

In memoriam



Flight Tracker Consortium Meeting

April 5, 2023



www.edgeforscholars.org

 @EdgeForScholars

https://redcap.link/flight_tracker

Meeting Agenda



Current Version:
v5.4.0

What's New?

Updates for NIH Training Tables 2-4
Search for Pubs from Multiple Grants

Deep Dive: Using Cohorts to Gain Insights

What's Next?

Enhancements to Promote Scholar Successes

Office Hours with Rebecca & Scott



What's New?

NIH Training Tables 2-4



For May’s reporting schedule, we worked through a thorough “stress test” with a Vanderbilt T32

Participating Faculty Members

Name	Degree(s)	Rank	Primary Department or Program	Training Role	Research Interest	Pre-doctorates In Training	Pre-doctorates Graduated	Predocotorates Continued in Research or Related Careers	Post-doctorates In Training	Post-doctorates Completed Training	Postdoctorates Continued in Research or Related Careers
Julie Bastarache julie.bastarache@vumc.org	MD	Associate Professor	Medicine/ Allergy Pulmonary & Critical Care	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Research Support of Participating Faculty Members

Faculty Member	Funding Source	Grant Number	Role on Project	Grant Title	Project Period	Current Year Direct Costs
Julie Bastarache julie.bastarache@vumc.org	NIH	R21GM144915	PI	The Sepsis ClinicAI Resource And Biorepository (SCARAB) Project	01/2022 - 12/2023	\$151,076
Julie Bastarache julie.bastarache@vumc.org	NIH	R35HL150783	PI	Applying Innovative Lung Mapping Strategies to Understand Alveolar Capillary Barrier Permeability in ARDS	06/2020 - 05/2027	\$417,572
Julie Bastarache julie.bastarache@vumc.org	NIH	RF1AG075341	Co-PI	Neuroinflammatory mechanisms underlying sepsis-induced cognitive dysfunction	09/2022 - 08/2025	Not Available

Is every entry on the above tables correct?

(If you answer No, you will be given a chance to correct or add individual entries.)

Yes
 No

Many smaller bug fixes

- *Saving data for other projects*
- *Communicating data back from scholars/delegates*

NIH Training Tables 2-4



Added a way to add data & rows to Table 4

Create a Custom Grant & add a row to Table 4

Depot (PPHNet-BOLD)	10/2017 - 09/2022	\$114,583
in pulmonary arterial hypertension	01/2018 - 12/2022	\$487,180
GENETIC DETERMINANTS OF UTERINE FIBROIDS	09/2017 - 06/2022	Not Available
INE AFTER CARDIAC SURGERY IN CHILDREN	08/2016 - 05/2021	Not Available
		\$487,904

Add Row Save Table

Add a New Grant for Table 4 & Flight Tracker

Faculty Member ---SELECT---

Grant Title

Grant Number or Funding Mechanism or Funding Mechanism (e.g., 1R01HL1234...) The grant number is needed for Grant Reporting

Grant Type ---SELECT---

Sponsoring Organization (e.g., NIH, CDC, VA)

Recipient Organization (e.g., Vanderbilt)

Role on Grant ---SELECT---

Start Date of Funding

End Date of Funding

Direct costs for this grant A whole number without a dollar sign and without commas

Add Row Cancel



Publication List (Grants)



- Publication List can be configured in different ways
- “Filter by Grants Cited” – new language

Customize

Turn on Altmetrics

Sourced from the Web, altmetrics can tell you a lot about how often journal articles and other scholarly outputs like datasets are discussed and used around the world.

