

2013 CaRES Evaluations Completed by Interns N=41 (95% of 43 Interns) Responded

How many CaRES internships have you done with us at UAB prior to this summer?

Responses	Frequency		N=41
	0	34	
	1	06	
	2	01	

Please rate how well your preceptor...

5=Excellent 4=Good 3=Neutral 2=Fair 1=Poor

	Mean	N
Gave you the orientation and assistance you needed to do your internship.	4.71	41
Showed interest in your progress learning research in this area.	4.78	41
Was available to supervise, assist, or advise you.	4.66	41
Demonstrated an understanding of the goals and objectives of the CaRES program.	4.63	41
Made clear his/her expectations of you as an intern.	4.68	41

Please rate how well the CaRES administrators and staff...

5=Excellent 4=Good 3=Neutral 2=Fair 1=Poor

	Mean	N
Explained to you how the program was to work.	4.66	41
Responded to your questions or concerns.	4.68	41
Clearly outlined expectations for you as an intern.	4.75	40

Please tell us how much the CaRES program helped you to...

5=Excellent 4=Good 3=Neutral 2=Fair 1=Poor

	Mean	N
Build your overall knowledge of the particular research area you worked in.	4.73	41
Build your overall knowledge of scientific methods and the research process.	4.68	41

Please give us your overall assessment of our program.

5=Excellent 4=Good 3=Neutral 2=Fair 1=Poor

	Mean	N
How would you rate the quality of your overall educational, research, and training experience provided by the CaRES program?	4.78	40

Please tell us whether you agree or disagree with the following statements...

5=Strongly Agree 4=Agree 3=Neutral 2=Disagree 1=Strongly Disagree

	Mean	N
Based on your prior education, experience, and skills, you were well-matched with your research project.	4.51	41
You had a positive research relationship with your preceptor.	4.68	41
Your preceptor should be approved again to oversee a CaRES intern.	4.80	41
Your stipend was adequate.	4.63	41
Your hours were flexible.	4.66	41
Your internship was an effective way to obtain a short training experience in cancer research.	4.66	41

The CaRES seminar was an effective way for you to communicate your research activities.	4.37	41
The CaRES seminar keynote presentation was a valuable component of the seminar.	4.34	41
The CaRES seminar keynote speaker was effective in providing useful information.	4.34	41
You interacted with people with whom you could collaborate on future research.	4.22	41
You are likely to pursue a career in cancer research once you leave school.	3.66	41

The CaRES program helped me to _____ my career plans or path when it comes to cancer research. (choose all that apply)

	Frequency	
	n (%)	N
"identify"	15 (38.5)	39
"solidify"	14 (35.9)	39
"refine"	20 (51.3)	39
"narrow"	8 (20.5)	39
"eliminate options from"	3 (7.7)	39
"decide to change"	1 (2.6)	39

State the degree to which your CaRES internship experience helped you improve . . .

3=Greatly enhanced 2=Moderately enhanced 1=Somewhat enhanced 0=Did not enhance

	Mean	N
Your general writing skills	1.48	40
Your scientific writing skills	1.75	40
Your ability to perform laboratory procedures	2.36	39
Your knowledge of research design	2.38	39
Your data analysis skills	2.03	40
Your knowledge about doing research in an academic setting	2.40	40
Your knowledge about acquiring grants and funding	1.93	40

How will you disseminate the results of your CaRES research project?

3=Already Submitted 2=In Progress 1=Being Planned 0= Not Applicable / No Reply

	0	1	2	3
Use your project as the basis for a thesis or dissertation.	27	11	1	2
Make an oral presentation at a professional meeting.	25	11	2	3
Present a poster at a professional meeting.	19	6	7	9
Draft and submit a manuscript for publication.	15	14	12	0

End of Statistical Summary

Please see a summary of themes of student intern comments on the following page.

2013 CaRES Intern Commentary for Selected Questions

29) “The CaRES program helped me to _____ my career plans or path when it comes to cancer research”: students were asked to fill in the blank with one or more of these words: identify, solidify, refine, narrow, eliminate options from, decide to change; and to explain their answers.

Summary: CaRES helped the medical student and public health student interns set their career paths, with many respondents stating that cancer research is in their future. The essence of comments made by respondents is as follows, with the most frequent responses presented first.

My horizons expanded to include cancer research from a public health perspective.

