

Flight Tracker Consortium Meeting

February 1, 2023



www.edgeforscholars.org

 @EdgeForScholars

https://redcap.link/flight_tracker

Meeting Agenda



What's New?

Filtering Publications on Charts
Scholar Inactivity Report
Updated Grant Wrangler

Current Version:
v5.0.1

Deep Dive: Start to Finish on Grants

What's Next?

NIH Training Table 1 Support
Documentation Update

Office Hours with Rebecca & Scott



What's New?

Filtering Publication Word Clouds



Cohort:

Field:

Start Date (optional):

End Date (optional):

MeSH Terms & ERIC Subjects:
(Select multiple; selecting none means all are selected)

Author Placement:

- First Author
- Middle Author
- Last Author

Humans (14,189)
Female (8,770)
Male (8,272)
Middle Aged (5,302)
Aged (5,219)
Adult (4,810)

[clear](#)

Make Word Cloud

Currently showing all pubs
Limit Pubs to After 2014

PubMed's match-quality increased after 2014

Filtering Publication Word Clouds



Filter by authorship position

- Author Placement:
 - First Author
 - Middle Author
 - Last Author

The screenshot shows the filtering interface for 'FLIGHT TRACKER for scholars'. It includes several input fields and a list of MeSH terms. At the top right, there are optional date filters: 'Start Date (optional): mm/dd/yyyy' and 'End Date (optional): mm/dd/yyyy', each with a calendar icon. Below these are two dropdown menus: 'Cohort: ---ALL---' and 'Field: ---SELECT---'. The central section is titled 'MeSH Terms & ERIC Subjects: (Select multiple; selecting none means all are selected)'. It contains a scrollable list of terms with their counts: Humans (14,189), Female (8,770), Male (8,272), Middle Aged (5,302), Aged (5,219), and Adult (4,810). A 'clear' link is at the bottom right of the list. To the right of the list is a blue button labeled 'Make Word Cloud'. At the bottom, it says 'Currently showing all pubs' and has a blue button 'Limit Pubs to After 2014'. A note at the very bottom states 'PubMed's match-quality increased after 2014'.

Filtering Publication Word Clouds



Cohort: Field:

Start Date (optional): End Date (optional):

Author Placement:

- First Author
- Middle Author
- Last Author

MeSH Terms & ERIC Subjects:
(Select multiple; selecting none means all are selected)

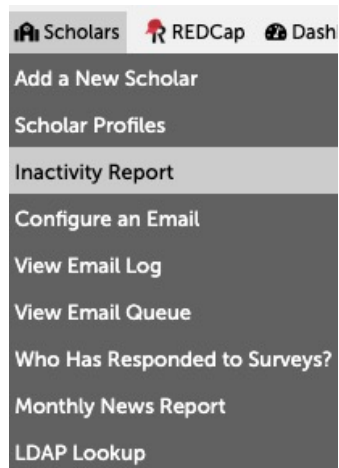
- Humans (14,189)
- Female (8,770)
- Male (8,272)
- Middle Aged (5,302)
- Aged (5,219)
- Adult (4,810)

Currently showing all pubs

PubMed's match-quality increased after 2014

Filter by topic of publication to focus on one issue

Scholar Inactivity Report



- Idea: Check for scholars without any new data in X number of months
 - If inactive:
 - **Retired?**
 - **Change institutions?**
 - **Change in job status?**
- Search Internet & possibly add Position Change Form

Scholar Inactivity Report



Scholars Inactive After a Certain Date

If a scholar is inactive for a period of time, you may want to check that she/he has not changed institutions. Of course, inactivity could be due to a number of other causes, like retirement or a change in job focus. Inactivity for both grants and publications is considered, but publication data must be wrangled in order to yield accurate results. Scholars without any confirmed publications are excluded from this list. Please fill out a Position Change form in REDCap if you find out they have made a career change.

