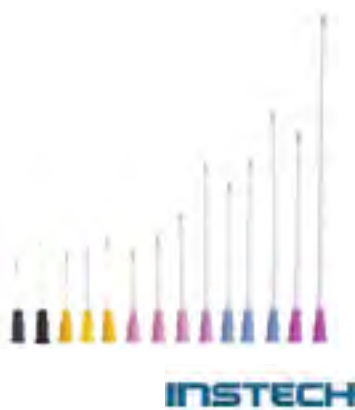
Being made from polypropylene, these feeding tubes offer a few advantages. Most importantly, they're safer for the animal, and they are also recommended animal welfare refinement. The elastomer tip minimizes the chance of inadvertent placement in the trachea, a common dosing problem. They are also disposable and meant for single use. Once you are done, just throw them away. No need to clean and autoclave, no risk of carryover contaminant.

Features and benefits:

- flexible tube and soft tip to minimize trauma;
- disposable - no cleaning and no risk of residual compound;
- transparent to see compound delivery;
- faster to train new technicians;
- available in a variety of diameters and lengths.

Customers have possibility of request a free sample pack to find out what works best.

## Plastic feeding tubes



## Rodent Dose Puller



## Rodent Dose Puller

The **Instech RDP** automatically fills syringes during rodent oral dosing studies. The device receives the dose directly from LIMS system once the animal is scanned, then fills the syringe more precisely than is possible by hand and without the chance of human error.

It speeds the dosing process by partially filling the syringe while picking up the next animal, letting doing two things at the same time.

Features:

- acquires dose information from direct LIMS connection, CSV file upload or manual entry;
- works with 1, 3, 5, 10 and 20 mL syringes;
- compatible with feeding tubes from 22 ga/ 25 mm up to 13 ga/ 150 mm;
- Wi-Fi or wired ethernet connection;
- fill speed adjustable for viscous or frothy solutions.

## Stainless steel feeding tubes

Reusable feeding tubes are available with two tip types, as a barrel and rounded tip. Both types are useful for transcardiac perfusions with a fixative.

# Pain & inflammation studies

## Thermal Gradient Ring system

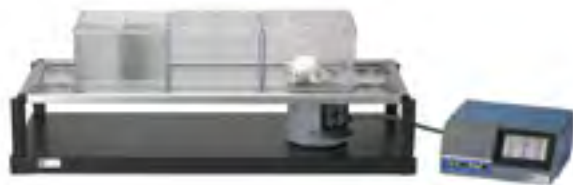


Ugo Basile devices have had a prominent role in research on pain and inflammation. They are precious tools for researchers to achieve their experimental goals. We present a wide range of systems basing on conventional methods for studies with mice and rats.

**Thermal Gradient Ring (Zimmermann's method)** is the best choice for thermal preference phenotyping and drug screening in mice. The system is fully automated and allows to detect temperature stimulus preferences and avoidance with increased sensitivity and accuracy compared to traditional thermal testing. The device is ready to use with the popular ANY-Maze software.

Unique **Plantar Test for Thermal Stimulation (Hargreaves Apparatus)** measures response to infrared heat stimulus, applied to the Plantar surface. The animal is unrestrained and unhandled during test, and every response is automatically scored and saved as seconds with the IR light intensity. The unilateral and contralateral paw treatments can be used to design the experiment in the most effective way.

## Plantar Test for Thermal Stimulation



We offer many other classical testing systems, such as **Tail Flick Unit**, **Analgesy-Meter (Randall-Selitto Paw Pressure Test)**, **Electronic Von Frey**, **Hot/Cold Plate system**.



BEHAVIOR, PAIN & INFLAMMATION SYSTEMS CATALOG

## Tail Flick Unit



## e-VF Electronic von Frey



# Stereotaxy, impactors

## Rotational stereotaxy

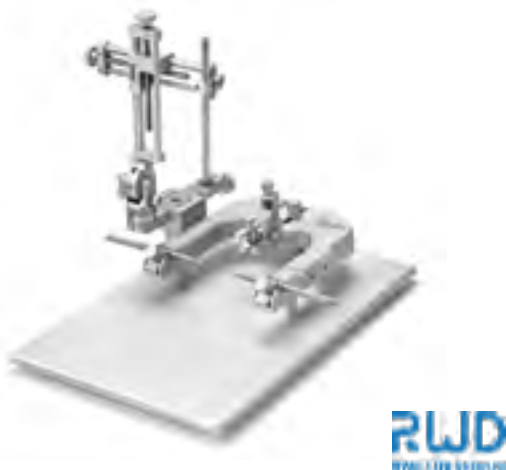


Animalab offers a full portfolio of stereotaxic instruments from RWD and Neurostar companies. Depending on customer needs, we install precise robot and automatic stereotaxy working with accuracy up to 1  $\mu\text{m}$ . When less accuracy is needed we offer digital and manual, standard models. Using portable and rotational stereotaxic devices, client may combine more comfortable and effective procedure workflow.

All models are available with single and double arms, in configuration left or right, in digital version or standard and also for larger species up to 30 kg.

- Automated stereotaxic system, computer controlled with built-in atlas, to avoid human errors and time saving;
- drill and injection robot;
- tool to evaluate traumatic brain injury mechanisms. Controlled by pneumatic and electric device provides increased accuracy and reproducibility in brain injury modeling.

## Manual stereotaxy



## Automated stereotaxy system



## Impactor



## Automated stereotaxy system



# Surgery procedures

## Surgical instruments



SURGICAL  
INSTRUMENTS  
CATALOG

Fine Science Tools is the leading distributor of precision European surgical and microsurgical instruments as well as laboratory accessories. FST precisely crafts over 1,000 products, and serve thousands of customers at universities, research facilities, biotech, and scientific institutions worldwide.