Show Pubs During Training

Additional Days After Training:

Re-Configure

Filter for Timespan

Start Date:

End Date:

Filter for Author Position

First Author Middle Author Last Author

Re-Configure

Cohort:

Currently showing all pubs

Limit Pubs to After 2014

PubMed's match-quality increased after 2014

Filter by Grants Cited

Pubs View Wrangle S

Publication List

- Brag: Publications Widget
- Social Network of Co-Authorship
- Word Clouds of Publications
- Publication Impact Measures
- Search Publications
- Public Access Compliance



Publication List (Grants)



- Old way: Select one
- New way: Multi-select → can select more than one grant

Pubs Associated With a Grant

Hold down Shift or Control to select multiple:

- ALL---
- UL1TR000445 (2844 name-citation pairings)
- UL1RR024975 (1558 name-citation pairings)
- P30CA068485 (1115 name-citation pairings)

Re-Configure



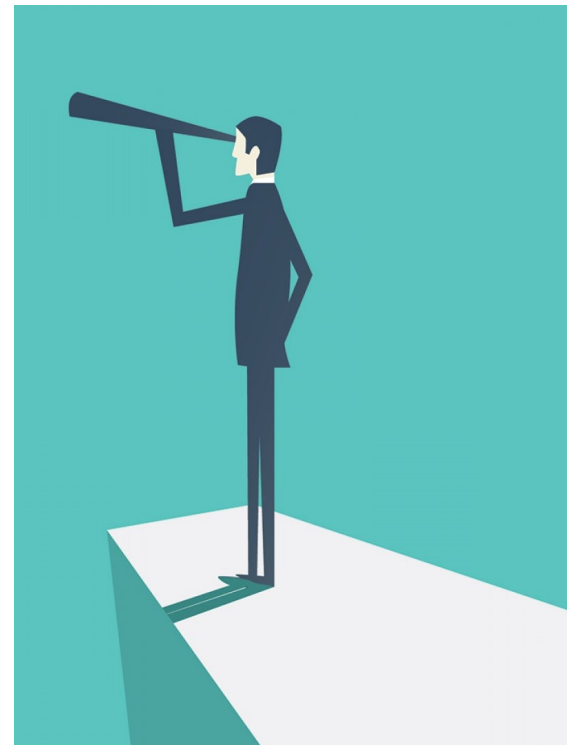
Deep Dive

Using Cohorts to Gain Insights

Overview



- Definition
- Setup
- Applications
 - Cohort Projects
 - Data Analysis
- Use Cases
 - Grants
 - Departments
 - Social Silos
 - Under-Represented Groups



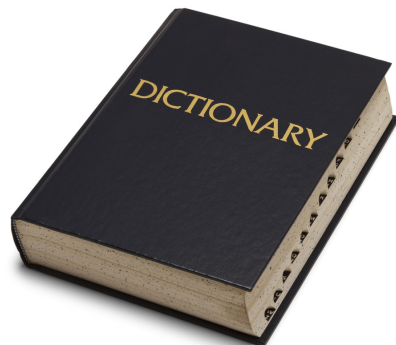
Definition



Cohort = Filter = Sub-Group

Flight Tracker Definition:

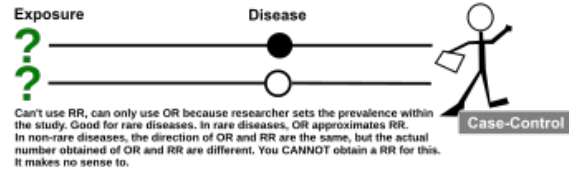
A group of scholars, filtered from the whole, whose outcomes are particularly important or necessary to track



