

Final Progress Report for Research Projects Funded by Health Research Grants

Instructions: Please complete all of the items as instructed. Do not delete instructions. Do not leave any items blank; responses must be provided for all items. If your response to an item is “None”, please specify “None” as your response. “Not applicable” is not an acceptable response for any of the items. There is no limit to the length of your response to any question. Responses should be single-spaced, no smaller than 12-point type. The report **must be completed using MS Word**. Submitted reports must be Word documents; they should not be converted to pdf format. Questions? Contact Health Research Program staff at 717-783-2548.

1. **Grantee Institution:** Treatment Research Institute
2. **Reporting Period (start and end date of grant award period):** 1/1/2010-12/31/2011
3. **Grant Contact Person (First Name, M.I., Last Name, Degrees):** Rosalyn L. Weinstein
4. **Grant Contact Person’s Telephone Number:** 215-399-0980
5. **Grant SAP Number:** 4100050911
6. **Project Number and Title of Research Project:** Project 01 Assessing DUI Offender's Needs and Risks to Improve Treatment and Supervision in Pennsylvania
7. **Start and End Date of Research Project:** 1/1/2010-12/31/2011
8. **Name of Principal Investigator for the Research Project:** David S. Festinger, PhD
9. **Research Project Expenses.**

9(A) Please provide the amount of health research grant funds spent on this project for the entire duration of the grant, including any interest earned that was spent:

\$ 171,858

9(B) Provide the last names (include first initial if multiple individuals with the same last name are listed) of **all** persons who worked on this research project and were supported with health research funds. Include position titles (Principal Investigator, Graduate Assistant, Post-doctoral Fellow, etc.), percent of effort on project and total health research funds expended for the position. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name	Position Title	% of Effort on Project	Cost
David S. Festinger	Principal Investigator	20%	40,100
Karen L. Dugosh	Co-Investigator	20%	1,219
John C. Cacciola	Expert Panel Member	<1%	932
Douglas B. Marlowe	Expert Panel Member	<1%	668
Lenore Robison	Section Coordinator	2.5% yr. 2 only	1,968
Jason Croft	Research Coordinator	10%	6,038
Thea Musselman	QA Coordinator	<1% yr. 2 only	250
Matthew Haines	Research Assistant	40%	10,391
Joshua Titmus	Data Analyst	2% yr. 2 only	353
Van Lam	Applications Developer	10%	11,274

9(C) Provide the names of **all** persons who worked on this research project, but who *were not* supported with health research funds. Include position titles (Research Assistant, Administrative Assistant, etc.) and percent of effort on project. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name	Position Title	% of Effort on Project
None		

9(D) Provide a list of **all** scientific equipment purchased as part of this research grant, a short description of the value (benefit) derived by the institution from this equipment, and the cost of the equipment.

Type of Scientific Equipment	Value Derived	Cost
None		

10. Co-funding of Research Project during Health Research Grant Award Period. Did this research project receive funding from any other source during the project period when it was supported by the health research grant?

Yes _____ No x _____

If yes, please indicate the source and amount of other funds:

11. Leveraging of Additional Funds

11(A) As a result of the health research funds provided for this research project, were you able to apply for and/or obtain funding from other sources to continue or expand the research?

Yes _____ No X _____

If yes, please list the applications submitted (column A), the funding agency (National Institutes of Health—NIH, or other source in column B), the month and year when the application was submitted (column C), and the amount of funds requested (column D). If you have received a notice that the grant will be funded, please indicate the amount of funds to be awarded (column E). If the grant was not funded, insert “not funded” in column E.

Do not include funding from your own institution or from CURE (tobacco settlement funds). Do not include grants submitted prior to the start date of the grant as shown in Question 2. If you list grants submitted within 1-6 months of the start date of this grant, add a statement below the table indicating how the data/results from this project were used to secure that grant.

A. Title of research project on grant application	B. Funding agency (check those that apply)	C. Month and Year Submitted	D. Amount of funds requested:	E. Amount of funds to be awarded:
None	<input type="checkbox"/> NIH <input type="checkbox"/> Other federal (specify: _____) <input type="checkbox"/> Nonfederal source (specify: _____)		\$	\$
	<input type="checkbox"/> NIH <input type="checkbox"/> Other federal (specify: _____) <input type="checkbox"/> Nonfederal source (specify: _____)		\$	\$
	<input type="checkbox"/> NIH <input type="checkbox"/> Other federal (specify: _____) <input type="checkbox"/> Nonfederal source (specify: _____)		\$	\$

11(B) Are you planning to apply for additional funding in the future to continue or expand the research?

Yes No

If yes, please describe your plans:

We plan to use the findings from this study to aid in the submission of a future NIH instrument development grant. This should enable us to develop and validate the DUI RANT™ tool and to allow for the possibility of the DUI RANT to become a commercially viable instrument.

12. Future of Research Project. What are the future plans for this research project?

As described above, we anticipate using the findings from this study to pursue future NIH funding opportunities that will allow us to further develop the DUI RANT instrument. It is our hope that implementation of the triaging system developed in the current study may help to ensure that DUI offenders receive an optimal combination of treatment and/or criminal justice supervision thus benefitting society by addressing both public safety and public health concerns. While we have not yet applied for a patent, future plans also include the possibility of developing this instrument for purchase.

13. New Investigator Training and Development. Did students participate in project supported internships or graduate or post-graduate training for at least one semester or one summer?

Yes No

If yes, how many students? Please specify in the tables below:

	Undergraduate	Masters	Pre-doc	Post-doc
Male				
Female				
Unknown				
Total				

	Undergraduate	Masters	Pre-doc	Post-doc
Hispanic				
Non-Hispanic				
Unknown				
Total				

	Undergraduate	Masters	Pre-doc	Post-doc
White				
Black				
Asian				
Other				
Unknown				
Total				

14. Recruitment of Out-of-State Researchers. Did you bring researchers into Pennsylvania to carry out this research project?

Yes _____ No X

If yes, please list the name and degree of each researcher and his/her previous affiliation:

15. Impact on Research Capacity and Quality. Did the health research project enhance the quality and/or capacity of research at your institution?

