



WEAREANALYTICAL WHEN IT COMES TO PURIFICATION

OneSource[®]
Laboratory Services

One Source provides managed, on-site purification solutions, to help you get the clearest results possible.

Purification of compounds is a complex and time-consuming science: running initial analytical LCMS, purifying your samples via Mass, UV, Flash or SFC methodologies. Then, qualifying your final compound through LCMS and NMR to deliver high-quality data output for scientific discovery. Purification systems are complex as well, with little redundancy: small issues with technology, even a loose fitting, can lead to an irreversible loss of experimental compound and corruption of data.

What's more, the capabilities of compound purification are growing, and this is causing increased technical challenges for researchers at all levels. With the increasing turnover rate for frontline scientists, laboratories are hard pressed to keep a trained team of purification experts on projects.

With our Purification Instrument Concierge Services, our specialists are carefully selected and trained to deliver expert-level services on the whole range of purification processes, from sample prep to data analysis. You have access to subject-matter experts on different technical aspects of sample purification and can leverage our cumulative knowledge to bring comprehensive, advanced services to your lab.

If you are interested in expanding your analytical capabilities, we can help with that, too. PerkinElmer HPLC, UHPLC, and LC-MS instruments and software integrate into your lab, and our complete line of analytical and preparative LC columns can separate a wide variety of compound chemistries.

Purification is Our Core Competency

Our Purification Core Services can be customized to your lab's unique requirements. Using your current instruments and facilities, we work on-site with your scientists, avoiding miscommunication, finger-pointing, and delays associated with off-site outsourcing.

We offer distinct services that cover all aspects of the purification workflow. Choose the services that are important to your research teams, and we can implement a solution based on those needs.



We are also uniquely able to provide your lab with a comprehensive catalog of LC column chemistries and formats that are scalable. From UHPLC to preparative dimensions, with bulk media and packing services available, we can help with every step of the purification process.

Scheduled Operation

Keeping your instrument fleet running at an optimal state is critical to research efficiency and data integrity in the lab.

Is your lab performing regular Quality Checks (QCs) to make sure the data you are getting from your analytical and purification systems is valid and reproducible?



Do you have dedicated staff ensuring that the instruments are thoroughly cleaned and decontaminated on a regular basis?

Our Instrument Concierges can ensure all the instruments are prepared and ready to go well before scientific staff comes in to utilize them. STET can work with your methodologies, but we can provide recommendations as well. We have extensive SOPs that our specialists use to deliver instrument optimization and readiness services in a standardized way.

- Monthly full-scale cleaning and maintenance
- Semimonthly/weekly fluidics cleaning and preparation system QC
- Daily startup/shutdown with analytical system QC and cleaning

Development and Optimization

To generate even more value from your lab operations, our OneSource programs deliver upstream development support. Working as an embedded extension of your research team, we take care of the tactical, routine, and specialized tasks: sample submissions, sample preparation, pooling and distribution of recovered compound, thereby allowing your scientists to focus on more complex research activities.

- Existing methods may be utilized by our staff at your direction
- Our staff may call upon more SMEs (Subject Matter Experts) within the PerkinElmer organisation to suggest improvements to your purification
- Dedicated Customer Solution Development Centers within PerkinElmer are focused on providing chromatographic method development and optimization services to our clients

User Training and Education

Utilizing OneSource to manage staff and user group training – across your fleet of multivendor instrumentation – brings an experienced and agnostic voice to administrative tasks, training, and policy enforcement. This ensures that all departments have equal access to a robust schedule of formal technology demonstrations, as well as friendly Lunch & Learn training sessions.

- Instrument and software training
- Internal or invited seminars/webinars
- Core communications on technical advancement

Sample and Data Management

We have a raft of software solutions available to assist your organization with the tracking of individual samples as well as the reporting of data into a global repository system deemed by the customer.

- Individual samples can be tracked through your purification process. Know the exact location and status of each compound at any given time
- Data can be imported into your existing reporting systems.

Troubleshooting and Optimization

Our extensive asset management team allows us to access service engineers for more complicated repairs and build strong relationships with a variety of instrument manufacturers.

- Troubleshooting on-site and phone support
- Initial repair with in-house tools and parts
- Characterization and optimization of instruments from a host of manufacturers / vendors

Administration

Whether it is keeping consumables stocked, helping to create SOPs or managed data systems, we have the experience and knowledge to take on all of these noncore tasks.

- SOP documentation and lab safety compliance
- Data storage, website, and consumables management
- Coordination of demos and vendor Field Service Engineer visits if necessary

Return More Time to Your Scientists (A Case Study)

We have helped establish a Purification Service for a major pharmaceutical client in the United States. This 6-member purification team services a Medicinal Chemistry Department with over 60 chemists. The purification specialists are fully integrated with a workflow that handles sample receiving, LCMS scouting, method development, purification, dry-down and consolidation and final purity and structure analysis. They monitor and use four prep instruments, two LCMS units, various dry down units and have recently implemented the use of automation for sample handling. This service has collaborated with Our Instrument Services team in setting up routine maintenance, performance testing, and parts repair for all instrumentation. This on-site implementation has removed the burden of complex and routine purifications from customer chemists, as well as countless hours spent on troubleshooting prep instruments. The success of this purification service has been proven by a reduction of average turnaround time of array submissions from ten days to five days or less. As well as turnaround time, purification output has increased with a projected sample output of >18,000 compounds purified for 2022.