Inspiration: Observational Studies



Observational Study Designs: Case Control vs Cohort

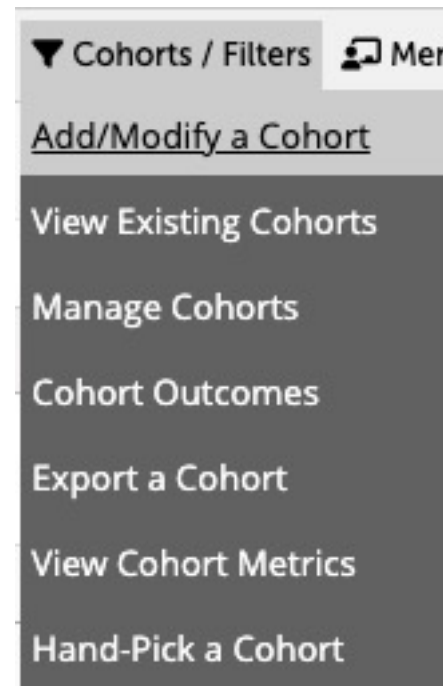


KEY	
	Investigator/Researcher begins their research. When the researcher enters the scene
	Present
	Absent
	What we are seeking; the information we are trying to obtain; what we do not know; our question

Cohorts / Filters Menu



- Entire Flight Tracker menu devoted to topic
- Highlights:
 - Add/Modify a Cohort
 - Manage Cohorts
 - Hand-Pick a Cohort
- Also on each outcomes page



Making a Cohort



- Add/Modify a Cohort (wide page)

Add a Cohort

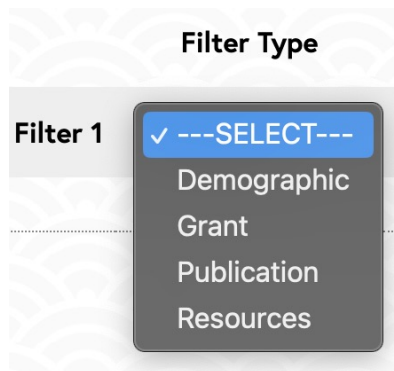
This page is complex. [Click here to show help.](#)

Title:

Precedence Rules: XOR > AND > OR

Filter Type	Variable	Value
Filter 1		

Making a Cohort: Menu Options



- Can mix options with Boolean logic (more later...)
- Choosing a Type will provide a list of possible variables
- Choosing a Variable will provide a way to filter through the various values

Making a Cohort: Demographics



Variable

- ✓ ---SELECT---
- Gender
- Race/Ethnicity
- Primary Department
- Current Academic Division
- Date of Birth
- Academic Degrees
- Citizenship
- Under-Represented Minority Status
- Disability Status
- Disadvantaged Status
- Start of Training Program
- End of Training Program
- Did Not Complete Program
- Recorded Tenure Status
- Current Academic Rank
- Employment Status
- Email Domain

Pearls:

- Highlights: URM status, disability, disadvantaged
- Obviously, you have to have the data to make this work; can get by pre-made REDCap surveys
- Email Domain is deceptively powerful to screen for those at your institution



Making a Cohort: Grant



Variable

✓ ---SELECT---

Award Type

Conversion Status

First Award Type

First Award Sponsor Number

Any Award Sponsor Number

Activity Code

Start of First Training Grant

End of Last Training Grant

First Any K

Last Any K

First R01 or Equivalent

Pearls:

- Based on career-defining awards
- Activity Code – great for searching for who has received a grant in the past to help someone with a grant proposal
- Can create a cohort for each K12 or other type of training grant (more on this later...)



Making a Cohort: Publication



Variable

✓ ---SELECT---

Publication Category

Number of Research Articles

Number of Research Articles from Date

Scholars with Relative Citation Ratio

Scholars with Publication Type

Scholars with MESH Term

- Less powerful
- Can identify those who publish on a topic or a certain type of article (for mentoring)
- Also, can identify prolific scholars

Making a Cohort: Resources



Variable

✓ ---SELECT---

- Shut up and Write
- Grant Pacing Workshop
- Edge Reviews
- Manuscript Sprint
- EFS Online Grant-Writing Workshop Studio
- Community Engage Studio
- Pathways Studio
- Pilot Funding
- Grants Repository - Accessed
- Grants Repository - Shared
- Edge Seminars (Monthly)
- Monthly Newman Series

- This list is generated from the list of resources you configure (in General → Configure Application)
- If you keep track of who uses what institutional resources, you can track metrics on that resource's benefit