Now considering academic medicine as a career and I may want to get a PhD in cancer research.

Helped solidify my interest in public health sciences - oriented cancer research.

Revealed to me that this area of research may be ideal for me, and I want to continue it.

Got a glimpse of translating bench research to the bedside.

My mentor was very good teacher and took the time to teach me, and now I like cancer research.

I am able to see the connection between my previous medical interests and cancer research.

CaRES helped me solidify and refine my interests for use as a doctoral dissertation.

CaRES was of clinical value although I will not likely go into cancer research.

Due to exceptional mentorship I am now sure that I want to go into oncology.

This internship built on my knowledge of laboratory procedures and I learned a lot more.

Opened my eyes to how broad cancer research is and that there could be a place for me.

41) Please provide details regarding disseminating your CaRES research project results by means of a thesis or dissertation, a presentation at a professional meeting; or a publication (give the citation if available).

Summary of comments: When answering this question the CaRES interns were at various stages of communication with their preceptors to decide how to disseminate their research results. Many interns are preparing posters for UAB Medical Student Research Day or for the UAB Comprehensive Cancer Center Annual Research Retreat. A few stated that they will prepare posters or oral presentations for professional meetings, while others are working with their preceptors to prepare papers for publication (citations indicated).

42) What do you consider to be the STRENGTHS of your internship? Please mention learning experiences that were especially useful or outstanding.

Summary of comments: The interns listed many strengths including excellent mentoring by their preceptors; being accepted as a member of a multi-disciplinary research team; the opportunity to participate in all aspects of research; successfully developing professional relationships with, and respect for, their preceptors; flexibility of preceptors who allowed them to work independently; learning advanced laboratory techniques and approaches to data analysis; and having the opportunity to translate classroom learning to the laboratory or to the bedside. A few interns stated that they had learned to be an independent thinker; and that diligence, organization, and persistence are essential for research success. Overall, the CaRES internship was seen as a valuable and enjoyable experience that opened the eyes of some interns to academic medicine and to cancer research as a career.

43) What do you consider the WEAKNESSES of your CaRES internship? Please mention anything that you were asked to do that you should not have been asked to do; and comment about things that you wanted to learn or expected to learn but did not learn.

Summary of comments: Many interns evidently found no weaknesses, as they gave no response, but some interns stated concerns. Four students expressed frustration that their projects did not begin smoothly due to delays beyond their preceptors' control (in several instances related to delayed approval by the Institutional Review Board). Three students lamented the limited duration of the internship that left them wanting more time and more experience. A few interns wanted more guidance from their preceptors, while a few others felt that they had been given too much guidance and wished they had had more responsibility and the go-ahead to do whatever needed to be done. A few remarked that the stipend was too low, and a few others expressed disappointment that they ended up with little publishable data although they had worked hard.

44) What SPECIFIC RECOMMENDATIONS do you have to improve the CaRES internship program regarding publicity, website organization, the interview process, the self-matching process, payment method, or evaluation process?

Summary of comments: Many interns thought that the CaRES program was well organized and said that they had no recommendations. However, several interns suggested that the CaRES program should be publicized much more, with a few stating that they heard about CaRES from a classmate and that they would not have known about it otherwise. [Note: this is surprising to the CaRES faculty who are now taking steps to remedy this problem by publicizing CaRES later in the school year in addition to our early round of publicity in November.] A few respondents suggested that we should post all internships on the same date so that all students have an equal

chance of applying for them, rather than using our rolling intern recruitment process. Several respondents suggested changing the format of the CaRES Career Development Seminar Day, and delaying it until later in the summer. [Note: in light of varying start and end dates for CaRES projects, we typically choose the latest date in the summer when all 40 CaRES interns are on the job.] A few respondents were upset that their early July paychecks had been delayed. One respondent requested that we require preceptors to have sufficient work ready for each intern on their first day of work; and another respondent thought that CaRES should offer more clinical research opportunities.

45) What are your career plans? Do you plan to practice medicine, practice public health, do research, do cancer research in particular?

Summary of comments: In that the majority of CaRES interns are medical students, it is not surprising that the most common response was the plan to practice medicine. Of those who responded in this way, about half plan to practice in an academic setting, with some of them planning to do clinical oncology research or translational research as part of their practice. Other respondents stated their plan to practice public health, some of them focusing on research in cancer and its relationship to obesity and to environmental exposures. A few interns plan to get a PhD in a public health discipline and to do cancer research. One respondent stated that she had already been hired as a consultant to work on cancer research projects.