The high quality of Fine Science Tools surgical and microsurgical instruments is a result of their relentless attention to detail. Almost every FST instrument is manufactured by skilled European craftsmen, designed to exacting specifications made from the finest German stainless steel alloys, and forged from the strongest, lightest materials available, and tested to ensure precision.

### Probes



**F · S · T**  
FINE SCIENCE TOOLS

### Forceps



**F · S · T**  
FINE SCIENCE TOOLS

### Scissors



**F · S · T**  
FINE SCIENCE TOOLS

### Wide range of accessories



**F · S · T**  
FINE SCIENCE TOOLS

### Surgical microscope DOM-1001



**RWD**  
FINE SCIENCE TOOLS

## Surgical microscope & magnifiers

**RWD DOM-1001 Surgical Microscope** is a 16 million pixels high-end integrated digital microscope, that enables real-time recording, collecting and sharing high-definition 4K images and videos (1080 P). Multiple people can view samples simultaneously, supporting the whole process of taking pictures and videos. It is widely applied in life science, dental, animal surgery, tumor, morphological observation, embryologic histology and much more.

We offer also wide range of comfortable and practical magnifiers for laboratory purposes and animal surgery from Fine Science Tools.

- Eschenbach magnifiers;
- headband magnifiers with VisorLight;
- Galilean loupes;
- magnifiers with LED.

### Surgical microscope DOM-1001



**RWD**  
FINE SCIENCE TOOLS

### Galilean Loupes 28050-30



**F · S · T**  
FINE SCIENCE TOOLS

### Eschenbach laboCOMFORT 28030-13



**F · S · T**  
FINE SCIENCE TOOLS

### Headband magnifiers 28030-03



**F · S · T**  
FINE SCIENCE TOOLS

### MouseSTAT® Junior



## Surgery monitors, warming pads

Kent Scientific's far infrared warming products provide a variety of options to safely warm your animals. From simple pad power regulation to automatic control based on temperature feedback, Kent Scientific has a solution to every research warming requirement. All systems have warming pads in two sizes and rectal probes.

**RightTemp® Junior** system allows constant and automatic temperature control, measuring and regulating animal's temperature during surgery. It is equipped with rectal probe and warming pad.

**MouseSTAT® Junior** sole function is to provide heart rate and pulse oximetry measurements. It is compact and fits in the palm of the hand. Easily integrates into anesthesia set-up.

**PhysioSuite®** is a multi-physiological monitor with warming and temperature control. It is useful for monitoring a larger number of vital signs. The PhysioSuite is essentially a box that can be filled with the modules your research requires. Each module is a separate component that provides a specific function:

- warming - RightTemp® monitor and homeothermic control module;
- pulse oximetry - MouseSTAT® pulse oximeter and heart rate monitor module;
- CO<sub>2</sub> monitoring with CapnoScan® module.

PhysioSuite® includes an integrated touch screen display, real-time recordings and 5 safety alarms. Internal memory provides data storage, with a mini USB for data output. The PhysioSuite is compatible with stereotaxic devices.

### PhysioSuite®



### SurgiSuite® with Intubation set & warming



The Multi-Functional Surgical Platform **SurgiSuite®** has an easy-to-clean, chemical resistant base which includes a channel for collecting fluids during surgical operations. Integrated Far Infrared Warming is designed into the platform. The SurgiSuite is available in two sizes, mouse and rat.

Both the RightTemp® Jr. temperature monitor & homeothermic control and the PhysioSuite® with RightTemp, and other optional physiological monitoring modules, can easily connect to the SurgiSuite to provide regulated temperature control.

**MARTA pad**

VIGILITECH

**MARTA app**

VIGILITECH

**Contact-free monitoring of vital signs during surgery**

The **MARTA pad** is a groundbreaking, patented, contact-free monitoring system designed to measure vital signs without causing stress to animals or researchers. The system enables:

- continuous monitoring of heart rate and respiration rate;
- animal warming and heating as soon as the animal is placed on the pad;
- anesthesia depth regulation and heating of anesthesia chamber.

MARTA system can be used also during stereotaxic procedure. With appropriate adaptors and frames, for mice or rats, enables animal control during whole stereotaxy procedure.

**The MARTA pad meets the CE conformity 60601 standards for medical devices, ensuring high-quality and reliable performance.**

**Contact-free monitoring of vital signs during stereotaxy procedure**

Vigilitech offers manual stereotaxy systems for mice and rats, connected to MARTA pad monitor. All MARTA pad features and functionalities are preserved and provide respiration rate, body temperature and animal heating during stereotaxic procedure. This versatile extension is compatible with all commonly used rat stereotaxic U-shaped frames and manipulator arms, making it a versatile addition in the lab. The platform features an integrated suction system that effectively removes inhalant anesthetic residues ensuring a safer and cleaner surgical environment.

**MARTA stereotax rat**

VIGILITECH

**MARTA stereotax mouse**

VIGILITECH

# Telemetry

## Stellar



**TSE Systems Stellar telemetry system** allows scheduled or continuous physiological parameter monitoring of many animals with just one receiver. It facilitates group housing and social interaction during experiments. Stellar wireless implants can be used in animal models ranging from mice to dogs and larger animals in various research studies, including safety pharmacology, behavior, metabolic, and general physiology assessment.

Stellar is really versatile solution for diverse research applications enabling collection of many signals and providing many parameters from animal body, like blood pressure, hypertension, ECG, Heart Rate, Heart Rate Variability, EEG, sleep, seizure, thermoregulation, metabolism, hibernation, activity, behavior, respiratory function.

