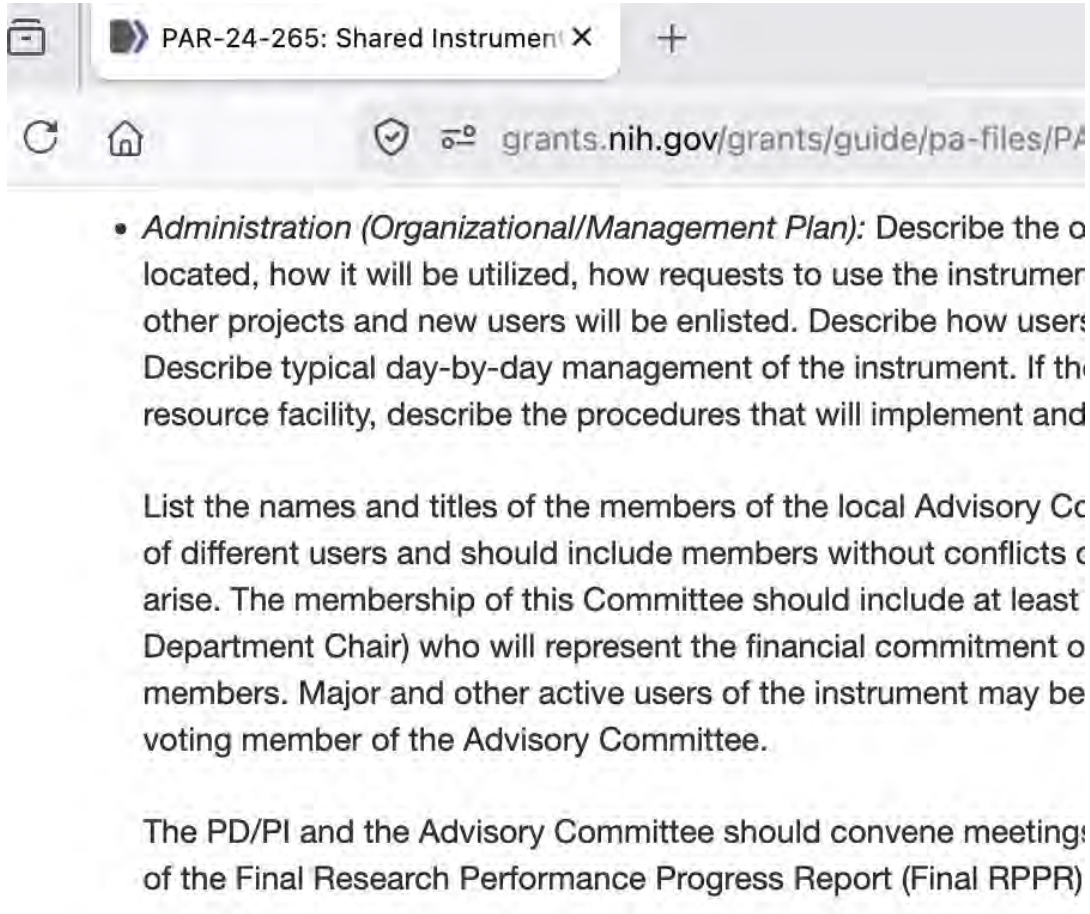
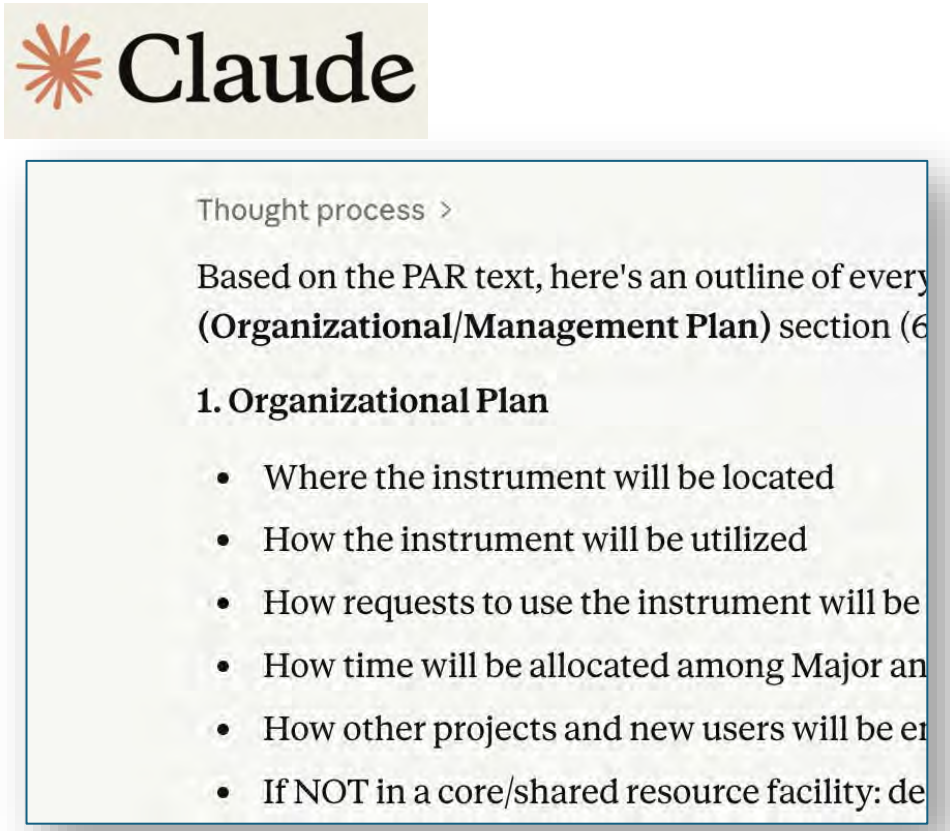
Sharing is Caring
The S10 Management Plan

