

# NIGMS Institutional Research and Academic Career Development Award (IRACDA/K12) Program

Jessica Faupel-Badger, Andrew Miklos, Christian Shaw, Alison Hall

## Goals of NIGMS IRACDA/K12 Program

Develop a group of highly trained biomedical scientists who have the necessary knowledge and skills to pursue independent research and teaching careers

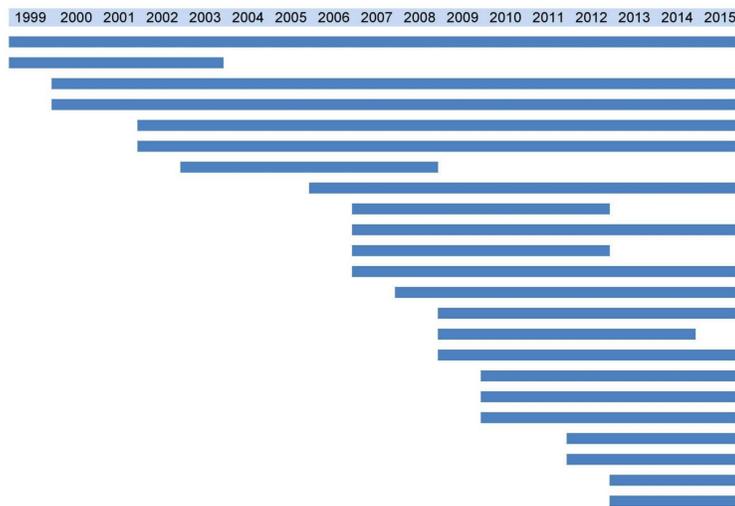
Strengthen and modernize science educational offerings at partner institutions while promoting links between research intensive and partner institutions.

These objectives are met through research intensive institutions (RII) serving as the lead institute providing both research opportunities and pedagogical training to the IRACDA postdoctoral scholars. Partner institutions provide mentoring for the development of teaching skills and teaching opportunities.

## Features of IRACDA/K12 Program

- IRACDA/K12s are structured, institutional postdoctoral training program developing research and teaching skills; scholars are supported for three years
- Scholars commit – 75% research effort; 25% professional development including emphasis on developing teaching skills
- IRACDA programs use a multiple mentor model (i.e. research mentor, teaching mentor, IRACDA program director, and others)
- Over 400 IRACDA alumni
- 197 current scholars (Avg. size = 11 scholars/program; range n=6-24 scholars/program)

## Timeline of Funded Programs, 1999-present



## IRACDA Announcement and Website

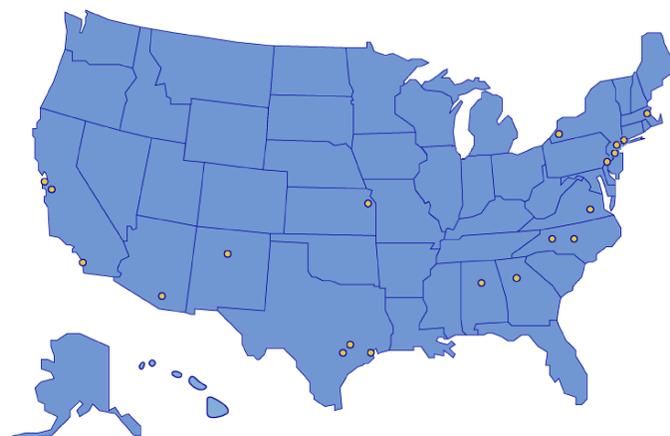
PAR 13-290 - <http://grants.nih.gov/grants/guide/pa-files/PAR-13-290.html>

<http://www.nigms.nih.gov/Training/CareerDev/Pages/TWDInstRes.aspx>

## Interest in Assessment of IRACDA/K12 Program

With the current national emphasis on career preparation and postdoctoral training outcomes, the IRACDA program is seen as a model of training for teaching careers in academic sectors. Aggregate data suggest IRACDA scholars are predominantly transitioning to academic positions in a variety of settings. Greater understanding of these transitions and the components of the training programs that contribute to these outcomes will provide an opportunity to refine the current IRACDA program structure and communicate successful elements to the training community. Given the 15 year history of the program, assessment of whether postdoctoral career outcomes have changed over time also may inform modifications to the IRACDA program that would reflect the current landscape of postdoctoral training and career opportunities.

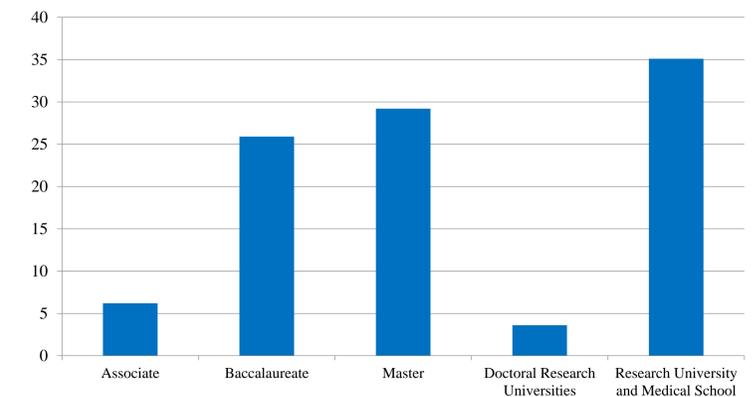
## Active IRACDA Programs FY15 (n=20)



## Career Outcomes of IRACDA Alumni

Career paths of 450 alumni – 64% academic research or teaching, 13% science non-research, 8% other research (compares to 43% academic research or teaching cited in NIH Biomedical Workforce Report)

### Academic Institutions Employing IRACDA Alumni (% of those in academic positions, n=287)



\*72 IRACDA alumni are faculty or administrators at 49 different partner-like institutions

## Assessing Outcomes of IRACDA Program – Current Summary

- Data from evaluation of single programs suggests scientific publication productivity is the same for IRACDA and non-IRACDA scholars
- Scholars are well-prepared for a variety of academic positions
- Scholars serves as a bridge between research intensive and partner institutions
- Alumni are predominantly selecting an academic career path
- Partner institutions are benefitting in many aspects (e.g. new courses, undergraduate research experiences, faculty research collaborations)

## Next Steps and Additional Considerations for Outcomes Assessment

- Initiated preliminary analysis of subsequent NIH grant application and award history but data are limited
- Is there a relevant comparison group for assessing scholar outcomes?
  - Limited national aggregate data on postdoctoral training
  - Unsuccessful applicants at individual programs?
  - T32 or F trainees at same institution?
  - Issue of self-selection for this training program
- Need to analyze by cohort to assess effect of time –
  - Assessing scholar outcomes overall across programs of varying duration
  - Possible differences in career options and transition time over 15 year history
- Need for collection of additional qualitative and quantitative data to understand impact on partner institution and successful elements of IRACDA programs with a high percentage of scholars employed in academic sector
- Other outcomes that could be assessed? Data that should be collected?

## Assessing Outcomes of IRACDA Program – Conceptual Framework

