

PART C

**CTSA National Evaluation
Education and Training Study
Trainees/Scholars Survey
September 2010**

Dear CTSA trainee/scholar:

The National Institutes of Health (NIH) launched the Clinical and Translational Science Awards (CTSA) initiative in October 2005. CTSA-awarded institutions are sometimes referred to as institutes or centers, such as the [INSERT RELEVANT CTSA PROJECT NAME]. Throughout the remainder of this survey, we refer to these awardees as “CTSA institutions” or “CTSAs.” CTSAs are expected to encourage development of new methods and approaches, improve training and mentoring, design new and improved clinical research informatics tools, assemble interdisciplinary teams, and forge new partnerships with private and public health care organizations. As part of these resources, CTSAs offer a range of resources to advance translational science and research.

The first round of awards is nearing the end of their first funding cycle and the NIH leadership is interested in learning more about the use of CTSA resources. Specifically, NIH is interested in understanding what education and training resources are being used, perceptions of the value of these resources, and how the resources may have affected the careers of individuals receiving funding and mentoring support. The National Center for Research Resources (NCRR) at NIH has contracted with Westat, a research firm in the Washington, DC area, to conduct a survey to answer these questions. All data collected by Westat will be reported in aggregate form. No reports will contain findings linked to individual respondents or institutions.

As one component of the overall national evaluation, you have received this survey because one of the CTSAs reported that you received education or training support. We are interested in finding out more about the support that you received.

If you received education or training support associated with a CTSA please go to question 1 on this survey.

If you did not receive education or training support associated with a CTSA, please select the box below and go to Section VII.

I did not receive education or training support

Public reporting burden for this collection of information is estimated to average 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: NIH, Project Clearance Branch, 6705 Rockledge Drive, MSC 7974, Bethesda, MD 20892-7974, ATTN: PRA (0925-xxxx*). Do not return the completed form to this address.

Section I. Clinical and Translational Research

The NIH has described Translational Research in the following way:

- 1) The process of applying discoveries generated during research in the laboratory, and in preclinical studies, to the development of trials and studies in humans, and
- 2) Research aimed at enhancing the adoption of best practices in the community.

In more everyday terms you might think of translational research as moving the research process through phases from bench to animal to human to guidelines development to public health and ultimately to population outcomes.

The following set of questions uses three distinct definitions:

- Basic Biomedical Research:** also sometimes called basic research, pre-clinical or non-clinical study. This research does not include human subjects (for Institutional Review Board purposes) and is focused primarily on medical devices, drugs, gene therapy solutions, animal testing, in vitro and in vivo tests etc.
 - Clinical Research:** typically involves the translation of basic science and new understandings of disease mechanisms gained in the laboratory into the development of new methods for diagnosis, therapy, and prevention and their testing in humans. It includes pilot testing prior to clinical trials and clinical trials phases 1–3. In translational research, this part of the process is commonly referred to as "from bench to bedside".
 - Post-Clinical Research:** typically involves the translation of new knowledge gained in formal clinical research into post-clinical or practice-based research. It may include phase 4 clinical trials, guideline development, meta-analyses and systematic reviews, community research, public or population health research, implementation or dissemination research, and health systems or policy research.
1. Using these definitions please use the scale below to rate yourself on these three categories of translational research: [1 = None, 2 = Low, 3 = Moderate, 4 = High]

	Basic Biomedical Research	Clinical Research	Post-Clinical Research
A. My training and expertise prior to my current CTSA-funded education/training program	1 2 3 4	1 2 3 4	1 2 3 4
B. My current level of training and expertise	1 2 3 4	1 2 3 4	1 2 3 4
C. My understanding of challenges/barriers to effectively disseminating knowledge from this type of translational research	1 2 3 4	1 2 3 4	1 2 3 4
D. My interest in conducting this type of translational research	1 2 3 4	1 2 3 4	1 2 3 4

E. My intention to focus on this type of translational research	1 2 3 4	1 2 3 4	1 2 3 4
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2. If you had to classify your primary research using a single category, it would be:
(Select one response)

- Basic Biomedical Research
- Clinical Research
- Post-Clinical Research
- None of the above

3. How has your education/training program through the CTSA affected your **overall** interest in a career involving clinical and translational research? (Select one response)

[1 = Significantly decreased, 2 = decreased, 3 = increased, 4 = significantly increased]

Section II. Skills Self-Assessment

For each skill described below, please use the scales provided to describe the extent to which your CTSA-funded education/training program prepared you to engage in these activities.