Number of Months:



(Not quick for larger projects)

Scholar Inactivity Report



Scholars Inactive After January 30, 2020

If a scholar is inactive for a period of time, you may want to check that she/he has not changed institutions. Of course, inactivity could be due to a number of other causes, like retirement or a change in job focus. Inactivity for both grants and publications is considered, but publication data must be wrangled in order to yield accurate results. Scholars without any confirmed publications are excluded from this list. Please fill out a Position Change form in REDCap if you find out they have made a career change.

Number of Months:

[Make Report](#)

- [Record 57: Chao Li](#) - last active on 11-01-2019
- [Record 2: Michelle Lynn Baglia](#) - last active on 07-01-2019
- [Record 11: Mi Ryung Han](#) - last active on 05-01-2019
- [Record 22: Sudeshna Mukherjee](#) - last active on 03-01-2019
- [Record 15: Webster Kasongo](#) - last active on 03-01-2013
- [Record 14: Anne Wangui Kaiga](#) - last active on 04-01-2012

Updated Grant Wrangler



- Version 5 released earlier this week
- The big new feature is an easier and spiffier Grant Wrangler
- Able to include or exclude certain grants

(More on this coming next...)





Deep Dive

Start to Finish on Grants

Downloading Grants



- Can turn on or off on Flight Tracker Home page
- On by default
- Included data sources:
 - NIH RePORTER – all health-related grants
 - NSF Grants – NSF & defense (DOD)
 - Dept. of Education (IES)
 - (Now retired) Federal RePORTER



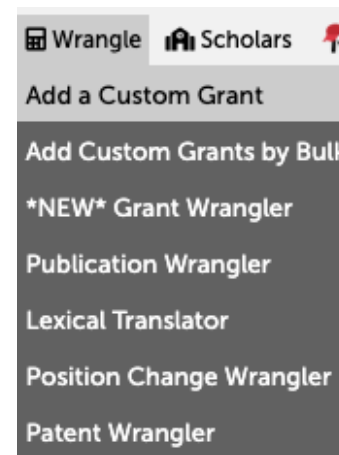
- Like publications, match by name and institution
 - “Explode” names for all combinations (nicknames & maiden names)
 - Institutions = “home” institutions + institutions for record (Position Change)
 - Picky – names and institutions must be exact

Manually Adding New Grants



Common Question: What about non-federal grants?

- *E.g.*, Doris Duke Charitable Fellowship, American Cancer Society, American Heart Association, institutional grants
- **Custom Grant** form in REDCap
- Can also add in bulk (via CSV spreadsheet)
 - Template available on page



Manually Adding New Grants



- Custom Grant contains all grant information
- Can track costs
- Can track grant submissions, too

Editing existing Record Id 1. (Instance #1) Elvis Akwo

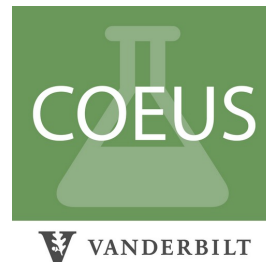
Record Id	1
The Custom Grants form tracks grant awards (e.g., for PIs or Co-PIs) or appointments to a grant (e.g., for trainees).	
Grant Title	<input type="text"/>
Grant Number or Funding Mechanism or Funding Mechanism (e.g., 1R01HL1234...)	<input type="text"/> <small>The grant number is needed for Grant Reporting</small>
Grant Type	<input type="text"/> <small>* must provide value</small>
Are you tracking this grant as a submission?	<input type="radio"/> Yes <input type="radio"/> No <small>reset</small>
Sponsoring Organization (e.g., NIH, CDC, VA, Foundation Group Name)	<input type="text"/>
Recipient Organization (e.g., Vanderbilt)	<input type="text"/>
Role on Grant	<input type="text"/>
Start Date of Funding	<input type="text"/> <input type="text"/> Today M-D-Y <small>* must provide value</small>
End Date of Funding	<input type="text"/> <input type="text"/> Today M-D-Y
Direct costs from start date to end date	<input type="text"/> <small>A whole number without a dollar sign and without commas</small>
Total costs from start date to end date	<input type="text"/> <small>A whole number without a dollar sign and without commas</small>
Last Updated	<input type="text"/> <input type="text"/> Today Y-M-D
Form Status	
Complete?	<input type="text"/> Incomplete?

