

# Assessing the Path to Independence: Evaluating Career Catalyst Research Grants



Jessup Path, Acadia National Park

## PROGRAM DESCRIPTION AND GOALS

Susan G. Komen's MISSION is to save lives by meeting the most critical needs in our communities and investing in breakthrough research to prevent and cure breast cancer. Komen's Research & Scientific Programs are taking a multi-faceted approach to help achieve these imperatives, including a focus on sustaining the breast cancer research workforce.

As with all biomedical research, successful research for breast cancer relies on a continued supply of highly trained researchers who can bring new insights to our understanding of breast cancer and advance the translation of these insights into improved outcomes. However, in recent years, more and more early career researchers are seeking alternatives to an independent research career or leaving the field of research altogether. This is, in large part, due to the increasingly competitive funding climate and the inability to secure research funding to support an independent research lab. The importance of supporting early career investigators is more critical than ever as funding budgets continue to remain low.

Komen is committed to supporting the career development of cancer researchers and has offered multiple training and career development grants that span the career path continuum, including a Career Catalyst Research (CCR) grant, which is intended to foster breast cancer researchers who are in the early stages of their faculty career, allowing them to develop their research programs and achieve career independence. It is expected that awardees will launch independent research careers and successfully compete for subsequent research funding in breast cancer following the completion of a CCR grant. Specifically, the goals of the CCR are to:

- 1 Recruit and retain early career researchers in the field of breast cancer
- 2 Contribute to the career development of awardees to position them for independent careers in the field of breast cancer research

## EVALUATION PURPOSE

Given the significant investment Komen has made in supporting early career researchers through CCR grants, it's important to assess whether the grant mechanism is meeting its intended goals and providing valuable returns on investment. This evaluation assessed the career development and progress towards independent research careers for Komen CCR grantees and provided insight on whether additional grant support may be needed to facilitate career independence.

1. Did the Komen CCR grant achieve expected outcomes for retaining researchers in the field of breast cancer?
  - a. How many CCR grantees are still in the field of breast cancer?
  - b. What positions do they hold?
2. Did the Komen CCR grant achieve expected outcomes for contributing to career development and independence of early career investigators
  - a. What has been the overall career progression of CCR grantees (e.g., promotions, tenure, career impact, etc.)?
  - b. Have CCR grantees been able to obtain large, federal grant awards (e.g. NIH, R01, DOD Innovator Award, etc.)?
3. How do Komen CCR grantees compare to other early career researchers?

