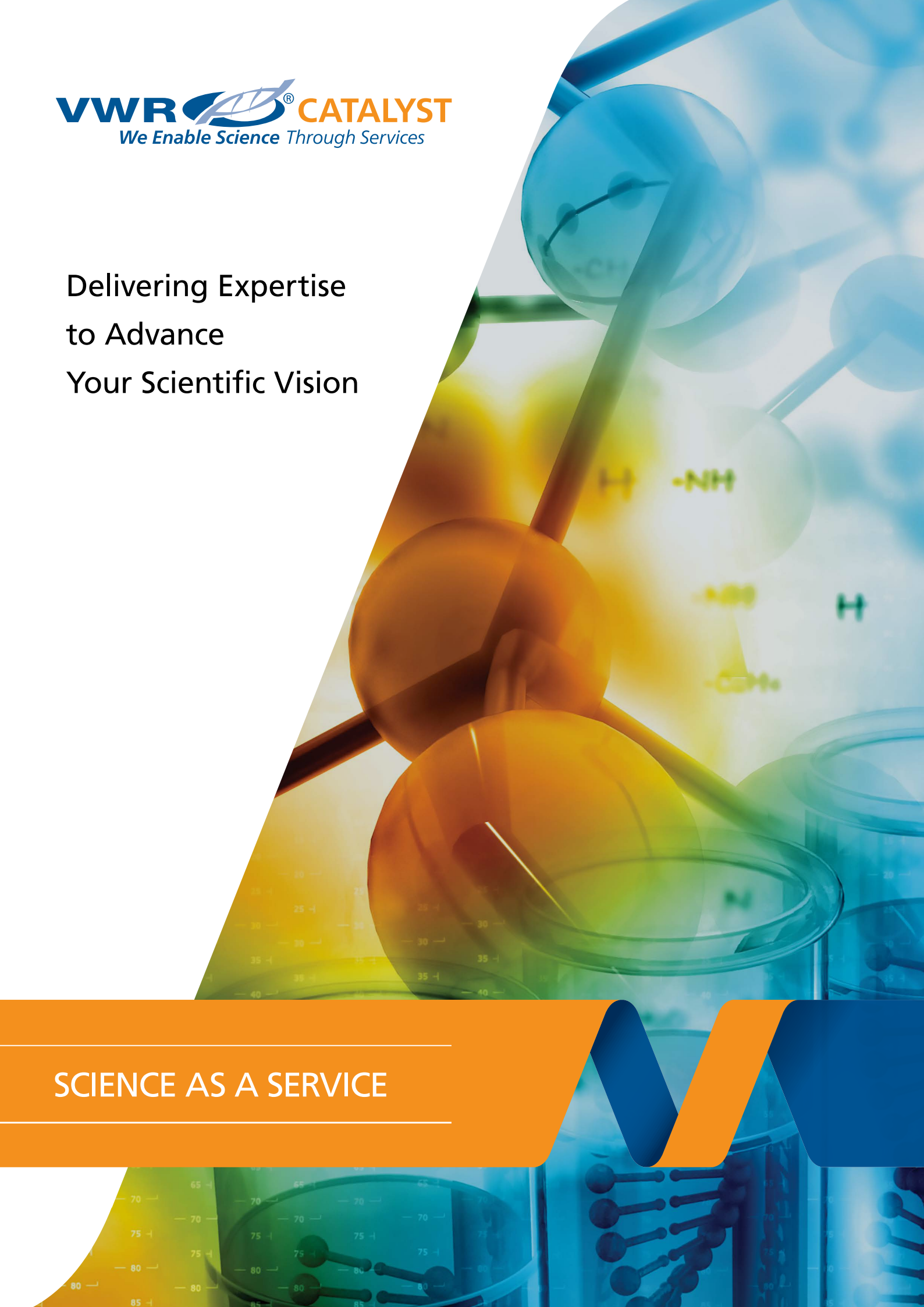
VWR® CATALYST

*We Enable Science Through Services*

# Delivering Expertise to Advance Your Scientific Vision



## SCIENCE AS A SERVICE


## A New Way to Reduce Complexity and Create Value

Life science companies face increasing demand to deliver innovation and value. As scientists strive to maximize the value of their work within a company's growth strategy, they need ample opportunity to focus on data analysis, decision making, collaborating with colleagues on new models of discovery, and other value-generating activities.

Science as a Service supports new and efficient ways of working in the modern laboratory. **VWR**CATALYST associates with real-world lab experience perform protocol-driven science, directly supporting the vision and strategy of each unique customer.

We hire, manage, and develop collaborative professionals with backgrounds in chemistry, biology, and engineering. Our support staff often work onsite, in customers' laboratories, or in a **VWR**CATALYST core lab. Either option allows VWR to expand the support system for our clients so that highly valued life science professionals can focus more on decision-making, innovation, and value. This in turn creates opportunities for significant improvement in an organization's project delivery timeline.

