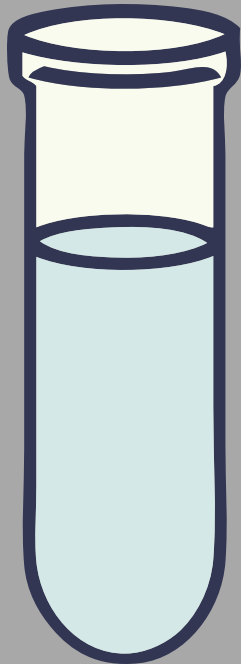




Workshops



UW Lab Cores
& Vendors

FOOD

Badger Connect

UW RESEARCH SERVICES FAIR



Research investigators, post docs, students, and staff



Poster Session

Hosted by
UW Carbone
Cancer Center
and School of
Medicine and
Public Health

HEALTH SCIENCES LEARNING CENTER

750 Highland Ave., Main Atrium
cancer.wisc.edu/research/BadgerConnect

**OCT
9TH
12-5:30**

BadgerConnect Research Services Fair

October 9th, 2019
12:00 – 5:30 PM, HSLC Atrium
AGENDA

12:00 – 12:30pm Registration / Networking
Registration table and networking at booths open at 12pm

12:30 – 2:00pm Flash Talks Lunch (Rm 1306 HSLC)
~4 minute flash talks by research services throughout lunch

15' Break/Networking

2:15 – 2:45pm Workshop Session I

	Rm 1220 HSLC	Rm 1222 HSLC	Rm 1244 HSLC
Topic	How to create a tissue microarray (TMA)	Reference Grade De Novo Assemblies and Whole Transcriptomes: See the Big Picture With Pacbio SMRT Sequencing	Team Science 101: How to build, lead, and manage a team that does great science
UW Service	Translational Research Initiatives in Pathology Lab	Biotechnology Center DNA Sequencing Facility	Team Science - ICTR and UWCCC
Vendor	n/a	Pacific Biosciences	n/a

15' Break/Networking

3:00 – 3:30pm Workshop Session II

	Rm 1220 HSLC	Rm 1222 HSLC	Rm 1244 HSLC
Topic	Creating Novel Disease Models with CRISPR	LabArchives: The Electronic Lab Notebook Service for Campus	Hyperfinder: Computational Sorting for High-Dimensional Flow Cytometry Data
UW Service	Genome Editing and Animal Models Core	Electronic Lab Notebook Service	Flow Cytometry Lab
Vendor	Integrated DNA Technologies, & Lonza	LabArchives	BD Biosciences

15' Break/Networking

3:45 – 4:15pm Workshop Session III

	Rm 1220 HSLC	Rm 1222 HSLC	Rm 1244 HSLC
Topic	Engaging Stakeholders in Research: Tips and Tools	Utilizing Animal Models and Assisted Reproduction to Enhance Biomedical Research	When Binding Affinity Matters
UW Service	Wisconsin Network for Research Support	Genome Editing and Animal Models Core	Medicinal Chemistry Center
Vendor	n/a	Eppendorf	NanoTemper

15' Break/Networking

4:30 – 5:30pm Poster Reception / Networking
Reception includes light dinner (GF and VEG options) with soda/beer/wine

BadgerConnect Research Services Fair 2019

FLASH TALKS LUNCH

12:30pm Kick-Off by host

Followed by Isabelle Girard, PhD, Office of Campus Research Cores

Research Services Giving Flash Talks, in order of presentation:

Translational Research Initiatives in Pathology Lab (TRIPath Lab)

Soil and Forage Analysis Lab

Small Animal Imaging & Radiotherapy Facility (SAIRF)

Wisconsin National Primate Research Center Research Services (WNPRC)

Genome Editing & Animal Models Core (GEAM)

Wisconsin Network for Research Support (WNRS)

BioBank

Department of Surgery Histology Core

Small Molecule Screening Facility (SMSF)

Medical Imaging Research Support (MIRS)

Clinical Trials Data Coordinating Center (Clinical Trials DCC)

Medicinal Chemistry Center (MCC)

Laboratory for Biomolecular Mass Spectrometry (LBMS)

Biostatistics Shared Resource (BSR)