Yes X No _____

If yes, describe how improvements in infrastructure, the addition of new investigators, and other resources have led to more and better research.

Through collaborations with the advisory committee, we forged excellent working relationships with researchers and law enforcement officials who provided diverse feedback and strengthened resources for community support of our research. The data will also help us to seek future funding in this area of research.

16. Collaboration, business and community involvement.

16(A) Did the health research funds lead to collaboration with research partners outside of your institution (e.g., entire university, entire hospital system)?

Yes X No _____

If yes, please describe the collaborations:

In this research we utilized an advisory committee that included representatives from the research community and the criminal justice system that served to inform the development of the instrument while giving us valuable feedback about the utility of our triage tool. This panel included experts in criminal justice research, alcohol abuse and dependence, DUI recidivism, and psychometric analysis, as well as selected experts working with DUI offenders in the criminal justice system.

16(B) Did the research project result in commercial development of any research products?

Yes _____ No X _____

If yes, please describe commercial development activities that resulted from the research project:

16(C) Did the research lead to new involvement with the community?

Yes X _____ No _____

If yes, please describe involvement with community groups that resulted from the research project:

By conducting the pilot testing of the DUI RANT instrument in an applied setting of Drug Courts in Union and Snyder Counties, we were involved with the law enforcement and judicial community within the 17th Judicial District in central Pennsylvania, and developed relationships for future research collaborations.

17. Progress in Achieving Research Goals, Objectives and Aims.

List the project goals, objectives and specific aims (as contained in the grant application’s strategic plan). Summarize the progress made in achieving these goals, objectives and aims for the period that the project was funded (i.e., from project start date through end date). Indicate whether or not each goal/objective/aim was achieved; if something was not achieved, note the reasons why. Describe the methods used. If changes were made to the research goals/objectives/aims, methods, design or timeline since the original grant application was submitted, please describe the changes. Provide detailed results of the project. Include evidence of the data that was generated and analyzed, and provide tables, graphs, and figures of the data. List published abstracts, poster presentations and scientific meeting presentations at the end of the summary of progress; peer-reviewed publications should be listed under item 20.

This response should be a DETAILED report of the methods and findings. It is not sufficient to state that the work was completed. Insufficient information may result in an unfavorable performance review, which may jeopardize future funding. If research findings are pending publication you must still include enough detail for the expert peer reviewers to evaluate the progress during the course of the project.

Health research grants funded under the Tobacco Settlement Act will be evaluated via a performance review by an expert panel of researchers and clinicians who will assess project work using this Final Progress Report, all project Annual Reports and the project’s strategic plan. After the final performance review of each project is complete, approximately 12-16 months after the end of the grant, this Final Progress Report, as well as the Final Performance

Review Report containing the comments of the expert review panel, and the grantee's written response to the Final Performance Review Report, will be posted on the CURE Web site.

There is no limit to the length of your response. Responses must be single-spaced below, no smaller than 12-point type. If you cut and paste text from a publication, be sure symbols print properly, e.g., the Greek symbol for alpha (α) and beta (β) should not print as boxes (□) and include the appropriate citation(s). DO NOT DELETE THESE INSTRUCTIONS.

A critical challenge for our field is to devise a more evidence based system for reliably assessing DUI offenders as soon as possible following the point of arrest to help inform their dispositions and to target them into the most effective and cost-efficient programs. This requires simultaneous attention to offenders' clinical needs and criminogenic risks. Following in the footsteps of the Drug Court Risk and Needs Triage (RANT™), the purpose of this study was to develop a brief assessment that incorporates markers of alcohol abuse/dependence and predictors of DUI recidivism. The assessment will promote evidence-based dispositions and address both public safety and public health considerations by triaging DUI offenders to an optimal combination of treatment and/or criminal justice supervision.

During Phase I of the study, we conducted a systematic literature review to identify robust predictors of DUI recidivism (risk) and generated a set of markers of substance dependence (clinical need). This information was then compiled into an annotated bibliography.

During Phase II, we convened an expert panel to review and finalize the list of predictors of need and risk. The expert panel consisted of a five-member panel of experts in criminal justice research and practice, substance use disorders, DUI recidivism, and psychometric analysis. Prior to the meeting, panel members received the annotated bibliography to review for its completeness and relevance. At the beginning of the meeting, panel members were informed about the aims of the project and their role in the DUI RANT™ development process. Following this introduction, the panel members discussed markers of risk and clinical need and, through this discussion, ultimately identified 24 key predictors of DUI recidivism and 6 markers of substance dependence. These 30 items were selected for inclusion in the DUI RANT.

In Phase III of the study, TRI's data programmer developed these 30 items into a web-based version of the DUI RANT. The web-based format is similar to that of the original RANT instrument, and it allowed for Phase IV of the study to be completed electronically.

In Phase IV of the study, we examined the discriminative utility of the DUI RANT in a small pilot study. DUI RANTs were completed on 59 individuals who had been recently arrested and convicted of DUI offenses in Union and Snyder County, PA. The sample was comprised of 29 first time DUI offenders and 30 repeat DUI offenders. Union and Snyder Probation Officers (POs) completed the assessments at the time of the offender's initial probation interview. Prior to beginning the study, TRI staff trained POs on DUI RANT data collection, proper interviewing techniques, obtaining informed consent, and research participant's rights. DUI RANT items were completed by the Probation Officer using available client records and self-report data from

the study participants when necessary. Following data collection, analyses were performed to identify risk and clinical need items that discriminated between first time and repeat offenders.

For first-time offenders, items were completed using *the time of their current DUI arrest* as a reference point. For repeat offenders items were completed using *the time of their first DUI arrest* as a reference point. For example, a repeat offender’s answer to the item “number of prior misdemeanor arrests” would reflect the number of prior misdemeanor arrests at the time of their *first* DUI arrest. We identified cutoff values for each item based on those used in our drug court RANT, the distribution of the items, the extant literature, and PA statutes. We then evaluated the extent to which each item discriminated between first-time and repeat offenders. The following tables contain the cutoff values that we used as an indicator of risk for each item, the percentage of people in each group who met this criterion, and a value representing the magnitude of the observed difference for first-time and repeat DUI offenders.

