How to Win at Research:
A Guide to Presenting and Publishing More
Mini-Elective
Spring 2020

Course Dates:	January 13, February 3, 10, 24 Mondays, 1:00-3:00 PM
Maximum Students:	30
Class Year:	MS1 and MS2
Course Director:	Arman Kilic, M.D. Assistant Professor of Cardiothoracic Surgery
Contact Information:	Arman Kilic, M.D. Assistant Professor of Cardiothoracic Surgery Director, Surgical Quality and Analytics for Cardiac Surgery Co-Director, Center for Cardiovascular Outcomes and Innovation University of Pittsburgh Medical Center 200 Lothrop Street Suite C-700 Pittsburgh, PA 15213 kilica2@upmc.edu 412-648-6314
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Description:
The aim of **How to Win at Research: A Guide to Presenting and Publishing More** is to provide a "how-to" guide on how to get started in clinical out-comes research. This course will be broadly applicable to any field of study. The mini-elective will include sessions on searching for a valid research question, creating a hypothesis, biostatistical methods, how to identify available data resources both nationally and institutionally, tips on how to present talks at meetings, how to successfully write abstracts and manuscripts, and how to efficiently and effectively utilize PubMed. The sessions will involve didactics as well interactive components including hands-on work.

Course Objectives:
1. To understand how to search for a valid research question and to generate a related hypothesis.
2. To be able to conduct basic biostatistical tests as it applies to clinical out-comes research.
3. To more effectively search for sources of data and to compile databases, including both national or multicenter datasets as well as institutional da-tasets.
4. To improve one's ability to deliver an effective talk at meetings.
5. To improve writing quality for abstracts and for manuscripts.

Requirements:
Attend all sessions

Pre-Requisites:
None

COURSE OUTLINE

How to Win at Research: A Guide to Presenting and Publishing More
Mondays 1:00PM to 3:00PM
Location: Scaife Hall Rooms 460 A&B

Course Director(s):
Arman Kilic, M.D.
Assistant Professor of Cardiothoracic Surgery
Director, Surgical Quality and Analytics for Cardiac Surgery
Co-Director, Center for Cardiovascular Outcomes and Innovation
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Participating Faculty:
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Ibrahim Sultan, M.D.
Assistant Professor of Cardiothoracic Surgery
University of Pittsburgh Medical Center

Suresh Mulukutla, M.D.
Associate Professor of Medicine
Director, HVI Center for Outcomes and Innovation
University of Pittsburgh Medical Center

Cameron Dezfulian, M.D.
Associate Professor of Adult and Pediatric Critical Care Medicine
Associate Profeessor of Clinical and Translational Sciences
University of Pittsburgh Medical Center

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1) To understand how to search for a valid research question and to generate a related hypothesis.
2) To be able to conduct basic biostatistical tests as it applies to clinical outcomes research.
3) To more effectively search for sources of data and to compile databases, including both national or multicenter datasets as well as institutional datasets.
4) To improve one's ability to deliver an effective talk at meetings.
5) To improve writing quality for abstracts and for manuscripts.
6) To efficiently and effectively search through PubMed.

Texts: None

SESSION I: January 13, 2020
<u>Asking the right research question, creating a hypothesis, and improving one's ability to give a talk and write a paper.</u>
Faculty: Arman Kilic, M.D.
This session will focus on how to effectively read through literature and ask the right research questions. It will also provide advice on how to effectively deliver a scientific talk, including specific tips on building powerpoint presentations. The session will conclude with a focus on improving one's ability to write abstracts and manuscripts. General templates for writing will be discussed as will strategy on where to submit abstracts and manuscripts.

SESSION II: February 3, 2020
Intro to biostatistical methods
Faculty: Suresh Mulukutla, M.D.
The second session will be a broad introduction to biostatistics as it applies to outcomes research. For instance, students will learn about t-test, chi-square test, logistic regression modeling, Cox regression analysis, and Kaplan-Meier analysis using real world examples. There will also be an introduction to different statistical software and how to access it as a student.

SESSION III: February 10, 2020
Efficient and effective use of PubMed
Faculty: Cameron Dezfulian, M.D.
This session will provide advice on how to efficiently and effectively search through PubMed to perform an adequate literature search.

SESSION IV: February 24, 2020
How to find and utilize the right databases
Faculty: Ibrahim Sultan, M.D.
This session will focus on introducing students to a multitude of potential data sources for clinical studies. This will include national data registries as well as institutional. There will also be insight in how to utilize these databases efficiently and to compile easy to use data sets for analysis.