End of Intern Commentary

**2013 CaRES Evaluations Completed by Preceptors
N=28 Preceptors (97% of 29 Preceptors) Responded**

Administration of the CaRES program				
5=Strongly Agree 4=Agree 3=Neutral 2=Disagree 1=Strongly Disagree 0=N/A				
	N	Mean		
You had high quality applicants to interview	27	4.70		
Interviews were effective	27	4.59		
CaRES allowed you to accelerate your research progress	28	4.68		
	N	Mean	Min	Max
How many applicants did you interview	28	2.82	1	5
To how many applicants did you offer a position	28	1.57	1	4
How many interns did you end up mentoring	28	1.46	1	4
3=Not a Problem 2=Acceptable 1=Serious/Frequent Problem 0=N/A				
	N	Mean		
Communications with CaRES program faculty about how CaRES works	27	3.00		
CaRES program faculty allowing flexibility in intern's work schedule	27	2.92		
CaRES program faculty responding to your questions	25	3.00		
Adequacy of stipend support	28	3.00		
Expectations for CaRES preceptors and interns	28	3.00		
Overall administration of the CaRES program	27	3.00		

Benefits to You		
4=Invaluable 3=Very Helpful 2=Somewhat Helpful 1=Not Helpful 0=N/A		
	N	Mean
Conceptualizing research methods and procedures	25	2.64
Designing the research plan	21	2.81
Analyzing data	25	2.84
Interpreting results	23	2.74
Writing final paper or report	16	3.00

Your Future Involvement in CaRES	N	#Yes	%Yes
Are you interested in being a CaRES preceptor next summer?	28	27	96

CaRES Intern Evaluation		
4=Excellent 3=Good 2=Adequate 1=Poor 0=N/A		
	N*	Mean
Intern Work Ethic		
Work hours kept	42	3.64
Research tasks accomplished	42	3.62
Meeting deadlines	42	3.57
Intern Research Ability and Contributions		
Conceptualization and designing research	38	3.24
Understanding methodology	42	3.45
Analysis and interpretation of data	39	3.28
Writing quality	31	3.48

*Here N is the number of interns evaluated. One preceptor who mentored one intern did not complete this evaluation.

End of Statistical Summary. Please see related Comments and Summary on the following pages.

2013 CaRES Preceptor Comments and Summary

Please describe any problems or concerns that CaRES program faculty or staff should address:

- The **CaRES** Program Director and Program Coordinator are superb in the way they administer the program. It is not possible for them to do a better job. Maximum funding for my interns would be great since they carry out their internships internationally and have the extra burden of airfare and living expenses. However, I realize that this is not really a problem with CaRES since it is not an international program and the funding is distributed fairly and with due consideration for the interns.

SUMMARY: Only the comment above was received, this from a satisfied faculty preceptor.

Describe any other important research contributions or scholarly assistance provided by your intern(s) (intern names and other identifying information have been deleted here):

- [Intern name] is bright and hard working. She is technically skilled and she generated a lot of reproducible data that will be used in future publications.
- [Intern name's] work has demonstrated [important] information that will be utilized to improve . . . therapy for . . . cancer patients.
- Literature reviews related to new directions I wanted to take in my research lab; data collection and entry; role model for a younger intern in my lab for the summer.
- Preparation of protocol for ethical review; pre-testing and revising instruments; developing an educational intervention.
- [Intern name] was great about reading the literature and asking questions. He set up a very complex experiment and did a great job!
- The student advanced on ongoing project in the lab. She also worked on [another project] but ran into technical challenges in this part of the project.
- Would like to have the student presentations at the end of July / beginning of August to allow enough time for students to complete their projects.
- Assisting with surgical procedures and treatment.
- Tremendously helpful with data collection, data entry, and quality assurance.
- [Intern name] generated a beautiful poster – created outstanding original graphics depicting methods and models tested. And beautiful data presented!! She will present her poster on campus. [Intern name] will definitely earned a co-authorship on this paper when it is published!
- The student had a separate job and therefore ended up spending only part of the time in the lab. However, she was very efficient in whatever she did.
- Helped w data collection and will be on poster we are submitting.

