

Introduction

Accium BioSciences launched the DirectAMS™ Program in October 2010 in an effort to make accelerator mass spectrometry (AMS) widely available to pharmaceutical and life science researchers around the world. As part of this effort, Accium dramatically lowered its AMS measurement fees making AMS more affordable than ever before.

Customers that require full-service sample preparation, customized protocols, HPLC fractionation or full study reports may continue to receive those services from Accium. For the first time, customers that require AMS service only can send samples directly to Accium for graphitization and AMS measurement. In either scenario, customers receive the new AMS measurement fees from Accium.

Purpose

DirectAMS™ strives to make AMS broadly available at affordable rates so that the value of AMS can be realized by the larger scientific community.

Services

Accium operates three functional service units. Customers can mix and match services from any service unit in order to achieve the right outcome at the right cost. In general, customers obtain the lowest cost service by requesting service directly from the AMS Services Unit.

- A. The AMS Services Unit provides sample processing (combustion and graphitization) of plasma, whole blood, urine, processed feces, tissue homogenates and HPLC fractions followed by measurement of ^{14}C by AMS.
- B. The Bioanalytical Services Unit provides front-end bioanalytical services, such as customized protocol development, sample handling, HPLC fractionation, calculations and preparation of full reports.
- C. The Quality Services Unit provides an independent quality audit of the activities of the AMS and Bioanalytical service units. Customers may request services under a non-GLP or GLP environment.

How it works

1. Customer conducts ^{14}C radiotracer study at their facility or at a third-party site, such as a contract research organization (CRO).
2. Customer sets up an account and requests a project number.
3. Customer submits samples to Accium.
4. Accium's Study Director in charge of the AMS Services Unit oversees receipt, processing, AMS measurement and reporting of results.
5. Samples are combusted, graphitized and measured by AMS.
6. Data is compiled and reviewed internally.
7. The results are submitted to the customer in a standard report format.

As an optional add-on to this program, Accium is providing expert consulting services to anyone who seeks to establish their own independent sample preparation laboratories (see Independent Laboratory Subscription Service below)

GLP vs. Non-GLP	<p>The Quality Services Unit delivers Quality Assurance (QA) to each customer and each project under two different scenarios:</p> <p>Non-GLP service includes auditing of all data points reported by the AMS Services Unit.</p> <p>GLP service additionally includes auditing of sample receipt, sample logging, assurance of chain-of-custody throughout the process, temperature monitoring during storage and audits of testing records. A Quality Statement is included in the release of project data.</p>
Turnaround time	7-14 days typical
Independent Laboratory Subscription Service	<p>Accium offers an optional subscription service to customers who intend to establish their own independent sample handling laboratories. Customers who submit samples directly to the AMS Services Unit must first perform front-end sample handling (if any) before submitting samples. Such work may include sample dilution, pooling, extraction, HPLC fractionation, homogenization or other forms of sample manipulation. In many cases, no front-end sample handling is required, in which case, samples are directly submitted to Accium for analysis.</p> <p>The extreme sensitivity of AMS requires certain precautions to be incorporated into each step of the process to ensure a successful outcome of the project. This includes a good understanding of the tools and techniques that are employed during front-end sample handling. Many customers have the necessary resources and expertise to conduct these steps. However, we highly recommend accessing our years of experience preparing and processing thousands of samples across a wide range of experimental protocols. Customers can access that knowledgebase through the Independent Laboratory Subscription Service. The service is available to academic and non-profit institutions and commercial organizations, including contract research organizations. The service provides customized solutions for establishing and operating a laboratory specifically designed for front-end AMS sample handling. The service includes the following:</p> <p>Commercial organizations subscription package:</p> <ol style="list-style-type: none"> 1. Up-to-date SOP library 2. 12 hours of consulting 3. 14C Monitoring Kit with 40 AMS measurements <p>Academic/non-profit institution subscription package:</p> <ol style="list-style-type: none"> 1. Up-to-date SOP library 2. 6 hours of consulting 3. 14C Monitoring Kit with 40 AMS measurements
SOPs	<p>Accium's facility and operations are compliant to GLP (Good Lab Practices) guidelines. The SOP (Standard Operating Procedures) Library consists of 95 up-to-date SOPs, including SOPs related to AMS sample handling procedures, methodologies and precautions. Some of the titles in the library are shown below. Please contact Accium for a full list of SOPs.</p> <p>T 1047 (Rev 5) Receiving Biological Materials T 1050 (Rev 4) Processing Plasma, Urine, Fecal Homogenate and Tissue Samples T 1051 (Rev 5) Separating Metabolites by HPLC-AMS Q 1137 (Rev 6) Chain of Custody System T 1058 (Rev 6) Contamination Control T 1059 (Rev 8) Environmental Monitoring</p>

Who is eligible Any academic, non-profit or commercial organizations, including contract research organizations, are eligible to participate in the Independent Laboratory Subscription Service program.

Fees

AMS Service* (graphitization, AMS measurement, report submission)	
Non-GLP	\$99/sample
GLP	\$115/sample
Total carbon measurement	
Non-GLP	\$15/sample
GLP	\$20/sample
Screening by liquid scintillation	\$20/sample
DirectAMS™ Subscription Service	
Commercial organizations	\$12,500/year
Academic / Non-profit institutions	\$7,500/year

** The AMS Service fees apply to all samples and study types with the exception of absolute bioavailability services (also known as IV microtracer studies) that are provided by Accium's Bioanalytical Services Unit.*

Get started! Please inquire about the DirectAMS™ Program by contacting us at (206) 281-3915 or sending an email to info@acciumbio.com.



The AMS Laboratory at Accium BioSciences. The facility houses a state-of-the-art National Electrostatics Corporation (NEC) Model 1.5SDH-1 Pelletron Accelerator is a dual acceleration (tandem) electrostatic accelerator. This accelerator along with the other items described here form an Accelerator Mass Spectrometry (AMS) System especially constructed to measure the amount of ^{14}C in small graphite samples to a precision of 0.5% or better. Dr. Ugo Zoppi oversees all AMS operations at Accium, bringing over 22 years of AMS expertise and world-wide recognition to Accium and its clients.



Accium BioSciences
measure more. learn more.

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