Yoav Altman
Sr. Director, Flow Cytometry Core
NCI-Designated Cancer Center
Sanford Burnham Prebys



Administration Plan Instructions





The Core Question for Reviewers

What mechanisms are in place to ensure

- **Shared**
- **Productive**
- **Sustained**

use of the equipment?



The administrative section won't rescue weak justification of need, but it can sink an otherwise good proposal.

Showcase Your Expertise

- Reviewers judge whether you can run a shared resource by **how** you write this section. Let your expertise shine.
- What qualities are being assessed?
  - **Thoroughness**: did you anticipate failure modes? (service contracts, budget shortfall, urgent samples, utilization bottlenecks)
  - **Thoughtfulness**: did you design for a diverse user base? (access policy, training pathway, advisory committee balance, service modes)
  - **Technical Expertise**: do you understand the nuances of THIS instrument? (training specificity, method development, sample prep, QC protocols, barriers to entry)

Each paragraph is an opportunity to demonstrate competence.

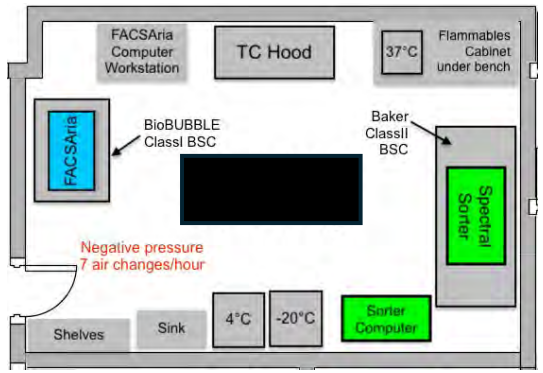
What Reviewers Flagged

- **Staff workload and capacity**
  - *"Unclear if staff also oversee cell sorters, which may make additional responsibilities challenging"*
  - ✓Lesson: be explicit about % effort and competing duties
- **Scheduling**
  - *"Access prioritization policy for time-sensitive mouse aging cohorts, clinical specimens, or PDX experiments with short viability window is lacking"*
  - ✓Lesson: address scheduling for urgent/time-sensitive samples
- **Advisory Committee balance**
  - *"Only one member is a listed major user… minor concern that user feedback could be minimized"*
  - ✓Lesson: thoughtful advisory committee composition is key