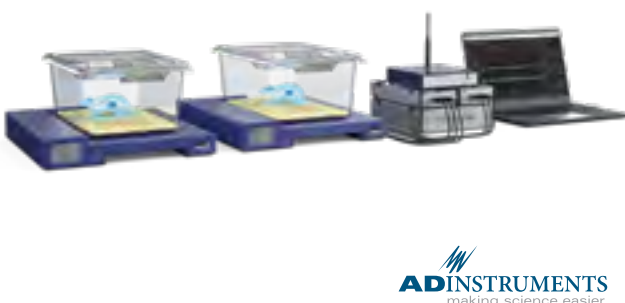
- animals weighing from 22 g to 3500 g+;
- single receiver for multiple animals;
- compatible with other TSE research systems.

## Kaha multiple cage stack



Kaha Sciences sets the new standard in quality and power for implantable, wireless telemetry in rats and mice. **Kaha telemetry system** can record true high-fidelity signals such as ventricular and arterial pressures, sympathetic nerve activity (SNA), biopotentials (e.g. ECG, EMG & EEG), tissue oxygen, and optogenetics stimulating and recording. Patented wireless power technology allows higher sampling rates (2 kHz), improved time resolutions, and opens the door for a unique use of more complicated and power-intensive technologies such as oxygen sensors and high quality Millar Mikro-Tip™ sensors (rat pressure telemeters).

## Kaha telemetry system



For single housed mouse, rat or other small animal, Starr Life Science provides **E-Mitter Telemetry System**. Because the system operates without batteries and can be implanted for up to 2 years, high costs and downtime due to explantation, refurbishment and re-implantation are avoided. E-Mitter Telemetry System allows continuously monitoring of temperature, gross motor activity and heart rate.



LABORATORY



# Balances, scales

## Equinox Semi-Micro and Analytical Balance EAB124e-F



**ADAM**  
SCALES & BALANCES

Since 1972 Adam Equipment has been a leading global designer and manufacturer of weighing equipment. Adam scales and balances provide solutions for professionals in every industry.

With durable construction and smart features, you'll find that Adam's comprehensive selection of precision balances, analytical balances, semi-micro balances and moisture analyzers are ideal for all lab applications, including weighing chemicals, pharmaceutical processing and quality control checking, as well as university-level science education and research. For GLP-compliant results can then be exported or printed as and when you need them, and how you need them.

## Analytical & semi-micro balances

Adam Equipment offers solutions to the most complex and precise weighing tasks from formulation, statistical analysis, density determination, purity analysis to conformance testing. Not only do Adam's analytical range of balances simplify weighing tasks and are easy to use, they also produce reliable results, ideal for data handling with multiple connectivity options and tracking capabilities that are compliant with GLP (good laboratory practice). Equinox, Luna and Solis models provide readability of weighting from 0.01 mg/ 0.1 mg to 0.0001 g with capacity from 80 g/ 120 g to 250 g.



BALANCES AND  
SCALES CATALOG

## Luna Analytical Balance LPB223i-F



**ADAM**  
SCALES & BALANCES

## Solis Analytical and Semi-Micro Balance SAB124e-R



**ADAM**  
SCALES & BALANCES

### Equinox Precision Balance ETB 3202e



**ADAM**  
SCALES & BALANCES

## Precision balances

Equipped with a multitude of intuitive features and functions, top-loading precision balances by Adam Equipment are well-suited for laboratory use, quality control testing, manufacturing operations and production applications.

Adam offers many balances with data output and tracking capabilities to enable system integration like LIMS and for GLP compliance. With readability from 0.001 g to 2 g, you may choose from many models portfolio: Equinox, Solis, Luna, Nimbus®, Highland®, Core®, Dune®.

Compact models of precision balances present a special stackable design and are an excellent solution for labs or classrooms with limited space.

### Nimbus® Heavy Duty Precision Balance NBL12001P-R



**ADAM**  
SCALES & BALANCES

### Nimbus® Heavy Duty Precision Balances NBL12001e-F



**ADAM**  
SCALES & BALANCES

### PMB Moisture Analyzer



**ADAM**  
SCALES & BALANCES

## Moisture analyzers

Fast and efficient, the **PMB Moisture Analyzer** or moisture balance, provides an alternative to the time-consuming method of oven testing. The PMB not only hastens the drying process, it minimizes the possibility of burning a sample, which can produce false results. PMB uses the basic "loss-on-drying" technique to simultaneously weigh and heat the sample, reducing the testing period and providing greater measurement accuracy.

In many cases, the PMB can replace traditional oven testing and also the Karl Fischer titration method of analyzing moisture. Readability from 0.001 g/ 0.01% to 0.01 g/ 0.05% and capacity between 50 g and 200 g.

### Aqua Washdown Scale



## Aqua Washdown Scales

Designed for applications needing frequent washdown, Aqua scales come in a selection of capacities and readabilities. ABW offers an IP67 rating and features a stainless steel pan to withstand demanding industrial and food processing environments. Available with capacity from 4 kg to 32 kg and readability from 0,5 g to 5 g.

### LHS Crane Scale



## Bench scales & platform scales

With large platforms, high capacities and grade 304 stainless steel pans, GFK scales are ideal for demanding industrial use, including food processing and manufacturing tasks.

In our offer you will find crane scale and pallet truck scales as well.