[1 = Not at all, 2 = Somewhat, 3 = Moderately, 4 = Very well]

1. Develop and use translational research

A. Identify and develop research questions	1 2 3 4
B. Use existing research	1 2 3 4
C. Design research studies	1 2 3 4
D. Identify and consider social and ethical research issues	1 2 3 4
E. Address technology transfer and commercialization issues	1 2 3 4

2. Conduct translational research

A. Build a research team	1 2 3 4
B. Collect and securely store data (including biomedical informatics)	1 2 3 4
C. Analyze data	1 2 3 4
D. Evaluate and interpret results (e.g., data quality and causal inferences)	1 2 3 4
E. Manage administrative activities (IRB, budgets, staffing)	1 2 3 4

F. Collaborate with researchers from multiple disciplines and experience levels	
G. Manage and lead researchers from multiple disciplines and experience levels	1 2 3 4

3. Communicate research findings

A. Communicate findings to peers	1 2 3 4
B. Communicate findings to policymakers	1 2 3 4
C. Communicate findings to the public	1 2 3 4

4. Develop professional academic skills

A. Engage in active career planning	1 2 3 4
B. Manage time efficiently	1 2 3 4
C. Provide mentoring	1 2 3 4
D. Identify funding sources and apply for grants	1 2 3 4
E. Develop active professional networks	1 2 3 4
F. Publish in peer-reviewed journals	1 2 3 4

Section III. Career Intentions and Planning

1. What is your primary career goal? (Select one response)

Clinical practice

If clinical (Select one response):

- Private practice
- College/university/medical school

Do you also plan to do research? (Select one response) [Y/N]

Do you also plan to teach? (Select one response) [Y/N]

College/university/medical school faculty

If faculty:

Do you plan to do clinical practice? [Y/N]

Do you plan to do research? [Y/N]

Do you plan to teach? [Y/N]

Research scientist

If scientist (Select one response):

- College/university/medical school
- Commercial pharma/medical/biotech
- Government organization
- Non-profit/advocacy organization

Do you also plan to do clinical practice? [Y/N]

Do you also plan to teach? [Y/N]

Administrative/regulatory position

Do you also plan to do clinical practice? [Y/N]

Do you also plan to do research? ([Y/N]

Do you also plan to teach? [Y/N]

- Undecided**
- Other (specify)**_____

2. What type(s) of research do you plan to do in the next five years? (Describe up to three)

Research interest 1	<i>Text box delimited to 150 characters</i>
Research interest 2	<i>Text box delimited to 150 characters</i>
Research interest 3	<i>Text box delimited to 150 characters</i>

3. Please read the following statements and rate the extent to which you generally agree or disagree with them. [1 = Strongly disagree; 2 = Disagree; 3 = Agree; 4 = Strongly agree]

A. The benefits of a career in research outweigh the personal costs.	1 2 3 4
B. The benefits of a career in research outweigh the financial costs.	1 2 3 4
C. The hassles and discomforts associated with a research career seem too great.	1 2 3 4
D. Given the problems I encounter pursuing a research career, I wonder if I get enough out of it.	1 2 3 4
E. I have created a plan for developing my career as a researcher.	1 2 3 4
F. I spend time thinking about the best way to meet my research career goals.	1 2 3 4
G. I have a strategy for achieving my professional goals.	1 2 3 4

Section IV. CTSA-Funded Education and Training Program

1. Were the following aspects of the CTSA-funded education/training program useful to your research and intended career goals? [Y = yes; N = no; NA = not applicable]

A. Classes and formal coursework	Y N NA
B. Online courses and training	Y N NA
C. Laboratory research	Y N NA
D. Engaging in research projects	Y N NA
E. Working as a member of a research team	Y N NA
F. Relationships with CTSA mentors	Y N NA
G. Conferences and workshops organized by NIH	Y N NA

2. Does your education/training program provide specific training in team-based research (e.g., course, seminar discussion, guest speaker)?

- Yes If yes, have you participated in this training?
 0 Yes
 0 No
- No
- Don't know

3. Does your education/training program provide training outside your own institution?

Yes

If yes, have you participated in this training?

