Request for Project Information



Solicitation Number: MTEC-20-18-Burns "PLANAR DELIVERY PLATFORM FOR CERIUM AND SILVER INTO BURN WOUNDS"

Issued by: Advanced Technology International (ATI), MTEC Consortium Manager (CM) 315 Sigma Drive Summerville, SC 29486 for the Medical Technology Enterprise Consortium (MTEC)

Request Issue Date: August 4, 2020 Amendment No. 01 Issue Date: August 28, 2020

Project Information Due Date: September 2, 2020 Noon Eastern Time

Amendment No. 01 extends the due date from September 1, 2020 at 11:59pm ET to September 2, 2020 at 12:00pm ET.

All other terms and conditions remain unchanged.

ANNOUNCEMENT

REQUEST FOR PROJECT INFORMATION

MTEC-20-18-Burns

"PLANAR DELIVERY PLATFORM FOR CERIUM AND SILVER INTO BURN WOUNDS"

The Medical Technology Enterprise Consortium (MTEC) is excited to post this announcement for a Request for Project Information (RPI) focused on the development and fabrication of a medicalgrade planar delivery system for effective delivery of cerium and silver into burn wounds for improved burn outcome. This Request for Project Information (RPI) contains background information and guidance for MTEC members and non-members to prepare Project Information Papers for submission to MTEC. Project Information Papers will be used by the Sponsor (the U.S. Army Institute of Surgical Research, USAISR) to shape a potential future MTEC Request for Project Project.

BACKGROUND

Without timely treatment, burn wounds deteriorate, become infected, causing unwanted shortand long-term outcomes, and at worst, increased mortality. Under large scale multi-domain operations, delayed evacuation of the combat wounded is anticipated. Therefore, under prolonged field care environments, the treatment of burn injuries to stabilize the wounds, lessen progression, and limit complications is paramount to improve wound outcomes and decrease mortality.

Severely burn-injured skin forms an eschar (dead skin) that includes denatured macromolecules and other metabolites that contribute to local and systemic inflammation, immunosuppression, hypermetabolism, and ultimately multi-organ dysfunction. Early excision of the eschar and autologous skin grafting within a few days of injury reduces these detrimental effects and lowers infection risk, reducing morbidity and mortality. But eschar excision and grafting under prolonged field care during combat is not possible. Therefore, to mitigate the detrimental effects of the burn eschar when it cannot be excised, treatments are needed to temporize burn wounds. One such treatment with demonstrated effectiveness is cerium nitrate (CN).

Topical treatment of burn wounds with CN has been established to stabilize the eschar to: 1) reduce burn-injured patient care burden, 2) decrease inflammatory mediators in burn tissue and circulation, and 3) provide a leathery covering resistant to eschar detachment and infection that permits delayed excision and grafting.

Flammacerium, a cream formulation that contains both silver sulfadiazine and CN, is a topical antimicrobial that has been in widespread use in European burn units, particularly in Belgium, Netherlands, Switzerland, France, and the UK since the mid-1980s. It has also been compounded in hospital pharmacies and used in the U.S., including in New York after the 9/11 terrorist attacks

under an emergency Investigational New Drug (IND) filing with the U.S. Food and Drug Administration (FDA).

At the USAISR (Sponsor), researchers have demonstrated that CN solution (40 mM) treatment of rat full-thickness scald burns (Walker-Mason model) can reduce pro-inflammatory damage-associated molecular patterns (DAMPs), including high-mobility group box protein 1 (HMGB1), hyaluronan, and xanthine oxidase (XDH) in circulation on post-burn day 1. On post-burn day 7, both the DAMPs in circulation and the pro-inflammatory mediators, IL-1 β , IL-10, GRO-KC, and MIP-1 α in wound tissue were on average halved by CN treatment (Qian L. et al. J Burn Care & Res. 2020. 41(3):576-584. PMID: 31808807).

Moreover, researchers at the USAISR have investigated the use of fabric-based silver dressings to deliver CN to burn wounds. Compared to the silver dressings alone, the combination of silver dressings and CN reduced burn wound inflammation and restricted microbial growth in the burned tissue (rat model; manuscript in revision).

TECHNOLOGY FOCUS AREA

The USAISR is seeking technology input(s) for the development and fabrication of a planar system for the delivery of cerium and silver to burn wounds. The delivery system must be stable, light weight, small footprint, and easy to deploy by medical and non-medical personnel for treating burn wounds at or near the point of injury under prolonged field care.

