

UCSF Core Facilities Enterprise

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What is a Core?

- **A centralized shared resource**
- **Provides access to**
 - **Expert consultation**
 - **Instruments**
 - **Technologies**
 - **Services**
 - **Cell, animal, human support**
- **Cores come in many flavors, with varied operational models**

Why and when to use a Core?



- **Expand** your research scope and capacity
- **Expedite** progress by using services already up and running
- **Save** money by ‘renting’ rather than ‘buying’
- **Gain** critical insight by consulting with experts throughout the study
 - Particularly at the study inception stage

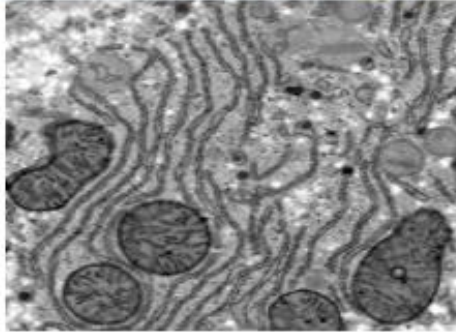
So how do I find the right Core?

- ~70 Cores at UCSF, 947 research resources
- Add more with affiliated institutions



Gladstone Cores

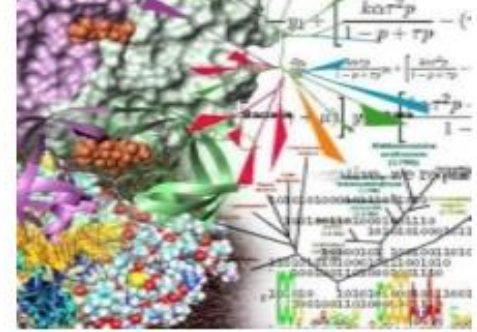
Assay Development & Drug Discovery



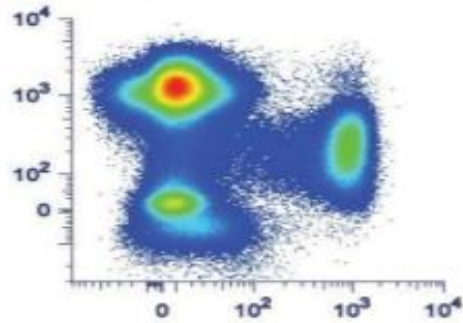
Behavioral



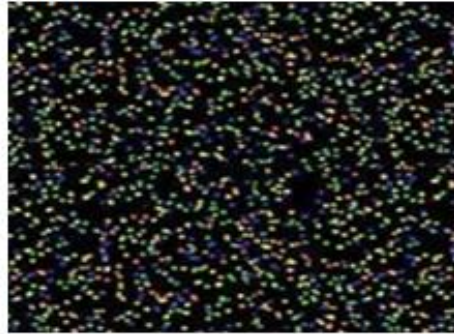
Bioinformatics