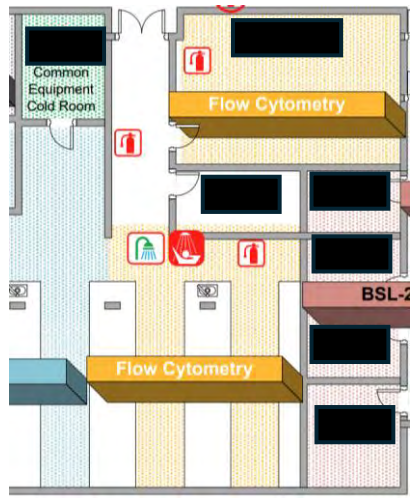
Location

- **Consider what surrounds the instrument**
- **Attention to details that facilitate sharing**
- Room and facility **diagrams**
- Utilities - HVAC, electrical, network…
- Ancillary EQ - incubator, centrifuge, hood…
- Supplies - gloves, pipets, buffers…
- Space for sample prep & data analysis
- Letters of Support confirm
  - Space allocation
  - Planned renovations
  - Site complies with vendor's specs
  - Safety

Room Diagram



Facility Diagram



“Describe where the instrument will be located”

Generic

The instrument will be housed in the BSL2 sorting lab in the Biomedical Sciences Building.

Specific

The instrument will be housed in a 1,200 sq. ft. sorting lab equipped with 100 psi house air, handwashing sink, TC hood, incubator, refrigerator, and configured for 7 air changes per hour to meet BSL2 standards as verified in a letter of support from the Biosafety Official. The lab is adjacent to the Core Director’s office to facilitate on-demand expert troubleshooting and consultation. The lab meets vendor’s site installation requirements as verified in a letter of support from the Facilities Director.

Infrastructure for Success

Generic

All supplies necessary for a successful experiment are available in the Core.

Specific

In addition to a full suite of supporting equipment (refrigerated centrifuge, TC hood, incubator), the Core maintains a comprehensive stock of viability dyes, compensation beads, staining and fixation buffers, and a library of 30 antibodies to rescue inadequately prepared samples.

“Describe how users will be trained in experimental design, instrument operation and data analysis”

Generic

New users attend 3-hour hands-on training led by experienced Core staff. The training covers instrument setup, operation, and data analysis.

Specific

The Core has developed a 4-part comprehensive spectral training curriculum that includes 1) on-demand videos on spectral theory and proper controls, 2) a staff-led *in-silico* session on panel and experiment design, 3) a hands-on instrument operation and data acquisition session using cells stained with a Core-supplied antibody panel, 4) a hands-on session on spectral unmixing including how to identify errors.

The Core-supplied antibody panel is specifically designed to highlight key learning principles like panel design dos and don’ts and how to spot unmixing errors.

Core staff regularly check in with trained users during runs to answer questions and audit data quality.

“Describe… how other projects and new users will be enlisted”

Generic

The Core Director will present at faculty retreats and program meetings, and host a vendor-sponsored lunch and learn.

Specific

Core staff will monitor reservations on legacy equipment and identify users that would benefit from enhanced capabilities. If the researcher has sufficient sample material, Core staff will acquire aliquots on new instrumentation in parallel, and at no cost to the researcher, to **generate proof-of-benefit datasets** that encourage adoption.

🏆 Budget and % effort to support outreach

Method Development to Democratize Access

- **The nuance**
  - Researchers without domain-specific expertise in experiment design and sample preparation have difficulty accessing sophisticated or innovative applications. The barrier is knowledge, not the instrument.
- **The solution**
  - A Core expert can navigate this terrain, validate new methods, and distill them into simple protocols that any researcher can follow. Allocate staff time and budget for this work, supported by pledged institutional funding (via LOS). Prioritize methods that open doors to previously excluded experiment types.
- **What it demonstrates**
  - Thoughtfulness: you identified the real obstacle to adoption, not just how to operate
  - Expertise: end-to-end support from sample prep through data analysis
  - Thoroughness: expertise used to expand the user base, not gatekeep it

Financial Sustainability: The Long View

- **Year 1: Installation and Ramp-Up**
  - Lower utilization is expected; budget for training and method development
  - Institutional support is critical; show it explicitly in the budget
  - Include installation costs, facility modifications if needed
- **Years 2-5: Full Operation**
  - User fees should cover an increasing share of operating costs
  - Service contracts are the largest recurring expense; plan realistically
  - Describe year-over-year revenue growth assumptions
- **Revenue = Projected Usage Hours x Hourly Rate**
  - Show this calculation explicitly; reviewers want to see the math
  - Describe underlying assumptions in narrative
  - Account for different rate tiers (internal vs. external users)
- **If projecting a deficit in any year, acknowledge it explicitly**
  - Show how the institution will cover the gap (backed by LOS)
- **Budget table and narrative must tell the same story**
  - Institutional official's letter of support MUST align with budget numbers
  - Inconsistencies between the table, narrative, and letters are a red flag