Manually Adding New Grants



- Want to automate and have some extra money?
- I have a guide to coach a PHP developer how to do this for your institution
- Estimate: 40 hours of targeted development work

We (Vanderbilt) hook it up to COEUS, our grants-management system, and it's **a lot** easier



Computing Grants: Issues



- How to filter out the noise?
 - Duplicates from multiple data sources
 - Details on REDCap form
- How to compare awards from different sponsors?
- How to construct a timeline for a scholar?
- How to construct a career trajectory for a scholar?



Computing Grants: Summary



- At least once a week, Flight Tracker reconstructs all career trajectories



Fetch Data Now for this Scholar: Summary Publications Grants Patents
Restart from Scratch for this Scholar: Publications Grants Patents

- Can also update just one record's Summary
- Stored on Summary form in REDCap
- Contains demographics & up-to-15 most recent career-defining awards (= **CDA**)



Grant Categories/Bins/Types



- Internal K – from your institution; not K12/KL2
- K12/KL2
- Individual K – from NIH
- K Equivalent – external, but not NIH
- R01
- R01 Equivalent – 3+ years, > \$250k per year
- K99/R00
- Training Grant
- Research Fellowship
- Mentoring / Training Grant Admin



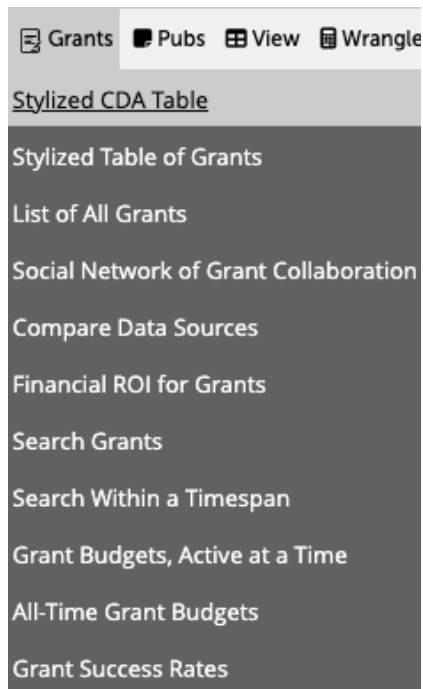
Grant Categories/Bins/Types



- Automatically placed into a category by computer's algorithm
- Smaller grants are filtered out
- Can view K→R conversions more easily
(General menu → K2R Conversion Calculator)
- Individual K→R conversion status also on Summary form



Viewing Grants



- Lots of ways to look at grants in Grants menu
- Not as many eye-popping visuals as publications
- We're going to focus on first two "stylized" tables
 - Same graphical paradigm, but different data

Stylized CDA Table



- CDA = Career-Defining Awards (from Summary form)
- More applicable to K-class scholars/post-docs (not pre-docs)
- Can see K → R conversion *en masse*

View Record 1 View Profile Khaled Abdel-Kader Years of Awards: [2011 - 2023] Birth: 1976 First External K: 08-01-2011 First R: 09-07-2017 Show Timeline 3 grants	Individual K 08-01-2011 nih_reporter K23 (\$861,435) See Grant K23DK090304	6.1 years b/w starts	R01 09-07-2017 custom R01 (\$2,000,000) See Grant 1R010923784978	0.9 years b/w starts	R01 08-01-2018 nih_reporter R01 (\$3,210,437) See Grant R01DK116957
View Record 2 View Profile Ty Abel Years of Awards: [2006 - 2013] Birth: 1963 First External K: 09-30-2008 First R: N/A Show Timeline 2 grants	Internal K 07-01-2006 data Neither PI nor Co-PI See Grant VPSD	2.3 years b/w starts	Individual K 09-30-2008 nih_reporter K08 (\$838,243) See Grant K08NS062107		
View Record 3 View Profile Robert Abraham Year of Award: [2010] Birth: 1963 First External K: N/A Show Timeline 1 grants	Internal K 07-01-2010 data Neither PI nor Co-PI See Grant VPSD				
View Record 4 View Profile Melinda Aldrich Years of Awards: [2011 - 2023] Birth: 1970 First External K: 07-01-2013 First R: 04-05-2021 Show Timeline 4 grants	Internal K 07-01-2011 data Neither PI nor Co-PI See Grant VCTRS	0 years b/w starts	K12/KL2 07-01-2011 custom See Grant VCTRS KL2	2 years b/w starts	Individual K 07-01-2013 nih_reporter K07 (\$800,615) See Grant K07CA172294
				7.8 years b/w starts	R01 04-05-2021 nih_reporter R01 (\$1,236,611) See Grant R01CA251758

