Retreat Agenda

9:30-9:45 Breakfast and Opening Remarks
  Dr. Brard and Dr. Colditz

9:45-10:00 Collaborative Cancer Disparities Research Program
  Dr. James

10:00-10:15 Health Literacy in Kidney Cancer and Smoking
  Dr. Linnenbringer and Dr. Alanee

10:15-10:30 Rural Southeast MO Interventions
  Dr. Lobb

10:30-10:40 Rural Cancer Disparities Training Program
  Dr. Steward and Dr. James

10:40-10:50 Isolated Populations Project
  Dr. Jenkins

10:50-11:00 Working with Rural Healthcare Systems- SIH model
  Dr. James

11:00-12:00 Researcher speed dating Session 1
  SCC and SIUSM investigators

12:00-1:00 Lunch and Journal Club
  Ms. Fogleman and Dr. Williams

1:00-2:00 Researcher speed dating Session 2
  SCC and SIUSM investigators
What is the Rural Cancer Disparities Partnership?

An NIH grant that supports the establishment of a partnership between the Simmons Cancer Institute of SIUSM and the Siteman Cancer Center of WUSTL.

This was funded through the NCI Feasibility Studies to Build Collaborative Partnerships in Cancer Research (P20) Program, designed to promote and build collaborative research, training, career development, and education efforts between the Institutions and Cancer Centers with NCI designation or with highly integrated cancer research programs.
Why is this important?

- Compared with their urban counterparts, rural populations experience lower access to health care along the dimensions of:
  - affordability
  - proximity
  - quality

- Rural populations often experience higher rates of cancer, poorer survival, and less utilization of preventive services.

- The health gap between rural and other residents is **widening** according to recent data.
The partnership **GOALS** are to:

- Plan, prioritize, and implement a collaborative partnership in cancer-related and cancer-disparities research, and **researcher training**, **education**, and **career development** that is relevant to the population of Downstate Illinois.

- By doing so, the Partnership will contribute to reducing and eventually **eliminating** these rural cancer disparities.
The partnership **AIMS** are to:

- **Promote** new and highly integrated research collaborations between SCI-SIUSM and SCC-WUSTL that specifically address cancers that disproportionately affect rural populations in Downstate Illinois.

- **Establish** an integrated training and career development program to foster the scientific and career development of SIUSM investigators while enhancing SCC investigators’ rural cancer disparities awareness, research, and reach.
Rural Cancer Disparities Partnership Aims

The partnership **AIMS** are to:

- **Create** a research environment that:
  - *Enriches* research-related learning and training opportunities at SIUSM
  - *Promotes* mentorship, collaboration and interaction among clinical, population health, and basic science faculty and trainees at SIUSM and SCC
  - *Supports* investigators at both institutions to conduct collaborative cancer pilot projects which will result in preliminary data that will lead to competitively funded NIH/NCI grant applications.
Components of the P20 Grant

Pilot Research Projects

Training, Education and Career Development Program

Administrative Core
Administrative Core

Provides leadership for the partnership and manage pilot research project development and implementation.

The Administrative Core **AIMS** are to:

- **Promote and implement** a pilot research program, following established SCC procedures, that provides investigators with research funding, experience and preliminary data for future NIH R01 or R21 grants
The Administrative Core **AIMS** are to:

- **Provide** SIUSM faculty and trainees access to research seminars and other opportunities at SCC, including sharing seminars through video/web
- **Build** on career development activities ongoing at SCC and share strategies with SIUSM for faculty early career development
- **Refine** our framework, in collaboration with stakeholders, for evaluation within and across these programs to measure effectiveness of our efforts to alleviate cancer health disparities.
Today’s Itinerary

Today you will learn more about the other Partnership components:

▪ **Pilot Research Projects**

▪ **Training, Education and Career Development Program**

And also hear relevant research from Partnership investigators:

▪ Health Literacy in Kidney Cancer and Smoking (first pilot project funded by Partnership)

▪ Rural Southeast MO Interventions

▪ Isolated Populations Project

▪ Working with Rural Healthcare Systems- SIH model
Collaborative Cancer Disparities Research Program (CCDRP)

Aimee S. James, PhD, MPH
Associate Professor
Div. of Public Health Sciences, Dept. of Surgery
Washington University School of Medicine
This program supports pilot research projects that
- represent collaborations between investigators from SIUSM and WUSTL
- specifically address cancer disparities relevant to Central and Southern Illinois

Our goal

to support pilot research projects representing new collaborations between investigators from both institutions (WUSTL and SIUSM).