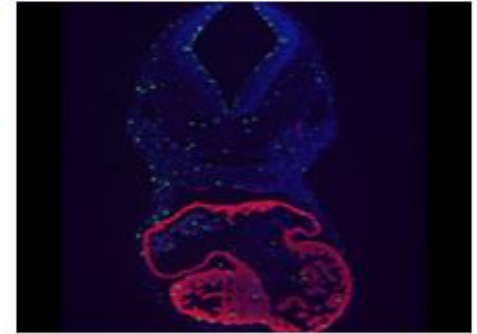
Flow Cytometry



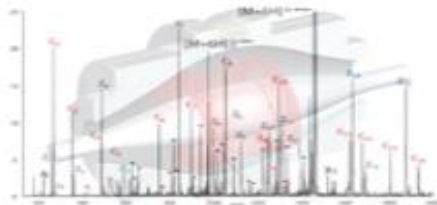
Genomics



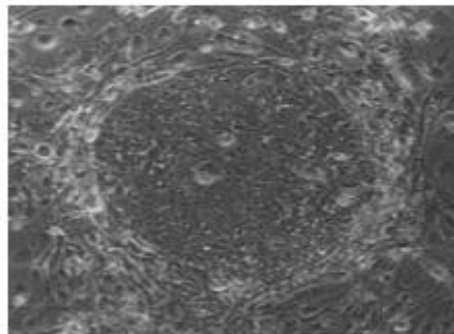
Histology and Light Microscopy



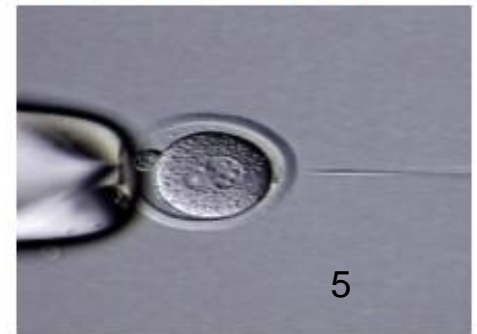
Mass Spectrometry



Stem Cell



Transgenic Gene Targeting

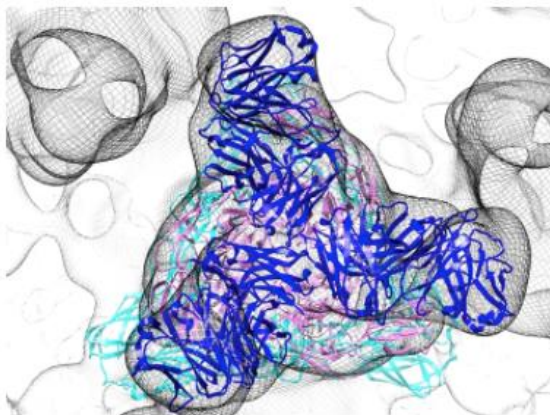


Blood Systems Research Institute (BSRI) Cores



Bioinformatics

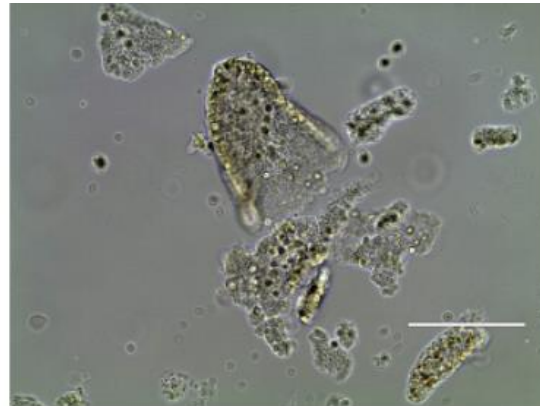
Directed by Xutao Deng



Immunology

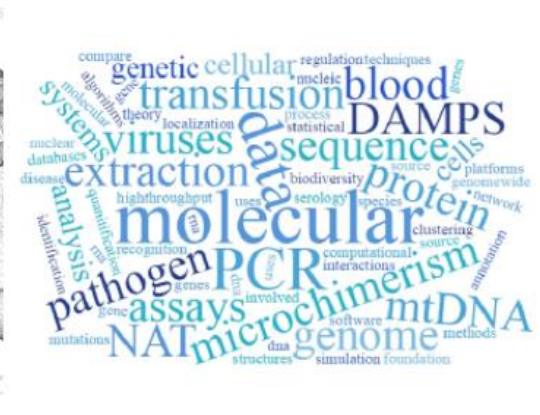
Directed by Sheila Keating

November 17, 2017 CFAR Mentoring



Cell Therapy

Directed by Marcus Muench



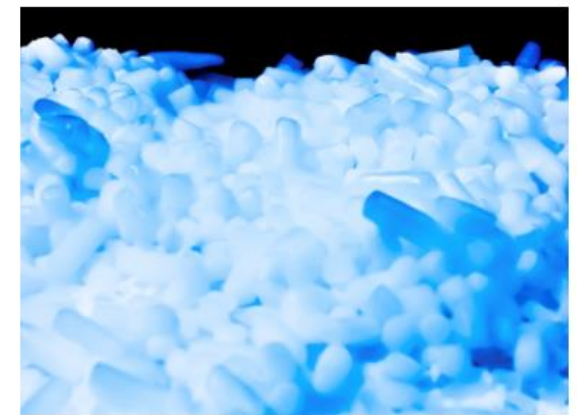
Molecular Transfusion

Directed by Tzong-Hae Lee and Sonia Bakkour



Epidemiology

Directed by Roberta Bruhn and Anne Guiltinan



Viral Reference Lab and Repository

Directed by Mars Stone

UCSF Cores Search

Equipment and services for researchers

Powered by CTSI
in partnership with RRP

- Home
- About

Find instruments and services at UCSF

947 resources · 264 categories · 87 providers

Or browse:

- 3 Tesla MRI scanner 5 options
- 3 Tesla magnetic resonance imaging scanner 5 options
- 3T MR system 5 options
- 3T MRI scanner 5 options
- 3T MRI system 5 options
- 3T magnetic resonance imaging scanner 5 options
- Experimental disease induction 1 option
- FACS 16 options
- FESEM 1 option
- FT-IR spectrometer 1 option
- Fast live imaging 2 options
- Field emission scanning electron microscope 1 option
- Nucleic acid isolation 2 options
- Nucleic acid microarray assay 1 option
- Nucleic acid shearing 4 options
- Nucleotide sequencing, high-throughput 4 options
- OCT 4 options
- Operant conditioning chamber 1 option

- SCIENCE AND CORES
- Administrative Core
- Developmental Core
- Health Disparities**
- Clinical and Population Sciences
- Immunology
- Pharmacology
- Speciman Banking
- Virology
- Request Core Services

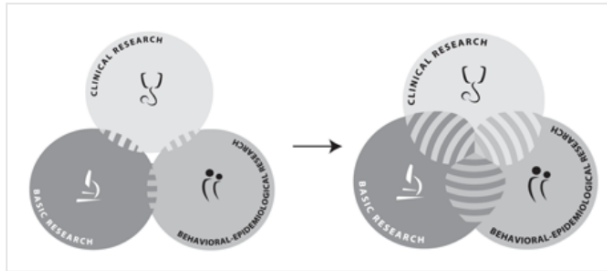
Scientific Working Group: Implementation Science for the Global Response to HIV

Science and Cores

Our Center's central goal is facilitating scientific progress in HIV by providing the broadest community of member investigators with direct services and other means that result in important collaborative work. CFAR assembles scientific teams across our distributed research environment and supports those efforts with direct and indirect resources such as access to emerging technologies and availability of dynamic scientific cores.

Our research cores operate within a larger network of clinical and scientific laboratories housed on the various UCSF campuses. These laboratories provide member investigators with access to a wide array of specialized

services and significant technical expertise. Each core provides technical assistance to projects appropriate to our scientific mission, including the development of unique diagnostic assays, genomic tests and similar tools. Core directors are encouraged to support ground-breaking clinical developments or novel research initiatives by leveraging CFAR funding to acquire critical new equipment or develop new techniques and protocols.



CFAR programs are designed to bring together scientists from different disciplines to stimulate "outside-the-box" thinking.

Events

[CFAR Core Management Committee Meeting](#)
12/6/17 - 3:00pm to 4:00pm PST

[CFAR Internal Advisory Board Meeting](#)
12/6/17 - 4:00pm to 5:00pm PST

Request Core Services

Advice, specimen processing, FACS analysis, RNA microarray -- request services here.

- Scientific Cores**
- [Clinical & Population Sciences](#)
- [Immunology](#)
- [Pharmacology](#)
- [Specimen Bank](#)
- [Virology](#)