Time Back to Science

Using PerkinElmer Purification Service will allow your chemists to stay focused on science and not validation of instruments or routine purifications – a basic service package of our experts can return up to a full business week of hours for a single chemist.

PerkinElmer Purification program, as a part of Scientific Services, has been involved in supporting various Prep and Flash chromatography instruments from a variety of different manufacturers. Our cross-communication with our internal community regarding new instrumentation enables rapid troubleshooting.

Using our Instrument Concierge Services will allow your scientists to stay focused on science and not validation of instrument or methods – one PKI expert can return up to 2 FTE equivalent work hours for your principal scientists. We are the experts on analytical instrumentation and all other technical aspects of purification.

These purification programs, have been supporting a very wide spectrum of analytical instrumentation from a variety of manufacturers. We make it a practice to reach out to our internal community to ask for experiences of those instruments to leverage what we already know – this helps us in rapid problem solving. Case studies with top pharmaceutical companies demonstrate a 90% decrease of troubleshooting time and a 45% decrease of service calls, as well as the best practice data collection.

Using PerkinElmer Purification Services will remove the need for your scientists to perform the time-consuming task of purifying compounds. This leaves them free to perform their primary role of research, development or production of more raw compounds.

Purification Time Break Down (Manual Work Without Automation)

- Average Array Size 2021 = 14 samples
- Average Prep Time for Array = 5-7 hours (14 samples x 21 prep run = 302 minutes = 5 Hours + 1-2 hours clean up/equilibration/set up)
- Average Consolidation/Distribution Time = 4-6 Hours
- Average Analysis, Final Weights, Data Review, Reporting Time = 3-4 Hours

Prep Time	5-7 Hours
Overnight Dry Down	12-16 Hours
Consolidation/Distribution	4-6 Hours
Overnight Lyophilization	12-16 Hours
Analysis, Weighted, Data Report	3-4 Hours
Administration	35 Hours

Weekly Time Return Break Down

- Average Weekly Submission for 2021 = 8 Arrays/ Week
- Purification Weekly: 8 Arrays x 14 Samples = 112 Samples/ Week on Average = 112 Samples x 20 minute prep run = 2,240 Minutes = ~37 Hours of Purification Time
- Consolidation/ Distribution Weekly: 8 Arrays x 4 Hours Average Time = 32 Hours
- Data Analysis: 8 Array/Week x 3 Hours Average Time = 24 Hours
- Instrument Optimization/Troubleshooting: Daily Instrument Setup/Equilibration = 1 Hour
- Weekly Troubleshooting = 5 Hours
- Standard/QC Checks 1 x 4 Instruments = 4 Hours
- Analytical LCMS QC Check 0.5 x 5 Days = 2.5 Hours

Total Time = 12.5 Hours

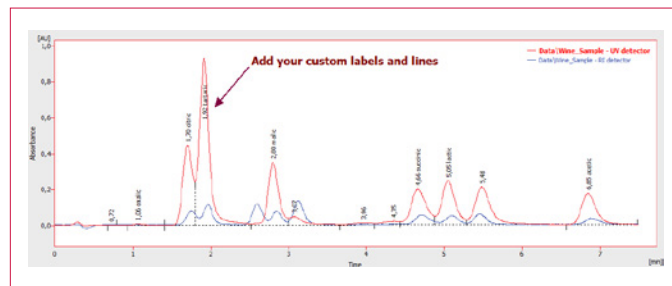
Time Returned To Customer Based Off Average Weekly Submissions of 8 Arrays Per Week (Average Array Size =14 Samples)

Core Competency	Weekly Time Returned to Customer
Purification	37 Hours
Consolidation/Distribution	32 Hours
Analysis/Reporting	24 Hours
Instrument Optimization/Troubleshooting	12.5 Hours
Administration	35 Hours

Enterprise-Level Solutions

Our purification services are customized to your company's needs and intended use. We can use your current instruments and facilities and deliver our work according to your expectations. We're on-site working with your scientists, avoiding miscommunications and delays by outsourcing off-site. We understand the need for cutting-edge purification technology and reproducible data in all phases of drug discovery and development period.

Our purification specialists are carefully selected and trained for expert-level services on the whole processes of purification from the beginning of sample preparation to the very end of data analysis; they also have access to Subject Matter Experts on different technical aspects of purification. We can leverage the cumulative knowledge of our entire organization to bring about comprehensive, advanced core services.



Learn more about how OneSource's comprehensive Instrument Concierge™ services, including Automation Engineering and Flow Cytometry:

- Improve performance, productivity, safety, and data integrity
- Enhance daily workflows and scientific processes
- Stream-line instrument management
- Ensure instrument compliance