Flow Cytometry Laboratory (Flow Lab)

Survey of the Health of Wisconsin (SHOW)

Electronic Lab Notebook Service (ELNS)

Data Science Hub

Biotechnology Center (UWBC)

WORKSHOPS Descriptions

Workshop Session I

"How to create a tissue microarray (TMA)"

by Translational Research Initiatives in Pathology Laboratory (TRIPath Lab)

Do you want to stain multiple representative tissues all in one single slide? Does your research involve working with limited or precious tissue? Do you want to screen for biomarkers across different organ sites or research subjects? Whether you work with human tissues or animal models, the TRIPath Lab can help you fit hundreds of tissue cores into one single paraffin block for more efficient biomarker screening and discovery. In this workshop you will learn the TMA design workflow, the appropriate regulatory documentation needed and its application in scientific research.

"Reference Grade De Novo Assemblies and Whole Transcriptomes: See the Big Picture With Pacbio SMRT Sequencing"

by Biotechnology Center (UWBC) with partner vendor Pacific Biosciences

Pacbio and the UW Cores detail end to end workflows for Microbial Assemblies, De Novo Sequencing and RNA Sequencing on the Pacbio technology that can be sequenced using the local UW Biotechnology Center. This workshop will walk through the amount of sample and the quality needed to perform SMRT sequencing as well as updates made to these workflows in 2019.

"Team Science 101: How to build, lead, and manage a team that does great science"

by Team Science - ICTR and UWCCC

As the complexity of doing science continues to increase and funding agencies focus resources on supporting teams to work at the intersection of fields, many researchers find themselves building, leading, and managing interdisciplinary teams with little training or support. In this workshop, we will show you how to leverage the disparate skill sets and strengths of your collaborators while minimizing the challenges inherent in working in large, complex teams.

Workshop Session II

"Creating Novel Disease Models with CRISPR"

by Genome Editing and Animal Models Core (GEAM) with partner vendors Integrated DNA Technologies and Lonza

CRISPR is a versatile and powerful tool providing endless possibilities and strategies, but where should you start to most efficiently test your hypotheses? This workshop will outline strategies to build novel preclinical models of disease and how critical challenges, such as off-target effects, can be overcome.

"LabArchives: The Electronic Lab Notebook Service for Campus"

by Electronic Lab Notebook Service (ELNS) with partner vendor LabArchives

Curious about using an ELN? Learn about LabArchives, the electronic lab notebook available for researchers at UW-Madison. See an overview of the ELN and learn how to implement it for your lab.

"Hyperfinder: Computational Sorting for High-Dimensional Flow Cytometry Data"

by Flow Cytometry Lab (Flow Lab) with partner vendor BD Biosciences

Cell sorting gates can currently only be defined using traditional 2-dimensional gates using only the parameters present in the data acquisition. In order to translate a machine-learning defined gate to a cell sorting platform, BD has developed a plug-in for FlowJo(TM) Software called Hyperfinder. This plug-in translates these machine-learning gates into a format that can be exported from FlowJo into BD FACSDiva(TM) software to ensure that the population identified in machine-learning algorithms is indeed the population that is sorted.

Workshop Session III

"Engaging Stakeholders in Research: Tips and Tools"

by Wisconsin Network for Research Support (WNRS)

Researchers increasingly appreciate the value of including stakeholders in research. Even though providing opportunities for stakeholder engagement is often seen as desirable, there are several barriers to doing so— including time, expense, and the challenging tasks of determining how, when, where, and with whom to engage. Wisconsin Network for Research Support staff will highlight key benefits of getting stakeholder advice and share tips/tools to help researchers develop stakeholder engagement plans, connect with existing advisory groups, and create their own project-specific stakeholder advisory groups.

"Utilizing Animal Models and Assisted Reproduction to Enhance Biomedical Research"

by Genome Editing and Animal Models Core (GEAM) with partner vendor Eppendorf

Our unique animal facility offers a full range of embryo manipulations to generate or recover novel live mice and rats to study human diseases. We have been highly successful at genome editing including transgenics, knockouts and knockins from design to characterization of F1 animals. This including conditional knockouts, reporter lines and point mutations. Additionally, we offer recovery from bio-banked stock from around the world and are happy to work with labs to reduce their colonies through cryopreservation. Our newest service assists labs in reproductive troubleshooting and discovery.