Making a Cohort: Boolean Logic



- Can combine multiple filters through AND, OR, or XOR (exclusive or)
- XOR = one or the other, but not both
- Precedence = order of evaluation: first XORs then ANDs then ORs
- E.g., Degree = MD –AND- gender = female
➔ all MDs who identify as women

Title:

Precedence Rules: XOR > AND > OR



Hand-Picking a Cohort



- Cohorts menu → Hand-Pick a Cohort
- Two scenarios:
 - Don't have time/interest to figure out characteristics
 - Only interested in a list & the list does not change over time
- Check off individual names



Hand-Pick a Cohort

Cohort Name:

- 1: Khaled A Abdel-Kader
- 2: Ty W Abel
- 3: Robert L Abraham
- 365: Aaron W Aday
- 513: Fatemeh Adelnia
- 456: Rajiv Agarwal
- 493: Vineet Agrawal
- 335: Aimalohi A Ahonkhai

Using Cohorts



So... what can they do?

Cohorts to Analyze Data



On each outcomes page, there is a menu with your cohorts.

1. Select a cohort.
2. Perhaps click a button to reconfigure the page (perhaps not)
3. *Voila!* Your data results are only for that cohort.
4. (Select ---ALL--- again to view for entire group)

Cohort:

Cohort Projects: Setup



- Email your REDCap admin & ask for a “REDCap supertoken”
 - This is available for them in REDCap’s Control Center on the API Tokens page
 - It’s a 64-character token that allows someone to create a project automatically
 - Should be kept very, very secure (do not email in an unencrypted email)
 - Feel free to email me at scott.j.pearson@vumc.org if you need support for your request
- General menu → Configure Application: Put in supertoken & save settings



Cohort Projects: Setup



- Cohorts menu → Manage a Cohort
- When supertoken added, click Create Project button
 - Creates a read-only project with data **just for scholars in that cohort**
 - Updated once a week
- “Project Enabled” will appear for existing projects

Manage Cohorts

	Cohort Size	Delete	Rename	Make Cohort Project
Nephrology	24 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131402)
Allergy, Pulm, and Critical Care	19 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131403)
Cardiovascular Medicine	16 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131404)
Clinical Pharmacology	17 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131406)
Diabetes, Endo, and Metabolism	8 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131407)
Epidemiology	6 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131408)
Gastroenterology	3 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131409)
General Internal Medicine	11 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131410)
General Pediatrics	1 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131411)
Hematology/Oncology	3 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131412)
Infectious Disease	16 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131413)
Rheumatology and Immunology	9 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	Project Enabled (PID 131415)
URMs	7 Scholars	<input type="checkbox"/>	<input type="button" value="Rename"/>	<input type="button" value="Create Project"/>

Cohort Projects: Advantages



- One big project manages the data with the FT Expert
- The FT Expert gets to see all the data **and handles data wrangling**
- Smaller projects only have smaller groups
- Only smaller groups can access each project, like:
 - A team managing an individual training grant
 - A team managing a division or department (e.g., in the Department of Medicine or in the College of Basic Sciences)
- The small group does not need to wrangle data



Using Cohort Projects: Grants



- Vanderbilt Newman Society – all recipients of a K-class grant (internally or externally)
- Data since ~2000; over 500 scholars
- Rebecca Helton wrangles data each month
- Scholars on K12 grants are included with K recipients
- Cohort project set up for each K12 grant
 - Each group only sees their data (read-only) & cannot mess with others
 - Each group can use all Flight Tracker features
 - Each group does not need to wrangle

Flight Tracker - V-SCHoLARS
Flight Tracker - VCORCDP
Flight Tracker - VFERS
Flight Tracker - V-STTaR
Flight Tracker - VEMRT
Flight Tracker - BIRCWH
Flight Tracker - Peds K12
Flight Tracker - Medicine
Flight Tracker - LHSS K12

