

## Summary

The Quantitative Science Service Handbook serves as a comprehensive overview of our Core Service Centers, which offer specialized, end-to-end support to researchers across the entire research lifecycle. It outlines the distinct contributions of our Bioinformatics, Biostatistics, Data Science and Analytics, and Clinical Research Informatics teams, each delivering expert services. By detailing each team's objectives and service offerings, this handbook serves as a valuable guide to accessing the resources necessary for high-impact, data-driven research.

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# Project Process

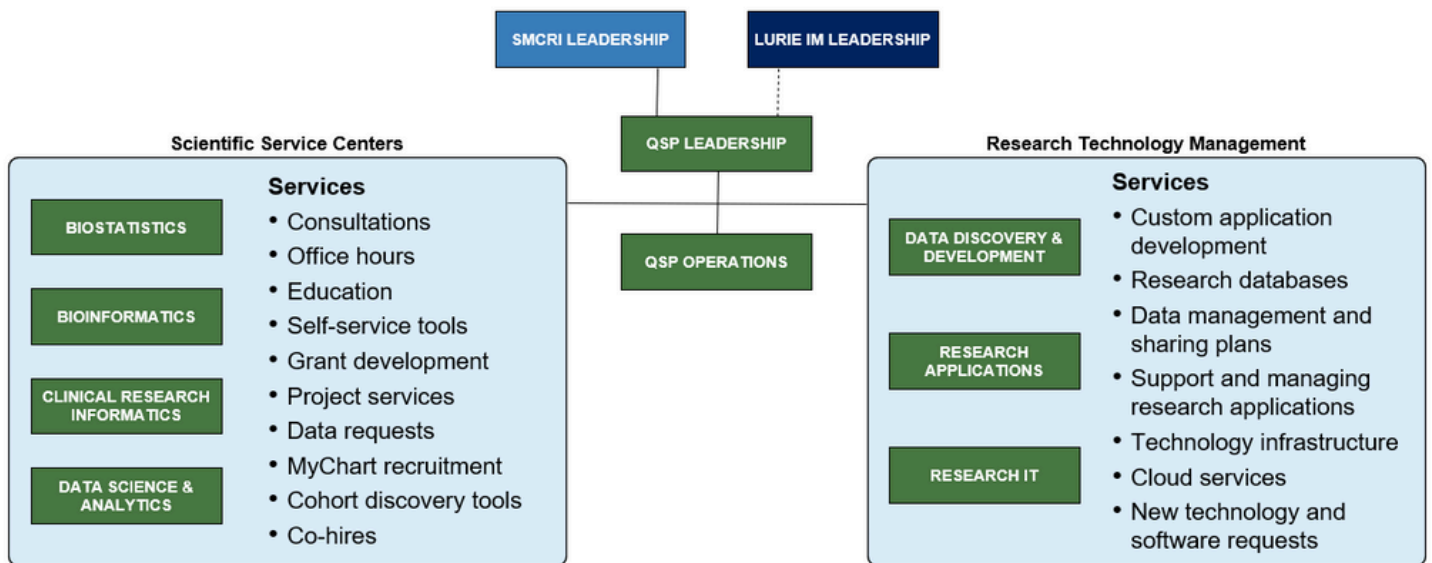
The project process is structured to guide requestors systematically through each step involved in submitting their requests.

For specific view of the current stage of your project: [coming soon](#)

<b>Intake Meeting</b>	Virtual discussion of the extent of the project. This can include the duration, resources, outcomes, or teams involved.
<b>Statement of Work</b>	Written document outlining the limits of the project discussed during the intake meeting outlining the tasks and hours projected.
<b>Budget</b>	<ul style="list-style-type: none"><li>• Estimated budget for project services</li><li>• Development of grant proposal budgets</li><li>• Estimate budgets for voucher referrals</li></ul>
<b>Staff Assignment</b>	Once the statement of work is signed, the project is assigned to a team member who is best equipped for the project.
<b>Project in Progress</b>	Project status can be communicated by the project manager or the designated team member
<b>Project Closeout</b>	<p>Final results are discussed with the requestor ensuring that all tasks outlined were completed before delivering the finalized work.</p> <p>Additional charges may apply if there are unanticipated barriers to accomplishing the proposed work. If additional services are rendered outside of the proposed timeline set forth in the budget and service proposal, costs of some budget items could be subject to inflation. If additional services outside the scope of work are requested, the Quantitative Science pillar will provide an updated statement of work.</p>