BALANCES AND  
SCALES CATALOG

### Pallet scale PTT2000-L



### GFK Floor Checkweighing Scale



# Centrifuges



## Variety of centrifuge models for all purposes

Ortoalresa was created in 1949 as centrifuges manufacturer. 75 years later, the company is proud to be a reference in the European manufacturers scene, sharing experiences with customers

worldwide. Hard work, talent, commitment and enthusiasm have always been the life force driving Ortoalresa name to be a synonymous of expertise in centrifugation. Ortoalresa has a wide range of centrifuges for all applications. Our users are from a very wide range of laboratories, from the most elementary, for hospital applications and clinical analysis labs, to microbiology departments, research centres, quality control labs for drinks, food and different production processes, etc.

## Standard features of Ortoalresa centrifuges

Depending on applications, Ortoalresa offers models that are ventilated, refrigerated or heated. All of them have these characteristics in common:

- microprocessor control;
- list of rotors and last used parameters maintained in memory;
- programmable automatic opening of lid (nonrefrigerated models);
- protection against excess speed;
- very low noise level, less than 60 dB make usage comfortable;
- brushless induction motor, so no maintenance is required;
- low height for easy access;
- possibility to block or modify the speed during the cycle.

## Features of lid security system:

- automatic lid lock system, motorized, and emergency lid-lock release;
- locked and protected against opening while in operation;
- lid dropping protection;
- port in the lid for calibration and operation checking.

Ergonomic design enables closing the lid effortlessly. A protection safety ring is between the centrifugation chamber and the housing. Maintenance of centrifugation chamber is very easy to clean, because made of stainless steel.

## Refrigerated centrifuge Biocen 22 R



orto  
alresa  
About centrifugation

## Refrigerated centrifuge Digicen 22 R



orto  
alresa  
About centrifugation

## Ventilated centrifuge Unicen 21



orto  
alresa  
About centrifugation

### Rotors and accessories

Rotors and reducers are fully autoclavable. REI (Rotor Easy to Install) system enables quick and easy exchange of rotors. It ensures secure locking without the use of any tools, as well as unlocking by simply removing it from its position. REI system can be operated with one hand in just few seconds.

RT 226



**orto**  
**alresa**  
About centrifugation

RT 256



**orto**  
**alresa**  
About centrifugation

RT 260



**orto**  
**alresa**  
About centrifugation

RT 177



**orto**  
**alresa**  
About centrifugation

### Other centrifuge brands in Animalab portfolio

We offer a few microcentrifuge models from RWD Life Science company. Simple and smart ventilated and refrigerated models cover standard laboratory needs.

Refrigerated, ventilated centrifuge  
M1416R



**RWD**  
WWW.RWD-LIFE.COM

Ventilated centrifuge M1324



**RWD**  
WWW.RWD-LIFE.COM

# CO<sub>2</sub> incubators

## GS Biotech CO<sub>2</sub> incubators series



## RWD CO<sub>2</sub> incubator



The **RWD Life science CO<sub>2</sub> incubator** with chamber capacity 188 l, equipped with air jacket, provides a suitable stable environment for cell/ tissue cultivation by specifying three key parameters - temperature, CO<sub>2</sub> concentration and high relative humidity (rH).

### Key features:

- intelligent touch screen displays 7-day performance trend graphs, which enable easy monitoring of key parameter changes;
- built-in 140°C dry heat sterilisation programme helps prevent bacterial contamination;
- accurate infrared carbon dioxide sensor with low drift.

**GS Biotech CO<sub>2</sub> incubators** are available in a range of 14, 48, 170, and 220 l chamber capacities.

### Main features:

- infrared CO<sub>2</sub> detector with direct heating technology, eliminating the need for an internal fan;
- optimum chamber environment, profiled heating creates gentle circulation - no fan or HEPA filter;
- seamless chamber, with rounded interior corners makes cleaning easy;
- removable shelves are non-tip;
- sealed inner glass door allows chamber viewing;
- CO<sub>2</sub> range programmable from 0.2 to 20%;
- temperature range programmable from 4°C above ambient to 50°C;
- large, easy to read LCD display with LED backlight;
- removable, seamless, stainless steel humidity reservoir;
- 25 mm access port for cable pass-through etc.;
- HEPA filtration for all incoming gasses;
- large range of options allows you to configure each incubator for each task;
- optional data capture and reporting for QA and verification purposes.

# Drying ovens, incubators, cooling incubators

## Incubators

Termaks incubators from a Swedish company Nordic Labtech provide constant temperature conditions up to 80°C, especially for the incubation of live cell cultures at 37°C. They have a wide range of applications in microbiological laboratories and hospitals. Equipped with extensive online data logging capabilities, uploading temperature profiles, they are ultra-modern devices available on our market.

### Termaks Incubators



 nordic  
labtech

In the cooling version, Termaks incubators reach a temperature range of -9.9°C to +70°C, providing excellent efficiency and temperature stability. The KB series is easy to use, while providing wide programming possibilities. The design of the incubators ensures fast, precise temperature control, fast recovery and intelligent defrosting. Air circulation in the working chamber is possible thanks to the advanced Termaks ventilation technology.



### Termaks Cooling incubator



nordic  
labtech

Main advantages of Termaks incubators:

- temperature control from -9.9°C to +80°C (depending on the model);
- chamber capacity from 25-420 l (incubators), 182-400 l incubators with cooling;
- forced air circulation;
- decontamination process;
- double door (internal glass providing an overview without a drop in temperature);
- wide possibilities of collecting process data.



TERMAKS  
BROCHURE

### Termaks Incubator B9025



nordic  
labtech

### Drying ovens

Termaks drying ovens are forced convection drying and heating chambers for fast drying and sterilization. They are designed for excellent temperature distribution with variable fan settings and temperature. The entire range offers very high temperature stability - up to +250°C.