KEY FEATURES OF THE PLANAR DELIVERY PLATFORM

- Planar delivery platform (e.g., textile). SEMI-SOLID FORMULATIONS WILL NOT BE CONSIDERED.
- Conformable to various body and wound surface contours and anatomical structures and suited for the treatment of severe burn wounds.
- Controlled and continuous release of CN and silver to burned human or animal skin for a minimum of 72 hours.
- Scalable and cost-effective manufacturing process.
- Stable during storage and operation (based on ICH Guidelines).

REQUIREMENTS OF THE PROJECT INFORMATION PAPER

- Format
 - 4-page limit, inclusive of contact information
 - 12 point Arial font, smaller font may be used in figures and tables, but must be clearly legible
 - Single-spaced, single-sided, 8.5 inches x 11 inches.
 - Margins on all sides (top, bottom, left, and right) should be at least 0.5 inch
 - Project Information Paper should be in *.pdf format
 - These project information submissions will be shared with the Sponsor; therefore, all information must be **nonproprietary**.

- The Project Information Paper must include the following information:
 - Date: [Insert Date of Submission]
 - PI Organization: [Insert submitter's name, organization, email address, phone number]
 - Approach: [Describe your approach to solving the problem. Include relevant background/preliminary data about your approach. Describe the existing technology. Include strategies for incorporating silver and cerium into the Planar Delivery Platform with details of risks and mitigations. Note: References are included within the page limit. There is no required format for the inclusion of references.]
 - Manufacturing: [Describe your ability to produce under good manufacturing practices (GMP) conditions and distribution capabilities and partnerships.]
 - Intellectual Property: [Describe relevant intellectual property and patent right assertions in U.S. and abroad.]
 - Experience: [Have submitters and/or their partners obtained FDA approval and marketed other solutions?]
 - Estimated Funding Required to Advance Project: [Please estimate the required funding needed for each major task that advances the project into its next stage of development/milestone dependent upon its current maturity. Do not provide budget detail only provide a total estimated budget for each major milestone. This information will be used to provide the Sponsor with a reasonable representation of the amount of funding required to advance the project. Examples of tasks include, but are not limited to:
 - late animal testing and regulatory filing;
 - conduct Phase 1 clinical trials

MTEC

The MTEC mission is to assist the USAMRDC by providing cutting-edge technologies and supporting effective materiel life cycle management to transition medical solutions to industry that protect, treat, and optimize Warfighters' health and performance across the full spectrum of military operations. MTEC is a biomedical technology consortium collaborating with multiple government agencies under a 10-year renewable Other Transaction Agreement (OTA), Agreement No. W81XWH-15-9-0001, with the U.S. Army Medical Research Acquisition Activity (USAMRAA). MTEC is currently recruiting a broad and diverse membership that includes representatives from large businesses, small businesses, "nontraditional" government contractors, academic research institutions, and not-for-profit organizations.

ADMINISTRATIVE INFORMATION

Project Information Papers must be submitted by **12:00 pm ET on September 2, 2020** via <u>BIDS</u>: <u>https://ati2.acqcenter.com/ATI2/Portal.nsf/Start?ReadForm</u>. Include the MTEC Solicitation Number (MTEC-20-18-Burns) on each Project Information Paper submitted. Project Information

Papers may be submitted by both MTEC members and non-members. Please note that MTEC membership is required for the submission of a proposal in response to a future MTEC Request for Project Proposals for Planar Delivery Platform for Cerium and Silver. To join MTEC, please visit <u>http://mtec-sc.org/how-to-join/</u>

For inquiries, please direct your correspondence to the following contacts:

- Technical questions Dr. Lauren Palestrini, PhD, MTEC Director of Research, Lauren.Palestrini@officer.mtec-sc.org
- Other questions Ms. Kathy Zolman, MTEC Director of Program Operations, Kathy.Zolman@ati.org

Sincerely, MTEC Project Team





MTEC BIDS REGISTRATION

MTEC BIDS URL:

HTTPS://ATI2.ACQCENTER.COM



BIDS New Registration

Navigate to the MTEC BIDS website and select "New Registration"





BIDS New Registration

Select "Submitter"



SECURITY NOTICE: Unauthorized attempts to deny service, upload information, change information, or attempt to access a non-public site from this service are strictly prohibited and may be punishable under Title 18 of the U.S. Code to include the Computer Fraud and Abuse Act of 1986 and the National Information Infrastructure Protection Act.