RISK ITEMS

Table 1 below presents the risk items that differed between first time and repeat offenders (.2 = practically significant effect; Ferguson, 2009).

Table 1. Discriminating risk items.

Item	Cutoff	First-Time Offender	Repeat Offender	Effect Size (w)
		(29)	(30)	
Amount of time during the past 12 months spent interacting with other people who are engaged in criminal activity, including illicit drug or alcohol abuse	Most/Almost All	10%	43%	0.37
Age of onset of substance use	Age 15 or under	10%	37%	0.31
Number of prior arrests for summary alcohol/drug related offenses	Any	14%	40%	0.29
Number of times fired /suspended/ expelled for reasons related to alcohol or drug use	Any	7%	27%	0.26
Number of prior misdemeanor arrests	Any	10%	30%	0.24
Number of prior misdemeanor arrests for crimes against persons	Any	0%	10%	0.23

Number of prior alcohol or other substance abuse treatment episodes or attempts	Any	3%	17%	0.22
Age of onset of criminal activity	Age 15 or under	10%	27%	0.21
Number of prior arrests for moving violations	5 or more	10%	27%	0.21
Age at first DUI conviction	Age 21 or younger	14%	30%	0.20

Table 2 below contains the risk items and cutoffs that fell below the minimum levels.

Table 2. Poor performing risk items

Item	Cutoff	First-Time Offender	Repeat Offender	Effect Size (<i>w</i>)
		(29)	(30)	
Number of prior misdemeanor alcohol/drug related arrests	Any	10%	23%	0.17
For first DUI conviction: BAC at the time of arrest	.16 or higher	31%	47%	0.16
Valid driver's license at the time of the DUI	No	10% vs.	3%	0.14
Number of prior diversions, de novo referrals, or ARDs	Any	7%	13%	0.11
Number of times driver's license suspended or revoked	Any	38%	47%	0.09
Number of bench warrants for failure to appear	Any	7%	3%	0.08
Number of prior felony arrests	Any	3%	3%	0.00
Number of prior non-DUI felony alcohol/drug related arrests	Any	7%	7%	0.00
For first DUI conviction: Refusal of breathalyzer/ blood testing at time of arrest	Yes	7%	7%	0.00
Number of prior felony arrests for crimes against persons	Any	3%	0%	n/a

NEED ITEMS

Table 3 below presents the need items that differed between first time and repeat offenders.

Table 3. Discriminating need items.

Item	Response	First-Time Offender	Repeat Offender	Effect Size (d/w)
		M(SD)/%(N)	M(SD)/%(N)	
Experienced binge use and loss of control prior to first DUI conviction in the past 12 months	Yes	3.45% (1)	60.00% (18)	0.6
Experienced cravings or compulsions prior to first DUI conviction on in the past 12 months	Yes	10.34% (3)	60.00% (18)	0.52
Acute substance abuse-related injury	Yes	0.00% (0)	16.67% (5)	0.3
Experienced withdrawal syndrome prior to first DUI conviction in past 12 months	Yes	3.45% (1)	16.67% (5)	0.22

Table 4 below contains the need items and cutoffs that fell below the minimum levels.

Table 4. Poor performing need items.

Item	Response	First-Time Offender	Repeat Offender	Effect Size (d/w)
		M(SD)/%(N)	M(SD)/%(N)	
Chronic substance abuse-related medical condition	Yes	0.00% (0)	6.67% (2)	0.18
Major Axis I mental health diagnosis	Yes	6.90% (2)	10.00% (3)	0.06

Classification based on new algorithms

Algorithms were then created to classify offenders in terms of risk and need. A person was classified as high risk if any of the risk items listed above were endorsed. A person was classified as high need if any of the need items listed above were endorsed. Table 5 below presents the RANT classification for the first-time (*Italics*) and repeat (**Bold**) offender groups.

Table 5. DUI RANT classification.

		RISK	
		Low	High
NEED	Low	10% <i>65%</i>	23% <i>21%</i>
	High	7% <i>7%</i>	60% <i>7%</i>

Italics = First time offender

Bold = Repeat offender

In Phase V of the study, we reconvened our expert panel via teleconference. Each panel member received a detailed report of the psychometric and between group findings in advance of the meeting. During this meeting, we reviewed the findings, discussed scoring algorithms, generated a list of treatment and supervisory recommendations for each quadrant (i.e., high/low risk, high/low need), and outlined potential sentencing recommendations to be developed into a policy brief and a future fully powered grant proposal. We also discussed the overall practicality and feasibility of using the DUI-RANT in different contexts. Importantly, the parole officer on the panel reported that the tool was user-friendly and that the most of the information was easily obtained using through the Commonwealth’s Court Reporting Network (CRN) system. The panel concluded that the findings were promising and supported future development of the instrument.

18. Extent of Clinical Activities Initiated and Completed. Items 18(A) and 18(B) should be completed for all research projects. If the project was restricted to secondary analysis of clinical data or data analysis of clinical research, then responses to 18(A) and 18(B) should be “No.”

18(A) Did you initiate a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

Yes

No

18(B) Did you complete a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

Yes

No

If “Yes” to either 18(A) or 18(B), items 18(C) – (F) must also be completed. (Do NOT complete 18(C-F) if 18(A) and 18(B) are both “No.”)

18(C) How many hospital and health care professionals were involved in the research project?

 0 Number of hospital and health care professionals involved in the research project

18(D) How many subjects were included in the study compared to targeted goals?

 60 Number of subjects originally targeted to be included in the study
 59 Number of subjects enrolled in the study

Note: Studies that fall dramatically short on recruitment are encouraged to provide the details of their recruitment efforts in Item 17, Progress in Achieving Research Goals, Objectives and Aims. For example, the number of eligible subjects approached, the number that refused to participate and the reasons for refusal. Without this information it is difficult to discern whether eligibility criteria were too restrictive or the study simply did not appeal to subjects.