# Quantitative Science Structure

## Quantitative Science Structure



# Service Center Overview

Quantitative science experts collaborate with researchers across Stanley Manne Children's Research Institute to provide cutting-edge statistical and analytical support and computational techniques to maximize research impact and improve the health outcomes of pediatric patients.

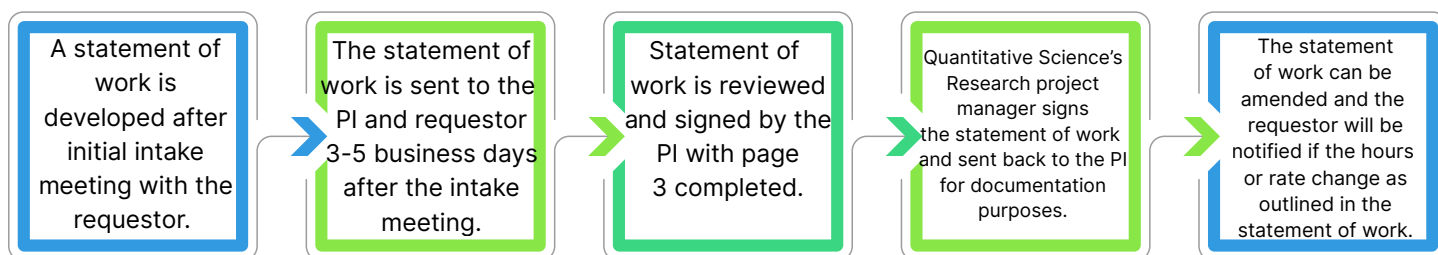
Their expertise in statistics, bioinformatics, data science and analytics, clinical research informatics, and predictive analytics enables researchers to test hypotheses, answer research questions, and pursue understanding of behaviors across different populations.

Use our [Quantitative Science Service Request](#) form to request services outlined in the following list of service centers.

Service Center	Overview
Clinical Research Informatics	<ul style="list-style-type: none"><li>● Epic data discovery facilitation</li><li>● MyChart recruitment</li></ul>
Data Science and Analytics	<ul style="list-style-type: none"><li>● Research data requests</li><li>● Physiological data analytics</li><li>● Data transformation</li><li>● AI/ML applications</li></ul>
Bioinformatics	<ul style="list-style-type: none"><li>● Data analysis</li><li>● Algorithm development</li><li>● Whole-genome and whole-exome sequence analysis</li><li>● Differential gene expression analysis (bulk RNA-seq)</li><li>● Differential chromatin accessibility analysis (ATAC-seq)</li></ul>
Biostatistics	<ul style="list-style-type: none"><li>● Statistical analysis plan development</li><li>● Power calculations</li><li>● Selecting and performing proper analysis</li><li>● Results interpretation</li><li>● Writing statistical methods and results</li></ul>

# Statement of Work

The statement of work is a detailed document that outlines the specific tasks, deliverables, and timelines for a project.



# Recharge Recovery Model

The hourly recharge recovery model allows our Quantitative Science teams to provide specialized services to investigators by recovering the cost of time and resources spent on projects. Instead of relying solely on institutional funding, this model supports sustainable service delivery by billing grant funds, philanthropic dollars, or departmental accounts for the support provided.

