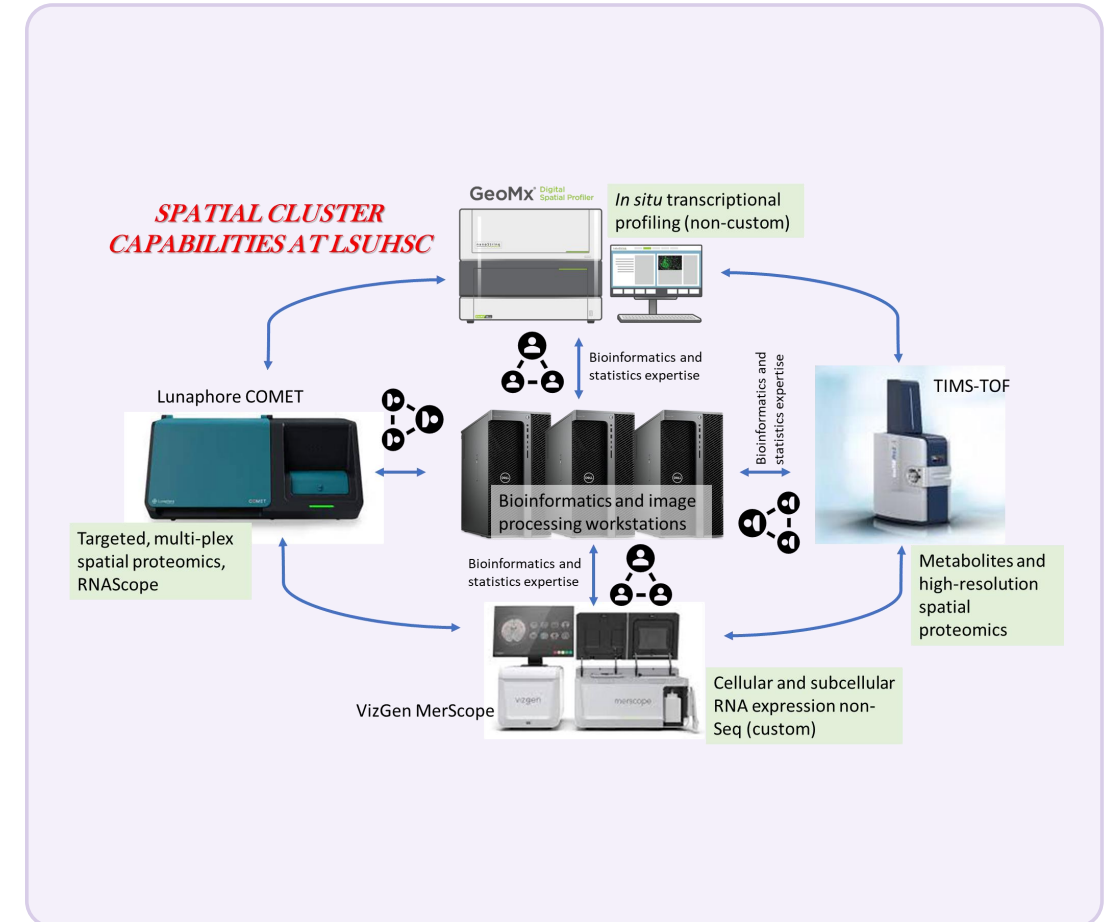


LSU HEALTH NEW ORLEANS | SCHOOL OF MEDICINE

Shared Resources: Core Facilities

Current status, integrated services, and paths to growth

Jiri Adamec, PhD
Director of Core Laboratories



What this briefing covers



Current status

Users, supported proposals, manuscripts, training, and revenue per core



Core portfolio

Eleven cores



Management

Service levels, and requesting, approving, and paying for services through iLab



Revenue

OMICS databank, industry contracts, and cost control



Work in progress

Digital histopathology, spatial OMICS, and functional clusters

Shared Resources at LSUHSC-NO



Mission

Shared Resources play a critical role in enhancing and supporting the scientific, outreach, and educational endeavors of LSUHSC. Cores are essential to research infrastructure, expertise, and services to support faculty, staff, and students for conducting innovative and impactful scientific investigations across various disciplines



Vision

To provide **high-quality standardized services** as well as access to **cutting edge technologies** at affordable cost to all LSUHSCmembers and **to promote collaborative, multidisciplinary research**

School of Medicine core portfolio

Group	Core	Director / contact	Email
Research	Cellular Immunology & Immune Metabolism Core (CIMC)	Dorota Wyczzechowska, PhD	dwycze@lsuhsc.edu
	Translational & Microbial Genomics Core (TGC)	Jovanny Zabaleta, PhD	jzabal@lsuhsc.edu
	Molecular Histopathology & Analytical Microscopy Core (MHAM)	Luis Del Valle, MD	ldelva@lsuhsc.edu
	Morphology & Imaging Core (MIC)	Luis Marrero, PhD	lmarre@lsuhsc.edu
	Proteomics & Metabolomics Core (PMC)	Jiri Adamec, PhD	jadame@lsuhsc.edu
	Bioinformatics & Genomics Core (BGC)	Jingjing Zhu, PhD	jzhu@lsuhsc.edu
Clinical	Clinical Trials & Translational Research Core (CTRC)	Carly G. Pigg; Steve Nelson, MD	cgera@lsuhsc.edu
	Precision Medicine Clinical Laboratory (PMCL)	Judy Crabtree, PhD	jcrabt@lsuhsc.edu
Biorepository	Biospecimen Core Laboratories (BCL)	Arnold H. Zea, PhD	azea@lsuhsc.edu
	Cancer Center Biobank (CCB)	Omeed Moaven, MD	omoave@lsuhsc.edu

Partner resource: READ Center (Research, Evaluation, Analysis & Design), School of Public Health — study design, statistics, REDCap, and evaluation services. Director: Qingzhao Yu, PhD, Associate Dean for Research; Co-Director: Tekeda Ferguson, PhD, Director of Epidemiology & Population Health

Shared Resources Metrics



Users

Number of users

- Overall
- Current year
- New
- Retention



Proposals

External

- Overall
- Submitted (year)
- Scored (year)
- Awarded (year)

Internal

- Overall
- Submitted (year)
- Awarded (year)



Manuscripts

Collaborative

- Overall
- Submitted
- Published

Core initiated

- Overall
- Submitted
- Published



Training Offered

Number of trained users

- Overall
- Current year

Participation / leading

- Summer programs
- Classes
- Courses



Revenue

Academic – LSUHSC / LSU / TU / XU / Others

- Overall
- Current year

Non-academic

- Overall
- Current year

User’s Yearly Evaluation (both individuals as well as Centers) – Resource Survey

Output per core, per year



28–46

Users

PMC: 38 in 2026



8–27

Supported proposals

PMC: 22 in 2026



6–12

Manuscripts

PMC: 8 in 2026



2–16

Trainings offered

PMC: 16 in 2026



\$25K–\$450K

Revenue

PMC: ~\$450K in 2026



Serving and collaborating beyond the Health Sciences Center

Investigators across LSU campuses: School of Veterinary Medicine, School of Nutrition and Food Sciences, Department of Biological and Agricultural Engineering, Biological Sciences, Pennington Biomedical Research Center, and others.