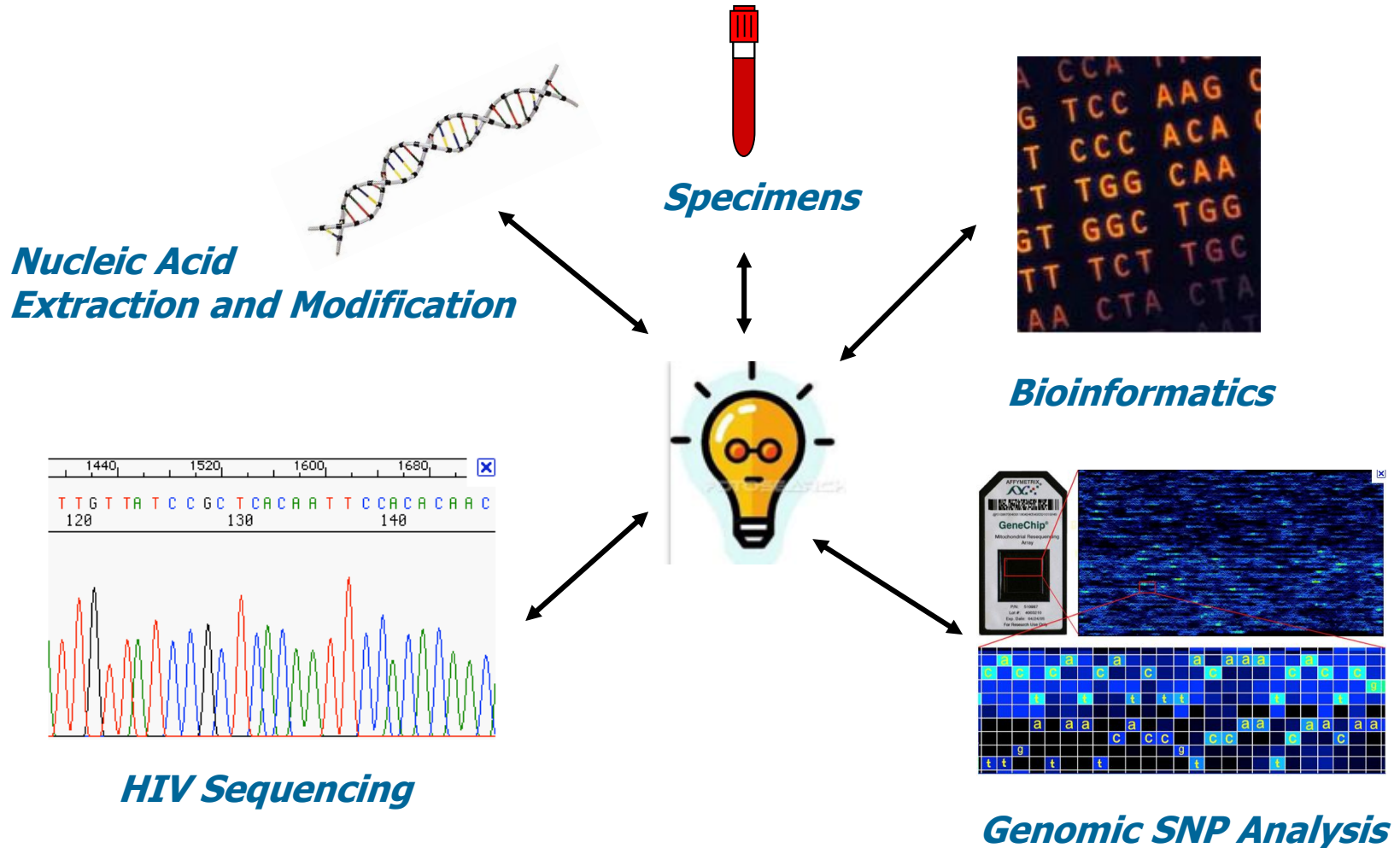
What are the CFAR Scientific Cores?

- **Health Disparities**
 - Marguerita Lightfoot, PhD
- **Clinical/Population Science**
 - Jeff Martin MD, MPH, Steve Deeks MD
- **Immunology**
 - Jeff Milush PhD
- **Pharmacology**
 - Fran Aweeka PharmD
- **Specimen Banking**
 - John Greenspan BDS, PhD, Yvonne DeSouza
- **Virology**
 - Paul Volberding, PhD
- **Implementation SWG**
 - Elvin Geng, MD, MPH, Eric Goosby, MD

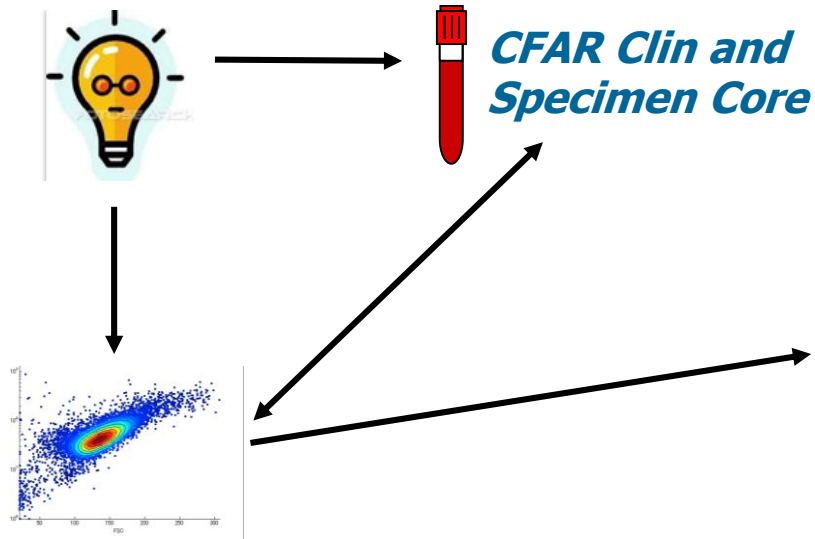
Why are CFAR Cores special?