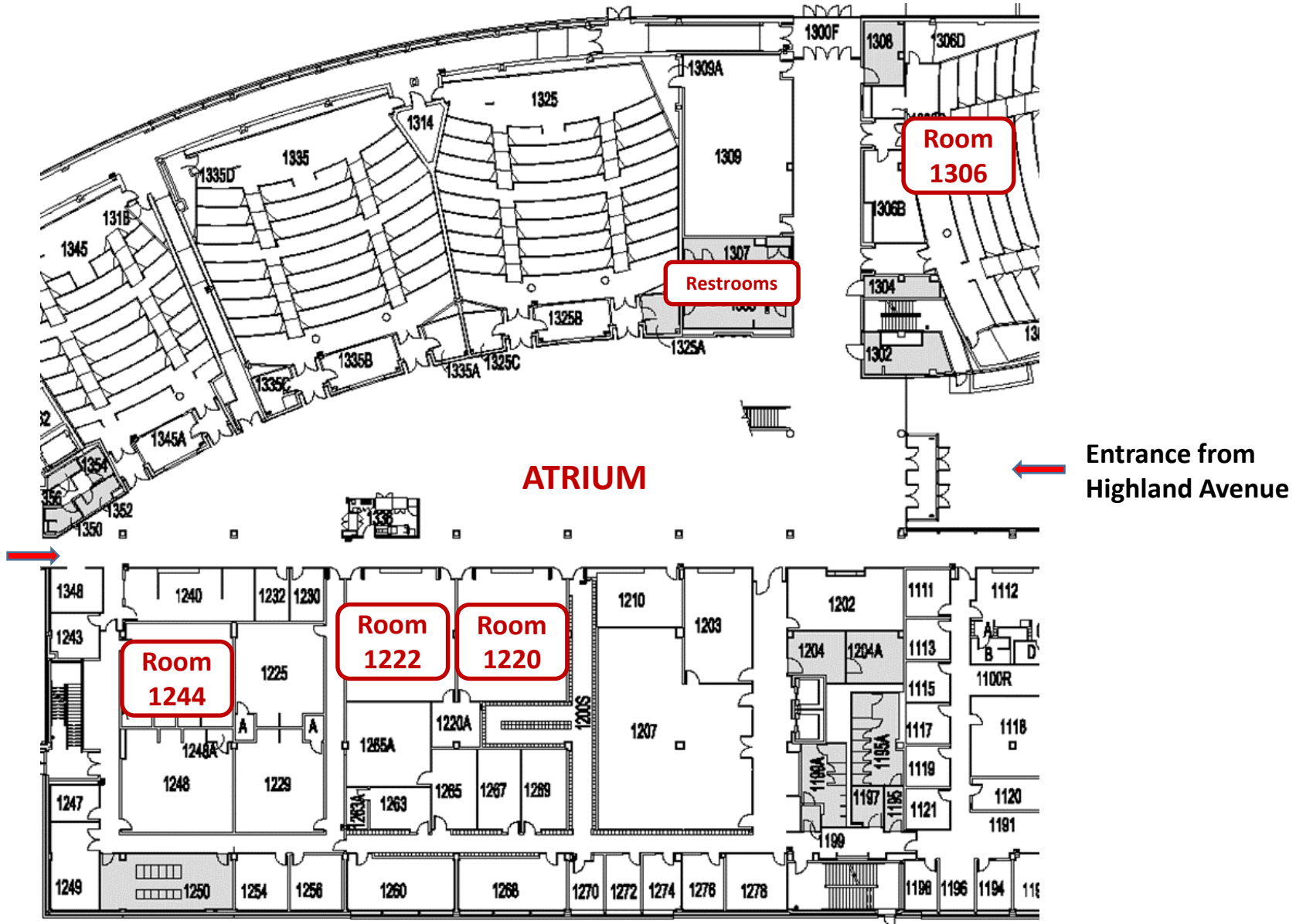
"When Binding Affinity Matters"

by Medicinal Chemistry Center (MCC) with partner vendor NanoTemper

The Monolith is an instrument from NanoTemper Technologies designed to meet all your binding affinity needs in the lab. Whether you're working on protein-protein interactions, screening for small molecule inhibitors, studying nucleic acid targets, or working with cell lysate, the Monolith offers solutions for finding the strength of your biological interactions. Join us to learn about the technology behind the Monolith, how to design your own experiments, and why the Monolith makes a great tool for any lab interested in understanding affinity between their biological targets.