Core Facility Satisfaction Survey

5–7 min

to complete

8

sections

21

items rated 1–5 (or N/A)

7

core facilities covered

1 About You

Core used, role, department/lab, frequency of use, and length of use.

2 Overall Satisfaction

Overall satisfaction, quality of data/results, value for cost, and likelihood to recommend.

3 Staff & Support

Expertise, responsiveness, training, consultation, and professionalism; clarity of procedures.

4 Equipment & Facilities

Reliability/uptime, capability, cleanliness, and supplies; downtime that affected work.

5 Scheduling & Access

Ease of booking, instrument availability, facility hours, and booking system clarity.

6 Communication & Processes

Turnaround time, pricing/billing clarity, update communication, and sample submission; update channels.

7 Open Feedback

Strengths, the single most important improvement, wished-for services, and unresolved issues.

8 Follow-Up

Permission to contact, and interest in a user advisory committee or focus group.

Proteomics & Metabolomics Core



Instrumentation

- Bruker timsTOF flex (ESI, MALDI)
- Fisher Orbitrap Fusion Tribrid
- ThermoFisher Q Exactive Plus (2 units)
- Agilent 6495 triple quad LC/MS
- Agilent 6475 triple quad LC/MS
- Agilent 7250 GC-QTOF (EI and CI)
- Olink Signature Q100



Services

- Targeted and global metabolomics (C18, HILIC), lipidomics, shotgun ID
- GC-MS of polar metabolites and fatty acids
- Proteomics: targeted, LC-MS profiling, identification, TMT, quantification
- PTM analysis; instrument time access
- Method development, data processing, pathway and flux analysis, training
- MALDI HiPLEX-IHC spatial imaging



Pricing

	Internal	External
Metabolomics /sample	\$30–75	\$80–250
Proteomics /sample	\$65–140	\$230–300
Method dev. & data analysis /hr	\$60–140	\$150–300
Equipment access /run	\$30–50	\$80–450

Method validation typically takes 4–8 weeks. Chemicals, standards, and columns may cost extra.

TEAM & LOCATION

Jiri Adamec, PhD

Director of Core Laboratories

jadame@lsuhsc.edu

(504) 210-3538

LCRC 611 (office)

LCRC 627, 928, 941 (labs)

MEB 5310 (lab)

MEB 5314 (office)

HOW TO REQUEST

Submit requests through the PMC iLab portal (lsuhscno.ilab.agilent.com).

Translational Genomics Core

Serves the research community through service, training, teaching, and seminars, with expert training in genomic techniques, well-maintained equipment, and preliminary data for grant proposals.



Instrumentation

- Illumina NextSeq500 and MiSeq
- Illumina iScan (microarrays)
- ThermoScientific 7900HT real-time PCR
- ThermoScientific QuantStudio 12K PCR
- Covaris DNA fragmentation
- Bio-Rad single-cell isolator



Services

- Automated DNA sequencing
- Methylation, GWAS and exome arrays
- Real-time PCR expression validation
- DNA fragmentation for exome sequencing
- Single-cell mRNA analysis
- Training and seminars
- Grant support and preliminary data



Pricing & Billing

- Pricing is not published on the core's page.
- Contact director.

TEAM & LOCATION

Jovanny Zabaleta, PhD
Director
jzabal@lsuhsc.edu
504-210-2979

LCRC Building
9th floor

Funding

COBRE III (P30GM114732);
COBRE I (1P20GM121288-01)

HOW TO REQUEST

Use the Translational Genomics service page in iLab (lsuhscno.ilab.agilent.com).

Cellular Immunology & Immune Metabolism Core

Provides centralized immunology expertise to enable high-quality research that advances discovery and supports investigators in publication and competitive funding.



Instrumentation

- BD FACSymphony S6 cell sorter
- BD FACSymphony A3 analyzer
- Beckman Coulter Gallios
- Amnis ImageStreamX Mark II
- Incucyte SX5
- Cytation 5 BioTek
- Seahorse XFe96
- Luminex MagPIX
- IVIS SpectrumCT
- NanoSight NS300
- Miltenyi gentleMACS Octo
- Echo Revolve microscope



Services

- Cell sorting and flow cytometry analysis
- Metabolic flux analysis
- Live-cell analysis and microscopy
- Live-animal imaging
- Tissue dissociation and single-cell preparation
- 24/7 access for trained users (except the sorter)
- Software: Kaluza, FlowJo, ModFit, IDEAS, Wave, GraphPad



Pricing

<i>per hour</i>	Internal	External
FACSymphony A3	\$45	\$90
S6 cell sorting	\$55	\$110
Seahorse XFe96	\$30	\$60
Luminex MagPIX	\$50	\$100
NanoSight NS300	\$40	\$80
IVIS imaging	\$60	\$120

Unassisted rates; assisted A3 is \$60 / \$120.

TEAM & LOCATION

Dorota Wyczzechowska, PhD
Director
dwycze@lsuhsc.edu
(504) 210-0556

Labs

LCRC 934, 940, 944
MEB 5216, 5217

HOW TO REQUEST

Reserve instruments and request services through the iLab portal (lsuhscno.ilab.agilent.com).

Source: https://www.medschool.lsuhschool.edu/research/core_facilities/cellular_immunology_core.aspx

Bioinformatics Core

Provides centralized bioinformatics expertise for study design, data analysis, interpretation, and management, enabling reproducible research and competitive funding.



Infrastructure

- Dell PowerEdge R770 high-memory server
- 128 physical cores / 256 threads
- 1 TB DDR5 memory, NVMe storage, 25 Gb networking
- Dell ME5084 research storage: ~660 TiB (~725 TB) usable, RAID fault-tolerant, 25 Gb networking



Services

- Free consultation on experimental design and power calculations
- NGS, microarray and genotyping analysis
- Proteomics, metabolomics and single-cell analysis
- Data management and database development
- Grant support; letters of support on request



Pricing

	Internal	External
Data analysis /hr	\$140	\$200
Storage /TB /month	\$15	\$20

Initial consultation on experimental design and power calculations is free.

TEAM & LOCATION

Jingjing Zhu, PhD
Director; Assistant Professor
jzhu@lsuhsc.edu

1700 Tulane Ave., Room 604
New Orleans, LA 70112

HOW TO REQUEST

Request services through the Bioinformatics Core interface in iLab (lsuhscno.ilab.agilent.com).

Morphology & Imaging Core

Assists investigators requiring detection, imaging, and morphometric analysis of gene and protein expression in tissues and cells, with high quality, reproducibility, and expert guidance.