- **CFAR Cores exist to promote ‘Value Added’ services**
 - **Education, training and mentoring**
 - **State of the art equipment**
 - **New assay development**
 - **Customized services**
 - **Streamlined interaction with other CFAR cores**
 - **“Conception – to – Publication” support for projects**

Managing Core use can be daunting!



Core Synergy at Work!



CFAR Clin and Specimen Core



BSRI Multiplex Assays



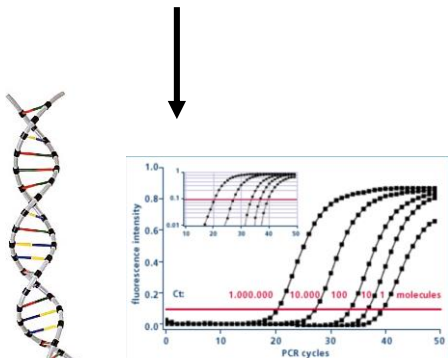
CTSI Biostats



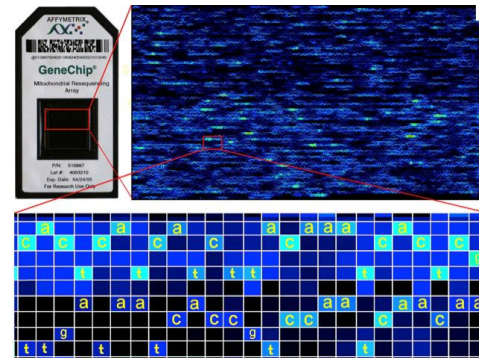
Manuscript

Grant Funding

CFAR Immunology Core



CFAR Virology Core



UCSF Genomics Core

Successful Core use through partnerships

- **Your role**
 - **Picking a Core most relevant for the work needed**
 - **Project ownership**
 - **Clarifying your needs (timeline, materials, resources, budget)**
 - **Defining project scope, complexity**
- **Core's role**
 - **Confirming it's the right Core. If not, referral to others**
 - **Established competency in all areas of service**
 - **Interact with other cores if needed**
 - **Defining deliverables (including timeline, defined services, budget, etc.)**

