

**2010 CaRES Evaluations Completed by Interns  
N = 26 (81% of 32 Interns) Responded**

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

Responses	Frequency	N=26
0	24	
1	2	

***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.	4.69	26
Showed interest in your progress or learning.	4.88	26
Was available to supervise, assist, or advise you.	4.54	26
Demonstrated an understanding of the goals and objectives of the CaRES program.	4.58	26
Made clear his/her expectations of you as an intern.	4.73	26

***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.	4.46	26
Responded to your questions or concerns.	4.58	26
Clearly outlined expectations for you as an intern.	4.65	26

***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.	4.62	26
Build your overall knowledge of scientific methods and the research process.	4.65	26

***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?	4.69	26

***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.	4.54	26
You had a positive research relationship with your preceptor.	4.85	26
Your preceptor should be approved again to oversee a CaRES intern.	4.85	26
Your stipend was adequate.	4.50	26

Your hours were flexible.	4.85	26
Your internship was an effective way to obtain a short training experience in cancer research.	4.77	26
The CaRES seminar was an effective way for you to communicate your research activities.	3.19	26
The CaRES seminar guest speaker was a valuable component of the seminar.	2.88	26
The CaRES seminar guest speaker was effective in providing useful information	2.96	26
You interacted with people with whom you could collaborate on future research	4.04	26
You are likely to pursue a career in cancer research once you leave school.	3.50	26

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

	Frequency (%)	N
"identify"	6 (23.1)	26
"solidify"	6 (23.1)	26
"refine"	11 (42.3)	26
"narrow"	3 (11.5)	26
"eliminate options from"	1 (3.8)	26
"decide to change"	0 (0)	26

**How much has the CaRES internship taught you?**

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

	Mean	N
Your general writing skills	1.38	26
Your scientific writing skills	1.81	26
Your ability to perform laboratory procedures	2.00	26
Your knowledge of research design	2.23	26
Your data analysis skills	1.96	26
Your knowledge about doing research in an academic setting	2.31	26
Your knowledge about acquiring grants and funding	1.69	26

**What are you planning to do with your research?**

3=Already Submitted 2=In Progress 1=Being Planned 0=Not Applicable

	0	1	2	3
Use your summer project as the basis for a thesis or dissertation proposal	19	4	2	1
Speak at an academic conference	17	6	1	2
Present a poster at an academic conference	12	6	4	4
Draft and submit a manuscript for publication	8	10	6	2

**End of Statistical Summary**

**See related comments on the following pages.**



## 2010 CaRES Intern Commentary for Selected Questions

29) “The CaRES Program helped me to \_\_\_\_\_ my career plans or path when it comes to cancer research”: Fill in the blank and explain your answer.  
[Fill in the blank with one or more of these words: identify, solidify, refine, narrow, eliminate options from, decide to change]

Summary: The overwhelming response was that the CaRES internship helped refine the interns’ career paths with the vast majority stating that cancer research is in their future. Many students related that they enjoyed the research they participated in and would likely include some type of research in their future. Several other interns were able to solidify or narrow their plans to continue down a specific path in cancer research such as brain cancer or nutritional influences on cancer.

Individual comments are presented below. The comment that we found particularly compelling is presented in ***bold italics***.

- Refine: I enjoyed my experience. It helped refine my choice of which surgical specialties I am interested in.
- Broaden: Working on my current project and the CaRES internship has helped me see that there are many types of research that are possible investigating cancer prevention and control.
- Refine: This has been a valuable exposure to cancer research.
- As a first year MPH student, I came into the program with a wide variety of interests and possible research topics. After my CaRES experience I have decided that cancer research, while complex and fascinating, will not be the long term focus of my work.
- Prior to my CaRES internship, I was interested in pursuing a research career in nutrition monitoring at the NCHS and the CDC. This type of research is intended to monitor the nutrition status of the U.S. population and study its relationship with various health outcomes, such as cancer. My experience with CaRES and further familiarizing myself with NHANES has reinforced my career goals.
- Narrow: I know I wanted to do some cancer research in my career but I do not know yet if practicing oncology is my path.
- ***Identify: Although I have previously conducted cancer related research, my interests have waned over the past few years. This internship has reinvigorated my passion for cancer related research.***
- Refine: I realized the diverse possibilities, ranging from the bench to case studies, in cancer research that spanned multiple medical disciplines. It is something I will have to seriously consider in the future.
- Solidify/Refine: My experience further strengthened my love of research, and my desire to continue to pursue research experiences throughout my career.
- Identify/Refine: Before participating in CaRES, I had only done bench side research. Because of this experience doing clinical research, I now know I have an appreciation for both.