Equipment

- Leica ASP300 paraffin processor
- Leica CM3050S cryostat
- Shandon embedding station and microtomes
- Shandon Varistain 24-4 stainer
- Olympus FV1000 confocal / multiphoton
- Leica DMRXA deconvolution system
- Nikon E600 and TE300 microscopes
- P.A.L.M. laser capture microdissection
- PerkinElmer GX2 micro-CT scanner



Services

- Routine histopathology: dissection, processing, embedding, sectioning, H&E
- Advanced histopathology: special stains, immunoperoxidase, immunofluorescence
- Light, fluorescence, stereo, deconvolution, confocal and multiphoton microscopy
- Laser capture microdissection
- In vivo micro-CT
- Assisted labor and analysis



Pricing

	Price
Transmitted light /hr	\$25
Confocal /hr	\$70
Multiphoton /hr	\$150
MicroCT (in vivo) /hr	Ask
H&E staining /slide	\$10
Immunofluorescence /slide	\$25

Also: paraffin sectioning \$4.37/slide, special stains \$10–28.27/slide, laser capture \$80/hr.

TEAM & LOCATION

Luis Marrero, PhD
Director
mic@lsuhsc.edu

533 Bolivar St.
Clinical Sciences Research
Building, Room 532

HOW TO REQUEST

Submit electronic or print request forms through the Morphology and Imaging Core iLab (LSUHSC portal).

Molecular Histopathology & Analytical Microscopy

Provides centralized histopathology and imaging expertise to support high-quality tissue-based research, advancing discovery and translational research through reliable, reproducible imaging.



Equipment

- Leica TP1020 tissue processor
- TBS embedding station
- Three Thermo HM340E microtomes
- Keyence BZ-X810 fluorescence
- Nikon TE300 (SlideBook 5.0)
- Olympus BX51 with Mantra camera
- Olympus FV1000 confocal
- Motic EasyScan Pro6 scanner



Services

- Tissue processing, embedding, sectioning
- Tissue microarray creation
- H&E and special stains (PAS, trichrome)
- IHC, immunofluorescence, double labeling
- TUNEL assay, in situ hybridization, DuoLink PLA
- Data analysis and figure preparation
- Microscope access, including confocal



Pricing

	Range
Tissue processing /slide	\$4–8
Immunohistochemistry /slide	\$15–30
In situ hybridization /slide	\$30–50
Confocal analysis /hr	\$50–90
Keyence BZ-X800 rental /hr	\$25–45
Olympus FV1000 rental /hr	\$50–90

Rates vary by investigator category: COBRE investigators, program members, non-members.

TEAM & LOCATION

Dr. Luis Del Valle
Director
delva@lsuhsc.edu

Office
1700 Tulane Ave., Room 612

HOW TO REQUEST

Reserve microscopes in iLab (my.ilabsolutions.com/service_center/3388). For histopathology services, contact Dr. Del Valle.

Source: https://www.medschool.lsuhschool.edu/research/core_facilities/mham.aspx

LSU LCMC Health Cancer Center Biobank

A centralized, ethically governed, quality-controlled biospecimen and clinical-data resource to accelerate basic, translational, clinical, precision-oncology, and cancer health-disparities research.



Infrastructure

- Vapor-phase liquid nitrogen storage with backup systems
- -80°C freezers with emergency power; 4°C storage for fresh tissue
- Histopathology equipment: frozen-section review, fixation, embedding
- BTM-Research automation for inventory, tracking, and chain of custody



Services

- Prospective collection: tissue, blood, urine, cfDNA, PBMC
- Storage, retrieval, release and shipping
- Pathology support: reports, QC, chart review
- Clinical annotation and tumor registry linkage
- Sites: UMC New Orleans (primary), Touro, East Jefferson



Pricing & Billing

- Fee based.
- Costs depend on specimen type, processing, storage and retrieval, data needs, shipping, and internal vs. external status.
- Operates under IRB Protocol #4898.

TEAM & LOCATION

Omeed Moaven, MD
Director
omoave@lsuhsc.edu
504-210-1845

Louisiana Cancer Research
Center
1700 Tulane Ave.

HOW TO REQUEST

IRB-approved protocol, feasibility review, cost estimate, Steering Committee approval, then online request in iLab (lsuhscno.ilab.agilent.com).

Source: https://www.medschool.lsuhschool.edu/research/core_facilities/cancer_center_biobank.aspx

Biospecimen Core Laboratories

Collects high-quality samples of normal and diseased human material, with ethical informed consent, safety, donor anonymity, and all regulatory safeguards.



Equipment & Storage

- Thermo CryoPlus liquid nitrogen storage: 13,000 vials (2.0 ml each)
- Leica CM 1860 cryostat for frozen tissue sectioning
- Backup storage at Pennington Biomedical Research Center, Baton Rouge, for disaster preparedness



Services

- Tissue procurement: fresh frozen and FFPE, malignant and non-malignant
- Blood procurement from tumor patients and normal controls
- Histopathologic review via Tulane University Dept. of Pathology
- Biospecimen storage (fee-based)
- Ethical informed consent, donor anonymity, regulatory safeguards



Pricing & Billing

- Biospecimen storage is fee-based.
- Contact Director for more information.

TEAM & LOCATION

Arnold H. Zea, PhD
Director
azea@lsuhsc.edu
504.599.0906

Louisiana Cancer Research
Center
8th floor, Room 828

HOW TO REQUEST

Contact the director, Arnold H. Zea, PhD (azea@lsuhsc.edu, 504.599.0906). The core's page does not detail submission steps.

Clinical & Translational Research Center

Provides an environment and resources for increasing translational and clinical research, as part of the LA CaTS clinical research network of eight academic institutions across Louisiana.



Facilities & Equipment

- Eight outpatient exam rooms
- NDD Easy-On spirometry
- Cosmed Bodpod (body composition)
- EKG machine; portable ultrasound
- Hemocue and glucometer testing
- Biological safety cabinet
- -80°C specimen freezers
- Core laboratory processing



Services

- Regulatory management and administrative support
- Data entry; pharmacy initiation and dispensing
- Nursing and nurse practitioner support
- Body composition, spirometry, EKG, ultrasound, hemoglobin testing
- Facility access and core lab processing
- Specimen storage (\$150 for 6 months, quarter shelf)



Pricing

<i>selected rates</i>	Industry	Grant
Admin fee (one-time)	\$5,000–6,000	\$2,500–3,500
Nursing /hr	\$125	\$100
Nurse pract. /hr	\$300	\$200
Regulatory mgmt /hr	\$150	\$100
Spirometry /session	\$200	\$100
Bodpod /session	\$150	\$75
Exam room /visit	\$100	\$75

TEAM & LOCATION

**Steve Nelson, MD, CM, FACP,
FCCP**
Director

Carly Pigg
Business Coordinator
cgera@lsuhsc.edu

HOW TO REQUEST

Email ctrc@lsuhsc.edu or call 504-568-2266 (fax 504-568-2114) for protocol inquiries and budgets.
Seton Building, 478 S. Johnson St., Room 615.

Precision Medicine Laboratory

Delivers high-quality, reproducible molecular genetic testing to support patient care and translational research, providing clinically actionable genomic findings for personalized cancer care.