Yes If yes, where did this training take place? (Check all that apply)

- Another academic institution
- A commercial industry organization (e.g., commercial pharma/medical/biotech firm)
- A Federal agency/organization
- A non-profit/advocacy organization (not otherwise part of an academic or Federal institution)
- Other (specify)_____

No

No

Don't know

4. Were you in a related education/training program (e.g., K12) at the time the CTSA was funded?

- Yes
- No

5. Have you completed your CTSA-funded education/training program?

- Yes
- No

6. How many years [have you been/were you] in your CTSA-funded program? [Number = ____]

7. How many years is your CTSA-funded education/training program expected to last? [Number = ____]

8. How would you rate your progress through the CTSA-funded program? (Select one response)

- Faster than expected (Why? _____)
- About what was expected
- Slower than expected (Why? _____)

9. Please describe any factors that have facilitated or posed barriers to your progress through the CTSA-funded program (e.g., adequacy of laboratory resources or patient access; personal issues.)

Facilitators: _____

Barriers: _____

10. Have you been involved with other similar translational research education/training programs?

- Yes If yes, how does your current CTSA-funded training experience compare to the others? (Select one response)
 - CTSA is/was more effective (Why? _____)
 - About the same
 - CTSA is/was less effective (Why? _____)

If yes, how long ago was it? [Number in years____]

- No

11. How would you rate the overall effectiveness of your CTSA-funded education/training program?
[1 = Not at all effective; 2 =Somewhat effective; 3 = Moderately effective; 4 = Very effective]

Section V. CTSA Mentoring

1. How many mentors do/did you have in your CTSA-funded education/training program?
[Number = ____]
2. Please answer the following items with regard to up to two mentors. [Y = Yes, N = No]

My mentor....	Mentor 1	Mentor 2
A. Has been a source of social or emotional support	Y N	Y N
B. Helps me make connections with people in my field	Y N	Y N
C. Helps me make connections with people outside of my field	Y N	Y N
D. Helps me develop research projects	Y N	Y N
E. Helps me apply for research funding	Y N	Y N
F. Helps me manage research projects	Y N	Y N
G. Helps me develop presentations	Y N	Y N
H. Helps me with publications (e.g., shares authorship on papers, suggests journals)	Y N	Y N

QUESTIONS 3-9 WILL BE ASKED FOR UP TO TWO MENTORS SELECTED ABOVE.

3. Do you and your mentor come from the same discipline? (Select one response)
 - Yes
 - No
4. Do you and your mentor come from the same department? (Select one response)
 - Yes
 - No
5. About how often do you meet with this person? (Select one response)
 - Weekly or more often
 - Twice a month
 - Monthly
 - About six times a year
 - About three times a year
 - Fewer than three times a year

6. Is the frequency of these meetings sufficient for your education/training goals? (Select one response)

- Yes
- No

7. Do you find it easy to communicate with your mentor? (Select one response)

- Yes
- No

8. Overall, how effective would you say your mentor has been?

[1 = Not at all effective; 2 = Somewhat effective; 3 = Moderately effective; 4 = Very effective]

Section VI. Academic Activities and Collaborations

1. Please describe up to two grant/award applications on which you have had the most responsibility since starting the CTSA education/training program, if relevant.

Research interest	Type of funding agency (Select one response per project)	Type of research (Select one response per project)	Funding status (Select one response per project)	Approximate total value	Your Role (Select one response per title)	Grant/award type (Select one response per project)
	<input type="checkbox"/> Federal, state, or municipal agency <input type="checkbox"/> Non-profit organization <input type="checkbox"/> Commercial (pharma) organization <input type="checkbox"/> Academic institution (e.g., CTSA pilot award) <input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Basic Biomedical Research <input type="checkbox"/> Clinical Research <input type="checkbox"/> Post-Clinical Research <input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Revise and resubmit <input type="checkbox"/> No decision has been made	<input type="checkbox"/> Up to \$25,000 <input type="checkbox"/> \$25,000–\$100,000 <input type="checkbox"/> \$100,000–\$500,000 <input type="checkbox"/> More than \$500,000	<input type="checkbox"/> PI <input type="checkbox"/> Co-PI <input type="checkbox"/> Co-investigator <input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> R01 <input type="checkbox"/> K-series award <input type="checkbox"/> Other (specify) _____
	<input type="checkbox"/> Federal, state, or municipal agency <input type="checkbox"/> Non-profit organization <input type="checkbox"/> Commercial (pharma) organization <input type="checkbox"/> Academic institution (e.g., CTSA pilot award) <input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Basic Biomedical Research <input type="checkbox"/> Clinical Research <input type="checkbox"/> Post-Clinical Research <input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Revise and resubmit <input type="checkbox"/> No decision has been made	<input type="checkbox"/> Up to \$25,000 <input type="checkbox"/> \$25,000–\$100,000 <input type="checkbox"/> \$100,000–\$500,000 <input type="checkbox"/> More than \$500,000	<input type="checkbox"/> PI <input type="checkbox"/> Co-PI <input type="checkbox"/> Co-investigator <input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> R01 <input type="checkbox"/> K-series award <input type="checkbox"/> Other (specify) _____

