

## 14th Edition BBVA Foundation Frontiers of Knowledge Awards

The **BBVA Foundation Frontiers of Knowledge Awards** recognize and reward world-class research and artistic creation, prizing contributions of singular impact for their originality and significance. The name of the scheme is intended to denote not only research work that substantially enlarges the scope of our current knowledge – pushing forward the frontiers of the known world – but also the meeting and overlap of different disciplinary areas and the emergence of new fields.

The Frontiers of Knowledge Awards honor fundamental disciplinary or interdisciplinary advances across a broad expanse of the knowledge map of the 21st century.

The BBVA Foundation is assisted in the award process by the **Spanish National Research Council (CSIC)**.

### Categories

- 1/ **Basic Sciences (Physics, Chemistry, Mathematics)**
- 2/ **Biology and Biomedicine**
- 3/ **Information and Communication Technologies**
- 4/ **Ecology and Conservation Biology**
- 5/ **Climate Change**
- 6/ **Economics, Finance and Management**
- 7/ **Humanities and Social Sciences**
- 8/ **Music and Opera**

In Humanities and Social Sciences, the award will alternate annually between these two disciplinary domains, with this fourteenth edition dedicated to the Social Sciences.

### Nomination

Nominations are invited from scientific or artistic societies and organizations, public or private R&D centers, university and hospital departments, schools of music, orchestras, and organizations working on or around the issue of climate change, as well as other institutions specified in the call conditions.

### Entry submission

The nomination period concludes at **23:00 GMT on June 30, 2021**.

[www.frontiersofknowledgeawards-fbbva.es](http://www.frontiersofknowledgeawards-fbbva.es)

With the collaboration of



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### Sample Evaporator for Microplates

Porvair Sciences announces Ultravap Mistral—an automation-ready sample evaporator that offers throughput advantages to laboratories looking to optimize and accelerate sample preparation. The Mistral directly and consistently delivers heated gas up to 80°C in each microplate well or tube, facilitating speedy, conven-

ient evaporation of most common chromatography solvents, including dichloromethane, methanol, acetonitrile, hexane, and water. The option for straight or spiral needles allows users to choose between faster drydown (spiral) and better final drying in V-well plates (straight). Highly intuitive software and up to 15 easy-to-use, stored multistep evaporation programs enable even occasional users to gain the full benefits of this unit. For regular users, the Mistral offers the versatility of fully flexible programming, for example, providing for the ideal rate of evaporation for each solvent type.

#### Porvair Sciences

For info: +44-(0)-1978-666222

[www.microplates.com/blowdown-evaporator-ultravap-mistral](http://www.microplates.com/blowdown-evaporator-ultravap-mistral)

### Cell-Culture Analyzer

Nova Biomedical announces the addition of a Sample Retain Collector (SRC) for the BioProfile FLEX2 cell-culture analyzer. The FLEX2 automated analyzer offers comprehensive analysis of up to 16 key parameters, including pH, gases, metabolites, osmolality, cell density, and cell viability. A single FLEX2 with the SRC and the previously introduced Online Autosampler (OLS) module provides automated sampling and analysis of these fundamental cell-culture chemistries from as many as 10 bioreactors—and storage by the SRC in as fast as 1 h. This automation package saves hours of time spent on manual sampling, analysis, sample storage, and after-hours cell culture monitoring. The SRC automatically collects cell-culture samples from the FLEX2 OLS and stores them in a refrigerated environment to fulfill regulatory requirements for long-term sample retains, also enabling further offline testing. The SRC allows user-selectable retained sample volumes from 200 µL to 50 mL at a storage temperature of 4°C.

#### Nova Biomedical

For info: 800-822-0911

[www.novabiomedical.com](http://www.novabiomedical.com)

### UV Light Box

CS Medical is pleased to announce its distribution agreement with AirClean Systems to offer the AirClean UV Light Box. The growing demand to decontaminate N95 respirators has made shortwave UV light—used for years to decontaminate surfaces—an alternative to other chemical-based methods. Designed to protect the user from exposure to potentially harmful shortwave light energy, the AirClean UV Light Box is available in two widths and performs decontamination of N95 respirators in a total cycle time of 60 min, 30 min per side. Decontamination will make the masks reusable up to five times, helping alleviate the PPE shortage that is common in so many health care facilities and other industries across the nation right now.

#### CS Medical

For info: 919-255-9472

[www.csmedicalllc.com/products/uv-light-box](http://www.csmedicalllc.com/products/uv-light-box)

### Microplate Sealing for ADME Screening

BioChromato reports that pharmaceutical companies undertaking absorption, distribution, metabolism, and excretion (ADME) studies are benefiting from integrating RAPID Easy Piercing Seals (EPS) into their screening protocols. ADME scientists commonly use 96- or 384-well microplates to store large numbers of samples for screening. Sample-contamination issues can often arise in ADME studies, as common HPLC solvents such as acetonitrile, water, and dimethyl sulfoxide can extract siloxane out of the silicon-based adhesives used in the microplate seal. RAPID EPS seals use a synthetic-rubber adhesive to create a high-integrity, airtight microplate seal, preventing contamination of ADME samples analyzed by HPLC. In addition, the seals leave no particulate material when pierced by an HPLC autosampler, further safeguarding samples from contamination and eliminating damage to or clogging of your autosampler. They are proven to offer dependable microplate sealing over a working temperature range of -80°C to 80°C.

#### BioChromato

For info: +81-(0)-466-23-8382

[biochromato.com/plate-and-seals/eps](http://biochromato.com/plate-and-seals/eps)

### Motorized Optical Stand

The OpenStand modular platform allows for easy customization. This fully configurable, motorized optical stand, when combined with a range of readily available optics, light sources, and accessories, creates a complete, customizable optical microscope. It is ideal for optogenetics, physiology, electrophysiology, neuroscience, industrial, and general imaging applications. Its modular approach allows maximum interchangeability and flexibility, enabling users to image a wide range of samples for virtually any life science and industrial application, and offering the largest imaging space available. It features a cost-effective, custom development platform that can be set up quickly as a fast-track to a prototype instrument. OpenStand lets you select only the components you need for your specific application, resulting in significant savings while giving you the flexibility to expand and add additional components if requirements change.

#### Prior Scientific

For info: 781-878-8442

[www.prior.com](http://www.prior.com)

### Stem-Cell Culture Substrate

FUJIFILM Irvine Scientific announces cellnest, a recombinant peptide attachment substrate that provides optimal adhesion and proliferation of stem cells in chemically defined, animal component-free conditions. Attachment substrates mimic the extracellular matrix, a complex, dynamic environment in which cells reside in vivo, and allow for adhesion, expansion, and potential differentiation of stem cells. Unlike animal-derived components, which can introduce unpredictability in results, cellnest delivers consistent results and can smooth the regulatory path to commercialization. It is compatible with any adherent cell type that binds to the Arg-Gly-Asp (RGD) domain, an amino-acid sequence within the extracellular matrix protein fibronectin that mediates cell attachment. cellnest is an ideal companion product to our PRIME-XV portfolio of xeno-free, chemically defined media for stem-cell culture and is well suited for the attachment and growth of mesenchymal stem cells.

#### FUJIFILM Irvine Scientific

For info: 800-577-6097

[www.irvinesci.com/products/1063967-cellnest-recombinant-peptide](http://www.irvinesci.com/products/1063967-cellnest-recombinant-peptide)

Electronically submit your new product description or product literature information! Go to [www.sciencemag.org/about/new-products-section](http://www.sciencemag.org/about/new-products-section) for more information.

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