Equipment

- Illumina NextSeq550Dx sequencer
- Tecan Fluent 1080 pipetting workstation
- Qiagen QIAcube Classic and Connect
- Bio-Rad CFX96 real-time PCR
- Agilent Bioanalyzer
- Covaris sonicator
- Velsera Clinical Genomics Workspace



Services

- Clinical cancer testing: Illumina TruSight Oncology 500 (523 genes)
- Detects variants, fusions, copy number changes
- Reports tumor mutational burden and microsatellite instability
- Research-grade RT-PCR testing
- Viral sequencing (SARS-CoV-2 variants)



Pricing & Billing

- Specific fees – contact director.
- Charge-back system based on negotiated Medicare, Medicaid and private-insurance reimbursement rates.
- The laboratory does not bill insurance directly.

TEAM & LOCATION

**Judy Crabtree, PhD,
SMB(ASCP)CM**

Director

precisionmedlab@lsuhsc.edu

Licensed, registered Medical
Technologists

Clinical Sciences Research
Building
Rooms 616, 620, 621, 625

HOW TO REQUEST

Submit requests through the Precision Medicine
Clinical Laboratory iLab (lsuhscno.ilab.agilent.com).

Research, Evaluation, Analysis & Design (READ) Center

Provides comprehensive services to support research and community health initiatives in Population Health, available to internal and external researchers on a fee basis.



Design & Data

- Study design: trials, experiments, observational
- Statistics: sample size, power, analysis plans
- Survey design and psychometrics
- Research methods, systematic reviews
- Data management, GIS mapping, visualization
- REDCap support



Evaluation & Outreach

- Recruitment of hidden and vulnerable populations
- Program and policy impact evaluation
- Environmental risk assessment, monitoring
- CBPR and economic evaluation
- Communication training
- Workshops and seminars



Pricing & Billing

- Fee-based for both internal and external researchers.

LEADERSHIP & ACCESS

Leadership

Director: Qingzhao Yu, PhD, Associate Dean for Research
Co-Director: Tekeda Ferguson, PhD, Director of Epidemiology & Population Health

Open to

Internal and external researchers, on a fee basis.

HOW TO REQUEST

Use the READ Center online request form (REDCap); REDCap support has its own form. See publichealth.lsuhsu.edu/service/read-center/.

Source: <https://publichealth.lsuhsu.edu/service/read-center/>

Location: Core HUB and Core Satellites

~80% Core HUB — routine services

~20% Satellites

Planned distribution of Core resources

Core HUB

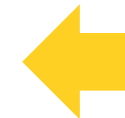
One newly renovated building

- Houses the majority of Core services
- Seamless formation of functional clusters
- Promotes highly complex, collaborative research
- Services run on established, routine protocols

Core Satellites

Innovation and method development

- Develop, evaluate, and validate cutting-edge technologies and methods
- No routine protocols yet; these are established before a service moves to the HUB
- Supported mainly by large center grants and programs



Validated methods move from the Satellites into the Core HUB as new routine services.

Core locations in the new MEB space

FLOOR 7	CIMC Cellular Immunology & Immune Metabolism Core Dorota Wyczechowska, PhD	TGC Translational & Microbial Genomics Core Jovanny Zabaleta, PhD	
FLOOR 6	MIC Morphology & Imaging Core Luis Marrero, PhD	CCB Cancer Center Biobank Omeed Moaven, MD	
FLOOR 5	PMC Proteomics & Metabolomics Core Jiri Adamec, PhD	BGC Bioinformatics & Genomics Core Jingjing Zhu, PhD	CIMC Cellular Immunology & Immune Metabolism Core Dorota Wyczechowska, PhD

MEB at a glance

6

cores in MEB

3

floors (5–7)

Floor-by-floor

- Floor 5: proteomics & metabolomics, bioinformatics, immunology
- Floor 6: imaging and biobank
- Floor 7: genomics and immunology
- CIMC is the only core on two floors

Six School of Medicine cores in one building: the physical home of the Core HUB.

General equipment for the new MEB space

Per floor *replicated on Floors 5, 6 and 7*

General equipment	General equipment
Cell counter Thermo Countess 3	High-speed centrifuge Beckman Avanti JXN-26 · JLA 12.500, JA 25.50, JS-5.3 rotors
Plate reader Agilent	Gel imaging station Bio-Rad ChemiDoc MP
Ultracentrifuge Beckman Optima XPN-90 · SW32Ti, 70Ti, 45Ti rotors	Incubator Thermo VIOS IDX
Benchtop ultracentrifuge Beckman Optima MAX-XP · MLS-50, TLA 100.3, TLA 55 rotors	Incubator shakers (set) Thermo MaxQ
Centrifuge Beckman Avanti J-15R · JS-4.750 rotor	Water purifier Fisher

Per building *1 shared unit*

Live cell imaging
ECHO CellCyte1

UV/Vis spectrophotometer
Agilent Cary 6000i UV-Vis-NIR

Fluorescence spectrophotometer
Agilent Cary Eclipse

Instruments available now on MEB Floor 5

CIMC Immunology & Immune Metabolism

Room 5212 Lab 5A · 300 sq ft

- NovoCyte Opteon spectral flow cytometer
- Countess 3 automated cell counter
- C.T.L ImmunoSpot reader
- Eppendorf SpinPro 6 R centrifuge
- Precisionary Compresstome
- Miltenyi gentleMACS Octo dissociator
- Plate shaker; water bath

Room 5216 Lab support · 230 sq ft

- BD FACSMelody cell sorter (in Baker BSC)
- Echo Revolve microscope
- Ultrasonic bath; 4 °C / –20 °C fridge-freezer

Room 5217 Lab support · 230 sq ft

- Sartorius Incucyte CX3 (in ViOS iDx CO2 incubator)
- Agilent BioTek Cytation 10 confocal reader
- Agilent BioTek Cytation 1 live-cell reader
- Agilent Seahorse XF Flex
- NuAire biosafety cabinet; non-CO2 incubator

PMC Proteomics & Metabolomics

Room 5310 Lab · 1,855 sq ft

- Thermo Orbitrap Astral Zoom + Vanquish Neo LC
- Thermo Orbitrap Fusion Tribrid + LC/autosampler
- Thermo Q Exactive Plus + Vanquish LC
- Agilent LC-TQ
- Agilent 8890 GC
- Thermo offline fractionation HPLC
- BioTek plate reader
- Speed vacs (3); Labconco Triad freeze dryer
- Nitrogen generators (2)
- Freezers: –80 °C (4), –20 °C, 4 °C

Rooms 5312, 5314 Offices · 264 + 129 sq ft

Shared Floor 5 common equipment

Room 5204

- Optima XPN-90 ultracentrifuge *awaiting electrical*
- Optima MAX-XP benchtop ultracentrifuge
- Avanti JXN-26 and J-15R centrifuges
- Optimate gradient maker