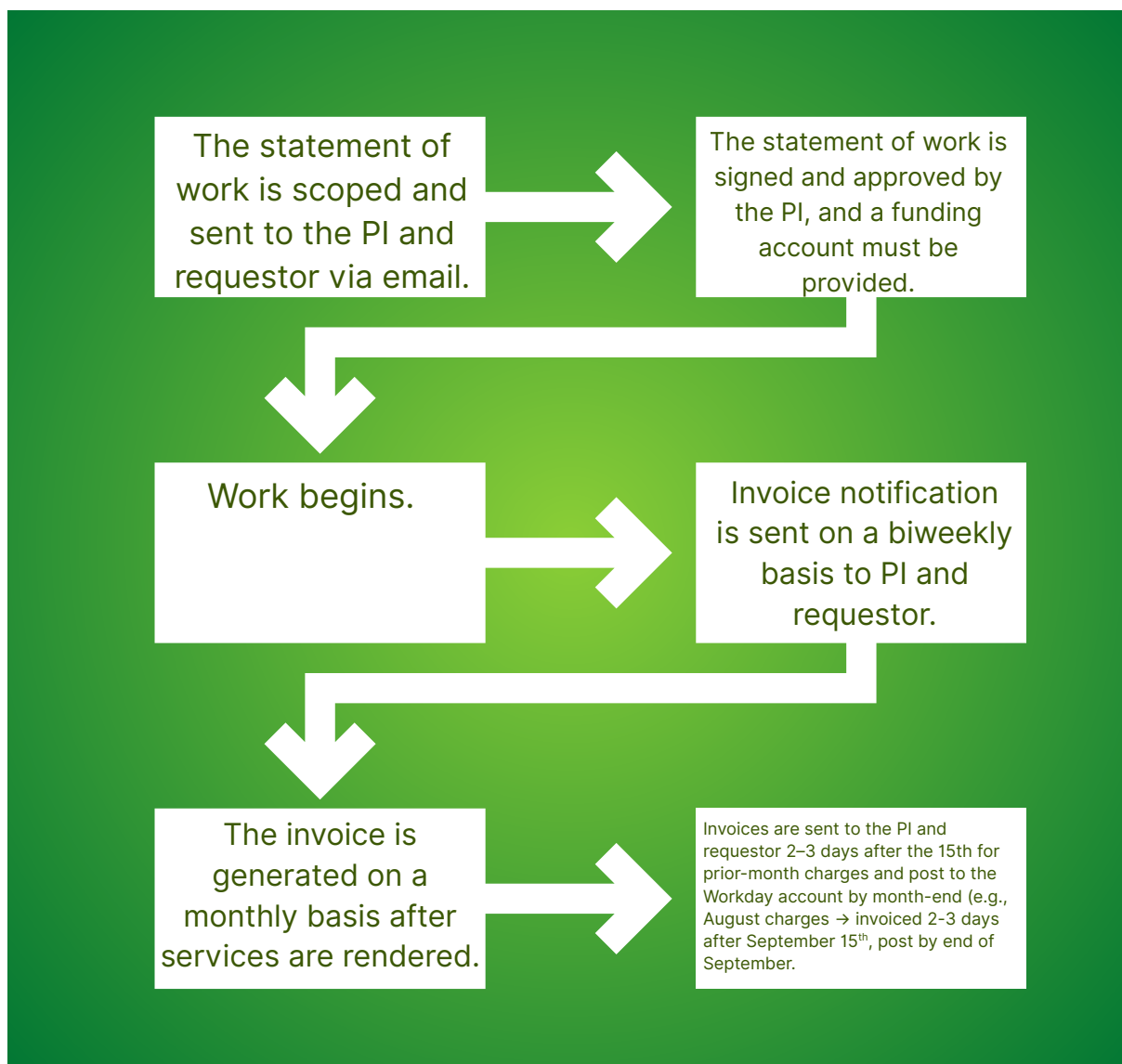
## How It Works

- Each service line has a standard hourly rate.
- Researchers are billed based on the actual effort required to complete the work.
- This model ensures transparency, accountability, and helps maintain capacity for high-quality support.

Access the Research Resource Hub Resource Library for a list of our [current service rate and hourly charges](#).

# Invoicing Process

The Quantitative Science team will invoice on a monthly basis based on actual services rendered, using an internal invoice based on documented hours/effort toward providing these services. Invoices are processed monthly following the completion of services. As the total amount approaches the agreed-upon scope of work total, a notification will be sent to the requestor.



