Flight Tracker Consortium Meeting

May 5, 2021

Meeting Agenda

**What's New? Flight Tracker Releases
Up to Version 3.0.0**

What's Next?

Office Hours with Rebecca & Scott

Flight Tracker Releases in April

What's New?

- v2.35.0: View all grants
- v3.0.0:
    1. New menus
    2. US Patent Office access
    3. Cohort Profiles

View All Grants

- As suggested in the last call, Flight Tracker needed a way to view all grants, not just major, career-developing grants

- These are helpful to those in the less competitive training spaces, for whom any kind of award, however small, is a major sign of success

- So re-purposed Stylized CDA Table to become **Stylized Table of All Grants** (under new Grants menu)

- May take longer to load than Stylized CDA Table because not pre-computed
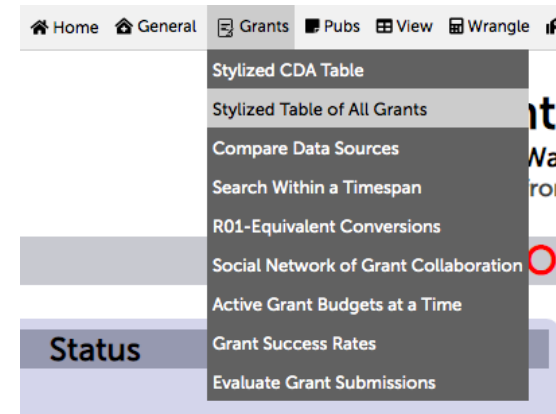
View All Grants

View Record 1
View Profile
Khaled Abdel-Kader

Years of Awards: [2009 - 2023]
Birth: '

First External K: 08-01-2011
First R: 09-07-2017

6 grants

Generic Award
12-01-2009
nih_reporter
F32
See Grant
F32DK084676

Individual K
08-01-2011
nih_reporter
K23
See Grant
K23DK090304

Generic Award
07-01-2015
coeus
($100,000)
Neither PI nor Co-PI
See Grant
No Title Assigned

Generic Award
07-01-2016
coeus2
($200,000)
See Grant
No Title Assigned

R01
09-07-2017
custom
R01
($2,000,000)
See Grant
1R010923784978

R01
08-01-2018
nih_reporter
R01
See Grant
R01DK116957

View Record 2
View Profile
Ty Abel

Years of Awards: [2008 - 2011]
Birth:

First External K: 09-30-2008
First R: N/A

2 grants

Individual K
09-30-2008
nih_reporter
K08
See Grant
K08NS062107

Generic Award
08-04-2010
coeus2
G20
($472,109)
Neither PI nor Co-PI
See Grant
G20RR029748

View Record 3
View Profile
Robert Abraham

Year of Award: [2011]
Birth:

First External K: N/A

Generic Award
12-01-2011
coeus2
R01
($1,909,563)
Neither PI nor Co-PI
See Grant

New Menus

- The View menu was getting too long and confusing.
- Therefore:
  - View menu was split into Grants, Pubs, and View
  - New icons were added
  - Fonts were made slightly smaller

US Patent Office: PatentsView

- www.patentsview.org; in new Patent form in REDCap

- Automatically downloaded after upgrade

- Matches on first/last name and institution

- Additional interfaces (similar to publications):
    - Patent Viewer (under View menu)
    - Patent Wrangler (under Wrangle menu)
    - Patent Counts (in Dashboard)

- Cost-benefit: Adds a little more time in wrangling
  → Accurate counts for federal reporting

Patent Wrangler

Patent Wrangler

Cohort Profiles

- Flight Tracker projects sizes vary

- Some of the larger projects manage smaller sub-units, like departments or divisions

- Examples:
  - At Vanderbilt, our Newman Society manages a bunch of K12s
  - Also, our Medicine department has several divisions

- **Question**: Can we give (read-only) access to Flight Tracker data to those smaller units without making them start from scratch?

History

- For over a year, our Vanderbilt Newman Society Flight Tracker has been splitting access to smaller K12 projects → code and portals have been stress-tested some

- Data and graphs from these K12s have been or are being used in renewal applications → helpful and useful

- Because of specific requests (at Vanderbilt and in consortium), we are making these public to all Flight Trackers

Enabling Cohort Portals

- In REDCap, a **supertoken** enables you to be able to create projects from code.

