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OCA PAD INITIATION - PROJECT HEADER INFORMATION

08/24/93

Active

Project #: G-32-641 Cost share #:
Center # : 10/24-6-R7878-0A0 Center shr #:

Contract#: 1 S15 HL51338-01 Mod #:
Prime #:

Subprojects ? : N CFDA: 93.837
Main project #: PE #:

Project unit: BIOLOGY Unit code: 02.010.134
Project director(s):
 WARTELL R M BIOLOGY (404)894-5247

Sponsor/division names: DHHS/PHS/NIH / NATL INSTITUTES OF HEALTH
Sponsor/division codes: 108 / 001

Award period: 930801 to 940731 (performance) 941031 (reports)

Sponsor amount	New this change	Total to date
Contract value	39,250.00	39,250.00
Funded	39,250.00	39,250.00
Cost sharing amount		0.00

Does subcontracting plan apply ? : N

Title: SMALL INSTRUMENT GRANT

PROJECT ADMINISTRATION DATA

OCA contact: E. Faith Gleason 894-4820

Sponsor technical contact

Sponsor issuing office

DR. HENRY G. ROSCOE
(301)594-7432

MARIE A. WILLETT
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NATIONAL INSTITUTES OF HEALTH
NAT'L HEART, LUNG & BLOOD INST.
9000 ROCKVILLE PIKE
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PHS/NIH/NHLBI
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Security class (U,C,S,TS) : U
Defense priority rating :
Equipment title vests with: Sponsor

ONR resident rep. is ACO (Y/N): N
PHS supplemental sheet
GIT X

Administrative comments -

~~INITIATION OF OF AWARD UNDER THE "SMALL INSTRUMENTATION GRANT PROGRAM"~~
~~FUNDING IS RESTRICTED TO THE PURCHASE OF ELIGIBLE EQUIPMENT.~~

GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF CONTRACT ADMINISTRATION

NOTICE OF PROJECT CLOSEOUT

Closeout Notice Date 02/01/95

Project No. G-32-641_____

Center No. 10/24-6-R7878-0A0_

Project Director WARTELL R M_____

School/Lab BIOLOGY_____

Sponsor DHHS/PHS/NIH/NATL INSTITUTES OF HEALTH_____

Contract/Grant No. 1 S15 HL51338-01_____ Contract Entity GTRC

Prime Contract No. _____

Title SMALL INSTRUMENT GRANT_____

Effective Completion Date 940731 (Performance) 941031 (Reports)

Closeout Actions Required:

Y/N Date
Submitted

Final Invoice or Copy of Final Invoice	Y	_____
Final Report of Inventions and/or Subcontracts	Y	_____
Government Property Inventory & Related Certificate	Y	_____
Classified Material Certificate	N	_____
Release and Assignment	N	_____
Other _____	N	_____

Comments _____

NOTE USE DHHS FORM FOR PATENT. _____

Subproject Under Main Project No. _____

Continues Project No. _____

Distribution Required:

Project Director	Y
Administrative Network Representative	Y
GTRI Accounting/Grants and Contracts	Y
Procurement/Supply Services	Y
Research Property Management	Y
Research Security Services	N
Reports Coordinator (OCA)	Y
GTRC	Y
Project File	Y
Other _____	N
_____	N

NOTE: Final Patent Questionnaire sent to PDPI.

G-32-641

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FINAL PROGRESS REPORT
OF
NATIONAL INSTITUTES OF HEALTH
SMALL INSTRUMENT GRANT S15 HI51338

Period of Grant: August 1, 1993 to July 31, 1994

Principal Investigator

Roger M. Wartell
School of Biology
Georgia Institute of Technology
Atlanta GA 30332

January 22, 1995

FINAL PROGRESS REPORT

Funds from the small instrument grant were used to purchase an ultracentrifuge and rotor that is used for research and research training by faculty at Georgia Tech. Users of the instrument are in the School of Biology and School of Biochemistry and Chemistry.

The instrument purchased was a Beckman ultracentrifuge model L-80 with the 70 Ti preparative rotor. The ultracentrifuge was installed in December 1993 in the Cherry Emerson Building at Georgia Tech. It replaced a 21 year old unit that was only being used at low speeds and for short time runs.

The new instrument is being employed to support several National Institutes of Health sponsored research projects, for training of graduate students in ultra-centrifugation, and for other faculty research projects.

Most extensive use of the centrifuge is by the research group of Dr. Peggy Girard who is studying the effect of shear stress on the surface proteins of endothelial cells. The instrument is used to isolate cellular plasma membrane to characterize cell membrane associated proteases following exposure of the cells to different shear stress environments.

The instrument has also been employed by Dr. Roger Wartell's and Dr. Jung Choi's research groups for the isolation of plasmid DNA. The isolated DNA is used either for cloning experiments or for DNA melting studies of DNA fragments obtained from restriction digests of the plasmid DNA. Dr. Richard Ikeda and Dr. Sheldon May from the School of Biochemistry and Chemistry have made use of the 70 Ti rotor in their protein isolations. Several other faculty and graduate students in the School of Biology have learned how to run the ultracentrifuge and are employing it for the isolation of microbial enzymes, and surface glycoprotein of rotifers.

Publications to date:

Girard, PR and Nerem, RM, 1995, "Shear stress modulates endothelial cell morphology and F-actin organization through the regulation of focal contact-associated proteins." J. Cell Physiol. in press.

Thoumine O., Nerem, R. M., and Girard, P.R. 1995 "Oscillatory shear stress and hydrostatic pressure modulates cell-matrix attachment proteins in cultured endothelial cells." In Vitro in press.

Ke, S.-H and Wartell, R.M. 1995 "The Influence of Neighboring Base Pairs on the Stability of Single Base Bulges in a DNA Fragment" Nucleic Acids Res. in press.