

Agricultural Research Service Agreements Information Management System Statement of Work

Agreen and No. 58-1931-2-111EN

Amendment No. 00

Cooperator.

UNIVERSITY OF THE REPUBLIC

Control No 30225

OBJECT VE

The of this tive of this project is to determine the postharvest biocontrol potential and other biological activities of yeasts isolated from Antarctica.

APPROACH:

Microties will be isolated from soil and vegetation samples in the vicinity of the Uruguayan research station located on King George's Island, Antarctica. Emphasis will be placed on obtaining yeast species using selective media. DNA obtained from isolates it pure cultures will be sent to the USDA-ARS. Kearneysville, WV, who will perform genetic sequencing of ribosomal genes in order to assist in the taxonomic identification of the microbial isolates. Evaluation of selected strains for their potential as posting vest biocontrol agents will be conducted on apple and citrus by the University of the Republic, Montevideo, Uruguaya, USDA-ARS will receive the yeast isolates and extract extracellular and cell wall materials, and determine if they have a reprotective and biostimulant properties. The University of the Republic will conduct in-depth assessments of "elite" antagorals is to identified during the preliminary evaluations and conduct mode-of-action studies. USDA-ARS will provide guidate and the design of these experiments and the interpretation of the results.

STATEMENT OF MUTUAL INTEREST:

Both Posties of this Agreement are involved with independent research on yeast as biocontrol agents and biological properties of compounds produced by yeast cells. The Parties agree that meeting the objectives of this project will serve to strengther and enhance the research programs of both entities by furthering the understanding of the properties that make yeast species effective biocontrol agents for the management of postharvest diseases of fruit. It is the intention of the Parties that the research work shall affirm their mutual interest in cooperative research programs and exchanges, and shall be for their mutual benefit and the benefit of the people of the United States and the Republic of Uruguay. This NFCA supports resear deconducted under National Program 303 - Plant Diseases.

THE COPERATOR AGREES TO:

- 1. Work with USDA-ARS in planning and conducting the research outlined herein
- 2 Collect isolates of yeast from the Uruguayan research station located at King George's Island, Antarctica
- 3. Derector pure cultures and is plate DNA, and send it to the USDA-ARS. Kearneysville, WV, for ribosomal DNA sequencing along with pure cultures of the isolates.
- 4 Scream the yeast isolates for postharvest biocontrol activity in apple and citrus.
- 5. Core untin-depth biocontrol studies on "efite" isolated identified in the preliminary screen.
- 6 Were cosely with USDA-ARS to prepare findings for publication in peer-reviewed journals and presentations at meetings and/or commodity groups.
- $7 \cdot \mathsf{Pro} \cup \mathsf{I} \cap \mathsf{a}$ brief summary report no later than June 1st of each year addressing the following:
- a. A propanson of actual accomplishments with the goals and objectives established for the period and the findings of the investorators.
- b. Rear-ons why established goals were not met, if appropriate
- c. Cili-e. pertinent information
- 8. A first performance report shall be due from the Cooperator's Principal Investigator 90 calendar days following the expiration or termination of the Agreement.
- 9. Substitution copies of all publications resulting from the research conducted under this cooperative agreement to the ARS ADODR. The publications will be entered into the USDA-ARS publication database for cooperative agreement research account with the publication and sharing via the world-wide web. The publication information entered in to the USDA-ARS publication database will be accessible to the public through the ARS web site(s), including the

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name of the Cooperator's Principal Investigator and affiliation.

10. Text Messaging:

Executive Order 13513 establishes a Federal Government-wide prohibition on text messaging while driving on official business or when using Government supplied equipment. Any person authorized to operate a Government owned or leased whicle or use Government supplied equipment under an agreement issued on or after October 1, 2009, shall not engage the text messaging when driving a Government-owned or leased (GSA or commercially leased), or a privately-owner of tacle (POV) while on official Government business, or when using electronic equipment supplied by the Government while driving

REE set apply encourages all contractors, grantees, cooperators, subcontractors, grant recipients, and sub-recipients to adopt an eenforce similar internal policies which ban text messaging and also to consider new rules and programs, and to ree at late existing programs to prohibit text messaging while driving, and conduct education, awareness, and other outreach otheir employees about the safety risks associated with texting while driving.

ARS / GREES TO:

- 1. Work with the Cooperator in planning and conducting the research outlined herein.
- 2. Construct genetic sequencing of ribosomal genes of the Antarctic years to be used to assist with the taxonomic identification of the isolates.
- 3. Extr. 3 cell wall and extracellular materials from the yeasts and determine if they have cryoprotective and/or biostimulant (growth promoting) properties.
- 4. Provide advice on the testing of the "elite" isolates in relation to their mode of action.
- 5. Males personnel, specialized equipment, and working space available to the project as required and mutually agreed upon sold such equipment will remain the property of USDA-ARS subject to its disposition.
- 6. Work closely with the Cooperator to prepare findings for publication in peer-reviewed journals and presentations at meeting soundfor commodity groups.
- 7 The GRS ADODR shall obtain copies of all publications resulting from the research conducted under this cooperative agreed a it from the Cooperator's Principal Investigator to facilitate data distribution and sharing via the world-wide web.
- a. The publications will be entered into the USDA-ARS publication database (ARIS system) for research accountability purpores for the subject cooperative agreement and will be applied to the USDA-ARS Project and Accession Number assigned to this cooperative agreement. The publication(s) will be withheld from the USDA-ARS web site until the actual publication date.
- b. The CSDA-ARS ADODR will assure the publication information is complete, including the Title, Authors and Affiliations. Journal of Equivalent name, Publication Date and Citation information (including applicable Volume and Page numbers, DOI (Emiral Object Identifier) information, and journal URL and/or Reprint URL addresses).