18(E) How many subjects were enrolled in the study by gender, ethnicity and race?

No identifying information was collected as part of this study

Gender:

 Males
 Females
 X Unknown

Ethnicity:

 Latinos or Hispanics
 Not Latinos or Hispanics
 X Unknown

Race:

 American Indian or Alaska Native
 Asian
 Blacks or African American
 Native Hawaiian or Other Pacific Islander
 White
 Other, specify: _____
 X Unknown

18(F) Where was the research study conducted? (List the county where the research study was conducted. If the treatment, prevention and diagnostic tests were offered in more than one county, list all of the counties where the research study was conducted.)

- The 17th Judicial District Drug Court in Union and Snyder Counties

19. Human Embryonic Stem Cell Research. Item 19(A) should be completed for all research projects. If the research project involved human embryonic stem cells, items 19(B) and 19(C) must also be completed.

19(A) Did this project involve, in any capacity, human embryonic stem cells?

Yes
 No

19(B) Were these stem cell lines NIH-approved lines that were derived outside of Pennsylvania?

Yes
 No

19(C) Please describe how this project involved human embryonic stem cells:

20. Articles Submitted to Peer-Reviewed Publications.

20(A) Identify all publications that resulted from the research performed during the funding period and that have been submitted to peer-reviewed publications. Do not list journal abstracts or presentations at professional meetings; abstract and meeting presentations should be listed at the end of item 17. **Include only those publications that acknowledge the Pennsylvania Department of Health as a funding source** (as required in the grant agreement). List the title of the journal article, the authors, the name of the peer-reviewed publication, the month and year when it was submitted, and the status of publication (submitted for publication, accepted for publication or published.). Submit an electronic copy of each publication or paper submitted for publication, listed in the table, in a PDF version 5.0.5 (or greater) format, 1,200 dpi. Filenames for each publication should include the number of the research project, the last name of the PI, the number of the publication and an abbreviated research project title. For example, if you submit two publications for PI Smith for the “Cognition and MRI in Older Adults” research project (Project 1), and two publications for PI Zhang for the “Lung Cancer” research project (Project 3), the filenames should be:

- Project 1 – Smith – Publication 1 – Cognition and MRI
- Project 1 – Smith – Publication 2 – Cognition and MRI
- Project 3 – Zhang – Publication 1 – Lung Cancer
- Project 3 – Zhang – Publication 2 – Lung Cancer

If the publication is not available electronically, provide 5 paper copies of the publication.

Note: The grant agreement requires that recipients acknowledge the Pennsylvania Department of Health funding in all publications. Please ensure that all publications listed acknowledge the Department of Health funding. If a publication does not acknowledge the funding from the Commonwealth, do not list the publication.

Title of Journal Article:	Authors:	Name of Peer-reviewed Publication:	Month and Year Submitted:	Publication Status (check appropriate box below):
1. By the Book: Relationships among Codified Sanctions and Alcohol-Related Traffic Fatalities.	Adam Christmann, Matthew Haines, Patrick Johnson, and Jason Matejkowski	Drugs: Education, Prevention & Policy	August 2011	<input checked="" type="checkbox"/> Submitted <input type="checkbox"/> Accepted <input type="checkbox"/> Published
2.				<input type="checkbox"/> Submitted <input type="checkbox"/> Accepted <input type="checkbox"/> Published
3.				<input type="checkbox"/> Submitted <input type="checkbox"/> Accepted <input type="checkbox"/> Published

20(B) Based on this project, are you planning to submit articles to peer-reviewed publications in the future?

Yes X No _____

If yes, please describe your plans:

We plan to publish the findings of this study to a peer-reviewed journal within the next few months.

21. Changes in Outcome, Impact and Effectiveness Attributable to the Research Project.

Describe the outcome, impact, and effectiveness of the research project by summarizing its impact on the incidence of disease, death from disease, stage of disease at time of diagnosis, or other relevant measures of outcome, impact or effectiveness of the research project. If there were no changes, insert “None”; do not use “Not applicable.” Responses must be single-spaced below, and no smaller than 12-point type. DO NOT DELETE THESE INSTRUCTIONS. There is no limit to the length of your response.

Intoxicated driving is a serious public health issue in the Pennsylvania that increases risk of injury or death to not only the DUI offender, but to other drivers and passengers on the road. In 2008 alone, alcohol was to blame for over 12,750 auto accidents and 534 auto-related deaths (representing roughly 35% of auto-related deaths)¹. Beyond personal consequence, driving while intoxicated carries an incredible state financial burden which is compounded with every incident. The average alcohol-related fatality cost in Pennsylvania is \$3.8 million, considering monetary costs and quality of life losses².

By determining the most effective program for offenders by using evidence-based procedures to inform dispositions, DUI offenders will be placed in programs targeted for their level of risk

and need. This in turn has the potential to better rehabilitate offenders and reduce risk of DUI recidivism. The implementation of the triaging system developed in the current study may help to ensure that DUI offenders receive an optimal combination of treatment and/or criminal justice supervision thus benefitting society by addressing both public safety and public health concerns.

¹Pennsylvania Driving Under the Influence Association. (2009). Crash facts. Retrieved October 7, 2009 from http://www.padui.org/crash_tx.htm

²Your Advice & Education on Realty Development. (2009). Impaired driving in Pennsylvania. Retrieved October 7, 2009 from <http://www.yaerd.org/cost-of-drunk-driving.htm>

22. Major Discoveries, New Drugs, and New Approaches for Prevention Diagnosis and Treatment. Describe major discoveries, new drugs, and new approaches for prevention, diagnosis and treatment that are attributable to the completed research project. If there were no major discoveries, drugs or approaches, insert “None”; do not use “Not applicable.” Responses must be single-spaced below, and no smaller than 12-point type. **DO NOT DELETE THESE INSTRUCTIONS.** There is no limit to the length of your response.

We have developed a triage assessment that may help to identify DUI offenders who are at increased risk for repeat DUI. With further validation this type of triage tool could help match individuals to the optimal level of treatment services and criminal justice supervision, improving public health and public safety.