- Because they aren't commonly used, your REDCap administrator may not remember what a supertoken is.
  - You can (kindly) remind her/him that supertokens can be granted in REDCap's Control Center under "API Tokens."
  - Supertokens are 64 characters long – unlike regular tokens, which are 32 characters long.

Enabling Cohort Portals

- Under the **General** menu → **Configure Application**, there is a blank for "supertoken"
- Paste the 64-character supertoken in this box.
- **Do not share your supertoken with anyone else as this would be a security breach!!!**
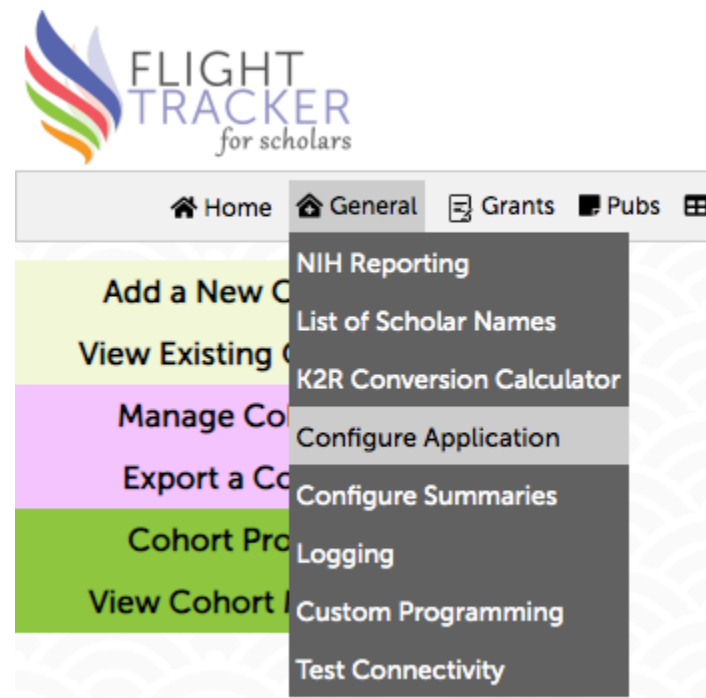
Enabling Cohort Portals

- Then under the **Cohorts/Filtering** menu, select **Add a New Cohort**

- Create a cohort to represent your group based on characteristics
    - Characteristics include grant information, department, division, resource use, URM status, and training periods
    - Multiple characteristics can be and-ed or or-ed together

- Cohorts are automatically updated whenever new data comes in.

- In other words, people are automatically added or removed from the cohort based on what characteristics you choose.

Adding a New Cohort

Enabling Cohort Portals

- Then under the **Cohorts/Filtering** menu, choose **Manage Cohorts**

- A new button will appear labeled "Create Project." Click on this button to create a Cohort Portal Project. (Here, the projects show up as "Enabled.")

- This project will automatically update once a week and be overwritten. (Therefore, the project is effectively **read-only**.)

Manage Cohorts

	Cohort Size	Delete	Rename	Make Cohort Project
Nephrology	10 Scholars	X	Rename	Project Enabled (PID 131402)
Allergy, Pulm, and Critical Care	8 Scholars	X	Rename	Project Enabled (PID 131403)
Cardiovascular Medicine	5 Scholars	X	Rename	Project Enabled (PID 131404)
Clinical Pharmacology	8 Scholars	X	Rename	Project Enabled (PID 131406)
Diabetes, Endo, and Metabolism	3 Scholars	X	Rename	Project Enabled (PID 131407)
Epidemiology	6 Scholars	X	Rename	Project Enabled (PID 131408)
Gastroenterology	3 Scholars	X	Rename	Project Enabled (PID 131409)
General Internal Medicine	4 Scholars	X	Rename	Project Enabled (PID 131410)
General Pediatrics	1 Scholars	X	Rename	Project Enabled (PID 131411)
Hematology/Oncology	3 Scholars	X	Rename	Project Enabled (PID 131412)
Infectious Disease	7 Scholars	X	Rename	Project Enabled (PID 131413)
Rheumatology and Immunology	5 Scholars	X	Rename	Project Enabled (PID 131415)

Cohort Portals: Advantage

- What's the advantage of a cohort portal? It's just a copy refreshed every week.

- **BUT** because it's a separate REDCap project, you can add new users via REDCap's User Rights setup. Thus, your users will only be able to see their own project and no one else.