2. As a result of research supported by your CTSA-funded education/training program

A. Approximately how many peer-reviewed journal articles have you published?	Number = ____
B. On how many of these journal articles were you the primary author?	Number = ____
C. How many of these articles have involved collaborating with people from	Number = ____

different disciplines?	
D. How many of these articles have involved collaborating with people from different departments?	Number = ___
E. How many of these articles have involved collaborating with people from different universities/organization?	Number = ___
F. How many of these have involved your mentor or mentors?	Number = ___

Section VII. Background and demographics

1. What is your gender (Select one response)

- Male
- Female

2. Are you of Hispanic_or_Latino origin?

- Yes
- No

3. What is your race?

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or other Pacific Islander
- White

4. What degree(s) do you have and when did you receive them? (Select all that apply)

Degree

Month/Year Received (e.g., 12/03)

- BA/BS (Bachelors)
- DAUD (Doctor of Audiology)
- DDS (Doctor of Dental Surgery)
- DMD (Doctor of Dental Medicine)
- DNP (Doctor of Nursing Practice)
- DO (Doctor of Osteopathic Medicine)
- DPT (Doctor of Physical Therapy)
- DrPH (Doctor of Public Health)
- DVM or VMD (Doctor of Veterinary Medicine)
- JD (Juris Doctor)
- MA/MS (Masters)
- MD (Doctor of Medicine)
- MPH (Master of Public Health)
- MSW (Master of Social Work)
- ND (Doctor of Naturopathic Medicine)
- PHAR (PharmD)
- PhD (Doctor of Philosophy)
- RN (Registered Nurse)
- Other (please specify)_____

5. What degree(s) are you seeking? (Select all that apply)

Degree

Date Anticipated (M/Y - e.g., 12/03)

- BS/BA (Bachelors)
- MA/MS (Masters)
- DAUD (Doctor of Audiology)
- DDS (Doctor of Dental Surgery)
- DMD (Doctor of Dental Medicine)
- DNP (Doctor of Nursing Practice)
- DO (Doctor of Osteopathic Medicine)
- DPT (Doctor of Physical Therapy)
- DrPH (Doctor of Public Health)
- DVM or VMD (Doctor of Veterinary Medicine)
- JD (Juris Doctor)
- MA/MS (Masters)
- MD (Doctor of Medicine)
- MPH (Master of Public Health)
- MSW (Master of Social Work)
- ND (Doctor of Naturopathic Medicine)
- PHAR (PharmD)
- PhD (Doctor of Philosophy)
- RN (Registered Nurse)
- Other (please specify)_____

- None

6. What is the name of your current primary employer?_____

7. When did you assume your current position with this employer?

Month/Year (e.g., 12/03)_____

8. What is your position? (Select all that apply)

- Associate professor
- Assistant professor
- Adjunct professor
- Instructor
- Visiting professor
- Research Director
- Research Associate
- Postdoc/fellow GO TO survey end

- Student GO TO survey end
- Other (please specify)_____

9. What is your tenure status? (Select one response)

- Tenured
- On tenure track
- Not on tenure track

Finally, we would like to give you the opportunity to make any additional comments about your CTSA-funded education and training experience including what improvements might make these experiences more useful to you in your research.

Thank you very much for your participation.

Dear CTSA trainee/scholar:

We recently sent you an email inviting you to participate in a survey conducted on behalf of the NIH. This is a follow up to that invitation.

The National Institutes of Health (NIH) launched the Clinical and Translational Science Awards (CTSA) initiative in October 2005. CTSA-awarded institutions are sometimes referred to as institutes or centers, such as the [INSERT RELEVANT CTSA PROJECT NAME]. Throughout the remainder of this survey, we refer to these awardees as “CTSA institutions” or “CTSAs.” CTSAs are expected to encourage development of new methods and approaches, improve training and mentoring, design new and improved clinical research informatics tools, assemble interdisciplinary teams, and forge new partnerships with private and public health care organizations. As part of these resources, CTSAs offer a range of resources to advance translational science and research.

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I did not receive education or training support

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Dear CTSA trainee/scholar:

Thank you for sharing your views about Clinical and Translational Science Awards (CTSA) resources. The perspectives of trainees and scholars are essential to understanding what education and training resources are being used, perceptions of the value of these resources, and how the resources may have affected the careers of individuals receiving funding and mentoring support.