Stylized Table of Grants



- Good for looking for everything – pre-docs or details on post-docs
- Shows fellowships and other awards
- Slower for computer

View Record 3 View Profile Jordan Bley Year of Award: [2015] Birth: 1992 First External K: N/A 1 grants	Generic Award 08-12-2015 reporter R21 (\$232,500) See Grant R21DK106584	
View Record 4 View Profile Hung-Hsin Chen Years of Awards: [2009 - 2016] Birth: 1988 First External K: 04-15-2009 First R: N/A 2 grants	Individual K 04-15-2009 reporter K08 (\$880,740) See Grant K08NS061039	Generic Award 06-01-2015 reporter F32 (\$54,194) See Grant F32CA196008
View Record 5 View Profile Meghan Corriere Birth: 1995 First External K: N/A 0 grants		
View Record 6 View Profile Stephen Deppen Year of Award: [2020] Birth: 1966 First External K: N/A 1 grants	Generic Award 08-16-2020 nih_reporter U01 (\$1,022,540) See Grant U01CA152662	

Correcting Automation



- A lot of automation at play here
- But code can be wrong at times
- “How can I correct the computer if it’s wrong?”
 - Grant Wrangler



NEW Grant Wrangler



Home General Grants Pubs View Wrangle Scholars REDCap Dashboards Cohorts / Filters Mentors Resources Help

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

Grant Wrangler
Abdel-Kader, Khaled

To update an award, simply 'drag' the award to the appropriate column ('Auto-Processed Awards' or 'Adjusted / Preferred Awards') once you've reviewed or updated the award.

turn flags on Choose Record: ---- select a scholar ---- OR Enter Last Name:
Comma-Separated Exclude List:
update list view next record

New Grants Only Add New Grant REDCap Summary Refresh Page

Career-Defining Awards

Calculated on January 31, 2023, 10:02 am

K23DK090304 (Individual K)	1R010923784978 (R01)	R01DK116957 (R01)									
2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023

These awards will be given normal weight when the computer automatically figures out career-defining awards.

Adjusted / Preferred awards will be adapted next time the computer automatically figures out career-defining awards.

Auto-Processed Awards (15)

Role: PI	Khaled A Abdel-Kader	Last Updated:	04-05-2021
Effort: ---			
K23DK090304-05			
PROJECT		BUDGET	
START	END	START	END

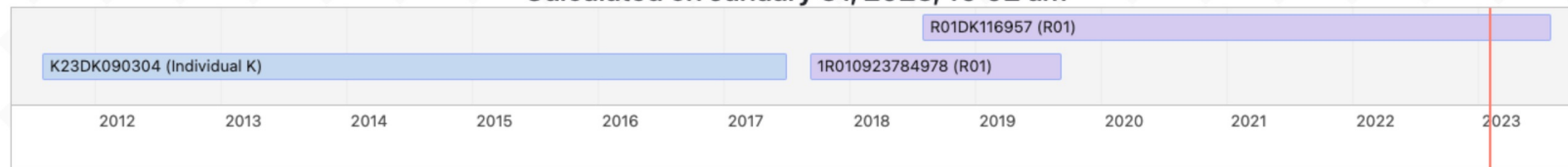
Adjusted / Preferred Awards (1)