SUMMARY: CaRES interns were especially appreciated for their laboratory work, their diligence in data collection, and for their analytical skills.

Comments about individual interns (intern names and other identifying information have been deleted here):

- We were so fortunate to have [intern name]. She was a wonderful intern who helped us write a review paper (which is now published), helped us manage study participants, and helped us organize our research processes. What a dynamo! She will definitely do great things in her life and we would love for her to come back anytime she wants.
- [Intern name] is definitely a people person whose strengths lie in interfacing with study subjects and project staff. She has a “can-do” attitude and is eager to help. We were fortunate to have her sign-on as a work study after her CaRES experience was completed.
- Perhaps this internship was a poor fit for [intern name], he obviously is very bright, but did not engage in many of the activities that we had planned for him. Oftentimes, we had tried to locate him and were unable to do so. In some cases, work was left undone and procedures were not followed as instructed.
- [Intern name] had worked in my laboratory several summers ago and I was happy to have her back in the laboratory. She is very responsible and contributed significantly to our research on brain tumors. Her work ethic is good and she is smart. Her laboratory presentation at the end of the summer was excellent.
- [Intern name] was enthusiastic, self-motivated, and willing to learn new tasks. She was dependable and acted in a very professional manner. I am very pleased she plans to work with me again next summer.
- Demonstrated strong interest, good data management and analysis skills. Towards the end this intern got a bit distracted and so hasn't completed all tasks, but is trying to continue the work so he can have a publication out of this.
- Extremely hard worker and very committed. Great people skills, very organized in planning and implementing community focus groups and was a great facilitator. Working on improving analytical skills.
- [Intern name] had an outstanding performance in his project. We hope that he continues to work with us in the future on an upcoming clinical trial.
- [Intern name] was an excellent intern and we agreed to have him in the lab next summer.
- [Intern name] is an excellent student who pays careful attention to details. She did a superb job on the field and has followed through with analyzing the data and writing a paper in a timely fashion.
- [Intern name] is a very savvy medical student who displayed very good understanding of the research and worked well on all aspects. She has not yet turned in her paper so I am unable to judge her analysis and interpretation skills at the moment.
- [Intern name] worked very hard, put a lot of thought into her work and was technically very competent. She required supervision (as expected) in experimental design and trouble shooting. Overall, she did an excellent job and was extremely pleasant to work with.
- [Intern name] did not finish research project.
- [Intern name] did not maintain interest in research project.
- [Intern name] used CaRES project to learn how to conduct analyses using SAS.

- [Intern name] did not have enough time within CaRES to complete the research project.
- Smart, hard-working, mature, and responsible. An outstanding intern.
- Smart, hard-working, mature, and responsible. An outstanding intern.
- [Intern name] was an outstanding student and embodied all the characteristics of the CaRES internship program. Her background and experience fit best with our research program and proved an invaluable asset. Over the summer, she worked closely with a postdoctoral fellow in my lab. Her participation was greatly valued, and she proved herself as hardworking and reliable. From her work on the CaRES project this summer, she has been included as an author on a publication currently in preparation. Moreover, her dedication to cancer research is inspiring. In addition, she was proactive and diligent in preparing her talk at the CaRES Career Development Seminar Day as well as the upcoming poster presentation for the UAB Medical Student Research Day 2013. While I have mentored numerous students before, I can admit that [intern name] is one of the most intelligent, dedicated and competent persons I've had the pleasure to work with.
- [Intern name] is a very hardworking student. Our lab works on computational problems. It was initially difficult for him to grasp the methodologies. But he was diligent and learned the programming language in the very short period of time he spent in my lab.
- A joy to work with. Excellent work ethic, eager to learn and to contribute, excellent rapport with research participants and research team members.
- Interested, eager to learn; diligent effort.
- Really fantastic intern. Relatively new to research and I think she genuinely enjoyed and was interested in the material. Could not have picked a better CaRES intern.
- Top notch. Wish I had her for another summer. Hope she considers the cancer field as a career choice.
- Could not have picked a better CaRES intern.

SUMMARY: Despite a few problems with the contributions of a few interns, the great majority of CaRES preceptor comments about their interns are very positive. In general the CaRES interns were helpful in accelerating the research progress of the preceptors with whom they worked. The interns' contributions were substantial and will result in many peer-reviewed publications. Several preceptors stated that they wished to have their CaRES intern work with them again the following summer.