Room 5202

- Bio-Rad ChemiDoc MP
- Avanti J-15R centrifuge *may move to 5204*

Room 5205

- Thermo ViOS iDx incubator

Room 5213

- Balances (6); pH meters (2) *still boxed*

Room 5331

- MaxQ incubator shakers (2)
- BioTek Synergy H1 plate reader; ice maker

Rooms 5334, 5335

- Autoclaves (3); dishwasher
- Barnstead water purifier

Additional equipment for MEB

PMC

Floor 5

Proteomics & Metabolomics

- **Sublimator** HTX · sample sublimation for imaging
- **Biacore 1K+** Cytiva · surface plasmon resonance
- **Ella** Bio-Techne · multiplexed ELISA

MIC

Floor 6

Morphology & Imaging

- **Slide scanner** Evident SLIDEVIEW VS200
- **Confocal microscope** Evident FV5000/MPE
- **Holotomography** Tomocube HTX1-Plus + spinning disc
- **Tissue processing** HistoStar, Sakura cryostat, Epredia microtome
- **Automated staining** VWR · digital pathology

CIMC

Floors 7

Immunology & Immune Metabolism

- **Cell sorter** BD FACSDiscover S8
- **Hematology analyzer** Beckman DxH 500
- **Fluorespirometry** Oroboros
- **Multiplexing platform** Luminex xMAP INTELLIFLEX
- **NanoAssemblr Ignite** Cytiva · NxGen
- **4D-Nucleofector** Lonza · CAR T generation

CCB

Floor 6

Cancer Center Biobank

- **Ultra-low freezers (4)** PHC 720, -80 °C
- **Biosafety cabinets (2)** NuAire Type II
- **Tissue dissociator** Miltenyi gentleMACS Octo
- **Refrigerator/freezer set** Thermo

TGC

Floor 7

Translational & Microbial Genomics

- **NovaSeq X** Illumina · with Tecan robot
- **PromethION 2** Oxford Nanopore sequencer
- **Atera** 10x Genomics · single-cell sequencing
- **QIAcube** Qiagen · RNA/DNA extraction

Animal Care

- **Metabolic cages** T-Pro · in vivo metabolic studies

28

items requested
across five cores and Animal Care

Interaction with Users – High Priority

Levels of services:

Full service

Core staff will be responsible for sample preparation, analysis and data interpretation.

Limited service

Following training, Investigators or their dedicated lab members will be provided with protocols, reagents, and access to the appropriate instrumentation. They will perform sample preparation and all necessary measurements.

Basic service

Investigators will be provided with Standard Operating Procedures developed and validated at the Core. This will be particularly the case for routine measurement of molecules that do not require specialized equipment.

iLab: one portal from request to invoice

iLab (Agilent iLab Operations Software) is the shared online portal the cores use to manage every service from request to invoice. One institutional site, lsuhscno.ilab.agilent.com, serves users, PIs, core staff, and finance.

1 Request

Consultation or service request, with the core's submission form and a quote.

2 Approve

PI approves lab members and charge strings, or sets an auto pre-approval limit.

3 Schedule

Core accepts the project; trained users book instruments on core calendars.

4 Bill

Charges post to the approved charge string; invoices come from iLab.

5 Report

Usage, user, and revenue data feed core metrics and annual reporting.

8 of 11

cores take requests through iLab

PMC, TGC, CIMC, BGC, MIC, MHAM, CCB, PMCL. BCL and CTRC are reached directly; the READ Center uses a REDCap form.

What each core manages in iLab

- Service menus, request forms, and current internal and external rates
- Quotes, acceptance, and status updates on every request
- Instrument calendars and access for trained users
- Charges to approved charge strings, plus usage and revenue reports

Help: click HELP in iLab or email ilab-support@agilent.com.

Getting started with iLab: customers

After a one-time registration, users place requests, provide approvals, and monitor progress online. Start with a consultation request to discuss a new project; repeat work can go straight to a service request.

1 Open the site

Go to the PMC page on the iLab site.

2 Sign in

Click 'Sign In' at the upper right of the page.

3 Pick a service

Open 'Request Services' and click 'Request Service' next to the request of interest.

4 Fill in the form

Complete the form before submitting the request.

5 Review

The core accepts the work or asks for more information.

No account yet? Register via the iLab Help Portal (help.ilab.agilent.com, 'Registering with iLab'). Help: click HELP in iLab or email ilab-support@agilent.com.

Getting started with iLab: PIs

PIs receive a 'request for approval' email whenever a researcher asks to join their group. Set up the lab once, and routine requests flow without manual sign-off.

1 Open the site

Use the PMC iLab site link to log in.

2 Log in

Use your institutional credentials.

3 Find your lab

Hover over 'my groups' in the left menu and select your lab.

4 Set auto-approval

Enter a dollar amount in 'Auto Pre-Approval' and save. Requests below it need no manual approval.

5 Approve members

New requests appear under 'Membership Requests & Charge Strings'. Approve, or reject if not in your lab.

6 Assign charge strings

Under 'Manage Charge Strings', check the charge string(s) for each member.

Delegate approvals: email ilab-support@agilent.com with your financial manager's name and email to route notifications and approvals to them.

Four levers for revenue and sustainability



Center and program funding

Build cores into COBRE, EPSCoR, U54, U21, and similar center-based awards.



Internal promotion

Seed grants and “voucher” programs that bring new investigators to the cores.



Industry and commercial work

Sample analysis and method development for the non-academic sector.



Lower service-contract costs

SU Group handles service contracts for all major instruments.

~\$1.8M

industry contract negotiated by PMC
for the next 2–3 years

Potential to include services from other cores

Recharge System

GOAL: increase flexibility and encourage individual investigators to include the Center into their proposals through simplified budget requirements

Recharge “cost per sample” vs “Research Share” vs “Collaborative” concept

Recharge

Small number of samples analyzed by known method that doesn’t require further development – per sample price is fixed – facility/lab is paid based on the number of samples.

Share

Larger number of samples and/or considerable method development – investigator will pay for instrument and operator time using share increments (~\$10,000). Each share covers ~3 weeks instrument time and ~1 week operator time (but it is flexible). Investigator cannot be charged for more than 4 shares per year (~\$40,000).

Collaboration

Investigator includes instrument time and operator time directly to the projected budget (e.g. 50% operator’s effort and 6 weeks for instrument time).

SOM Core Voucher Program

\$10,000

maximum per investigator /
project

12 months

voucher term from approval

\$50,000

annual ceiling per basic science
department

\$5,000

clinical departments, with 1:1
departmental match

Purpose: pays for SOM Core services that generate preliminary data or reach a defined research milestone for a planned extramural grant application. It is not a cash award, discretionary account, or general intramural grant.

Who is eligible

- SOM faculty at any rank
- Priority to early-stage investigators without sufficient research funds for the Core services
- Work must support a planned extramural application with a named mechanism and target date
- Prior intramural support is allowed, but no duplicate or overlapping support

What it covers

- Approved services from participating SOM Cores only
- Preliminary data or a specific research milestone
- Payment goes directly to the Core for the authorized amount
- Seed funds: a set amount when no other funds are available for analysis

What it does not cover

- Salaries or fringe benefits
- Lab supplies bought outside a Core; equipment; travel; publication costs
- Costs already budgeted or available through an active sponsored award
- Charges above the approved amount without prior written authorization

How a Core Voucher Works

1

Meet the Core

Discuss the project with the Core Director or designee; confirm feasibility.