23. Inventions, Patents and Commercial Development Opportunities.

23(A) Were any inventions, which may be patentable or otherwise protectable under Title 35 of the United States Code, conceived or first actually reduced to practice in the performance of work under this health research grant? Yes X No

If “Yes” to 23(A), complete items a – g below for each invention. (Do NOT complete items a - g if 23(A) is “No.”)

- a. Title of Invention: DUI Risk and Needs Triage (DUI RANT™)
- b. Name of Inventor(s): Treatment Research Institute, David S. Festinger, Ph.D.
- c. Technical Description of Invention (describe nature, purpose, operation and physical, chemical, biological or electrical characteristics of the invention):

The DUI RANT is a brief triage assessment that incorporates markers of alcohol abuse/dependence and predictors of DUI recidivism. The assessment could be used to promote evidence-based dispositions and address both public health and public safety by triaging DUI offenders to the optimal combination of treatment and/or criminal justice supervision.

- d. Was a patent filed for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?
Yes _____ No X

If yes, indicate date patent was filed:

- e. Was a patent issued for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?
Yes _____ No X

If yes, indicate number of patent, title and date issued:

Patent number:

Title of patent:

Date issued:

- f. Were any licenses granted for the patent obtained as a result of work performed under this health research grant? Yes _____ No X

If yes, how many licenses were granted? _____

- g. Were any commercial development activities taken to develop the invention into a commercial product or service for manufacture or sale? Yes ___ No X

If yes, describe the commercial development activities:

23(B) Based on the results of this project, are you planning to file for any licenses or patents, or undertake any commercial development opportunities in the future?

Yes X _____ No _____

If yes, please describe your plans:

Following in the steps of our marketed RANT™ for Drug Courts, with further validation, we anticipate marketing the assessment as a rational, evidence-based decision support tool to help judges and other criminal justice professionals to match DUI offenders to the optimal level of supervision and treatment.

24. Key Investigator Qualifications. Briefly describe the education, research interests and experience and professional commitments of the Principal Investigator and all other key investigators. In place of narrative you may insert the NIH biosketch form here; however, please limit each biosketch to 1-2 pages. *For Nonformula grants only – include information for only those key investigators whose biosketches were not included in the original grant application.*

Biosketches for all key investigators were included in the original grant application.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME David S. Festinger Ph.D.	POSITION TITLE Director, Section on Law & Ethics Research		
eRA COMMONS USER NAME DFESTINGER			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Rutgers University	B.A.	1990	Psychology
Arcadia University	M.A.	1993	Counseling Psychology
Medical College of Pennsylvania and Hahnemann University	M.A.	1995	Clinical Psychology
Eastern Pennsylvania Psychiatric Institute	Intern	1997-1998	Clinical & Health Psychology
Hahnemann University of the Health Sciences	Ph.D.	1998	Clinical Psychology

A. Positions and Honors

Positions and Employment

1994-1998 Director of Research, Institute of Addictive Behaviors, MCP Hahnemann University

1998-1999 Investigator, Institute for Addictive Disorders, MCP

1998-2003 Behavioral Scientist, DeltaMetrics

1999-2007 Senior Scientist, Treatment Research Institute at the University of Pennsylvania

2007-Present Director, Section on Law and Ethics Research, Treatment Research Institute

Other Experience and Professional Memberships

1998-1999 Assistant Professor of Psychiatry (Tenure track), MCP Hahnemann University

A

2003-Present Adjunct Assistant Professor of Clinical & Health Psychology, Drexel University

2005-Present Adjunct Assistant Professor of Psychiatry, University of Pennsylvania School of Medicine

2003-2006 Human Subjects Research Committee, College on Problems of Drug Dependence

2004-Present Ad Hoc Grant Reviewer, Research Ethics Study Section, NIH CSR ZRG1 HOP-E (50)

2004 Ad Hoc Grant Reviewer, Young Offender Reentry Program, SAMHSA

2006-Present Awards Chair & member of the Executive Committee: Division 28, APA

2006-Present Licensed Psychologist, Pennsylvania (#PS-016043)