Complete the registration form. Be sure to select how you want to receive the dual factor verification code (SMS text message is recommended).

Extn. Fax Number:	How to receive dual factor authentication .
* Email Address:	
* Email Confirmation:	
* Contractor Status:	
Cell Number:	Enter a cell number in order to be able to receive passcodes via SMS. Enter exactly 10 digits without any punctuation.
Preferred Code Delivery Method:	Select your preferred method for receiving two-factor passcodes. If you select SMS, you must enter a cell number. You will still have the selecting either when logging in.
Wohsito	© E-Mail
Website.	http://
* Programs Requested:	What area do you belong to? Please select all that apply:
	MTEC

ubmit Registration	Select "Submit Registration" to	
	complete BIDS registration.	
SECURITY NOTICE: Unauthorized attempts to deny service, unload in	formation, change information, or attempt to access a non-public site from this service are	e strictly prohibited and may be r

SECURITY NOTICE: Unauthorized attempts to deny service, upload information, change information, or attempt to access a non-public site from this service are strictly prohibited and may be p under Title 18 of the U.S. Code to include the Computer Fraud and Abuse Act of 1986 and the National Information Infrastructure Protection Act.



BIDS registration is instantaneous. It does not require any verification by the MTEC team. After successfully registering, you can submit proposals to any open MTEC RPP.

- MTEC Membership will be verified once a proposal is received and after the proposal deadline.
- Updates to submitted documents can be made anytime prior to the due date and time.
- MTEC RPP links will be opened, within BIDS, at least two weeks prior to the submission deadline.

Please note: For RPPs that are two stages (i.e. White Paper to Full Proposal) only the account that submitted the stage 1 proposal (the White Paper) will be allowed to submit for stage 2 (the Full Proposal), if selected.

ALL PROPOSALS MUST BE SUBMITTED BEFORE THE SUBMISSION DUE DATE AND TIME. LATE PROPOSALS CAN NOT BE ACCEPTED.



MTEC BIDS REQUEST FOR PROJECT INFORMATION (RPI) SUBMISSION

MTEC BIDS URL:

HTTPS://ATI2.ACQCENTER.COM



Navigate to the MTEC BIDS site and login. After login select the "MTEC BIDS Home" link.



SECURITY NOTICE: Unauthorized attempts to deny service, upload information, change information, or attempt to access a non-public site from this service are strictly prohibited and may be punishable under Title 18 of the U.S. Code to include the Computer Fraud and Abuse Act of 1986 and the National Information Infrastructure Protection Act.



RIDC Copyright @ 2020. All Rights Reserved. This website was created by the AcqCenter and is part of the BIDS family



Select the "Respond to RPI" link under the submitter tools.

	MTEC MEDICAL TECHNOLOGY ENTERPRISE CONSORTIUM	Welcome, MTEC	FAQs Help Reque	st	
	Portal MTEC Home Submission	ns Search Logout		After lo	ogin, your 🛛 🗖
Submitter Tools Respond to RPP Respond to RPI My RPP Submissions	RPPs - Open The following RPPs have been pub MTEC-20-02-NavyMultiTopic: re test 13-20: released on March 13	blished: eleased on March 13, 2020, White Papers due to 2020, Full Proposals due by August 13, 2020	oy March 13, 2020 at 03:20:00 PM	userna appear	me will here.
My RPI Submissions Submissions Search Archives	Intents to Announce are also poster the MTEC website: <u>https://private.n</u> Accepting follow-up submissions fo	d on FBO. All information related to these solici <u>ntec-sc.org/</u> r the following RPPs:	tations is located on the Members (Only portion of	Members Only site for detailed FAQ. <u>Help Request</u> Request help about this
Account Center Edit My Account Change Password Logout	nt Center Account e Password MTEC-3-9-2020: Government feedback released on May 13, 2020, Full Proposals due by May 9, 2020 at 01:00:00 PM ET ET Test-5-13-MTEC: Government feedback released on May 13, 2020, Solution Brief Pitchs due by May 18, 2020 at 01:00:00 PM ET				
Information Privacy Notice Reference Materials Portal	Alt information related to these solicitations is located on the Members Only portion of the MTEC website: https://private.mtec-sc.org/ Contact MTEC Request proposal help. Reference Materials Only portion of the MTEC website: https://private.mtec-sc.org/ Contact MTEC Request proposal help. Reference Materials Download reference Download reference				
Click	the "Respond	g evaluated for 3-23-STAGE2. No further upd	ates can be made at this time.		materials, such as quick cards and training materials.
to RI	PI" link.	nterprise Consortium	RPP and RP	l inform	ation
	The Medical Technolog business, for-profit and treat injuries and resto understanding in the fo	gy Enterprise Consortium (MTEC) is a nationall d not-for-profit entities, and academic institution re America's military and veterans to full health. ollowing technical areas:	y dis s bro The	in this s	ection. at prevent and ce the

1. Military Infectious Diseases Research Program (MIDRP)



Select which RPI you will be responding to.