## DATA COLLECTION

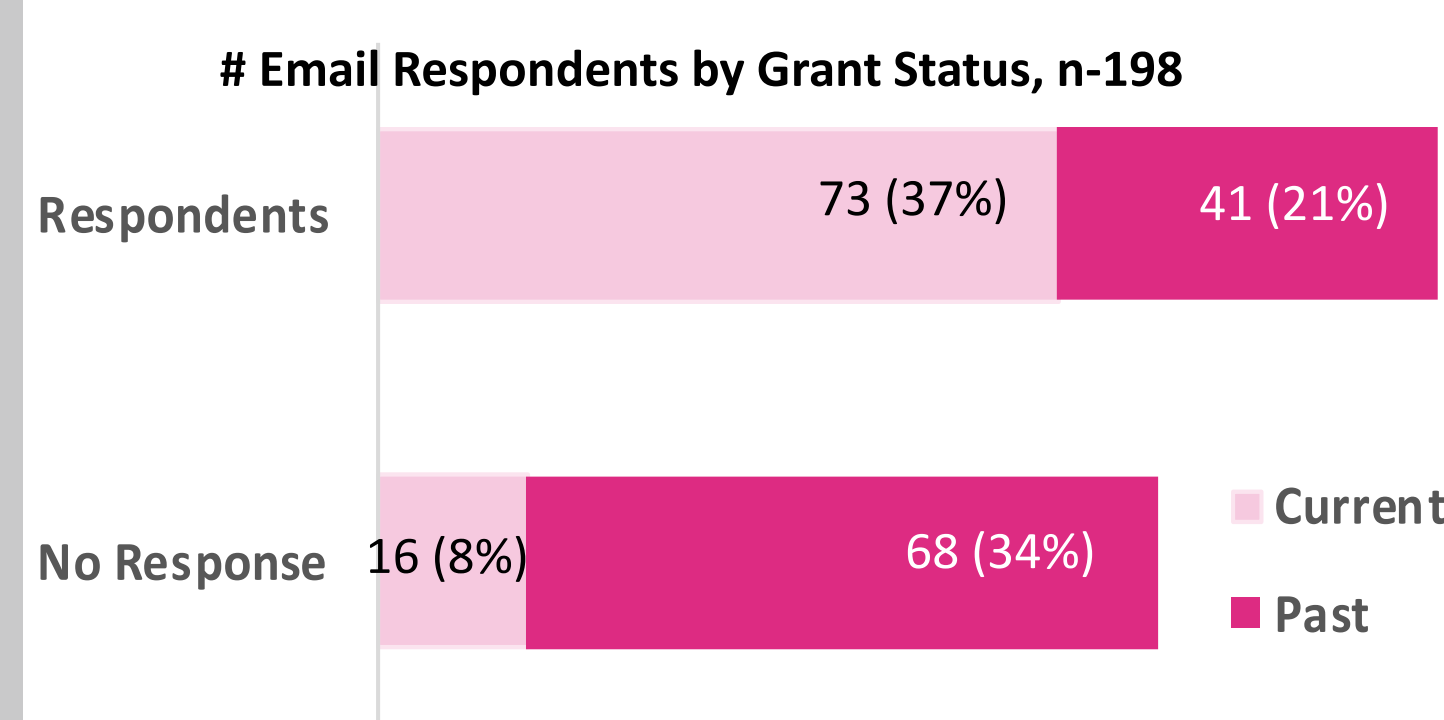
Primary metrics used to assess research capacity, career independence and success were grantee employment, promotion from one academic rank to the next, receipt of a large, federal government grant after receipt of the CCR grant, and publications. All CCR grantees from 2008-2017 were asked to submit a CV including employment, grant funding, and publications as well as answer 5 brief questions about the grantee's experience with the CCR grant.

Reported grant funding was confirmed using the funding agency's grant database or website, whenever possible. Dimensions for Funders was used to assess publications.


Qualitative data was manually abstracted from the survey data and other program related documents and common themes were identified.

## EVALUATION OVERVIEW

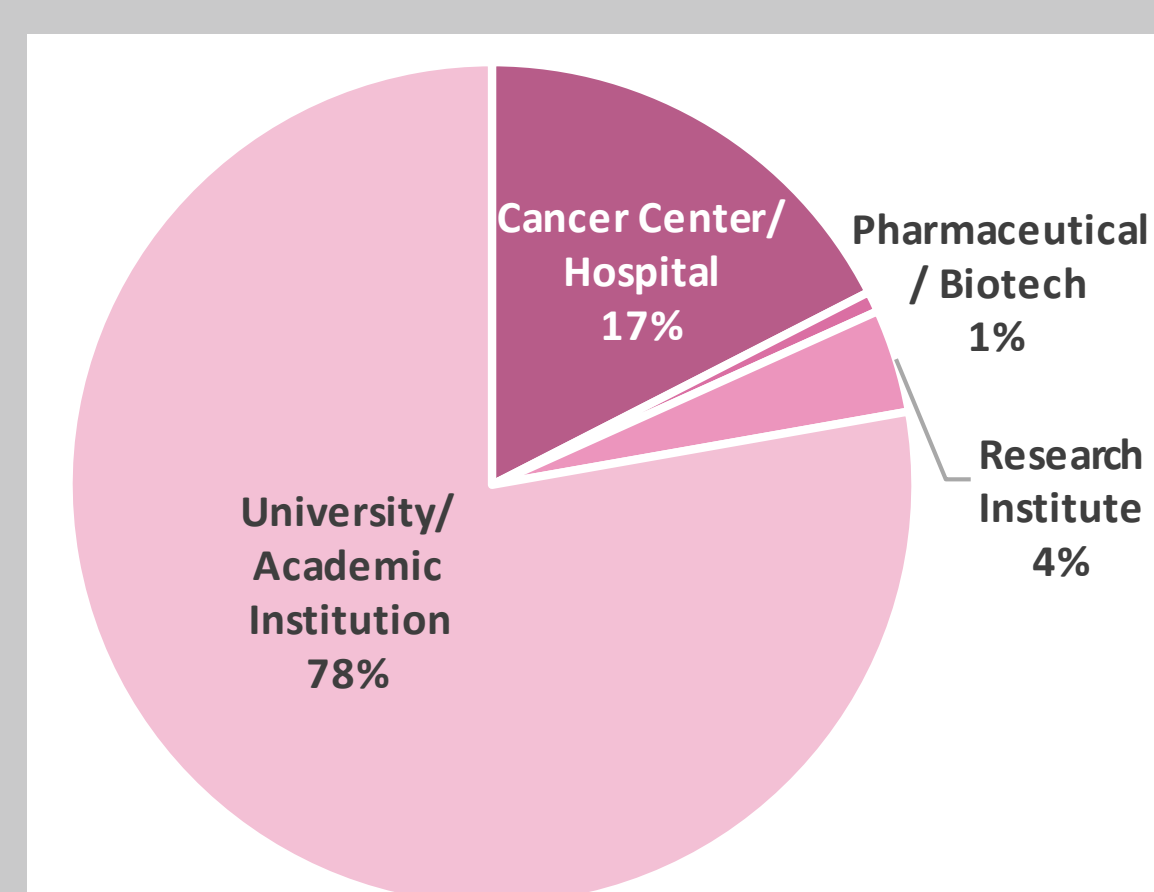
- ❖ From 2008-2017 Komen invested **\$87,787,850** in **202 CCR grants to 198 grantees**.
- ❖ 114 grantees responded to the survey for a **response rate of 58%**
- ❖ 12 non-respondents had a recent CV on file from which evaluation data could be extracted.
- ❖ Data from a total of 126 grantees were analyzed.
- ❖ Most non-respondents had completed the CCR grants (closed vs. active)