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MUT INLAGREEMEN'S:

The general budget Form REE-454, is hereby incorporated into the agreement. The awarding agency will reimburse the \rightarrow perator for the costs as budgeted, in the amount of \$0.00 and will contribute in-house resources in the amount of \$0.00. As evidence of the Cooperator's contribution to this project, the Cooperator will provide in-house resources in the amount of \$0.00.

1 Sec applicable Provisions in the website

http://www.afm.ars.usda.gov/agreements/partnership.htm

- 2 Corespondence and documentation submitted by the Cooperator to the ADODR in reference to this agreement shock interest No.: 8-1931-2-111FN
- 3. Comes of all correspondence should be forwarded to the ADO at

TOTAL ALREE, ARS, AFM, EAD

(1) SUNNYSIDE AVE./ MS 5110

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MD 20705

ARS CEDA NO 10,003			Budge	et Object Class Code: 4521PU
United States Department of Agriculture Extractoral Agreement		Type of Research Agreement NON FUNDED COOPERATIVE AGREEMENT		
Title of Project		Agreement Numb	Type of A	Action Accession No
BIOLOGICAL PROPERTIES OF ANTARCHIC YEASTS		58 1931-2-111FN		423271
		Period of Agreem 09/15/2012 ≌roject Number	thru 09/30/2014	Authority
Agency (Name and Address) USDA REE As AFT EAD		1931-22000-00s Agreement Tota S0 0	d Change	USIC 3291 e in Agreement Total: S0
5601 SUNNYSILE AVE MS 5110		Accounting Distrit	udian (Aggregation Co.)	
Room 3-2170 _c -		Accounting Disting	oution (Accounting Code	2 / Amount)
BELTSVILLE MD 2070	05			
Authorized Departmental Officer's Designated Representative (Name and Address) MICHAEL E VIGNIEWSKI USDA ARS NAV APPALACHIAN FRUIT RESEARCH STA 2217 WILTSHOFF ROAD KEARNEYSVIL E WV 25430		Cooperator Recipie UNIVERSITY OF I MONTEVIDEO URUGUAY	entSponsor (Name and A FHE REPUBLIC	ddress)
Finance Office Complete Mailing Address:		SILVANA VERO DEPT OF MICROE	sentative (Name and Addr BIOLOGY FACULTY OF (PUBLIC, GRALFLORES 2	CHEMISTRY
	Applicati	na Provisions		
Has Agreement includes the following ■ Statement of Work Proposit Sponsitis S Proposal Budget inform REE454) Budget inform REE455)		Payment	. HHS/Payment Manager EFT/Treasury Check ARS Receives Funds Advance Payment Author Pre-Award Costs Author	Drized
Applicable Procisions Available at http://www.afm.ars.us	da.gov/agreem	ents/partnership.htm		
Non Assistance Coop, Agreement (7 CFR Part 550 Resear in Support Agreement (RE): 452R)	Reporting R	equiréments (submit) 🍙 🔏	ADODR 🕕 Sponsoring	Organization ADO
TFCA and RCrx (7 CFR Part 550 and REE-22) Grants and ARCA (REE-453) Non-Funded Coop. Agreement (7 CFR Part 550 at Financia: Assistance Use of Universal Identifier (Dt (75 FR co671:n5676)	nd REE-29) JNS) and CCR	Performance Reports Quarterly Semi-Annual Annual Final	Financial Reports Quarterly Semi-Annual Arinual Final	Management Reports (RSA Only: Monthly Quarterly Semi-Annuai F⊧nal
SubAward Requirements for FEATA Implementation	on (75 FR 5566)	s-55671)		
Other (Specify AD-194 - Certification Regarding Debarment, Sus Resignativity Matters - Primary Covere AD-194 - Certification Regarding Drug-Free Work; AD-194 - Certification Regarding Drug-Free Work; USDA Civil Rights Poster (AD-475A) USDA Civil Rights Policy Statement (http://www.afr REE-26 - Certification Regarding Performing Orgal Certification Regarding Leobying - Contribution Regarding Leobying - Contribution Regarding Certification Regarding Drug-Free Work; USDA Civil Rights Policy Statement (http://www.afr	d Transactions place Requiren place Requiren nars.usda govinization Type racts. Grants, Lc	v ents - Non-Individuals ents - Individuals agreements/partnerships,h cans and Cooperative Agre		

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Authorized populamental Officer	Typed Name	Date
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Form REE 451 01/21 04	USDA-REE	Page 1