**2019 BadgerConnect Venue
UW-Madison
Health Sciences Learning Center
750 Highland Avenue**

Flash Talks Lunch – Room 1306
Workshops – Rooms 1220,1222,1244
Registration, Booths & Reception – Atrium



2019 BadgerConnect Research Services Fair

Participating Research Services & Vendor Partners

UW Research Service / Center Website Links	Booth Number
<u>BioBank</u>	34
<u>Biochemistry Optical Core</u>	46
<u>Biostatistics Shared Resource</u>	55
<u>Biotechnology Center</u>	15 & 16
<u>Cancer Informatics Shared Resource</u>	56
<u>Cancer Pharmacology Lab</u>	38
<u>Cancer Prevention and Outcomes Data</u>	11
<u>Circulating Biomarker Core</u>	33
<u>Clinical Research Imaging Core</u>	51
<u>Clinical Trials Data Coordinating Center</u>	54
<u>Community-Academic Partnership Core</u>	6
<u>Data Science Hub</u>	53
<u>Department of Surgery Histology Core</u>	43
<u>Electronic Lab Notebook Service</u>	2
<u>Experimental Animal Pathology Laboratory</u>	25
<u>Flow Cytometry Laboratory</u>	30
<u>Genome Editing and Animal Models Core</u>	21
<u>IND and IDE Consultation Service</u>	5
<u>Laboratory for Biomolecular Mass Spectrometry</u>	14
<u>Medical Imaging Research Support</u>	52
<u>Medicinal Chemistry Center</u>	40
<u>Optical Imaging Core</u>	47
<u>Public Access Service</u>	3
<u>Small Animal Imaging & Radiotherapy Facility</u>	49 & 50
<u>Small Molecule Screening Facility</u>	39
<u>Soil and Forage Analysis Lab</u>	12
<u>Survey of the Health of Wisconsin</u>	8
<u>Team Science - ICTR and UWCCC</u>	4
<u>Translational Research Initiatives in Pathology Lab</u>	35
<u>Vision Research Core</u>	44
<u>WiCell</u>	13
<u>WI National Primate Research Center Research Services</u>	28
<u>Wisconsin Network for Research Support</u>	7

Vendor Partners

Booth Number

Akoya Biosciences	37
BD Biosciences	32
Carl Zeiss Microscopy, LLC	45
Eppendorf	22
Integrated DNA Technologies	20
LabArchives	1
Lonza	19
MilliporeSigma	28
NanoTemper Technologies	41
Pacific Biosciences	17
Promega Corporation	26
Teledyne ISCO	42
Third Wave Analytics	18