## KEY FINDINGS—CURRENT CAREER

 The CCR grant is supporting increased research capacity in field of breast cancer

- 98%** are still in the field of breast cancer
- 78%** Most grantees are working at a university or academic institution
- 57%** More than half of grantees hold the position of Assistant Professor



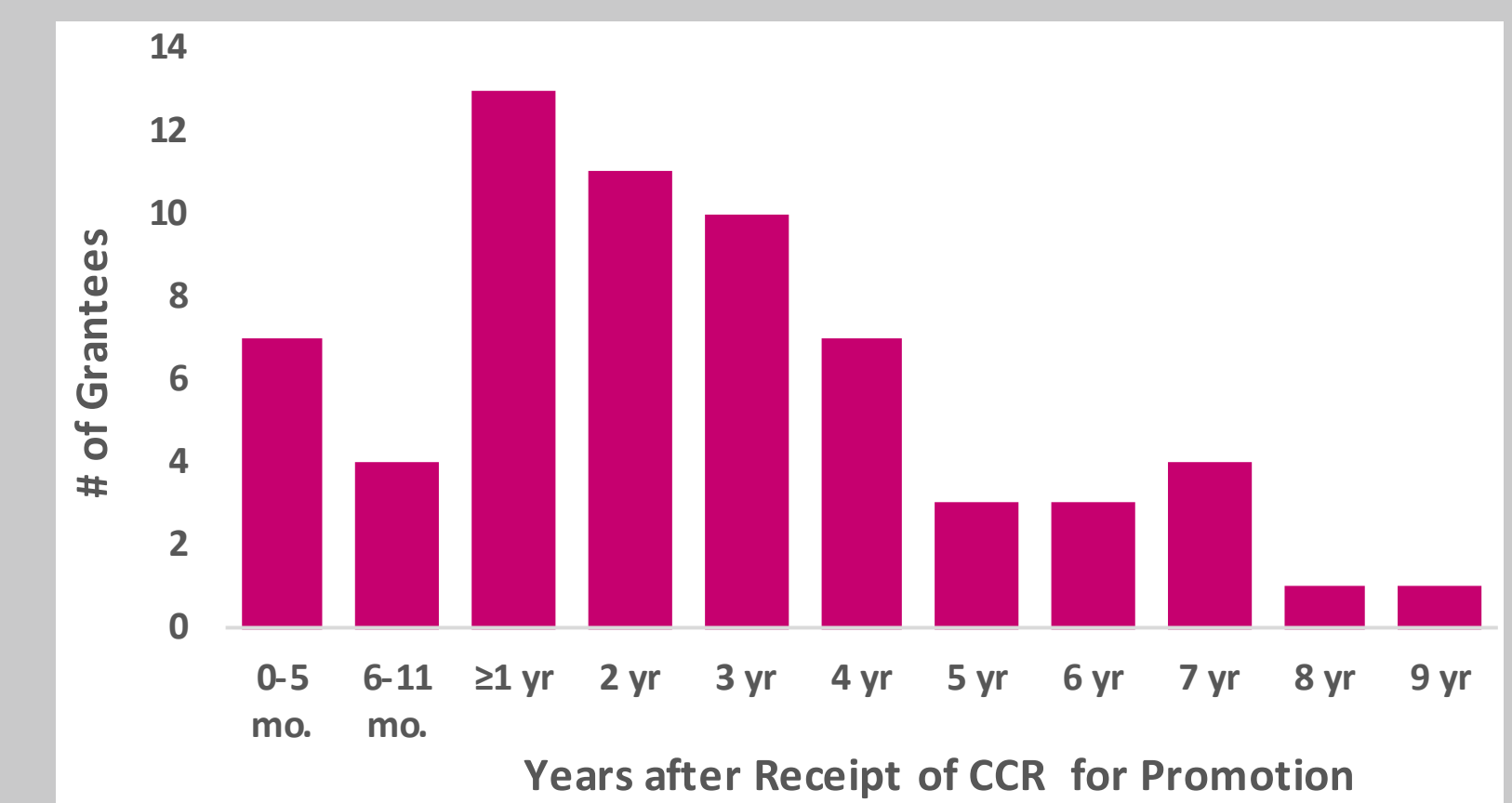
\*Data represents grantees with available data, n=126