We offer custom managed services for a wide range of chemistry and biology labs. Flexible deployment models allow our customers to address shifting priorities quickly. And our services are measurable, so you can be assured of the quality of the science and readily track your return on investment in **VWR**CATALYST.

Find Success Stories and more at **vwr.com/Science_Service**

# R&D Lab Scientific Support

## Scientific Services for Research Labs

Qualified scientists with backgrounds in chemistry, biology, and engineering can support a wide variety of protocol-driven laboratory work, providing cells, reagents, and testing results for Pharma, Biotech, and Industrial customers. These managed services utilize standardized procedures, protocols, and service level agreements (SLAs).

## General Laboratory Management

Introducing a **VWR**CATALYST Lab Manager eliminates the need for your scientists to follow up on routine lab operational issues. Our lab managers are well-qualified scientists themselves. They are designated as first points of contact for all laboratory operational needs. Common functions of the lab manager include:

- Training new staff on lab equipment/lab processes
- Managing open access instruments
- Performing routine equipment checks
- Providing managerial oversight for our onsite scientific managed services associates

R&D Lab Scientific Support

# Bioprocessing Facility Support

We deploy experienced and degree-level bioprocessing professionals. In upstream areas, we support cell culture, cell banking, and on-site media/buffer preparation. We can also assist with production suite setups and manage single-use supplies. In downstream operations, our team can assist scientists with filtration, chromatography, and routine analytical checks according to lab protocols.

Bioprocessing Facility Support

# Scientific Sample Management

The management and retrieval of samples is very important to scientific groups. When samples are stored and logged in a systematic manner, scientists can complete more research, analyze and report data faster, and plan follow-up experiments

**VWR**CATALYST ensures that compounds, clinical samples, production retains, and cell banks are well maintained. We offer a service that allows our customers to request efficient sample retrieval and delivery to scientists. If a customer needs to get cells for an experiment from a stored cell line, we can optionally do the cell scale up on their behalf so that suitable quantities of cells are ready for their experiment.

Scientific Sample Management

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# Examples Of Scopes Of Work

**VWRCATALYST consults with customers to identify work streams that can be standardized and delegated to our support staff. Scopes of work are defined and carefully designed to deliver results so you can make the decisions that give your organization a competitive edge.**

**For more information, email vwrcatalyst.eu@vwr.com or visit vwr.com/Science_Service**

### 1.1 Screening Assay Lab
- Liquid handling: quality control assessment of automation equipment
- Preparation of reference compounds to required concentrations
- Serial dilution
- Set up and operate plate-based assays
- Assay data reporting

### 1.2 Cell Culture
- Conduct maintenance protocols
- Media/reagent preparation
- Ordering cells from cell bank
- Basic microscopy
- Cell resuscitation
- Cell line passaging
- Growth curves
- Preparation of aliquots
- Cryopreservation

### 1.3 Biobank
- Administration and receipt of tissues from external sources
- Sample registration and tracking in Biobank software
- Receiving of ambient or frozen samples
- Sample request processing and shipping of ambient or frozen samples
- Raise and manage requests for histopathology

### 1.5 Flow Cytometry Assay Lab
- Maintain flow cytometry instrumentation
- Setup experiment and compensation controls
- Record sample data
- Perform cell batch analysis and export report data

### 1.6 Upstream Bioprocess
- Manage buffer prep lab, equipment, single-use supplies
- In-house solutions preparation from powders
- Operate 2,000L single-use stirred tank system
- Perform QA/QC protocols
- Perform lab equipment daily checks
- GMP lab record keeping

### 1.7 Drug Stability QC Chemistry
- Product appearance test
- Viscosity of the sample
- Karl Fisher test
- Particle size analysis
- Manage stability chambers
- Drug Dissolution study by HPLC
- Drug Content by HPLC
- Degradation Products by HPLC

### 1.9 Genomics Lab
- Preparation of DNA samples and DNA beads
- Operate and maintain laboratory instruments
- Perform amplification assays
- Preparation of Nucleotide mixes via HPLC
- Assist with data collection and analysis
- Specialized reagent preparation

### 1.10 Protein Purification Lab
- Prepare mobile phase buffers
- Pack and recycle chromatography columns
- Collect and label batch samples
- Maintain logs and documentation
- Setup, break down and clean equipment according to lab protocol
- Lab waste record keeping and disposal

### 1.11 Freezer Farm
- Catalog and barcode samples
- Maintain sample database
- Process sample requests from research groups
- Sample expiration management
- Process incoming/ out-going sample batches
- Maintain equipment
- Test alarms and backup systems
- Alarm response

### 1.12 Discovery Chemistry Lab
- Purification of small molecules by HPLC
- Purification of small molecules by automated Flash Chromatography
- Pooling and dry-down of chromatography fractions
- Collect characterization data for isolated products (LCMS and NMR)

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