### Termaks Drying oven TS9026



nordic  
labtech

### Termaks Drying oven TS9026



nordic  
labtech

# Irradiators

## Irradiator XCELL 50



**KUBTEC**  
SCIENTIFIC

The American company **KUBTEC**® specializes in the production of X-ray irradiators and X-ray imaging systems.

The systems are distinguished by full shielding while meeting all radiation requirements. Their operation does not require additional training or licensing compared to traditional irradiators.

KUBTEC® offers small, tabletop, compact systems and free-standing high-power systems.

The main applications in the field of irradiation are:

- cell irradiation;
- pest control in food;
- grain and seed irradiation;
- small animal irradiation;
- tissue irradiation.

X-ray imaging systems are used in:

- seed analysis;
- archaeological artifact examination;
- document inspection;
- forensics;
- product quality testing.

## Irradiator XCELL 180



**KUBTEC**  
SCIENTIFIC

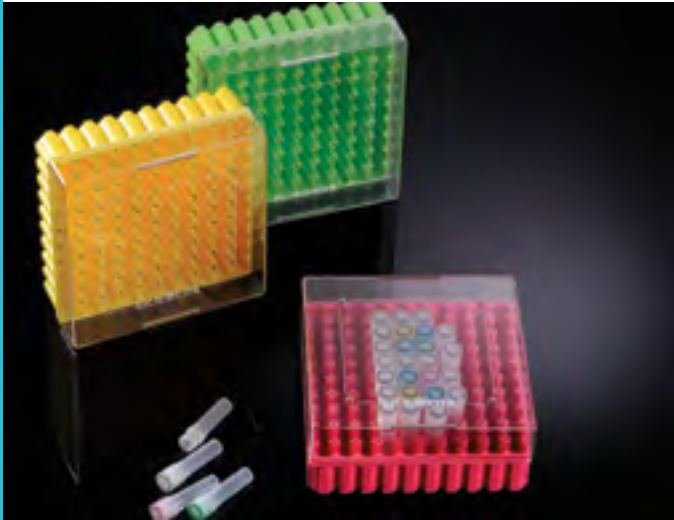
## Irradiator XCELL 225



**KUBTEC**  
SCIENTIFIC

# Lab supplies

## Cryogenic boxes



BIOLOGIX™

**Biologix** is an international high-tech enterprise specializing in research, development and production of disposable materials for laboratory diagnostics. Their production system is organized in accordance with GMP standards, ISO 9001 and FDA certification. The wide range of Biologix solutions includes laboratory materials and instruments as well as complete biobanking solutions. Its portfolio includes three brands: BIOLOGIX, CryoKING and DrosoKING. All product lines enjoy high reputation and international recognition.

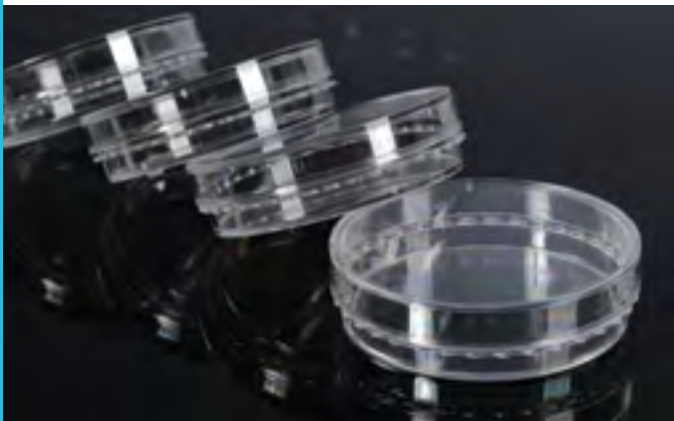
The Biologix product line includes wide offer of laboratory supplies:

- dishes, plates and bottles for cell culture and PCR tests;
- centrifuge tubes;
- universal pipette tips with filter;
- sterile cell scrapers;
- freezing boxes and vials;
- cell strainers;
- screw-cap micro-tubes;
- plastic transfer pipettes;
- multi-well plates;
- petri dishes.



BIOLOGIX  
CATALOG

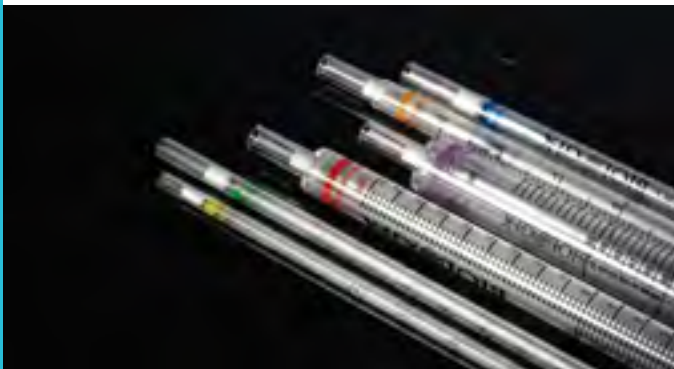
## Cell culture dishes



BIOLOGIX™

**CryoKING** is product line of various types of cryo tubes and boxes for freezing. They are available with printed 2D codes for registration and tracking of each sample. **DrosoKING** offers tubes and bottles for fruit fly cultivation.

## Serological pipettes



BIOLOGIX™

## Pipette tips



BIOLOGIX™

# Laminar flow cabinets & systems

nSAFE Pro



 nordic labtech

nSAFE Cyto 1800



 nordic labtech

## Laminar cabinets

All laminar flow cabinets in our offer are compliant with the EN 12469 standard. They are available in several sizes: 900, 1200, 1500 and 1800 mm.

Nordic Labtech AB is certified according to ISO 9001, ISO 14001 and have the TÜV Nord biological safety cabinet manufacturer certificate. Our qualified service team provides installation and regular technical inspections.

