**BMIC Catalog of Services**

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**SERVICES**

**Artificial Intelligence Program**

Consultation for those interested in applying AI-based methods to current or future research. These methods include, but are not limited to, machine learning, deep learning, natural language processing (based on machine learning). Services include: Determining potential success/appropriateness of applying AI methods to proposed research; Refining research question/approach to one more suitable to AI methods; Identifying resources such as collaborators and/or funding mechanisms.

For more information on BMIC’s services, please visit [**our website**](https://medicine.musc.edu/departments/centers/bmic/service-center).

**BMIC IT Services**

**Biomedical Informatics Consultation -- Not for Data Requests**

Consultation in a wide range of biomedical informatics services in the areas of data management, complex REDCap projects, EHR research tools, and advanced data analysis such as natural language processing.

Services could include collaborative work with BMIC faculty and staff on grants, manuscripts and other projects.
Direct link to this service: [sparc.musc.edu/services/10](https://sparc.musc.edu/services/10)
NOTE: Please do not use this if you are looking for a data request. Use this service instead: [sparc.musc.edu/services/8253](https://sparc.musc.edu/services/8253)

**Biomedical Informatics IT Staffing**

IT Staffing by Biomedical Informatics personnel for a research grant or other projects. Rate is per-hour based on requirements.

Direct link to this service: [sparc.musc.edu/services/34064](https://sparc.musc.edu/services/34064)

**Biomedical Informatics IT Staffing - Mobile Development**

**Mobile application development by BMIC-DHS (Digital Health Solutions)**

**Doxy.me**

Tele-Research Services utilize the Doxy.me medicine platform. Doxy.me is a browser based telemedicine platform available to all researchers at MUSC.

Dependent upon IRB approval, the platform can facilitate distance based research methodologies including teleconsent/e-consent, tele-survey, and tele-visits.

**Teleconsent**

Electronic consent over a telehealth platform [**(musc.doxy.me)**](https://musc.doxy.me/).
Direct link to this service: [sparc.musc.edu/services/34054](https://sparc.musc.edu/services/34054)

**Set Up Doxy.me Telemedicine Account**

Creating accounts for new user(s) to access the telehealth platform [**(musc.doxy.me)**](https://musc.doxy.me/).
Direct link to this service: [sparc.musc.edu/services/34056](https://sparc.musc.edu/services/34056)

**EHR Network Data Beyond MUSC (PCORnet STAR CRN) Consultation**

Individualized consultation for the use of electronic health record (EHR) data beyond MUSC, leveraging the National Patient-Centered Clinical Research Network (PCORnet) Common Data Model (CDM). The Stakeholders Technology and Research Clinical Research Network (STAR CRN) is one of the nine clinical research networks that comprise PCORnet. The STAR CRN includes Vanderbilt Health System (lead site); Meharry Medical College; Vanderbilt Healthcare Affiliated Network; Health Sciences South Carolina (includes Medical University of South Carolina); UNC-Chapel Hill; Duke University; Wake Forest Baptist Health, and Mayo Clinic. During this consultation the BMIC STAR CRN Project Manager can provide information on available data, explain nuances in the CDM, help scope your project, facilitate completion of the STAR CRN Front Door Intake Form for multisite collaboration, and discuss other feasibility considerations such as timelines, recruitment goals, staffing/resources, budgeting/contracting, and data sharing agreements.

**Epic Research**

Clinical Decision Support

The Clinical decision support service will help your Clinical Decision Support Tools by Integrating into Epic to streamline workflows and take advantage of existing data sets to create intuitive, user-friendly, and effective protocols for alarms, alerts, and decision-making pathways.

**Epic Integration and Optimization Service**

Utilize Epic to support and enhance clinical practices and research. A seamless, scalable and repeatable standards-based Epic integration service.

