Lawrence High School
1901 Louisiana Street
Lawrence, Kansas 66046-2999
Telephone: (785) 832-5050
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LAWRENCE
PUBLIC SCHOOLS

To: NSF AAG Program
From: Andrew Bricker

By signing below (or transmitting electronically), I acknowledge that I am listed as a collaborator on this proposal submitted to NSF, entitled "Collaborative Research: The Effect of Filaments on the gas in galaxies" with Rose Finn and Gregory Rudnick as the co-Principal Investigators. I agree to be the host teacher for this program and collaborate with the co-PIs in the ways that the proposal describes.

Signed: 

Organization: Lawrence High School

Date: 11-10-2016

LABORATOIRE d'ETUDE du RAYONNEME
et de la MATIERE en ASTROPHYSIQUE
CNRS- UMR 8112
francoise.combes@obspm.fr

Professeur Titulaire
Chaire Galaxies et Cosmologie
francoise.combes@college-de-france.fr

Paris, November 10, 2016

To: NSF Astronomy and Astrophysics Research Grants (AAG) Program
From: Françoise Combes

If the proposal submitted by Prof. Rose Finn and Greg Rudnick, entitled ``RUI: Collaborative Research:The Effect of Filaments on the Gas in Galaxies' is selected for funding by NSF, it is my intent to collaborate and/or commit resources as detailed in the Project Description or the Facilities, Equipment or Other Resources section of the proposal. In particular, I will continue to observe the CO line with the IRAM telescopes, and the HI-21cm line with Nancay.

With my best regards,

Françoise Combes

Observatoire de PARIS, LERMA
61 Av. de l'Observatoire, F-75014 Paris, France
TEL: 33-1-4051 2077 2 • FAX: 33-1-4051 2002

Infrared Processing and Analysis Center
Caltech, MS 314-6, Pasadena, CA 91125
desai@ipac.caltech.edu, (626) 395-6254

Nov 15, 2016

I have read the proposal titled "RUI: Collaborative Research: The Effect of Filaments on the Gas in Galaxies" with Co-PIs Rudnick and Finn and agree to my role as described therein.

IRSA routinely ingests contributed sets of enhanced data products from research projects such as the one proposed here. The proposed data products are of reasonable size, and could be served through existing IRSA services. With appropriate formatting by the team, they could be ingested using standard procedures. We agree to include them in IRSA if the proposal were successful.

Sincerely,

Vandana Desai
Science User Support Lead, NASA/IPAC Infrared Science Archive

INAF
ISTITUTO NAZIONALE DI ASTROFISICA
OSSERVATORIO ASTRONOMICO DI TRIESTE

To whom it may concern:

By signing below, I acknowledge that I am listed as a collaborator in the proposal entitled "*RUI: Collaborative Research: The Effect of Filaments on the Gas in Galaxies*", with Gregory Rudnick and Rose Finn as co-Principal Investigators.

I agree to participate in project, and undertake the tasks assigned to me as described in the project description of the proposal.

Trieste, November 9th 2016

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LABORATOIRE D'ASTROPHYSIQUE
ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE

ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

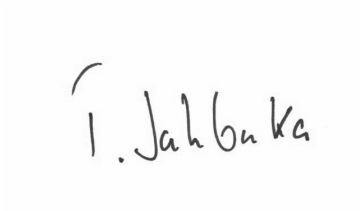
Dr. Pascale Jablonka
Laboratoire d'Astrophysique
Ecole Polytechnique Fédérale de Lausanne
Observatoire
CH 1290 Sauverny, Switzerland
Phone:+41 22379 24 69 Email :pascale.jablonka@epfl.ch

Lausanne, November 9, 2016

To whom it may concern

I am writing to confirm my collaboration in the project titled "RUI: Collaborative Research: The Effect of Filaments on the Gas in Galaxies » by Prof. R. Finn and G. Rudnick. I have read the proposal that correctly describes my role in the project. It is my intent to collaborate and commit resources as indicated. In particular, I shall continue to measure the CO and HI contents of galaxies residing in the filamentary structures feeding the Virgo cluster.

With Best Regards,



Lawrence Public Schools
110 McDonald Drive
Lawrence, Kansas 66044-1063
Telephone: (785) 832-5000

10 November 2016

To Whom It May Concern:

The Lawrence, Kansas Public Schools (USD 497) is pleased to provide this letter of support for "Collaborative Research: The Effect of Filaments on the Gas in Galaxies" being proposed by Gregory Rudnick (University of Kansas) and Rose Finn (Sienna College). If the proposed project is funded by NSF, it is my intent to commit resources as detailed in the Project Description or the Facilities, Equipment or Other Resources section of the proposal.

Further, this proposal has received a similar commitment from the administration of Lawrence High School and the Science Department members.

We commit to the implementation of this project, if funded, within the scope of our senior high school science programs.

Respectfully,

Terry O. McEwen, Ph.D.
Director of Curriculum, Instruction, & Assessment
USD 497 – Lawrence Public Schools

Andover Corporation
4 Commercial Drive Salem, NH 03079 USA
Call: (603) 893-6888 Web: www.andovercorp.com Fax: (603) 893-6508

Gregory Rudnick
University of Kansas

USA

e-mail: grudnick@ku.edu
Phone:
Fax:

Quotation # 36727

Issue Date: 11/9/2016
Quote Validity: 90 days from date
Payment Terms: Pending
Shipping tems: EXW Salem, NH

All prices are quoted in U.S. dollars

Prepared by: Phil Clark
pclark@andovercorp.com
Re.: RFQ Dated Nov. 9th

Item #	Description	Qty	Unit price	Extended item price	Delivery
1	Wavelength: 657.7 nm ±5.0 Bandwidth: 59.0 nm ±10.0 Transmission: 50% min. Blocking: 1 x 10-4 avg. X-Ray to FIR Construction: 4 cavity Size: 76.2 x 76.2 mm +0/-0.25 Thickness: 5.0 mm ±0.25 Clear Aperture: 68.0 x 68.0 mm Temp. (° C.): 20.0 Operating Angle: 0 Substrate Mat'l: BK7 & Filter Glass TWF: 1/4 wave per inch or better Parallelism: 30 arc seconds or better Scratch/Dig: 60/40 Polarization: Random Effective Index: 2.05	1 ea.	$3,657.00	$3,657.00	3-4 weeks ARO

Comments:
1. Exterior surfaces will be A/R coated