**Class II cabinets** ensure operator and sample protection and are mostly used models in laboratories.

- Intuitive controller with large dual touchscreen displays equipped with MODBUS interface;
- possibility of electrical adjustment of the cabinet base;
- the latest fan and filter technology combined with excellent engineering and design ensures exceptionally low noise levels;
- up to 2000 lux of even and shadow-free light, distributed evenly over the entire work area.

**nSAFE Cyto** is a laminar flow cabinet, designed to work with cytostatics, equipped with 3 filters that are easy to replace and characterized by a low pressure drop, which ensures low service costs and a very low noise level. Low energy consumption results in a low CO<sub>2</sub> footprint. The device is also compliant with DIN12980.

**nSAFE Sterile** provides best product protection by perfectly controlled environment of inner work space. Products are protected from all types of contamination. A certain portion of the air inside the cabinets is recirculated, which provides up to 30% longer life for HEPA filters.

**Class I cabinets** for user protection. The cabinet operates in an air flow of 0.7 m/s. Optionally, the H14 exhaust filter can be combined with an additional activated carbon filter.

## nSAFE Sterile



## Fume hoods

The fume hoods from the Swedish company Nordic Labtech (ninoGuard series) provide optimal protection and comfort for the user. The design of the unique and specially manufactured fume hood profile enables air flow control and minimization of turbulence. The standard dimensions of the fume hoods are 900, 1200, 1500, 1800 mm wide. The height of the device base is 820 mm. All fume hoods are manufactured and tested in accordance with EN 14175.

**nGuard PP** are fume hoods for work with highly concentrated acids, available in sizes 1200/1500/1800 mm wide. Their frame is made of welded polypropylene, and the working surface is made of polypropylene or ceramics.

**nGuard Isotope** is designed for work in laboratories using radioactive materials. For flow control and monitoring, the optional NinoGuard Control system is available. The completely unique VAV system with proactive damper control ensures the right airflow, even when the front window of the device is closed or opened.

## Nordic Labtech nGUARD fume hood



The energy-saving automation, **ninoGUARD Control Pro**, automatically closes the window in the absence of personnel in front of the device, saving both money and the environment. For more "basic" flow control, we also offer the ninoGUARD alarm. The fume hood can be equipped with a ventilated storage cabinet located under the worktop, equipped with 500 mm wide pull-out drawers. In addition, we offer a stable and solid base with a prepared connection to the cabinet ventilation.

The bases are available with manual adjustment in 25 mm increments from 700-950 mm and electrically adjustable height, controlled by a touchscreen display on the side panel.

nSAFE  
LAMINARS

# Pipetting, fluid handling

## LILPET PRO Pipette



MICROLIT

A micropipette is a common yet essential laboratory instrument used to accurately and precisely transfer volumes of liquid in the microliter range. Microlit micropipettes are available in single-channel and multi-channel variants. All Microlit pipettes are calibrated in an ISO 17025 accredited laboratory according to ISO 8655 standards.

**Microlit Lilpet** is a miniature, low-cost fixed volume micropipette. It offers Two-step Plunger Operation and is specially designed for use with diagnostic kits. Lilpet Pro models are equipped with tip ejector.

## Nero® Micropipette Starter Kit



MICROLIT

## Automated pipettes

MICROLIT NERO® is a range of high precision micropipettes that offer a sophisticated combination of features and functionality. They are designed with unique calibration system, the UniCal® Technology that allows quick in-lab calibration in a single operation without disengaging the digits from the plunger mechanism.

- Achieve precision with  $\mu$ AIR® technology that minimize dead air space between piston and liquid in the tip;
- calibrate efficiently with patented UNICAL® technology seamless integrated tip ejector;
- polycarbonate material and fully autoclavable.

## Electronic pipettes AQUA



MICROLIT

## Electronic pipettes

The **AQUA electronic micropipettes** are exceptionally compact and lightweight due to a knock-down (detachable) rechargeable battery and have multiple pipetting modes to enable efficient lab work. They ensure reliable, accurate and repeatable experiment results and protect the user from repetitive strain injury (RSI).

Main features of AQUA pipettes:

- external detachable rechargeable battery;
- speed selection mode;
- stainless steel tip cone;
- motor controlled piston operation with large easy-to-read display;
- volume adjustment wheel.

## Bottle top dispensers

MICROLIT bottle top dispensers are constructed with Springless Valve® Technology that guarantees convenient usage with both organic and inorganic reagents. It not only offers smooth, jam-free piston movement but also ensures service-free operation. They are fully autoclavable.

We offer several models:

- standard SCITUS model;
- BEATUS with recirculation valve;
- ULTIMUS with Dual Inlet® Technology;
- LENTUS dedicated for hydrofluoric acid.

### BEATUS Bottle top dispenser



MICROLIT

### LENTUS Bottle top dispenser



MICROLIT

### E-BURETTE



MICROLIT

## Electronic burettes

**MICROLIT E-BURETTE** can be flexibly operated at 3 calibrated pre-set speeds, including dropwise dispensing, to achieve accurate end points.

- Motor Controlled Piston Movement facilitates correct and comfortable titrations;
- recirculation Mode prevents the loss of reagents during purging by re-directing them into the mounted bottle and facilitates bubble - free dispensing;
- TFT Touchscreen with control panel to perform quick titration.

# Water purification systems

## GRADUS



adrona

The Latvian company Adrona produces laboratory water purification systems based on reverse osmosis and ion exchange technologies. The products are characterized by high quality and safety in long-term operation. Adrona's management system complies with the requirements of the ISO 9001: 2015 standard.