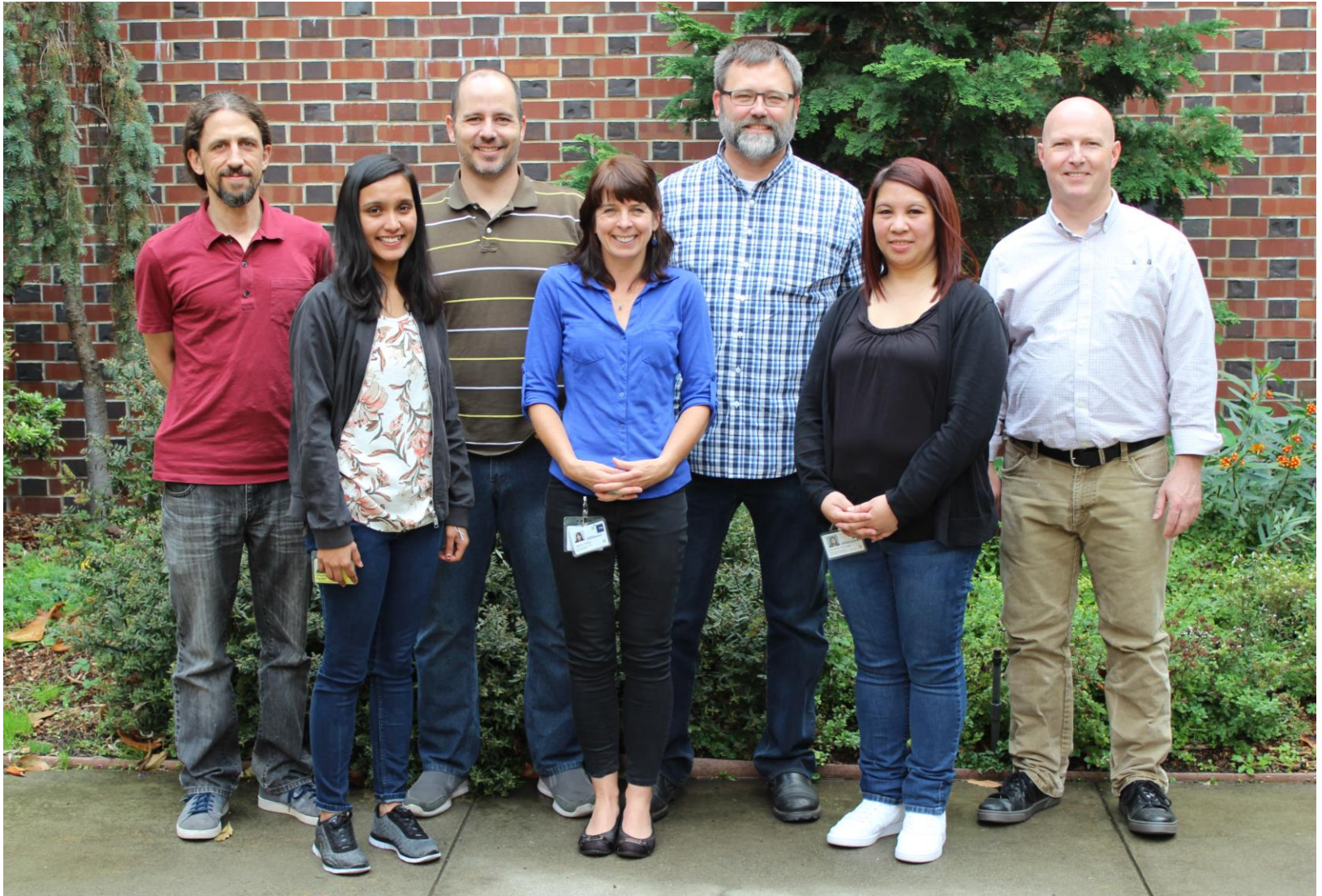
But can I afford using a core?

- **Consult with core director on study design, hypothesis, sample selection and services *early in process***
- **You get what you pay for!**
 - **Quality, accountability and experience**
- **Sometimes, time is \$\$**
- **May partially cover costs for new development work**
- **Institutional supplements**



- **Pilot program up to \$4,000**
- **Remove barriers for 1st time core users**
- **Expand the scope and breadth of core users**
- **Spark new offerings and collaborations with cores**
- **Easy app, rapid turnaround, 6 month duration**

Core Immunology Laboratory



Core Immunology Laboratory Services

Services (tissue → data):

- Consulting
- Customizable services
- Cell isolation from peripheral blood, leukapheresis or tissues (LN and gut)
- Immunophenotyping, cell sorting, & viable cryopreservation
- Immunomagnetic bead isolation
- Flow cytometric functional assays
 - NK cell function
 - antigen-specific cytokine production
 - degranulation
 - proliferation
- RNAFlow Cytometry
- ELISA measures of cytokine and chemokine production
- Training in Immunologic techniques and data analysis

Cytometry Services:

- Analysis on LSR-II
 - User-Operated or Operator-Assisted
- Sorting on ARIA
 - User-Operated or Operator-Assisted
- Up to 17 color capability
- Training
 - Advanced Multicolor Cytometry Class
 - DiVA software course
 - 1:1 Data Analysis
- Consulting
 - Flow Clinic (Mondays 11-12)
 - Contact us any time!

Core Virology Laboratory Services

Specimen Processing:

- Consulting
- Cell isolation and cryopreservation from peripheral blood
- Dried blood spots
- Fluid processing and cryopreservation
- Sample shipping

Virologic Services:

- HIV-1 genotyping
 - Int, RT-Pro
- RNA/DNA extraction from cells and tissue
- HIV-1 viral loads
 - Plasma
 - Cell Associated (RNA/DNA)
 - Integrated DNA
 - 2-LTR quantification
 - TILDA (Tat/rev Induced Limiting Dilution Assay)

Thank You and Good Luck!

Questions?

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