2

Assemble request

Voucher form, Core estimate, Chair endorsement, and mentor/advisor documentation.

3

Submit

Department Business Manager sends the package to the SOM Office of Research.

4

Review & authorize

Eligibility, funds, and fit are confirmed. No work begins before written approval.

5

Core performs work

Standard scheduling applies. Core bills the Dean's Office for approved services.

6

Apply & report

Submit an extramural application within 12 months; report outcomes and products.

WHEN DEMAND EXCEEDS FUNDS, PRIORITY GOES TO

A defined funding opportunity · a feasible submission timeline · strong technical feasibility · appropriate scientific guidance · a clear likelihood of strengthening the extramural application

Changes & withdrawals: Scope changes or overruns need prior written approval; notify the Core, Business Manager, and Office of Research if a project is withdrawn.

Future eligibility: An unfunded application does not preclude another voucher; include reviewer feedback. Missing the 12-month submission may affect eligibility.

New operational structure – Functional clusters

1

Changes in functional linkages between various Core operations to ensure complex solutions are offered to the users

2

Extension of capabilities by establishing strategic partnerships with Cores at other Universities

Why the current core model falls short

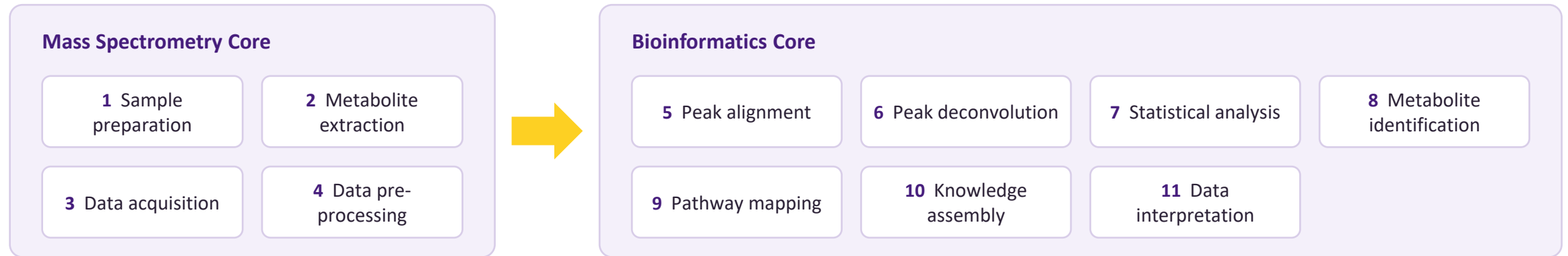
WORKS WELL FOR

Well-defined, targeted services. Technology/expertise-oriented Cores such as microscopy or flow cytometry.

FALLS SHORT FOR

High-throughput, big-data, integrated projects. Work that needs high-level coordination of several Cores.

Example: global metabolomics profiling crosses two Cores

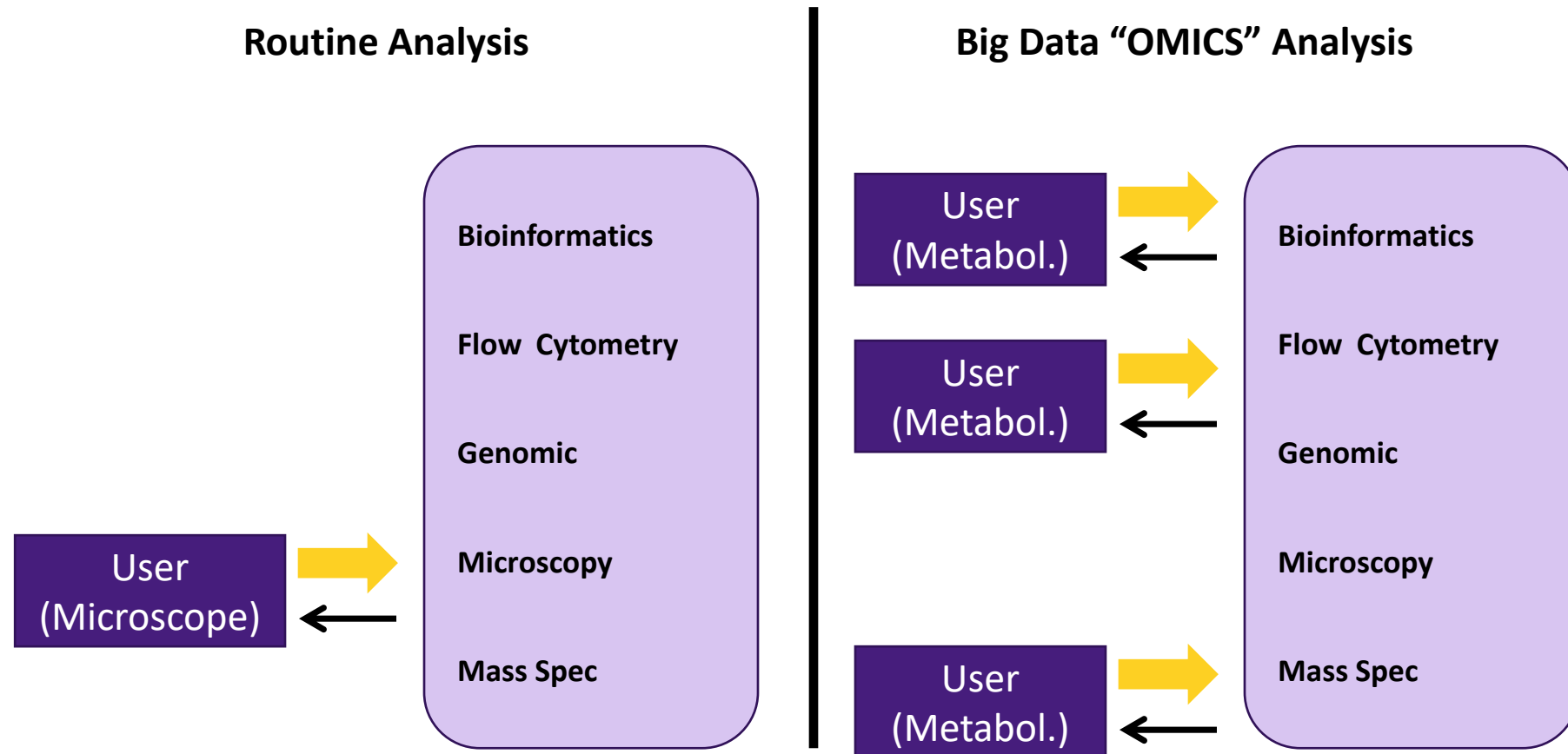


Coordination gap: Software and analytical parameters depend on the instruments used for acquisition. Without close coordination between Cores, results can be misinterpreted and users frustrated.