Adrona provides water purification systems that bring solutions for a wide range of applications - ultrapure water (class 1), pure water (class 2) and water purified based on reverse osmosis (RO), intended for laboratory needs. Water quality meets the requirements of the ISO 3696 standard.



WATER  
PURIFICATION  
SYSTEMS CATALOG

### Configurations based on applications

Each model of the Adrona water purification system is available in various configurations tailored to the needs of the customer. Depending on the series, tanks of different capacities and accessories are available.

### Gradus System

Gradus is a 2 in 1, fully integrated, compact and intelligent device producing both ultrapure water class I and pure water class II, directly from tap water, the collection of which is provided by 2 separate dispensers. It is used in the purification of tap water.

The system requires an external water tank and is available in 3 main configurations: Gradus Trace, Gradus LT, Gradus Bio.

It has completely new electronics and software, providing a number of advanced functions:

- large color touch screen;
- data logging option;
- wide range of flow control options;
- drop-by-drop function;
- ability to connect multiple remote dispensers;
- ethernet and USB interface;
- preparation of dosing reports, and the device is also distinguished by high accuracy of conductivity and TOC measurements.

## Gradus BIO



adrona

### Compact Sterifeed

The new Compact RO and Compact Pure series work with atmospheric or pressurized tanks. It features a robust design and reliable operation.

Compact RO and Pure systems produce pure water (Class 2) and RO water. Pure water and RO meet the requirements of various applications, including:

- many inorganic analysis methods (e.g. flame AAS);
- wet chemistry methods;
- electrochemistry;
- laboratory equipment washing, etc.

The water system has a space-saving design, the dimensions are approximately 23x30x41 cm.

Various tank sizes are available with pump dosing. Tank sizes range from 8 l to 300 l.



**Compact RO** - the system produces water by reverse osmosis (RO) with a TDS rejection rate of  $\geq 97\%$ , typically  $\geq 98.5\%$ . RO water applications include powering laboratory equipment.

### Compact RO



adrona

**Compact Pure** - the system produces Class 2 pure water with conductivity  $< 0.1 \mu\text{S}/\text{cm}$ .

Pure water applications are diverse, including wet chemistry, powering laboratory equipment, preparing media, spectrophotometry, etc.

### Compact Pure



adrona

**Compact EDI Pure** - the system produces Class 2 pure water with conductivity  $< 0.2 \mu\text{S}/\text{cm}$ , typically  $\leq 0.1 \mu\text{S}/\text{cm}$ . Recommended for laboratories with high water consumption, as the EDI module does not require replacement.

### RADIX RO



adrona

#### Radix RO System

RADIX systems are designed to be robust and reliable sources of purified water with high capacity, requiring minimal maintenance while providing exceptional performance.

When larger volumes of RO water are required, the RADIX system is a multi-functional solution for various applications. Depending on the model, the RO configuration can produce up to 250 l/h.

A typical configuration consists of the RADIX system, an atmospheric storage tank (equipped with an automatic UV disinfection module and  $\text{CO}_2$  trap) and a water distribution module.

Typical application areas include, but are not limited to:

- central laboratory water distribution system that can supply purified water to the entire facility via appropriate pipework;
- production facilities of various types of industries;
- supply of high-capacity humidifiers, steam generators, etc.

#### Radix EDI System

The RADIX EDI system is a multifunctional solution for various applications. Depending on the model, the EDI configuration can produce up to 150 l of pure water (ISO 3696 Grade 2).

RADIX systems are designed as robust and reliable sources of high-capacity purified water that require minimal maintenance while providing exceptional performance. The EDI configuration includes an electrodeionization module that does not require replacement, keeping long-term operating costs as low as possible.

# Western Blot, gel documentation

## Western Blot Imaging system - Fusion Absolute



**VILBER**

Multimodal imaging platforms designed for molecular biology laboratories manufactured by Vilber cover chemiluminescence, bioluminescence, multiplexing fluorescence, UV fluorescence and chemifluorescence applications.

## Western Blot imaging system - Fusion



**VILBER**

## Gel documentation system - Infinity



**VILBER**

Offering stand-alone imaging systems for gel documentation with the best sensitivity, speed and reaching the lowest limits of detection for your DNA, RNA and protein applications.

## Gel documentation system - Quantum



**VILBER**

## Gel documentation system - E-Box



**VILBER**

## Gel documentation system - Doc-Print



**VILBER**

# SERVICES



# Animal preconditioning services



Preconditioning services can help alleviate the space, time, and labor costs, involved with refining an animal model, to meet scientists unique research requirements. Whether clients are looking for animals fed a special diet, altered through surgery, or reared to a certain age, Charles River has the state-of-the-art animal facilities, professional animal care, and robust model selection to deliver study-ready animals right to laboratory door.

Preconditioning service cover:

- pre-ID™ services (e.g. ear tag, microchip, Labstamp®);
- pre-screening services (e.g., glucose monitoring);
- pre-dosing/ pre-injection services (e.g., intraperitoneal, subcutaneous);
- custom diets, feeding studies;
- disease induction by surgical and chemical manipulations;
- aging services;
- rodent surgery;
- rabbit surgery.

# Design and equipment of animal facilities

## Design and equipment of laboratories & animal facilities

With wide range of suppliers in our portfolio and more than 20 years of experience in provisioning of animal facilities with BSL1, BSL2, BSL3 biosafety level, we support our clients in long-term design projects. We guarantee that prepared project meets the strategic, research and business goals of the client.

We undertake projects of new facilities as well as adaptations of existing ones and carry out modernizations and adaptations to the latest guidelines, norms and industry standards. We service research units, cell and animal laboratories, pharmaceutical and food units and companies that need support in the scope of modernization of functional and utility programs, organization of work of dishwashing facilities, sterilization rooms and animal facilities.