- Identify/Refine: I had not previously had the opportunity to do any type of bench research, so this gave me the opportunity to gain experience in both basic research and clinical cancer research. The experience helped me realize how a career in academic medicine would involve both research and patient care and how those experiences worked together.
- Solidify: The CaRES program allowed me to develop or refine various laboratory techniques, and also advanced my scientific writing and speaking skills. I plan to pursue a career in research, and though cancer may not be the primary focus, it is certainly a field I may return to in the future.
- Refine: CaRES has let me work on topics of interest that I may be able to incorporate into my career in the future.
- Solidify/Narrow: My research experience helped ensure my interest in continuing to do research in cancer, especially brain cancer. I knew research was going to be part of my career; however, I am sure that cancer research will be a main focus of that research.
- Refine: My long term goal is to engage in clinical research of prostate cancer. My project aims at helping to delineate and answer the key questions in the area of prostate cancer research.
- Refine: I enjoyed being a part of academic research more than I expected! If anything, perhaps the CaRES experience broadened career plans.
- Solidify: I found the work that I did very interesting, and I looked forward to going to work every day to work on my project. I felt that the work that I was doing was very relevant to the future practice of medicine in general, and to the management of post-treatment cervical cancer patients in particular. It was exciting to me to feel as if I was a part of something that could potentially change the way that these patients are managed.
- UNDERSTAND... although not a choice, at this level of my education, the CaRES program helped me most to understand the basics of research.
- Identify: Throughout the course of my summer project I was able to gain some exposure to several domains of cancer research through the lab's collaborators. It was through this experience that I was able to identify the area I would like to conduct research in as part of my future career plans.
- Identify: I got a good introduction into the field and a solid understanding of all the work that goes into cancer research. This program has not only given me a healthy respect for the bench scientists in the field but has also made me consider incorporating cancer research into my career path.

**41) Please provide details about any of the boxes you have checked above. Give titles and authors, in order, if available.**

Summary of comments: Many CaRES interns were involved in the early stages of research projects and although their work was valuable it was not ready for presentation. UAB Medical Student Research Day was a large beneficiary of the CaRES program



achievements as several interns presented their work there. Many manuscripts are in the works and many thesis topics have been chosen from the work done this summer.

**42) What do you consider to be the STRENGTHS of your internship?**

Summary of comments: The interns listed many strengths of the program including learning new lab techniques; one-on-one mentoring; ability to make contacts with others in the research field; role modeling; and having the opportunity to practice research in a real world setting. Many expressed appreciation for being exposed to many different subjects and to the various aspects of research projects. Also mentioned were the strengths of the CaRES preceptors and how they took an active role in mentoring the interns; and the dedication of program faculty and staff.

**43) What do you consider the WEAKNESSES of your internship?**

Summary of comments: Many interns stated that there were no weaknesses in the program, but a few interns stated concerns. The most common concern was the limited duration of the internship, a necessary (and defining) aspect of a summer program. Some interns felt that there was confusion in the application process, while others were upset that CaRES funding arrived late and projects could not start as early in the summer as desired. [Note: in summer 2010 funds from NCI were not released until July due to a misunderstanding with CaRES regarding IRB certification requirements, causing uncertainties about the start dates and end dates of all internships; this issue is an aberration and has not occurred before or since 2010.]

**44) What SPECIFIC RECOMMENDATION do you have to improve the CaRES internship program?**

Summary of comments: The interns provided constructive criticism for the program. They would like to see a smoother application process (complicated this year by receipt of NCI funding late). Also recommended was the addition of more CaRES seminars, especially one at the beginning of the internship so that interns can meet each other, and one at the end where experiences could be shared. Several interns suggested having funding in place earlier in the future [Note: 2010 is the only year in which funding was received late and caused anxieties among some interns.] A few other interns stated that there was not enough promotion of the program. [Note: CaRES has begun to provide more detailed information to the Associate Dean of the School of Medicine who has agreed to begin promoting CaRES each November for the following summer.]

**45) What are your career plans?**

Summary of comments: The Interns from the 2010 CaRES program have lofty career aspirations. The medical students stated their intent to pursue careers in surgery, psychology, pediatrics, urologic oncology, and emergency medicine. Other CaRES interns were public health students who plan to become epidemiologists, nutritionists and international health specialists. Many expressed the intent to incorporate cancer research into their career plans, and a few stated that cancer research was now a possibility whereas it had not been on the “radar screen” before their CaRES experience.