2019 BadgerConnect UW Research Services Fair

Research Posters

Booth Number	Presenter	Title	Authors	Research Service / Center Invited By	Abstract
10	Malecki Kristen	Urban and Rural Differences in Gut Microbial Diversity: Implications for Environmental Health	Kristen Malecki, Shoshannah Eggers, Maria Nikodemova, Amy Schultz	Survey of the Health of Wisconsin	The aim of this study was to examine urban and rural factors predicting gut microbial diversity among a randomly selected population-based sample of adults over the age of 18 from the 2016 Survey of the Health of Wisconsin (SHOW) and its ancillary microbiome study. SHOW is a general population-based health examination survey, collecting a wide range of health determinants including drinking water sources and filtration, as well as objective measurements of body habitus, and biological specimens. Residents can be linked to numerous extant data including downscaled air monitoring and drinking water source data. Data for this analysis came from participants who also submitted a stool sample and completed a microbiome survey questionnaire.
9	Rodriguez Allison	Latino Community Health Survey Embraces Community Based Participatory Research	Allison Rodriguez, Tara Jackson, Mirtha Sosa Pacheco, Tamara LeCaire, Al Castro, Erin Bailey, Paul Peppard, Kristen Malecki	Survey of the Health of Wisconsin	Due to the need for better representation in health research, the Survey of the Health of Wisconsin aims to enhance community partnerships and increase recruitment of under-represented persons of color, specifically in the Latino community of Milwaukee. Once recruited into the study, participants complete an in-home interview, physical measurements, self-administered questionnaires, and bio-sample collection. From there, descriptive statistics will illustrate community health and health determinants. In addition, the study aims to build relationships and trust with the Latino community in Milwaukee. Inspired by the Community Based Participatory Research framework, this study will generate data that community leaders can use to further support health and well-being.
23	Soukup Alexandra	Single-Nucleotide Human Disease Mutation Inactivates a Blood-Regenerative GATA-2 Enhancer	Alexandra A. Soukup, Ye Zheng, Daniel Conn, Charu Mehta, Jun Wu, Peng Liu, Miao Cao, Inga Hofmann, Yun Zhou, Jing Zhang, Kirby D. Johnson, Kyunghye Choi, Sunduz Keles, Emery H. Bresnick	Genome Editing and Animal Models	With the Genome Editing and Animal Models core, we have generated mice with a single nucleotide disease mutation in an enhancer for the transcription factor Gata2. We provide evidence for a new mechanism in which a disease mutation inactivates regenerative activity of an enhancer (assessed in concert with the Flow Cytometry and Experimental Pathology cores), while sparing developmental activities.
31	Stenerson Zach	Measurement of Mitochondrial Reactive Oxidative Species in Ovarian Cancer Cells using the ImageStreamX MarkII	Zach Stenerson, Arvinder Kapur, Lauren Nettenstrom, Dagna Sheerar, Manish Patankar	Flow Cytometry Lab	This project is a joint effort of the Patankar Lab and UW Flow to show increases in R.O.S. in mitochondria after addition of drug on an imaging flow cytometer, the Amnis ImageStream MarkII. Imaging flow cytometry has niche application that is able to bridge the gap between fluorescent microscopy and flow cytometry.
32	Vazquez Jessica	Unique Cytokine Profile of Novel Innate Lymphoid Cells in Human Decidua	Jessica Vazquez, Yan Li, Aleksandar K Stanic	Flow Cytometry Lab	Immune cells at the maternal-fetal interface play a complex role in regulation of vascular remodeling, fetal tolerance and protection from infection. Function of novel decidual ILCS was assessed to determine their role in pregnancy. Briefly, dILCs were activated with either PMA/Ionomycin or IL-23, labeled with fluorochrome-conjugated antibodies against surface and intracellular targets, and acquired BD Fortessa flow cytometer (UW Flow facility) in a 5 laser, 18 detector configuration.
36	Wang Yanping	Up-regulated Long Noncoding RNAs (lncRNAs) in Anaplastic Thyroid Carcinomas	Yanping Wang, Heather Hardin, Ying-Hsia Chu, Karla Esbona, Ricardo V. Lloyd	Translational Research Initiatives in Pathology Lab	Long non-coding RNAs (lncRNAs) participate in transcription and in epigenetic or post-transcriptional regulation of gene expression; they also have roles in epithelial to mesenchymal transition and in carcinogenesis. lncRNAs may also play a role in thyroid tumor progression. We examined a group of thyroid tumors which included papillary thyroid carcinomas (PTCs) and anaplastic thyroid carcinomas (ATCs) to determine the specific lncRNAs that were upregulated during thyroid tumor progress.
24	You Xiaona	Targeting oncogenic Kras and Sos1 interaction in KRAS-driven leukemia	Xiaona You, Zhi Wen, Guangyao Kong, Erik A. Ranheim, Yun Zhou, Jing Zhang	Genome Editing and Animal Models	Here we report that oncogenic Kras and Sos1 interaction is a potential target in KRAS-driven leukemia. To see if the unique Kras C-terminal region determines its capability to interact with Sos1, we generated the Nras/Kras chimeric mice with the help of transgenic animal facility. In addition, we will generate Sos1 allosteric site conditional mutation mice to disrupt the interaction of Sos1 and oncogenic Kras .

Thank you to our Vendor Partners