MTEC MEDICAL TECHNOLOGY ENTERPRISE CONSORTIUM	Welcome, MTEC	FAQs Help Request
Portal MTEC Home Submissions	Search Logout	
Cancel		
Submission Checklist		
Please check your submittal for the following requirements to	ensure compliance with the RPP	
Select the appropriate RPP:		Select which RPI to respond
MIEC-20-04-lest		to, If multiple RPIs are open.
Continue		they will be listed here
		they will be listed here.
SECURITY NOTICE: Unauthorized attempts to deny service, upload in	formation, change information, or attempt to acce	ess a non-public site from this service are strictly prohibited and may be punishable under Title 18 of National Information Infrastructure Protection Act.



C Copyright © 2020. All Rights Reserved. This website was created by the AcqCenter and is part of the BIDS family.



Complete the submission form.



PLEASE NOTE: Your web session will expire automatically if you are idle for more than 60 minutes.

*Denotes Required Field.				
Submission Information				
RPP Number:	MTEC-3-9-2020			
Submitter Contact Info:	MTEC Evan Kellinger Project Manager, ATI (843) 760-4354 Evan.Kellinger@ati.org			
Submission Deadline:	03/09/2020 01:00 PM EDT			
Submission Date:				
* Submission Title:				
Project Identifier:	NOTE: The Project Identifier is a unique identifier that will be assigned to your submission when it is submitted.			
* Requirement:	Select a Requirement ▼			
Contact Information				
* Tech POC First Name:		Select the Focus Area or		
* Tech POC Last Name:		Technical Area your		
* Tech POC Address:		Technical Area your		
* Tech POC Phone:		submitting to as identified in		
Tech POC Extension:		the RPI.		



Complete the submission form by uploading the required documents and click submit.

							/
File Attachments							
Required Files:	White Paper	No file uploaded	Upload White Paper	(Allowed file ty	pes: pdf, doc, docx; Size L	imit: 5mb)	
Agreements			×				
*Classified Information:	I certify no clas	ssified information	is contained in the info	rmation being su	ubmitted.		
*Submitter Agreement:	I understand The Government intends to use the Consortium Management Firm, ATI, to assist in the processing of Submitter's proposals to this RPP as indicated in the MTEC Base Agreement. The Consortium Management Firm shall take the necessary steps to protect all proprietary proposal information and shall not use such proprietary information for purposes other than the evaluation of a Submitter's proposal and the subsequent contract administration if the proposal is selected or award. A Submitter's concurrence with the aforementioned CMF responsibilities. Additionally, the Government (CSP) to assist in the submitted proposals' evaluation. The CSP will be required to submit to the reflecting the effort they will supply to support this RPP. The Submitter's submission of a toposal with the aforementioned Consortium Management Firm responsibilities and the use of CSP. The Submitter's on submissions for their use in monitoring the effectiveness of submission processes and the level of participation by members in the RPP. Information will only be released with Government approval. A Submitter's submission under this RPP indicated concurrence with the aforementioned release of information to the Consortium leadership.						
Submit							
		Ond	ce the				
SECURITY NOTICE: Unauthorized attempt punishable under Title 18	s to deny service of the U.S. Code	e. upload To melud Con 1© 2020. sub	mission fo npleted se mit.	rm is lect	a non-public site from this ser National Information Infrastru AcqCenter and is part of the I	vice are strictly prohib cture Protection Act. BIDS family.	ited and may be
S BIL	JS Copyright	SUD	mit.		noquenter and is part of the r	sibo ranniy.	



Once you have successfully submitted a proposal, you will receive a notification with your submission number (ex. MTEC-23-24-Everest-045).

ALL PROPOSALS MUST BE SUBMITTED BEFORE THE SUBMISSION DUE DATE AND TIME. LATE PROPOSALS CAN NOT BE ACCEPTED.