Role: PI	Khaled A Abdel-Kader	Last Updated:	04-05-2021
Effort: ---			
K23DK090304-06			
PROJECT		BUDGET	
START	END	START	END

NEW Grant Wrangler



Career-Defining Awards
Calculated on January 31, 2023, 10:02 am



- Timeline of major awards (CDAs)
- Recalculated after each edit
- Check timestamp for recency date

NEW Grant Wrangler



- Left column – all awards; automatically processed
- Right column – any awards with changes or awards to be preferred in calculations (because of duplicates)
- Can drag-n-drop between the columns
- Drag-n-drop refreshes timeline

These awards will be given normal weight when the computer automatically figures out career-defining awards.

Auto-Processed Awards (15)

Role: PI Khaled A Abdel-Kader Last Updated: 04-05-2021
Effort: --- 04-05-2021

K23DK090304-05

PROJECT		BUDGET	
START	END	START	END
08-01-2011	04-29-2016	08-01-2015	04-29-2016

Budget (Total): \$37,402 Budget (Direct): ---

Sponsor
National Institute of Diabetes and Digestive and Kidney Diseases

Sponsor Award # 5K23DK090304-05 Finance Type Training

Application Type Non-competing Continuation [View REDCap](#) Instrument: nih reporter

Base Award # K23DK090304 NIH Mechanism K23

Funding Source --- REDCap Type Individual K

[drag right to prefer]

not their grant

Role: PI Khaled A Abdel-Kader Last Updated: 04-05-2021
Effort: --- 04-05-2021

K23DK090304-04

PROJECT		BUDGET	
START	END	START	END

Adjusted / Preferred awards will be adapted next time the computer automatically figures out career-defining awards.

Adjusted / Preferred Awards (1)

Role: PI Khaled A Abdel-Kader Last Updated: 04-05-2021
Effort: --- 04-05-2021

K23DK090304-06

PROJECT		BUDGET	
START	END	START	END
08-01-2011	06-30-2017	04-30-2016	06-30-2017

Budget (Total): \$134,885 Budget (Direct): ---

Sponsor
National Institute of Diabetes and Digestive and Kidney Diseases

Sponsor Award # 6K23DK090304-06 Finance Type Training

Application Type Change of Organization Status (Successor-In-Interest) [View REDCap](#) Instrument: nih reporter

Base Award # K23DK090304 NIH Mechanism K23

Funding Source --- REDCap Type Individual K

[drag left to backtrack]

not their grant

NEW Grant Wrangler



- Exclude list – names that are false-positives
- Can view more information
- “New Grants Only”
 - A way to view only grants downloaded in last 60 days
 - Quickly look for changes and updates

A screenshot of the Grant Wrangler web interface. At the top left, there is a blue button labeled 'turn flags on'. To its right is a 'Choose Record:' section with a dropdown menu showing '---- select a scholar ----'. Further right is an 'Enter Last Name:' text input field. Below these is a 'Comma-Separated Exclude List:' section with a text input field and a blue 'update list' button. To the right of the 'Enter Last Name:' field is a blue 'view next record' button. At the bottom of the interface, there are four blue links: 'New Grants Only', 'Add New Grant', 'REDCap Summary', and 'Refresh Page'.

Differences from Pub Wrangler



- Grants are fewer than publications
 - Grants are “opt out” instead of “opt in” (pubs)
 - New grants are automatically included before edits (unlike publications)
 - Make edits “mid-stream”
- Looking for “New Grants Only” can make the process quick
- Most of the time, no errors and algorithm is correct; thus, most of the time, no changes needed



Oops! Wrong Match!



- E.g., Jo Ellen Wilson and John Wilson
- Click “not their grant”
- Add name to Exclude List at top?