Honors

2000 College on Problems of Drug Dependence Early Career Investigator Award

B. Publications (15 SELECTED)

Selected Peer-Reviewed Publications

1. Festinger, D.S., Marlowe, D.B., Lee, P.A., Kirby, K.C., Bovasso, G., & McLellan, A.T., (2002). Status hearings in drug court: When more is less and less is more. *Drug and Alcohol Dependence*, 68,151-157.
2. Marlowe, D. B., Festinger, D. S., Lee, P. A., Schepise, M. M., Hazzard, J. E. R., Merrill, J. C., Mulvaney, F. D., & McLellan, A. T. (2003). Are judicial status hearings a “key component” of drug court? During-treatment data from a randomized trial. *Criminal Justice & Behavior*, 30, 141-162.
3. Festinger, D. S., DeMatteo, D.S., Marlowe, D.B., & Lee, P.A. (2005). Expungement of arrest records in drug court: Do clients know what they’re missing? *Drug Court Review*, 5, 1-21.
4. Marlowe, D. B., Festinger, D. S., Foltz, C., Lee, P. A., & Patapis, N. S. (2005). Perceived deterrence and outcomes in drug court. *Behavioral Sciences and the Law*, 23, 183-198.
5. Marlowe, D. B., Festinger, D. S., Lee, P. A., Dugosh, K. L., & Benasutti, K. M. (2006). Matching judicial supervision to clients’ risk status in drug court. *Crime & Delinquency*, 52, 52-76.
6. Festinger, D. S., Ratanadilok, K., Marlowe, D. B., Dugosh, K. L., Patapis, N. S., & DeMatteo, D. S. (2007). Neuropsychological functioning and recall of research consent information among drug court clients. *Ethics & Behavior*, 17(2), 163-186.
7. Marlowe, D. B., Festinger, D. S., Arabia, P. A., Dugosh, K. L., Benasutti, K. M., Croft, J. R. & McKay, J. R. (2008). Adaptive interventions in Drug Court: A pilot experiment. *Criminal Justice Review*, 33(3), 343-360. PMC2735275
8. Marlowe, D. B., Festinger, D. S., Dugosh, K. L., Arabia, P. L. & Kirby, K. C. (2008). An effectiveness trial of contingency management in a felony pre-adjudication drug court. *Journal of Applied Behavioral Analysis*, 41, 565-577. PMC2606594
9. Marlowe, D. B., Festinger, D. S., Arabia, P. L., Dugosh, K. L., Benasutti, K. M., Croft, J. R. (2009). Adaptive interventions may optimize outcomes in drug courts: A pilot study. *Current Psychiatry Reports*, 11, 370 – 376. PMC2756065
10. Dugosh, K. L., Festinger, D. S., Croft, J. R., & Marlowe, D. B. (2010). Measuring coercion to participate in research within a doubly vulnerable population. *Journal of Empirical Research on Human Research Ethics*, 5(1), 93-102. PMC3219039
11. Festinger, D. S., Dugosh, K. L., Croft, J. R., Arabia, P. L., & Marlowe, D. B. (2010). Corrected feedback: A procedure to enhance recall of informed consent to research among substance abusing offenders. *Ethics & Behavior*, 20(5), 387-399. PMC3212946.
12. Festinger, D.S., Dugosh, K.L., Croft, J.R., Arabia, P.L., & Marlowe, D.B. (2011). Do research intermediaries reduce perceived coercion to enter research trials among criminally involved substance abusers? *Ethics & Behavior*, 21(3), 252-259. PMC3212947
13. Marlowe, D. B., Festinger, D. S., Dugosh, K. L., Caron, A. & Padkopacz, M. R. (2011). Targeting dispositions for drug-involved offenders: A field trial of the Risk and Needs Triage (RANT)™. *Journal of Criminal Justice*, 39(3), 253-260. PMC Journal – In Process.
14. Festinger, D.S., Dugosh, K.L., Metzger, D.S., & Marlowe, D.B. (in press). The prevalence of HIV risk behaviors among felony drug court clients. *Drug Court Review*.
15. Marlowe, D.B., Festinger, D.S., Dugosh, K.L., Benasutti, K.M., Fox, G., & Croft, J.R. (in press). Adaptive programming improves outcomes in drug court: An experimental trial. *Criminal Justice and Behavior*.

C. Research Support

Ongoing Research Support

R01DA030257 Festinger (PI)

01/15/11 – 12/31/15

Delivering HIV Risk Reduction Services in Drug Court

The primary goal of this study is to evaluate the efficacy of a brief, computer-facilitated HIV prevention intervention among substance abusing offenders in the City of Philadelphia's drug treatment court program. Findings will provide useful information on the utility of a practical strategy for reducing HIV risk in the growing population of substance using offenders in our communities and have major implications for expanding the focus of drug courts and other community based correction programs beyond reducing criminal recidivism and drug use.

Role: Principal Investigator

R01DA025687 Dugosh (PI)

01/15/10-12/31/12

Improving Ethics in Research: Development of the Coercion Assessment Scale (CAS)

This study seeks to further develop the Coercion Assessment Scale (CAS), an instrument designed to measure perceptions of coercion among substance abusing criminal justice clients participating in research. Much like consent quizzes and tests of cognitive functioning, the CAS will be useful for identifying individuals who are not appropriate for research participation because of their level of perceived coercion. In this context, the CAS may be particularly useful to research staff, research intermediaries, and ethics review boards.

Role: Co- Investigator

R01DA016730 Festinger (PI)

07/01/03–07/31/12

Improving the Ethics of Consent In Drug Abuse Research: "Incentivizing Consent"

The primary aim of this two year competing renewal is to examine the effects of an incentivized consent *and* a corrected feedback procedures in combination, on research participants' recall of consent information. We hypothesize that combining both interventions will elicit a greater effect than either one alone, because this strategy both simplifies the cognitive task and also increases participants' motivation to learn the consent information. Our hope is that this combined strategy will enable participants to achieve a greater degree of mastery of consent information than has been obtained in our studies or reported in the research literature. As in our prior work, the proposed research will take place within the context of a real-world drug court study.

Role: Principal Investigator

R01DA021621 Festinger (PI)

09/30/07-06/30/12

Contingency Management for Cocaine Dependence: Cash vs. Vouchers

This grant experimentally examines the differential efficacy, cost-effectiveness, and ethics of a cash- versus a voucher-based CM protocol in the treatment of drug dependence. This investigation not only will address practical issues pertaining to the transfer of CM interventions into community-based treatment programs, but also will begin to shed empirical light on many of the ethical criticisms that have been levied against the use of cash and CM interventions.

Role: Principal Investigator

R01DA024658 Arria (PI)

09/01/09 – 08/31/12

Internet as Supplier: Preventing Adolescent Use of Non-Medical Addictive Rx
Main Grant Objective: This study will obtain information directly from adolescents about their use of the internet and other sources to obtain drugs. The study will collect standardized information from 2,100 adolescents ages 12 – 17 who are in 30 residential treatment programs.
Role: Co-Investigator

R01DA019892 Henggeler (PI)
09/29/07 – 09/28/12

Enhancing Juvenile Drug Court Outcomes with EBPs
Subcontract from Medical University of South Carolina
The major goal of this project is to develop and test a relatively flexible and low cost strategy for enhancing the outcomes of juvenile drug courts by integrating components of evidence-based treatments into existing substance abuse services.
Role: Investigator

R01DA-013096 Marlowe (PI)
07/01/08 - 06/30/12

Adaptive Services in Drug Court
This grant extends a program of health-services research aimed at adapting services in drug courts to the needs of drug-abusing offenders. The current project will examine the incremental utility gained by continuously re-adjusting the intensity of both judicial supervision and clinical case-management services in response to clients' on-going performance in the program.
Role: Co-Investigator

Completed Research Support

SAP Number 4100050911 Festinger (PI)
01/01/10 – 12/31/11

Assessing DUI Offenders' Needs and Risks to Improve Treatment and Supervision in Pennsylvania
Following in the footsteps of the Drug Court Risk and Needs Triage (RANT™), the purpose of this project is to develop a brief assessment that incorporates a comprehensive set of evidence based markers of alcohol dependence and predictors of DUI recidivism.
Role: Principal Investigator