Budget

Year 1	Expenses	Income		
		S10 Grant	User Fees	Institute
Instrument (+1-year warranty)	[redacted]			
Supplies				
Software				
Salary/Benefits				
Total Year 1				

Years 2-5	Expenses	S10 Grant	User Fees	Institute
Service Contract	[redacted]			
Supplies				
Software				
Salary/Benefits				
Total Years 2-5				

Institutional Support Letter

Generic

I am pleased to write in support of [PI]'s application for an NIH S10 Shared Instrumentation Grant to acquire [Instrument Name]. [Institution] strongly supports this important acquisition, which will significantly enhance research capabilities across our campus. The institution is committed to providing the resources necessary for the successful operation and long-term sustainability of the requested instrumentation.

Specific

[Institution]'s support for this Core is long-standing. Over the past 5 years we have provided [redacted] in staff salary, [redacted] in capital equipment, and [redacted] toward service contracts, totaling [redacted] in historical investment. Our commitment continues with the requested sorter: [redacted] over 5 years for a premium vendor service contract (quote attached), [redacted] in Core staff salary support, [redacted] for supplies and reagents to support new method development, and [redacted] for a dedicated data analysis workstation. 5-year forward commitment: [redacted] In the event of a revenue shortfall in any year, [Institution] will cover operating costs to ensure uninterrupted service for at least 5 years.

What Reviewers Praised

- **Track record of financial sustainability and oversight structure**
  - *"Flow core has been successfully run for many years"*
  - *"Dedicated core facility within an NCI-supported center"*
- **Specific systems named**
  - *"iLab software to streamline scheduling and invoicing"*
  - *"Chargeback fee priced at [redacted] assisted, [redacted] unassisted"*
- **Advisory Committee composition**
  - *"Good representation of key stakeholders, including VP, major users, core directors"*
  - *"Well-structured with senior leadership and non-user oversight"*
- **Financial plan and institutional support**
  - *"Financial plan is realistic and based on historical and anticipated usage data"*
  - *"Financial plan is solid with [institution] covering service contracts"*
- **Comprehensive planning**
  - *"The administration is quite thorough and comprehensive"*

Closing Thoughts

- Anticipate and address impediments to **Shared**, **Productive**, and **Sustained** use.
- Inconsistency in AUT, recharge rates, staff allocation and budget table will be noticed. Check your math, explain your reasoning in the narrative and make sure the numbers agree.
- Reviewers understand that it takes time and effort to bring sophisticated EQ online. Incorporate time & budget for Year 1 onboarding, training, method development. Provide rationale in narrative.
- Contingency plan if staff capacity could limit utilization. Does rate structure (or institutional funding) support a new hire in the event of high demand?

Questions?

Tune in to Session VI for more info and other perspectives

1:00 p.m. – 2:15 p.m.	**Session VI: Operation, Maintenance and Institutional Support and Administration** Moderator: *Sean Wilson, Ph.D., Professor, Loma Linda University, and Dorothy Beckett, Ph.D., Director, Division of Biophysics, Biomedical Technology, and Computational Biosciences, NIGMS, NIH*
1:00 p.m. – 1:20 p.m.	Keynote Presentation: Building Institutional Support *Jennifer Lodge, Ph.D., Vice President for Research and Innovation, John Strohbehn University Distinguished Professor, Duke University*
1:20 p.m. – 1:30 p.m.	Crafting Institutional Support Letters *Caroline Shamu, Ph.D., Associate Dean for Research Cores and Technology, Harvard Medical School*
1:30 p.m. – 1:40 p.m.	Explaining the Budget and Administration *David W. Piston, Ph.D., Edward J. Mallinckrodt Jr. Professor, Washington University in St. Louis*
1:40 p.m. – 1:50 p.m.	Training Users, Managing Schedules, Dealing with Data *Pablo Ariel, Ph.D., Associate Professor, The University of North Carolina at Chapel Hill*
1:50 p.m. – 2:00 p.m.	Outreach and Training Strategies for Maximizing S10 Resource Utilization *Zhao Lai, Ph.D., Research Professor, UT Health San Antonio*
2:00 p.m. – 2:15 p.m.	Q&A