- You will maintain the responsibility to wrangle all the data, but they will be able to see the results of your work (copied every week)!
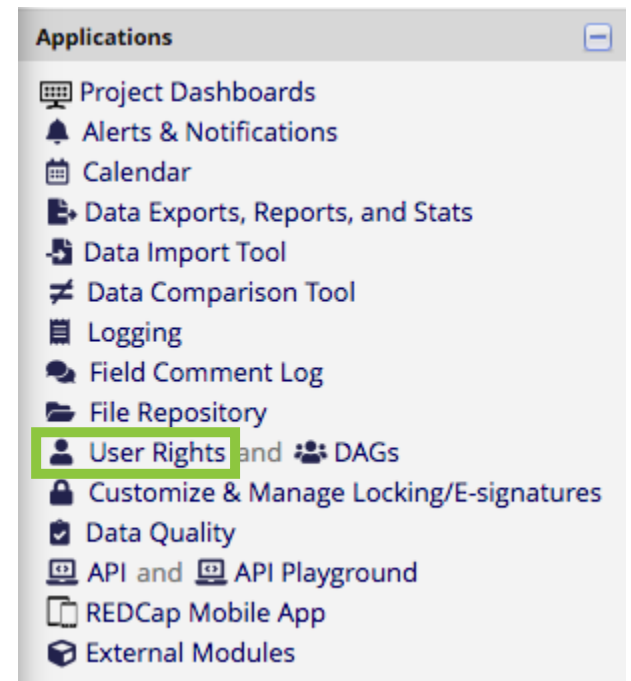
Reminder

These slides, with all the instructions, are posted each week after our meeting on the Consortium website at:
https://redcap.vanderbilt.edu/plugins/career_dev/consortium/

What's Next?

- Exclude list for grants (still coming…)
- New Graph: Survival plots/Kaplan-Meier plots
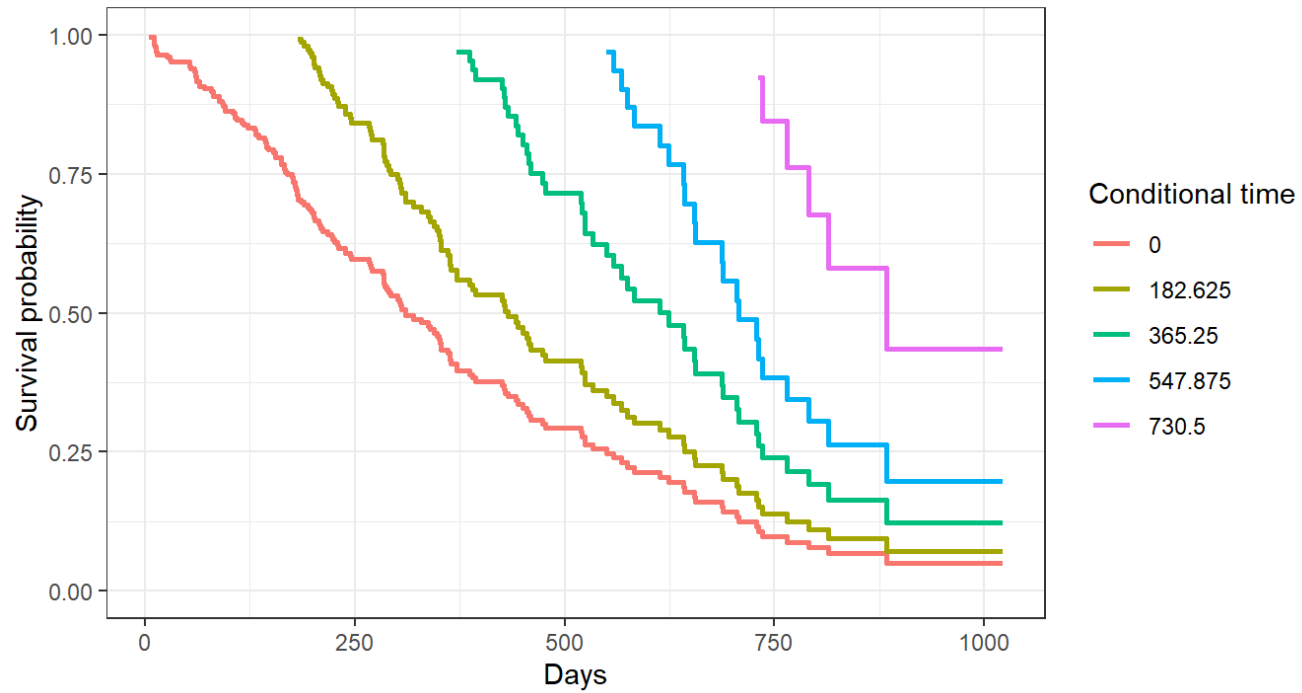
"Surviving" in research

- Two rough, collected measures of whether someone is "active" in research:
  - Date of last publication
  - Date of last grant
- In epidemiology, there is a graph known as a "**survival plot**." This typically charts mortality from a disease over time. It is also known as a **Kaplan-Meier plot**.