R21DA022293-01 DeMatteo (PI)
08/30/07–07/31/10

The Development of a Prevention Intervention for Low-Risk Drug Court Clients
This is a Stage Ia/Ib Behavior Therapy Development Application to develop a secondary prevention intervention for adult drug court clients who do not have an identifiable substance use disorder.
Role: Co-Investigator

R01DA013408 Festinger (PI)
02/01/00-04/30/08

Ethics of Participant Payment in Drug Abuse Research

This competing renewal extends the original projects by examining the effects of higher magnitudes of participant payment on rates of follow-up completion, level of perceived coercion, and likelihood of drug use subject among patients in outpatient treatment for substance abuse.
Role: Principal Investigator

R01-DA-14566 Marlowe (PI)
09/30/01-06/30/07

Services Research on Sanctions and Rewards in Drug Court

This was a randomized, controlled study of the effects of different approaches to administering structured, graduated sanctions and incentives to drug court clients on clients' treatment attendance, substance use, criminal recidivism, and psychosocial functioning at various follow-up intervals.

Role: Co-Investigator

BIOGRAPHICAL SKETCH

NAME Karen Leggett Dugosh eRA COMMONS USER NAME kdugosh	POSITION TITLE Research Scientist II		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Gettysburg College, Gettysburg, PA	B.A.	1993	Psychology
The University of Texas at Arlington, Arlington, TX	M.S.	1997	Experimental Psychology
The University of Texas at Arlington, Arlington, TX	Ph.D.	2001	Experimental Psychology

A. Positions and Honors.

Positions:

- 1995-2000 Graduate Research/Teaching Assist., The University of Texas at Arlington, Arlington, TX
- 2000-2001 Graduate Research/Teaching Assoc., The University of Texas at Arlington, Arlington, TX
- 2001-2002 Research Associate, Deltametrics, Philadelphia, PA
- 2002-2004 Research Analyst, Treatment Research Institute, Philadelphia, PA
- 2004-2010 Quantitative Psychologist, Treatment Research Institute, Philadelphia, PA
- 2010-present Research Scientist, Level II, Treatment Research Institute, Philadelphia, PA

Honors:

- 1999 Department of Psychology Outstanding Graduate Student Research Award
- 1999 The University of Texas at Arlington Academic Excellence Award
- 2000 The University of Texas at Arlington Academic Excellence Award

B. Publications (15 SELECTED)

1. Marlowe, D. B., Festinger, D. S., Lee, P. A., Dugosh, K. L., & Benasutti, K. M. (2006). Matching judicial status supervision to clients' risk status in drug court. *Crime and Delinquency*, *52*(1), 52-76.
2. Festinger, D. S., Ratanadilok, K., Marlowe, D. B., Dugosh, K. L., Patapis, N. S., & DeMatteo, D. S. (2007). Neuropsychological functioning and recall of research consent information among drug court clients. *Ethics and Behavior*, *17*(2), 163-186. PMID pending
3. Marlowe, D. B., Festinger, D. S., Dugosh, K. L., Lee, P. L., & Benasutti, K. M. (2007). Adapting Judicial Supervision to the Risk Level of Drug Offenders: Discharge and Six-Month Outcomes from a Prospective Matching Study. *Drug and Alcohol Dependence*, *(88, Suppl 2)*, S4-S13. PMC1885231
4. Festinger, D. S., Marlowe, D. B., Dugosh, K. L., Croft, J. R., & Arabia, P. L. (2008). Higher magnitude cash payments improve research follow-up rates without increasing drug use or perceived coercion. *Drug & Alcohol Dependence*, *96*, 128-135. PMC2475801

5. Marlowe, D. B., Festinger, D. S., Arabia, P. L., Dugosh, K. L., Benasutti, K. M., Croft, J. R., & McKay, J. R. (2008). Adaptive interventions in drug court: A pilot experiment. *Criminal Justice Review*, 33(3), 343-360. PMC2735275
6. Marlowe, D. B., Festinger, D. S., Dugosh, K. L., Arabia, P. L., & Kirby, K. C. (2008). An effectiveness trial of contingency management in a felony pre-adjudication drug court. *Journal of Applied Behavior Analysis*, 41(4), 565-577. PMC2606594
7. Marlowe, D. B., Festinger, D. S., Arabia, P. L., Dugosh, K. L., Benasutti, K. M., Croft, J. R. (2009). Adaptive Interventions May Optimize Outcomes in Drug Courts: A Pilot Study. *Current Psychiatry Reports*, 11, 370-376. PMC2756065
8. Dugosh, K. L., Festinger, D. S., Croft, J. R., & Marlowe, D. B. (2010). Measuring Coercion to Participate in Research within a Doubly Vulnerable Population. *Journal of Empirical Research on Human Research Ethics*, 5(1), 93-102. PMC3219039
9. Festinger, D. S., Dugosh, K. L., Croft, J. R., Arabia, P. L., & Marlowe, D. B. (2010). Corrected Feedback: A Procedure to Enhance Recall of Informed Consent to Research among Substance Abusing Offenders. *Ethics & Behavior*, 20(5), 387-399. PMC3212946
10. Festinger, D.S., Dugosh, K.L., Croft, J.R., Arabia, P.L., & Marlowe, D.B. (2011). Do research intermediaries reduce perceived coercion to enter research trials among criminally involved substance abusers? *Ethics & Behavior*, 21(3), 252-259. PMC3212947
11. Marlowe, D.B., Festinger, D.S., Dugosh, K.L., Caron, A., Podkopacz, M.R., & Clements, N. (2011). Targeting dispositions for drug-involved offenders: A field trial of the Risk and Needs Triage (RANT). *Journal of Criminal Justice*, 39(3), 253-260. PMID pending
12. Festinger, D.S. & Dugosh, K.D. (2012). Paying substance abusers in research studies: Where does the money go? *American Journal of Drug and Alcohol Abuse*, 38(1), 43-48. PMID pending
13. Festinger, D.S., Dugosh, K.L., Metzger, D.S., & Marlowe, D.B. (in press). The prevalence of HIV risk behaviors among felony drug court clients. *Drug Court Review*.
14. Klein A.A., Slaymaker, V.J., Dugosh K.L., & McKay, J.R. (in press). Computerized continuing care support for alcohol and drug dependence: A preliminary analysis of usage outcomes. *Journal of Substance Abuse Treatment*.
15. Marlowe, D.B., Festinger, D.S., Dugosh, K.L., Benasutti, K.M., Fox, G., & Croft, J.R. (in press). Adaptive programming improves outcomes in drug court: An experimental trial. *Criminal Justice and Behavior*.