Our aims

- solicit pilot proposals to advance research collaboration
- build capacity and support researchers at SIUSM
- encourage more WUSTL investigators to move toward rural cancer disparity research
Important Definitions for the CCDRP

Cancer disparities are defined by the NCI as “an adverse difference in cancer incidence (new cases), cancer prevalence (all existing cases), cancer death (mortality), cancer survivorship, and burden of cancer or related health conditions that exist among specific population groups in the United States”.

Population-based research is defined as “methods seeking to define optimal approaches to the prevention and treatment of cancer, and disseminate these interventions to populations at large”.

Applications that include the following 3 major ideas within population-based research are encouraged.

1. reducing and understanding cancer disparities
2. identifying cancer risk and protective factors
3. developing or examining interventions which decrease risk or increase protective factors and can later be implemented at a population level
Areas of Research Eligible for CCDRP Funding

- **Population-based research**: explicitly examine cancer disparities from a population-based perspective, using quantitative or qualitative research methods in clinical or community settings. These can include:
  - secondary analysis of population data sets
  - engagement of communities in data generation or intervention
  - collection of data from a defined population (e.g., cancer patients, residents of rural Illinois, etc.)

- **Basic science research**: describe the potential to eventually impact clinical practice or human health. Includes studies that primarily use human specimens (tissue, blood, etc.) or animal models.

- **Clinical/translational research**: explicitly involve patients or human specimens and examine methods to prevent, diagnose, treat and/or otherwise mitigate cancer in the rural clinical setting.
CCDRP Details

- Projects must be realistically designed for 1 year completion.
  - Pilot or feasibility studies and small, self-contained research projects allowed
  - Pilots should aim to move toward a subsequent successful external grant submission

- We strongly encourage applications from any of the following types of investigators:
  - New
  - Junior level
  - Transitioning into cancer research

- At least one investigator from each site must have a significant, defined role

- The research must represent a new collaboration between investigators from the two sites OR a new project conducted by existing collaborators from the two sites.

- Maximum award of $50,000 (direct cost) for one year, non-renewable
Timeline for CCDRP 2016

- **Letter of intent due:** February 1, 2016
- **Full application due:** May 1, 2016
- **Selection decisions:** July 1, 2016
- **Earliest possible start date:** September 1, 2016

Visit [http://www.ruralcancerdisparities.wustl.edu/](http://www.ruralcancerdisparities.wustl.edu/) for full details and application materials

Contact Sonya Izadi at izadis@wudosis.wustl.edu with any questions
Rural Cancer Disparities Training Program

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Associate Professor
Div. of Public Health Sciences, Dept. of Surgery
Washington University School of Medicine

David E. Steward, MD, MPH
Associate Dean
Office of Community Health and Service
SIU School of Medicine
Access to educational offerings of WUSTL and SIU School of Medicine

• Seminar Series
  o Brings leaders in the field to WUSTL campus throughout the year to offer talks on a variety of relevant topics
  o Epidemiology and Clinical Outcomes Research Seminars
  o Dissemination and Implementation Speaker Series

• Journal Club
  o Division of Public Health Sciences Journal Club at WUSTL
  o Population Health Science Journal Club at SIU
  o Brings post-doctoral researchers, residents and fellows together to critically analyze recent literature in the field

• Interdisciplinary Population Health Science Research Group at SIU
Master of Population Health Sciences (MPHS)

Clinical Outcomes Research Training for Residents and Clinical Doctorates

- Accelerate your academic research career
- Improve patient and population health
- Boost your research quality and productivity

Students will:

- gain hands-on experience in leading, designing, conducting and moving clinical research findings to applications that will improve patient care and treatment
- establish a broad network of mentors and collaborators by interacting with WUSTL medical and public health faculty
- use their own research projects and data sets for projects in almost every course.
- graduate with papers ready for publishing, grants written, approved study protocols, and more.
SIU residents and junior faculty have two program options:
- Take individual courses
- Work towards a MPHS degree
  - Full-time for 10 months
  - Part-time for 2-3 years

  **18 credits of required courses** that cover clinical epidemiology, biostatistics and research ethics

  **15 credits chosen from elective courses** best suited to the student’s interests and career goals

  **33 credit hours required for graduation**

The MPHS program is designed to integrate easily into clinical schedules or dedicated research time.
- All MPHS courses during the day
- Courses offered from late August to early May (with one July course option)
MPHS Graduates

37 MPHS graduates with 80 publications from coursework

Comments from MPHS Alumni:

This is a physician-friendly, concentrated program to maximize yield of time and effort for those who are planning on a career in academic medicine.”
– Justin Vader, MD, MPHS, assistant professor of medicine, Cardiovascular Division