Data burden: Data sets are typically tens of GB, so data and metadata storage becomes a problem of its own.

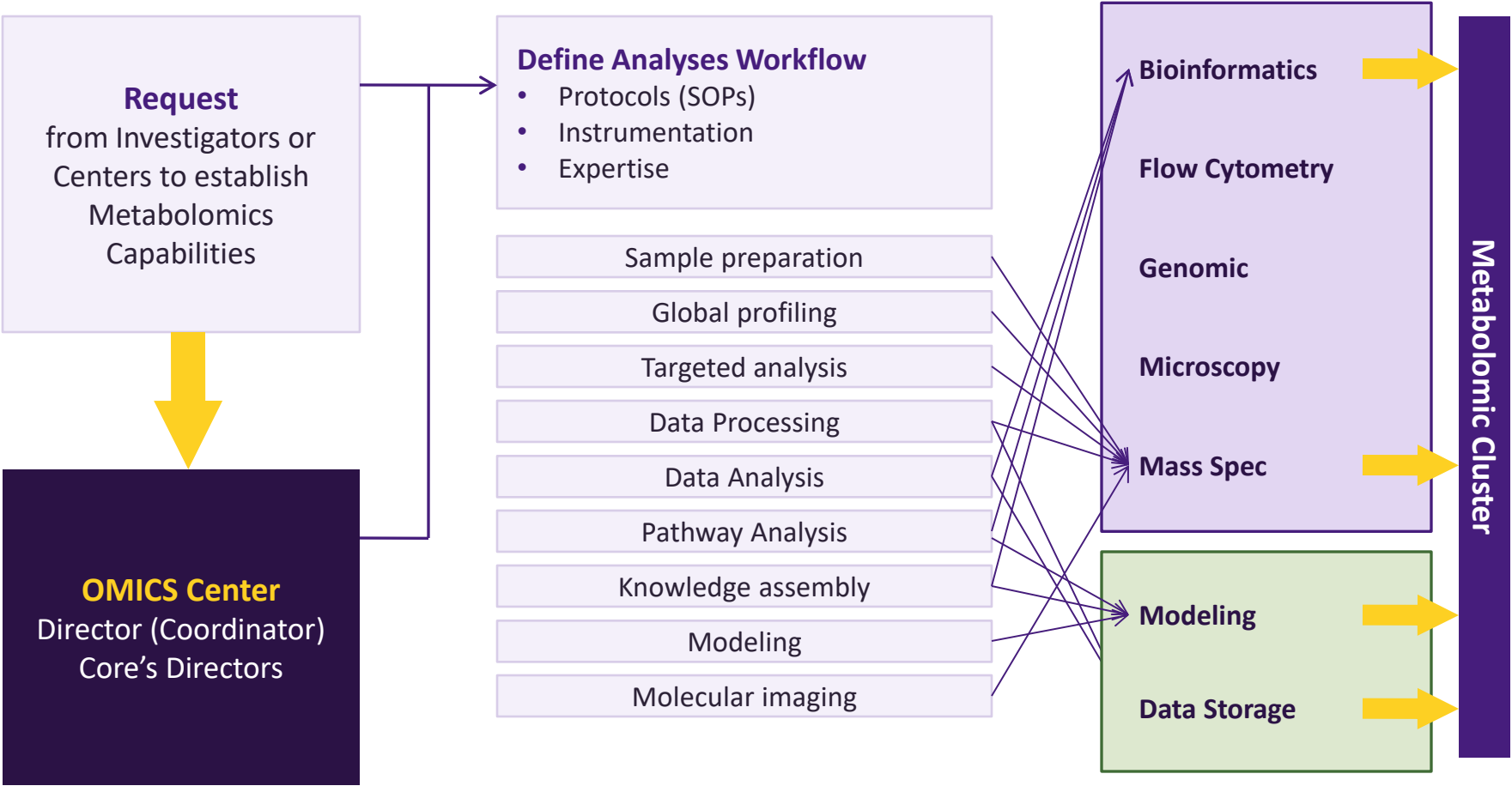
Functional linkages

Current “*technology/expertise*” oriented model



Functional linkages – Functional cluster

*Proposed “**Functional Cluster**” oriented model*



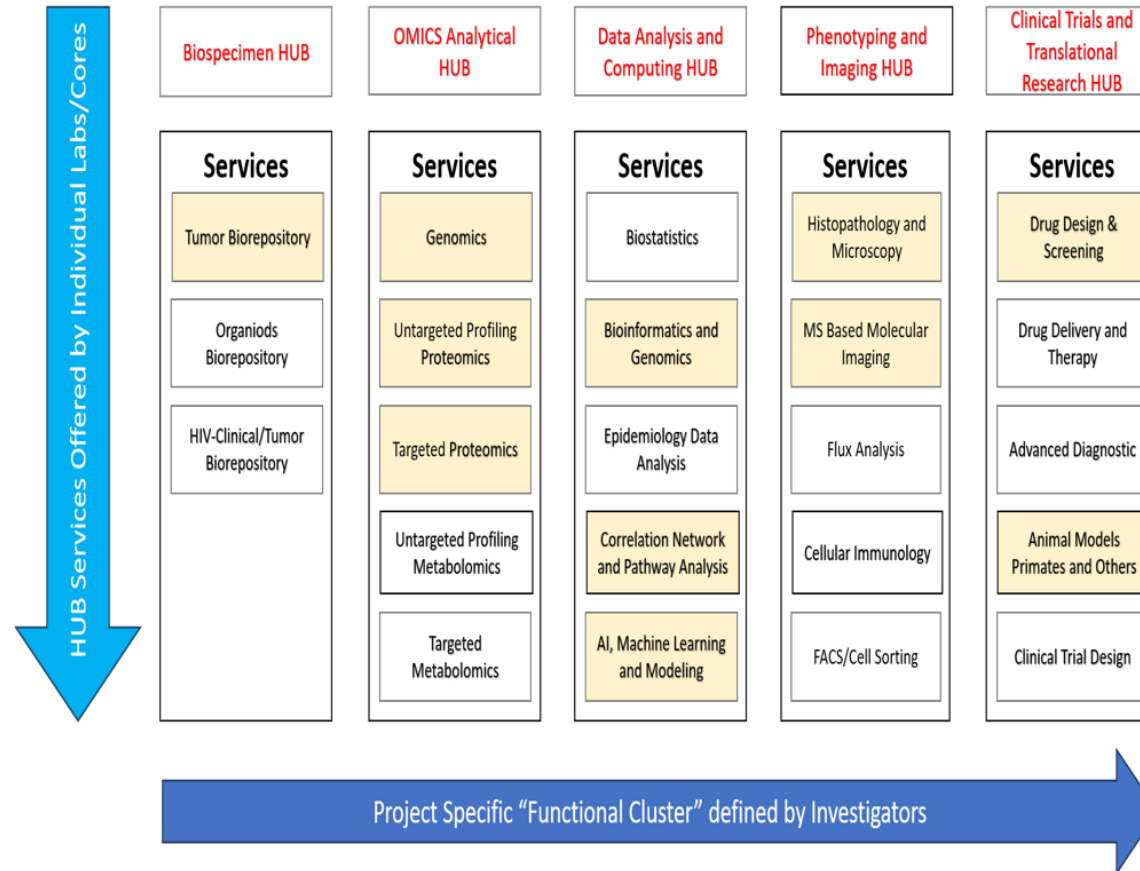
Functional clusters summary

Users — individual researchers, Centers, and Departments — get one complex, integrated solution instead of separate Core services.