## See how we work!

At Animalab we have a permanent, stable team of managers and specialists who constantly improve their qualifications in the field of designing functional and utility programs for the laboratory and animal facility. Service team provides on-site inspection and technical support to meet clients' demands. Our managers prepare a design, to establish client's vision, adjust the project to the budget and wide range of options that we are able to deliver, to match the requirements. Our big advantage is a close cooperation with industry clients and research groups. For this reason we can deliver customizable, innovative and turnkey solutions.

We collaborate with architectural design studios preparing detailed, technical designs of animal facilities, pointing to the key factors related to functioning of animal facilities and their equipment, which are important at the design stage. The most common and key factors include:

- planning space separation for clean and dirty areas;
- safe communication and transport routes;
- concept of sterilization and washing areas;
- choosing appropriate equipment;
- ventilation;
- water distribution systems;
- electricity connection;
- adaptation to IQ/OQ, GMP and GLP standards.

After the design stage, we coordinate sales process to

deliver efficient equipment for customers. During installation performed by our service team, we support customers in contacting the Office of Technical Inspection and similar authorities. After the project has been launched, we provide after-sales service and spare parts.

Discover our possibilities - a reference list of our projects is available upon request.

## Health monitoring of animal research models



We offer several testing options for most laboratory species, like rodents, Zebrafish, Xenopus, sheep and pigs. In our offer you will find wide range of testing methods:

- All FELASA packages;
- PRIA® Panels;
- PCR;
- single pathogen testing of selected species;
- microbiome analysis.

Samples can be collected at customer's facility and submitted directly to our partners' laboratories. Samples are collected in necropsy laboratory and screened for the presence of infectious agents.

We offer also wide range of alternative methods, like Direct Animal Samples, Exhaust Air Dust (EAD®) samples from IVC's exhaust air tube, PathogenBinder™. Animal or samples transportation is organized by professional courier companies.

## Transport of laboratory animals

We provide road transportation service to most of European countries. We use special air-conditioned vans and execute service in the shortest travel time possible. Our professional drivers deliver animals focusing on their welfare and safety.

Air conditioning systems in our cars secure constant air circulation at a temperature of 18-22 ° C, ensuring the most comfortable conditions for animals. The temperature meter system enables constant monitoring and maintain stable conditions while traveling. All conditions comply

with the provisions of the Animal Protection Act and minimize the stress related to transport. After every transport, we deliver results of temperature monitoring to the customer.

We also organize air transport. Thanks to cooperation with customs agencies specializing in air transport of animals, we can organize both import and export of laboratory animals outside the European Union.

# Service of laboratory and animal facility equipment



Services for laboratories

Animalab service team specializes in repairs of laboratory and breeding facility equipment. Our key areas are devices such as: washers, autoclaves, incubators, laminar cabinets, water purification systems, IVC systems. We carry out inspections according to the laboratory schedules and tests for acceptance by technical inspection authorities.



Room decontamination

## Disinfection of rooms and devices

We offer professional decontamination services of rooms and devices – incl. laminar chambers by H<sub>2</sub>O<sub>2</sub> (hydrogen peroxide) solution fumigation. The aerosol is spread with a microprocessor-controlled device.

- For rooms up to 350 m<sup>3</sup>;
- elimination of bacteria, fungi and yeasts, some groups of viruses;
- safe fumigation for all electrical appliances as well as moisture-sensitive materials.



Incubator service

## Drying ovens & CO<sub>2</sub> incubator service

- Control of the device technical condition;
- replacement of consumables in accordance with the manufacturer's specification;
- testing of temperature distribution and CO<sub>2</sub> concentration, preparation and issuance of checking and validation certificate.

### Autoclave service

- Inspection of device technical condition;
- replacement of consumables in accordance with the manufacturer's specification;
- testing of temperature and pressure distribution;
- conducting a pressure test and assistance of the service during the acceptance by technical inspection authorities;
- preparation and issuing of a test / validation certificate.

### Configuration of water purification systems

Key application of water in the laboratory requires a properly designed and constructed system that purifies and enriches the fed water to the laboratory equipment. Washers, autoclaves and water supplies, necessary for direct work with samples, must be included throughout the project.

- Initial measurements of the parameters of tap water;
- calculation of water demand in the laboratory;
- project preparation and water purification system optimization.



**HEPA Integrity Test**

### Integrity measurement of HEPA and ULPA filters, DOP tests for devices with air flow

We perform leakage and integrity tests of HEPA / ULPA filters used in devices in which the process of precise air cleaning is needed: in laminar chambers and cabinets, isolators, IVC individually ventilated cage systems for laboratory animals.

We perform filter integrity tests:

- after replacing HEPA / ULPA filters;
- as a periodic checking of operating filters, according the service schedule in the laboratory;
- during the final, technical acceptance of new pressure equipment by the customer and technical inspection authorities.



**Washer service**

### Service and inspection of washers

- Analysis of error messages indicated by the washer software;
- verification of the proper functioning of water circuits;
- pump inspection and replacement;
- replacement of structural elements, including washer seals;
- cleaning the spray nozzles in the washing chambers;
- setting up washing and drying programs, configuration of washing cycles;
- detergent dosage setting.

### Service and calibration of IVC systems from Tecniplast, Allentown, Ehret, Zoonlab

Offering a service of individually ventilated cage racks we understand every aspect of the animal facility's work processes. Use of appropriate measuring tools enables our technicians to assess permeability and integrity of HEPA / ULPA filters. With results of software errors analysis and air flow tests, customer gets feedback about filter replacement. Animalab delivers and installs HEPA and pre-filters of all IVC manufacturers.

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