Having been through the program now, I can't imagine working on the clinical research projects I am currently doing without the skills I developed in the MPHS program.
– Pamela Samson, MD, MPHS, Resident, Department of Surgery, Washington University School of Medicine

MPHS Student Profiles
2011-2015

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<tr>
<th>Role</th>
<th>Number</th>
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<tbody>
<tr>
<td>Residents</td>
<td>14</td>
</tr>
<tr>
<td>Medical Students</td>
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</tr>
<tr>
<td>Professors</td>
<td>6</td>
</tr>
<tr>
<td>Clinical Fellows</td>
<td>6</td>
</tr>
<tr>
<td>Instructors</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Graduates</strong></td>
<td><strong>37</strong></td>
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Course Offerings

Core Coursework:
• Introductory Clinical Epidemiology
• Intermediate Clinical Epidemiology
• Applied Epidemiology (Grant writing)
• Introduction to SAS for Clinical Research
• Introductory Biostatistics for Clinical Research
• Intermediate Biostatistics for Clinical Research
• Ethics in Population and Clinical Health Research

Elective Coursework:
• Communicating Research Findings to the Media and Lay Audiences
• Comparative Effectiveness Research
• Shared Decision Making and Health Literacy in the Clinical Setting
• Patient Safety, Quality Management and Quality Improvement
• Systematic Reviews and Meta-Analysis
• Development, Validation and Application of Risk Prediction Models
• Using Administrative Data for Health Services Research
• Addictions and Addictive Behaviors
• Intro to Dissemination and Implementation Science
• Ethics in Population and Clinical Health Research
• R Primer
• Randomized Controlled Trials
• Applied Qualitative Methods for Health Research
• Epidemiology of Psychiatric Disorders Across the Lifespan
• Decision Analysis for Clinical Investigation and Economic Evaluation
• Multilevel Models in Quantitative Research
• Global Burden of Disease: Methods and Applications

4 concentration options:
1. clinical epidemiology
2. health services
3. quantitative methods
4. psychiatric and behavioral health sciences
Working with Rural Healthcare Systems- SIH as a Model

Aimee S. James, PhD, MPH
Associate Professor
Div. of Public Health Sciences, Dept. of Surgery
Washington University School of Medicine
January 2015, NCI released the RFA:

- “Multilevel Intervention in Cancer Care Delivery: Building from the Problem of Follow-up to Abnormal Screening Tests” (U01)
- Researchers at WUSTL wanted to utilize this opportunity to improve follow-up where it could make the most impact.

A 2013 report by the IL Dept. of Public Health and SIU revealed significant disparities in cancer incidence and outcome in downstate Illinois when compared to the rest of the state and to the nation.
February 2015
- Dr. Graham Colditz contacted Dr. Marci Moore-Connelley, Vice President of Southern Illinois Healthcare (SIH) to discuss a possible collaboration.
- Dr. Moore-Connelley surveyed multiple levels of staff members for interest (leadership, administration, physicians) and assembled a diverse team from SIH.

March 2015
1st conference call between WUSTL researchers and SIH team. Initial 3 questions to address:

1. Which cancer should we focus on for the proposal?
2. Why is this decision the best cancer for us to focus on?
3. What types of interventions to improve follow-up after an abnormal test would SIH be most interested to implement?
## Working with Rural Healthcare Systems - a Dual Effort

Answering these questions required effort and resources from both sides.

<table>
<thead>
<tr>
<th>WUSTL researchers’ knowledge of:</th>
<th>SIH team resources:</th>
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<tbody>
<tr>
<td>▪ Cancers that are prone to loss in follow-up after abnormal screening</td>
<td>▪ Screening and follow-up rates for multiple cancer types in their health system</td>
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<tr>
<td>▪ Areas in the follow-up process that are prone to gaps in care</td>
<td>▪ Protocol for follow-up after abnormal screening tests at SIH</td>
</tr>
<tr>
<td>▪ Potential impact of such gaps in care on cancer outcomes</td>
<td>▪ Number of sites and physicians that make up SIH system</td>
</tr>
<tr>
<td>▪ Interventions that improve follow up after abnormal screening</td>
<td>▪ Capabilities of EMRs and clinic teams, limitations of physicians and staff</td>
</tr>
<tr>
<td>▪ Grant writing, research design and implementation</td>
<td>▪ A diverse team eager to help implement interventions and improve patient care</td>
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Establish the following **early** in the process:

- **Regular meetings between teams**
  - Be inclusive of all interested individuals at implementation site- teams with multiple levels of staff:
    - Increase the feasibility of the proposed interventions by tailoring to sites with the input of all those involved in patient care
    - Increase acceptance of proposed interventions, as those involved in its implementation were involved in its design
  - Meet in person at least once initially (if possible) to help build the relationship