Integrating cores into functional clusters through HUBs

Cores/Services Integration – Functional Clusters



Hubs run vertically

Each hub groups services offered by individual labs and cores: biospecimen, OMICS analytical, data and computing, phenotyping and imaging, clinical trials.



Projects cut across

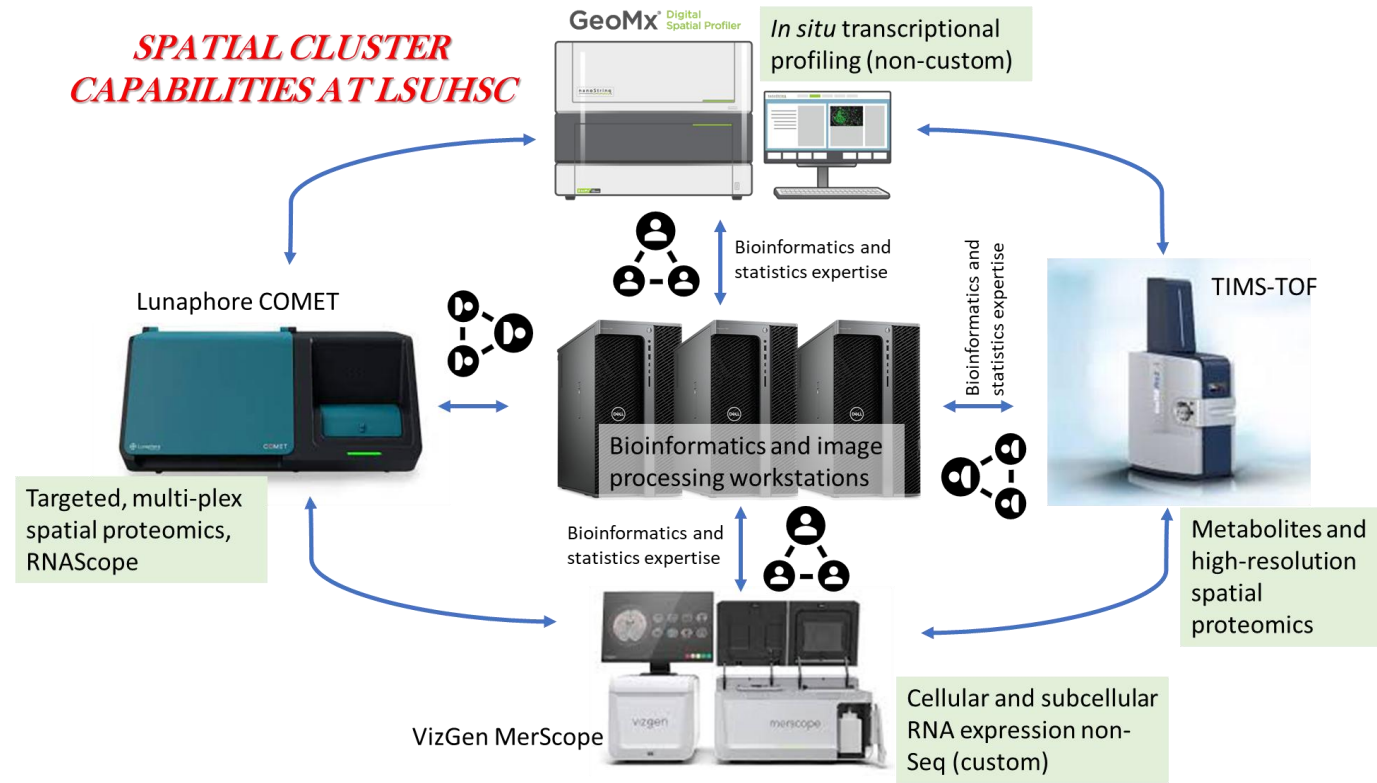
Investigators define a project-specific functional cluster that pulls the services they need from several hubs.



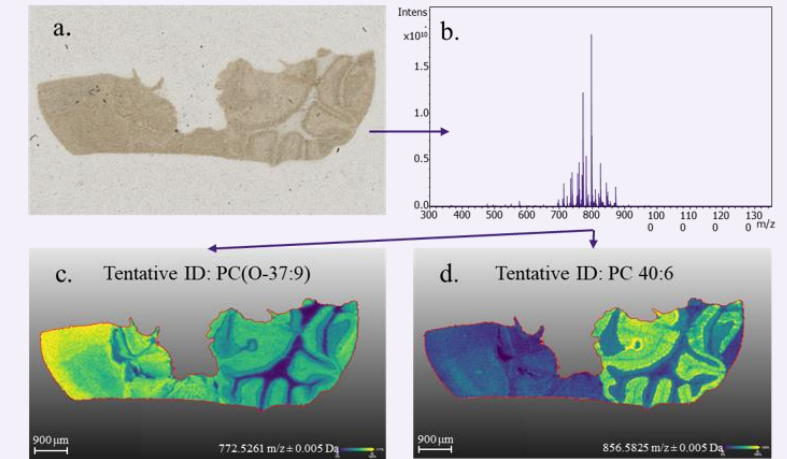
Example

Plasma biomarker study: tumor biorepository → untargeted and targeted proteomics → correlation networks → AI and machine-learning models.

Digital histopathology & spatial OMICS



Spatial cluster: GeoMx *in situ* transcriptional profiling, COMET multiplex spatial proteomics and RNAScope, MERSCOPE subcellular RNA, and timsTOF metabolite and high-resolution spatial proteomics, linked by shared bioinformatics and image-processing workstations.



MALDI imaging example

A tissue section is profiled by mass spectrometry; individual lipid species (tentative IDs PC(O-37:9) and PC 40:6) map to distinct tissue regions.

Shared resources positioned to grow



Productive today

Cores each support 28–46 users and 8–27 proposals a year; PMC reached ~\$450K in 2026.



Integrated by design

Five hubs and project-specific functional clusters, with spatial OMICS in development.



Clear growth path

OMICS databank, ~\$1.8M industry contract, center funding, and lower service costs.



Easy to access

iLab handles requests, approvals, and billing for most cores.

Jiri Adamec, PhD · Director of Core Laboratories · jadame@lsuhsc.edu · (504) 210-3538

LSU HEALTH NEW ORLEANS | SCHOOL OF MEDICINE

Thank you

Questions and discussion

Jiri Adamec, PhD

Director of Core Laboratories

jadame@lsuhsc.edu ·

LCRC 611: (504) 210-3538

MEB 5314: (504) 568-1610