*End of Intern Commentary*

**2010 CaRES Evaluations Completed by Preceptors  
N = 17 Preceptors (71% of 24 Preceptors) Responded**

<b>Administration of the CaRES program</b>				
<i>5=Strongly Agree 4=Agree 3=Neutral 2=Disagree 1=Strongly Disagree 0=N/A</i>				
	N	Mean		
You had strong applicants to interview	17	4.35		
Interviews were effective	17	4.12		
CaRES program allowed you to accelerate your research program	17	4.88		
	N	Mean	Min	Max
How many Interns did you interview	17	2.63	1	5
How many interns did you offer a position and mentor	17	1.63	1	4
<i>3=Not a Problem 2=Acceptable 1=Serious/Frequent Problem 0=N/A</i>				
	N	Mean		
Communications with CaRES program faculty about how the program worked	17	2.76		
CaRES program faculty allowing flexibility in intern's work schedule	17	2.88		
CaRES program faculty responding to your questions	17	2.88		
Adequacy of stipend support	17	2.76		
Expectations for CaRES preceptors and interns	17	2.82		
Administration of the CaRES program	17	2.82		

<b>Benefits to You</b>		
<i>4=Invaluable 3=Very Helpful 2=Somewhat Helpful 1=Not Helpful 0=N/A</i>		
	N	Mean
Conceptualizing research methods/procedures	17	3.12
Designing the research plan	17	2.47
Analyzing data	17	3.00
Interpreting results	17	3.00
Writing final paper/report	17	2.53

<b>Your Future Involvement in CaRES</b>	N	#Yes	%Yes
Are you willing to consider being a preceptor in CaRES next summer	15	15	100

<b>CaRES Intern Evaluation</b>		<i>4=Excellent 3=Good 2=Adequate 1=Poor 0=N/A</i>	
	N	Mean	
<i>Intern Work Ethic</i>			
Work Hours	17	3.58	
Research Tasks	17	3.71	
Meeting Deadlines	17	3.63	
<i>Intern Research Ability</i>			
	N	Mean	
Conceptualization & designing research	17	3.46	
Understanding methodology	17	3.63	
Analysis/interpretation of data	17	2.79	
Writing Quality	17	2.54	

*End of Statistical Summary; see related comments on the following pages.*



## *2010 CaRES Preceptor Commentary for Selected Questions*

### **Administration of the CaRES Program**

**Summary:** The overall theme of preceptor comments regarding problems revolved around the issue of funding. The delay in funding was brought up, but was acknowledged to not be the norm for the program. One researcher mentioned wanting funding for a longer period of time. Specific comments are as follows:

- Stipend support was fantastic, but we could have used additional funding for a longer period of time.
- Question about stipend being delayed.
- There was a problem with funding this year; it was late. But this is not consistently a problem at all.

### **Benefits to you as a CaRES Preceptor**

**Summary:** Preceptors found many tasks for the interns to do over the summer including: research, writing, benchwork, recruiting subjects, data collection and entry, statistical analysis, organizing previously collected data, and evaluating new techniques. Literature reviews were completed by several interns and there were poster presentations and manuscripts drafted. Specific intern activities and the benefits that they provided as mentioned by the preceptors are as follows:

- Data entry, data management, patient recruitment, conceptualizing new ancillary studies to the patient study.
- Literature reviews, data collection/entry.
- All three of the CaRES interns helped us implement our studies by collecting baseline data and help in recruiting participants.
- My intern reviewed previous data from the lab, and his experiments in the summer of 2009, wrote a draft of a manuscript, and while preparing the draft of a second manuscript, found areas that needed additional studies, discussed those with me, then did the bench work and included the results in the draft manuscript.
- He was able to do a sound review of the literature and to begin reviewing computerized and written files on patients with prostate cancer. This allowed us to identify potential problems with the experimental plan. This proved to be very useful.
- Assisted with organization and implementation of data collection events and formative research activities. Provided some interpretation for Spanish speaking individuals and translation of documents.
- The intern is currently writing up the findings from her work as a paper to be submitted to *Social Science and Medicine*.
- IRB protocol development, recruitment material development.
- Helped me file an animal protocol and edit an American Cancer Society proposal.

### **Your Future Involvement in CaRES**

**Summary:** Preceptors were overwhelmingly in favor of continuing their participation in the CaRES program. They cited reasons such as the excellent organization of the program, the outstanding interns available, and the tremendous benefit that it provided to their research programs. Specific comments (with compelling comments indicated in *bold italics*) are as follows:

- The support to engage students in cancer research is absolutely invaluable! CaRES Rocks!
- We had such a great experience with all three of our interns – they really helped with their fresh ideas and in implementing recruiting efforts as well as conducting our studies.
- *The program is well run and administered. Being able to interview candidates is very helpful to making a decision. There has never been any pressure to take an applicant that does not fit my needs. In general, the applicants are top notch as this program has a stellar reputation and attracts some of the best students.*
- It's always a good experience.
- I have already been approached by a highly motivated student.
- *I found this program extremely helpful, interns often jumpstarting my research and gaining more experience as a research mentor. I would welcome the opportunity to be involved again.*
- Great students, hard working.
- *Perfect program, exceptional students, and excellent organization.*

*End of Preceptor Commentary*