Role: PI Khaled A Abdel-Kader Last Updated: 04-05-2021
Effort: ---

K23DK090304-06

PROJECT		BUDGET	
START	END	START	END
08-01-2011	06-30-2017	04-30-2016	06-30-2017

Budget (Total): \$134,885 Budget (Direct): ---

Sponsor
National Institute of Diabetes and Digestive and Kidney Diseases

Sponsor Award #
6K23DK090304-06

Finance Type
Training

Application Type
Change of Organization Status (Successor-In-Interest)

[View REDCap](#)

Instrument: nih reporter

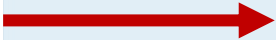
Base Award #
K23DK090304

NIH Mechanism
K23

Funding Source

REDCap Type
Individual K

[drag left to backtrack]

 **not their grant**

Editing Information



Role: PI Khaled A Abdel-Kader Last Updated: 04-05-2021
Effort: ---

K23DK090304-05

PROJECT		BUDGET	
START	END	START	END
08-01-2011	04-29-2016	08-01-2015	04-29-2016

Budget (Total): \$37,402 Budget (Direct): ---

Sponsor
National Institute of Diabetes and Digestive and Kidney Diseases

Sponsor Award # 5K23DK090304-05 Finance Type Training

Application Type Non-competing Continuation View REDCap Instrument: nih reporter

Base Award # K23DK090304 NIH Mechanism K23

Funding Source --- REDCap Type Individual K

[drag right to prefer]

not their grant

- Data sources are sometimes (but rarely) inaccurate
 - Can edit start/end dates for project and budget period
- Flight Tracker “binning” algorithm sometimes wrong
 - Can change REDCap Type

Flagging Special Cases



- **Edge Case:** Some research centers only want to view grants related to there are of interest (e.g., cancer, Alzheimer’s)
- This will require manual effort, but you can turn flags on at the top

Step 1: Turn Flags On

The interface for 'Step 1: Turn Flags On' includes a 'turn flags on' button, a 'Choose Record:' dropdown menu with the text '--- select a scholar ---', an 'OR' separator, and an 'Enter Last Name:' text input field. Below these is a 'Comma-Separated Exclude List:' text input field with an 'update list' button. A 'view next record' button is also present. At the bottom, there are links for 'New Grants Only', 'Add New Grant', 'REDCap Summary', and 'Refresh Page'.

Step 2: Flag Individual Grants

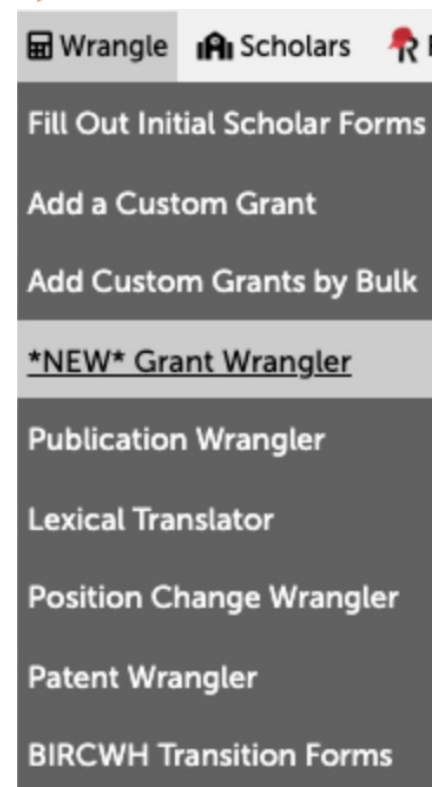
The screenshot shows a grant record for 'K23DK090304-05'. The record includes the role 'PI' for 'Khaled A Abdel-Kader', last updated on '04-05-2021', and an effort of '---'. A red arrow points to a flag icon next to the grant ID. Below the ID is a table with project and budget information.