C. Research Support.

Ongoing Research Support

R01-DA025687
12/31/12

Dugosh (PI)

01/15/10-

Improving Ethics in Research: Development of the Coercion Assessment Scale (CAS)
This study seeks to further develop the Coercion Assessment Scale (CAS), an instrument designed to measure perceptions of coercion among substance abusing criminal justice clients participating in research. Much like consent quizzes and tests of cognitive functioning, the CAS will be useful for identifying individuals who are not appropriate for research participation because of their level of perceived coercion. In this context, the CAS may be particularly useful to research staff, research intermediaries, and ethics review boards.

Role: PI

R01DA030257 Festinger (PI) 01/15/11 – 12/31/15

Delivering HIV Risk Reduction Services in Drug Court

The primary goal of this study is to evaluate the efficacy of a brief, computer-facilitated HIV prevention intervention among substance abusing offenders in the City of Philadelphia's drug treatment court program. Findings will provide useful information on the utility of a practical strategy for reducing HIV risk in the growing population of substance using offenders in our communities and have major implications for expanding the focus of drug courts and other community based correction programs beyond reducing criminal recidivism and drug use.

Role: Co-Investigator

R01DA016730 Festinger (PI) 08/01/10– 07/31/12

Improving the Ethics of Consent In Drug Abuse Research: "Incentivizing Consent"

The primary aim of this two year competing renewal is to examine the effects of an incentivized consent *and a* corrected feedback procedures in combination, on research participants' recall of consent information. We hypothesize that combining both interventions will elicit a greater effect than either one alone, because this strategy both simplifies the cognitive task and also increases participants' motivation to learn the consent information. Our hope is that this combined strategy will enable participants to achieve a greater degree of mastery of consent information than has been obtained in our studies or reported in the research literature. As in our prior work, the proposed research will take place within the context of a real-world drug court study.

Role: Co-Investigator

R01-DA021621 Festinger (PI) 09/30/07- 06/30/12

Contingency Management for Cocaine Dependence: Cash vs. Vouchers

This grant experimentally examines the differential efficacy, cost-effectiveness, and ethics of a cash-versus a voucher-based CM protocol in the treatment of drug dependence. This investigation not only will address practical issues pertaining to the transfer of CM interventions into community-based treatment programs, but also will begin to shed empirical light on many of the ethical criticisms that have been levied against the use of cash and CM interventions.

Role: Statistician

R01-DA-013096-08 Marlowe (PI) 07/01/08- 06/30/12

Adaptive Services in Drug Court

This competing-renewal grant will extend a program of health-services research aimed at adaptive services in drug courts to the needs of drug-abusing offenders. Our prior studies demonstrated a reliable and robust baseline-matching effect in drug courts, in which high risk offenders performed significantly better with intensive supervision from a judge. The current project will examine the incremental utility gained by continuously re-adjusting the intensity of both judicial supervision and clinical case-management services in response to clients' on-going performance in the program.

Role: Statistician

R01-DA-021561 Dembo (PI) 09/25/06 –
05/31/12

Brief Intervention for Drug Use and HIV/STD Risk Prevention among Non-Delinquent
Truants

Adolescents who are abusing drugs and have been charged with school truancy in
Hillsborough County, FL receive either a 2- or 3-session intervention with a counselor in a
randomly controlled effectiveness trial.

Role: Statistician

U-10DA013043-10 Woody (PI) 09/01/10-
8/31/15

Delaware Valley Node of the Clinical Trials Network

The DV Node of the CTN completed a study on the impact of a 6-month course of
maintenance treatment for opioid dependence using Suboxone or methadone in opioid
addicted youth, published the results, and we are currently working on secondary analyses
of the data. We have submitted DV sites for inclusion in the CTN study of SBIRT in general
medical and HIV treatment settings, and the study of web-based counseling. CTN work also
involves helping develop the CURB protocol, participating in meetings to disseminate
research findings to the treatment community and training in research procedures such as
the use of the addiction severity index. DV CTN staff has been involved in each of these
training and dissemination activities.

Role: Statistician

1P50DA027841-01 Kirby (PI) 8/01/2010 –
6/30/2015 Parents' Translational Research Center

This Center brings an experienced, multidisciplinary team of researchers, communication
experts, scientific advisors and parents themselves - to adapt, evaluate and communicate
the translated interventions directly to parents - maintaining the original principles of care.

Role: Statistician

SAP#4100055578 Kirby (PI) 06/01/2011 –
05/31/15

Integrating Substance Abuse Assessment and Intervention in Primary Care Settings

The purpose of the project is to compare screening, brief intervention, and referral to
treatment (SBIRT) to a screening protocol which features an expanded intervention
(SBIRT+) for addressing illicit drug use in primary care settings in underserved urban
neighborhoods. Completion of this project will provide conclusions about whether
expanded brief intervention is more effective than a standard SBIRT protocol, and whether
this expanded intervention is sustainable and cost-effective.

Role: Statistician

Completed Research Support

SAP-4100050911 Festinger (PI) 01/01/10-
12/31/11

Informing Evidence Based Sentencing in Pennsylvania: Development of a Risk and Needs
Triage for DUI Offenders

This grant seeks to develop a brief assessment that incorporates predictors of DUI
recidivism and markers of alcohol abuse/dependence. This assessment will promote