Kaplan-Meier survival estimate
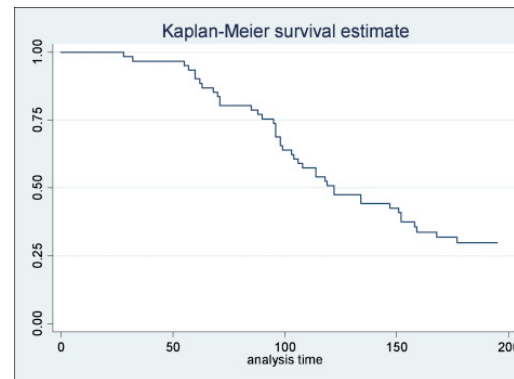
Example Survival Plot

Survival Plots in Careers

- Our situation is fortunately not as moribund. We can count lack of activity prior 12/18 months as **non-active** (= "fatality").

- Each one of our goals (per federal charter) is to keep people "active" in research, whether at our institution or at another institution.

- Therefore, our aim is to push survival curve towards **upper-right**.

- Demonstrates "momentum" in a research career.

- K→R Conversion = "Fountain of Youth"
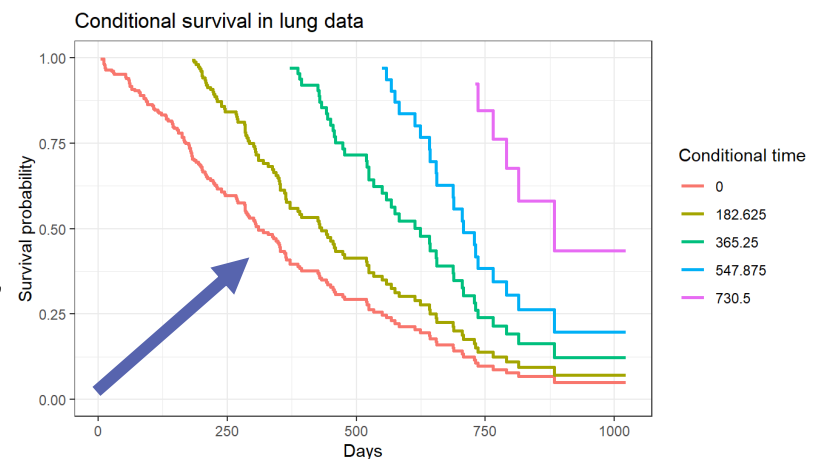
"Interventions" in Careers

- Our analogy to "interventions" are Flight Tracker **resources** – programs (like grant-writing workshops) that help scholars succeed.

- Interventions ideally push the curve to the upper-right. (But how can we be sure without seeing it in data?)

- We can plot a Kaplan-Meier plot for those who have used the resource vs. those who haven't.

- Thus, resource tracking becomes important for this analysis.

Limitations of Survival Analysis

- Measurements only approximate whether someone is "active."
  - Grants: Someone may be putting in applications, but federal results don't display failed applications.
  - Publications: Not all research is publishable.

- T space: Many younger trainees aren't far along enough in the process to produce these measurables.

- Industry generally produces less frequent publications/grants than does academe → pro-academe bias.

Action Items for Survival Analysis

- New calculations
  1. Date of first grant activity (submission or acceptance)
  2. Date of first publication
  3. Date of last grant activity
  4. Date of last publication

- Produce Kaplan-Meier plot
  - One line for everyone
  - Other lines for those who used each resource
  - Configurable activity cut-off (within X months)

Long-Term Goals

- One of Flight Tracker's long-term goals is to figure out what types of resources work nationally in developing scholars.

- To achieve this, we must de-identify and minimally share data.

- Also, this will be done by opting projects in.

- This pushes the ball a little further down the road towards that end.

The pictures are of "pushball," a sport popular in the US and Europe in the late 1800s to the early 1900s. Derivations from the sport included "horse soccer." In the picture at the right, over 60,000 people in Germany are watching a game.

Office Hours with Rebecca & Scott