**Flowsheets**

Longitudinal data collection tool within an encounter. (Avg. hrs=6)

**Smartform/ Text/ Link**

Customizable forms used in Epic to capture specialty or problem-specific information, collect data for a study, or extend Epic's available features. (Avg. hrs=10)

**Best Practice Advisories (BPA)**

Recruitment tool or alert that can be customized to direct contact a provider, study team member, or patient regarding study information. (Avg. hrs=14)

**Questionnaires/ Patient Reported Outcome (PRO)**

An in clinic, patient portal or REDCap research survey or information form. Can be built as a one-time use or as a series. (Avg. hrs=15)

**Custom Study Dashboard**

Your Research Study can now have a customized dashboard in Epic that can be used to show research coordinators and other members of the study teams easy access to data about your specific study. You will be able to see how many patients are being recruited but haven’t enrolled yet, what bills still need to be reviewed, and just an overall snapshot of specifics for your study.

**Research Oncology Treatment Plan**

The research oncology treatment plans are created to help every member on a research oncology team see an organized, up-to-date plan and outcomes for the patient’s chemotherapy and treatment. (Avg. build hours =10)

**Research Supportive Care Plan**

When an order set is just not enough, the research supportive care plans are detailed outlines of a participants care in the study and are created the help every member of the research team see an organized, up-to-date plan and set of orders for a participant’s research plan. (Avg. build hours = 12)

**Natural Language Processing (NLP)**

Provides state-of-the-art expertise and tools for Natural Language Processing (NLP) applications to enable and enhance unstructured clinical data use and reuse.

**Clinical Trial Eligibility Discovery**

Automated and efficient search and discovery of patients potentially eligible for specific clinical trials. This service is based on applications of Natural Language Processing (NLP), machine learning and other artificial intelligence (AI) methods to match patients with clinical trials at scale.

**De-identification**

Automated fast and highly accurate de-identification of text and structured clinical data. All levels of de-identification (e.g., LDS, Safe Harbor) are possible.

**Information extraction / Phenotyping**

Automated fast and scalable applications of Natural Language Processing (NLP) to extract clinical information and other phenotypic information from unstructured text.

**NLP Consulting**

Consulting for NLP services such as custom applications, collaborations or other NLP expertise provision.

**Research Data Requests**

Request to query clinical data for research purposes to assist in recruitment, chart review, complex feasibility analysis (data preparatory for research) to be performed by an Honest Broker. Upon submitting your service request in SPARC, you will be contacted by a Research Data Request Administrator who will provide the link to a “Research Data Consult Mini Form” in REDCap. With the information you provide in this form, our Research Data Request Administrator will be able to triage your request to the appropriate analyst to schedule your Research Data Consult.

**QI (Quality Improvement) Data Request**

This fee-for-service request facilitates data extraction for non-research, quality improvement, analytics, or operational purposes.

Your total cost estimate will be given to you after we have a chance to review the request. You will only see the hourly rate at submission.

You can check to see if your project is QI by going to: <https://redcap.musc.edu/irb_qi/?s=A7NYXTRWHW>

We will need a copy of the certificate it generates.

**Student/ Trainee Data Request (Research or QI)**

This allows for an honest brokered data extract for MUSC students/trainees for MUSC projects. There is currently no fee associated, however a data validation session with the requester and their mentor is required for release of data.

**Research Data Request**

Request to query clinical data for research purposes to assist in recruitment, chart review, complex feasibility analysis (data preparatory for research) to be performed by an Honest Broker. Upon submitting your service request in SPARC, you will be contacted by a Research Data Request Administrator who will provide the link to a “Research Data Consult Mini Form” in REDCap. With the information you provide in this form, our Research Data Request Administrator will be able to triage your request to the appropriate analyst to schedule your Research Data Consult.

**Trinetx Data Set Creation**

Trinetx Data Set Creation

Obtain a limited data set (dates only) for a patient population identified by a Trinetx query. Data obtained through this service cannot be linked back to MUSC identifiers to do additional Epic chart reviews or link data sets provided by our Research Data Request process together. Data included in the data set is set by Trinetx and currently includes Demographics, Encounters, Diagnoses, Procedures, Medications, Lab Results, Vitals and a subset of Hollings Cancer Registry Data.