Cohort Projects: Departments



- Vanderbilt Department of Medicine (DOM) has multiple divisions, each with its own chief/chiefs
- DOM centrally manages all researchers in one Flight Tracker
 - DOM can monitor everything, including wrangling
 - Each division can see only their data (read-only)
- Only 1-2 people need to be FT Experts; rest can just access results

Flight Tracker - Nephrology

Flight Tracker - Allergy, Pulm, and Critical Care

Flight Tracker - Cardiovascular Medicine

Flight Tracker - Clinical Pharmacology

Flight Tracker - Diabetes, Endo, and Metabolism

Flight Tracker - Epidemiology

Flight Tracker - Gastroenterology

Flight Tracker - General Internal Medicine

Flight Tracker - General Pediatrics

Flight Tracker - Hematology/Oncology

Flight Tracker - Infectious Disease

Flight Tracker - Rheumatology and Immunology

Using Cohorts: Social Silos



Explicit goal of NIH's CTSA program:

“Breaking down the silos of academia, both within institutions and between institutions, may prove to be a major step towards improving the health of the general population. ... While asking for deliverables may change the way we do science, the move towards increased cooperation will only benefit science and the general public.” – Alexander A. Con (DOI: 10.1080/15265160802109389)



Using Cohorts: Social Silos



- MD vs. PhD vs. MD + PhD vs. MD + Other
- Gender Identity: Women vs. Men
- Basic vs. Clinical Sciences (departments)
- Internal vs. Outside Funding
- *Etc.*



Using Cohorts: Social Silos



Action Item:

1. What silos exist at your institution?
2. Can you make a SMART goal (measurable by a metric through cohorts) to improve?



Under-Represented Groups



- Equity in outcomes is an explicit goal of the NIH:
One's demographics should not determine one's professional success!
- Race, ethnicity, disability status, disadvantaged status, gender
- **You can't get there without measuring it!**
- Explicitly addressing in grant proposals/renewals gives you a leg up
- Can be quickly measured in Cohorts (& FT's Demographic Table)

Summing Up

- Modern career development needs to be sliced & diced in many ways
- Cohorts/filters/sub-groups focus on niche (or not-so-niche) groups
- SMART Goals: Measurements drive success & improvements
- Grants often demand accountability through data; mention Flight Tracker in proposals & renewals
- Flight Tracker offers one, hopefully easy way to gather data



Future Deep Dive Topics



- May – Designing/Managing Multiple Flight Trackers
- June – Outcomes: “Where are they now?”
Best Practices for Tracking after Graduation (Rebecca Helton)





What's Next?

Publicity Integrations



- Identify ***new*** grants, publications & patents to brag about
- Compile in an automated email report
- Intended for social media announcements
- Helpful for bragging points & trainee morale



Troubleshooting Call



Monthly Troubleshooting Call (optional)

Third Wednesday at 1pm Central Time
April 19, 2023

Driven by Your Questions & Problems
All are welcome!

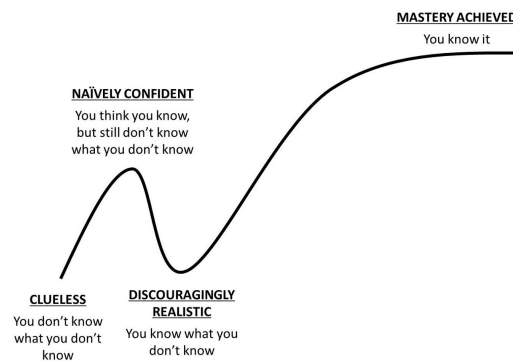
Ask to join our email list in the chat for an invitation...



Newbie Call



Just getting started with Flight Tracker?



There's a definite learning curve.
Move up more quickly by joining
April's "newbie" call.

Tuesday, April 11, at 12.30pm Central Time
(Friday, May 12, 11.30am Central Time)

Leave your email in the chat to receive an invitation

Office Hours with Rebecca & Scott



Office hours



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