## KEY FINDINGS—CAREER PROGRESSION



Most CCR grantees are promoted before completing the CCR grant

- 52%** More than half of CCR grantees received at least one promotion after receipt of the CCR grant.
- 2.7** After receiving the CCR grant, it took an average of 2.7 years for grantees to receive a promotion.
- 77%** Most grantees who did not receive a promotion are still completing the CCR grant.



## KEY FINDINGS—SUBSEQUENT GRANTS



Most CCR grantees received a large, federal grant before completing the CCR grant

- 88%** Most grantees received at least one subsequent grant after receiving the CCR grant.
- 53%** received a large, federal government grant such as an NIH R01 grant.
- \$230 M** CCR grantees secured more than \$230M in subsequent grants, including areas other than breast cancer, resulting in a \$3 ROI for every Komen dollar invested in CCR grants.



CCR grantees rank the same or better than other early career grantees, such as NIH K Award grantees, for receiving an NIH R01

	CCR Grantee	K Award Grantee
% grantees receiving an NIH R01	<b>33%</b>	<b>38%</b>
Average length of time to receive R01	<b>2.9 years</b>	<b>3.5 years</b>
Average, estimated age to receive first NIH R01 grant	<b>38 years old</b>	<b>46 years old</b>

## KEY FINDINGS—NEW RESEARCH



The CCR grant helped fund new avenues of breast cancer research and research in other fields

- 40%** of grantees said the CCR grant help establish or expand their research program. 9% said it allowed them to explore new or high-risk ideas.
- 97%** of grantees published at least one paper after receipt of the CCR grant and 83% published a paper that cited Komen as funder.
- 15%** of papers published by CCR grantees after receipt of the CCR grant are attributed to Komen funding. CCR grantees have an average H-index of 19.

	Median # of Publications/grantee	Average Citations per Publication	Average FCR
Publications after CCR	14	10.4	2.6
Komen-Cited Publications after CCR	3	13.2	2.8

FCR reflects the measure of scientific influence of articles. Komen-cited pubs are cited 2.8 times more than other papers in the same field and year.

## CONCLUSIONS

The evaluation data highlight the significant impact the CCR grant has on the career development and independence of awardees. In addition, when considered alongside published studies on subsequent funding for early career investigators, the evaluation highlights the importance of continued support of early career investigators.