- **Timeline for the proposal process**
  - Target dates for each step in the process to keep progress moving
  - Final deadline

- **Degree of involvement of partnering site**
  - Enable team to be as involved as they’d like in developing the strategy and in writing the proposal
  - Expectations vary from partner to partner, so ensure this is explicitly discussed to avoid overcontrolling or overwhelming the partner
Working with Rural Healthcare Systems-
SIH Preliminary Data

- SIH has great capabilities in capturing patient data

- SIH team compiled most recent 18 months of data to answer the following:
  - % of eligible patients that had completed CRC screening
  - # of positive FOBT tests
  - % of each type of follow-up reported (GI visit, colonoscopy, sigmoidoscopy or not reported)

- Based on the data, WUSTL researchers determined there is significant room for improvement in:
  - Quality of patient data capture (minimize missing data)
  - Follow-up after abnormal screening tests for colon cancer (maximize follow-up rate)

- This preliminary data provided by SIH was a critical to establishing the study aims
Aim 1. Assess workflow factors that influence documentation and completion of activities to facilitate follow-up with colonoscopy after a positive FOBT in rural settings.

Aim 2. Evaluate the impact of a multi-level intervention that addresses patients, clinic, and health system factors to improve follow-up after positive FOBT.

Aim 3. Evaluate adoption of and fidelity to a multi-level intervention to improve follow-up after positive FOBT in a rural health system and theoretically informed implementation factors that act as moderators and mediators of the intervention.

Long-term objective: Reduce CRC mortality in the rural Southern Illinois region via improvements in the screening process and screening follow-up.
Working with Rural Healthcare Systems - SIH Proposal

Conceptual model:

**PRIMARY CARE CLINIC**
- Moderators (pre-implementation)
- Setting
  - Structure
  - Culture
  - Implementation climate
    - Compatibility of Intervention
    - Incentives
    - Feedback
    - Learning climate
  - Readiness
    - Leadership
    - Available resources
    - Access to information
- Intervention Characteristics
  - Strength of evidence
  - Relative advantage
  - Adaptability
- Implementation Process
  - Planning in advance
  - Engaging stakeholders
  - Executing plans
  - Reflecting & Evaluating on performance

**INTerventions**
- PATIENT
  - Low-literacy Education
  - PRIMARY CARE CLINIC
    - Training: Delinquency & Gap Reports
    - Workflow redesign session
    - Workflow redesign plan
    - Implementation Consult
    - Booster session
    - Prompts

**OUTER SETTING**
- Care coordination agreements
- Financial incentives

**MEDIATORS** (pre- & post-implementation)
- PRIMARY CARE CLINIC
  - Team Member’s:
    - Perceptions of professional role
    - Beliefs and capabilities
    - Goals
    - Perceptions of organizational support
- Team performance
- Coordination of care with referral providers

**OUTCOMES**
- PRIMARY (on-going)
  - Completion of colonoscopy in 60 days after positive FOBT
  - Initiation of colonoscopy referral after positive FOBT
  - Report of results of diagnostic colonoscopy to primary care provider & patient
- SECONDARY (on-going)
  - Time to colonoscopy after positive FOBT
  - Screening rates

**IMPLEMENTATION**
- Adoption (Pre-implementation)
  - Participation in workflow redesign session, pre-implementation workshop, implementation consult.
  - Booster session
  - Orders for low-literacy education
  - Downloads of Delinquency Report
  - Intention to initiate each intervention component within 2-months
- Fidelity (Post-implementation)
  - RE-orders for low-literacy education
  - Downloads of Delinquency Report
  - Strength of agreement that specific changes in the workflow redesign plan were implemented as planned
- Data Quality in PHO registry (on-going)
  - Documentation of referrals, completion of screening and diagnostic tests for colorectal cancer, results of tests and procedures
Working with Rural Healthcare Systems-
SIH as a Model

Our methods and intervention were **co-developed** with our partners at SIH and their clinical stakeholders.

We selected intervention strategies that were deemed **feasible, acceptable, sustainable, and promising** for improving screening and follow-up among the patient population.

We envision that in future projects, **similar strategies could be implemented** to address screening and follow-up for **other cancer types**, or other chronic conditions.

We developed our procedures and interventions to **appeal to other rural health systems**. A future study may evaluate the dissemination of this intervention approach in **other rural areas**.

“Reducing rural colon cancer disparities through multi-level interventions in follow-up after abnormal screening tests” was submitted by Dr. Aimee James and Dr. Rebecca Lobb in November 2015 and is awaiting review.