# Grant Development Support Services

Grant development support services are available to assist researchers during the design and development stage of their research projects. Our mission is to empower researchers to secure grant funding for their research projects. Our teams understand the complex nature of grants and will work with you on your research design and craft a proposal.

Please note that there are internal deadlines that must be met when submitting a grant, in addition to the deadline for the grant itself. Because of this time-sensitive nature, we highly encourage researchers to begin planning their grant submissions as soon as possible to allow our teams sufficient time to develop your required materials. Grant submissions are time-intensive and require a budget, budget justifications, letters of support, biosketches, and often data management sharing plans.

We provide up to 20 hours of grant development support per request at no cost, as long as our services are budgeted into the grant budget.

# Authorship Policy

## Quantitative Science Pillar Authorship Policy

The statisticians, bioinformaticists, data scientists, and other scientific and technical staff in the Quantitative Science pillar make substantial analytic and methodological contributions that qualify for authorship according to the [ICMJE definitions](#) of authorship, including study design, data acquisition, data analysis, data interpretation, development of figures and tables, manuscript writing, and manuscript review and critical revision. Fundamentally, we hope to cultivate a collaborative academic relationship between our staff and investigators. To that end, we hope each project will provide timely, high-quality scientific deliverables as well as opportunities for professional development.

## Expectations

Our expectation is that any abstract, manuscript, or other work with attributable authorship will include the team member(s) who contributed at the level meeting authorship criteria. The exact position of authorship will be determined in collaboration with the principal investigator and based on the level of contribution. As team scientists, it is typical to be in a middle author position; first author, senior author or corresponding author are rare. We recommend that all research teams use [authorship agreements](#) as best practice; if you are unfamiliar with these, we can provide a template.

## Services Related to Manuscript Preparation

In addition to our technical, analytical, and scientific services, we will contribute to developing methods and results in the form of tables, figures, and summaries of data interpretation. These provide relevant text for the methods, results, and discussion sections in manuscripts. We will also provide overall review and revision of the manuscript and/or abstract. The time spent on these activities is accounted for in the project budget and scope of work. Our team will also provide their name, affiliation, and ORCID to facilitate the submission process.

## Services Related to Manuscript Preparation (cont.)

In addition, we will provide the following for any service request that includes work on a manuscript.

- It may take 5-10 hours (on average) for manuscript preparation activities, including drafting, editing, and revising the methods and results sections of the manuscript. The exact number will be determined by the team based on the anticipated scope of the project.
- We will not bill for the time spent in fulfilling basic author responsibilities, such as completing journal submission requirements or providing final review of a manuscript prior to submission
- As a courtesy, we will provide up to 5 hours to support revisions from editors or reviewers at no additional cost.
- If the anticipated work to respond to reviews is more than 5 hours (for example, a reviewer requests extensive additional analyses), we will generate an updated scope of work.
- New submissions of previously rejected manuscripts that require new or additional analysis will be treated as a new scope of work.

We strive to provide all our contributions in a timely way. Scientific deliverables and due dates will be defined in the statement of work document you receive from the team. Please communicate all authorship-related deadlines or milestones at least 2 weeks before they are due; otherwise, we may not be able to complete them on time.

If you have questions about this policy, contact our team at [quantsci@luriechildrens.org](mailto:quantsci@luriechildrens.org).

# FAQs

Refer to our Quantitative Science [webpage](#).

## Conclusion

This handbook serves as a centralized resource to help researchers navigate the specialized services available through our Core Service Centers. Whether through advanced bioinformatics, expert statistical support, or clinical informatics guidance, our teams are committed to enhancing the quality and impact of your research. We encourage all investigators to engage with our services early and often to ensure a streamlined and successful research journey.

Here are some helpful links for our services.

[Quantitative Science webpage](#)

[Request quantitative science services](#)

[Co-hire a dedicated team member](#)

[Current service charge rates](#)

[Contact email: quantsci@luriechildrens.org](mailto:quantsci@luriechildrens.org)

[Manne Research Institute voucher program](#)