PROJECT		BUDGET	
START	END	START	END
08-01-2011	04-29-2016	08-01-2015	04-29-2016

Budget (Total): \$37,402 Budget (Direct): ---
Sponsor: National Institute of Diabetes and Digestive and Kidney Diseases

Grants: Conclusion

- Getting any kind of award is a *big deal*
- K→R conversion likewise important
- Several ways to monitor (more than described here)
- Have been waiting on Grant Wrangler for a while
- Part of monthly review cycle; shouldn't take much time
- Hope: New Grant Wrangler will make handling grants more intuitive
- Flight Tracker version **5.0.0**



Poll



**What Flight Tracker topics
are you curious about?**

Potential Deep Dive Topics



- “I've got a training grant due next cycle. How do I minimize the pain and stress?”
- “How can I report on my CTSA resources?”
- “How do I best design multiple Flight Trackers?”
- “How do I quickly wrangle publications?”
- “What are cohorts and what secrets can they share?”
- “How do I investigate $K \rightarrow R$ conversion?”
- ...Other (please share)





What's Next?

NIH Training Table 1 Support



- Current support for NIH Training Tables: 2, 3, 4, 5 & 8
- Last step: Table 1 for census of programs
- Relies on institutional collaboration for figures
- “Big project” for February

Cardiology T32

Search: euroscience

Date	Input By	Participating Department or Program	Population	Total Faculty	Participating Faculty	Total Trainees	Total Trainees Supported by any HHS Training Award	Total Trainees with Participating Faculty	Eligible Trainees with Participating Faculty	TGE Trainees Supported by this Training Grant (Renewals / Revisions)	Trainees Supported by this Training Grant (R90 Only Renewals / Revisions)
2022-12-29		Neuroscience	Postdoctorates	32 (4/5)	20 (4/5)	27 (4/5)	20 (3/5)	12 (3/5)	5 (4/5)	3 (4/5)	1 (4/5)
2022-12-26	Rebecca Helton	Neuroscience	Predoctorates	32 (2/5)	20 (3/5)	31 (4/5)	20 (5/5)	14 (3/5)	7 (4/5)	4 (4/5)	1 (3/5)

Showing 1 to 2 of 2 entries (filtered from 6 total entries)

NIH Training Table 1 Rows

AAA
[] []

Please complete the survey below.

Your answers will be shared with other training grant administrators across this institution. Thank you!

1) Name * must provide value

2) Email * must provide value

3) Participating Department or Program * must provide value

Postdocs and predocs must be entered separately so that they can be made into separate tables for Parts 1 & 2. Some grants only have one component, and only that row needs to be entered.

4) Population Predoctorates
 Postdoctorates
 Predoctorates = Part I; Postdoctorates = Part II [reset](#)

The **reliability index** is a subjective measure to specify roughly how confident you are in this result. A value of 1 denotes a low reliability; a value of 5 denotes high reliability. This index will allow consumers of your data to quickly ascertain whether they need to regenerate it or not.

5) Total Faculty **Reliability Index**
 (1 = low, 5 = high)
 1 2 3 4 5

Documentation Update



- Flight Tracker's in-app documentation is dated
- Will try to update in February
- Seek to provide more effective coaching
- **Question for you:**
Is there anything that confuses you?



Troubleshooting Call



Monthly Troubleshooting Call (optional)

Third Wednesday at 1pm Central Time
February 15, 2023

Driven by Your Questions & Problems
All are welcome!

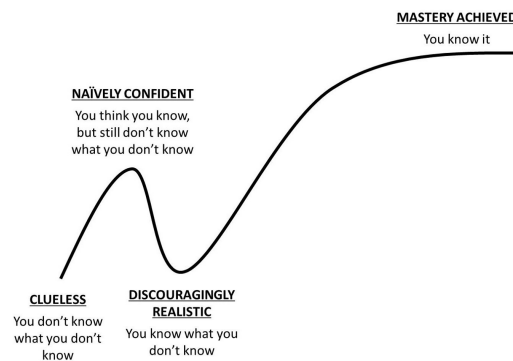
Ask to join our email list for an invitation...



Newbie Call



Just getting started with Flight Tracker?



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

Friday, February 17, at noon Central Time

[Thursday, March 16, at 2pm Central Time]

Leave your email in the chat to receive an invitation

Office Hours with Rebecca & Scott



Office hours



www.edgeforscholars.org

[@EdgeForScholars](https://twitter.com/EdgeForScholars)

https://redcap.link/flight_tracker