

BUDGET JUSTIFICATION PAGE MODULAR RESEARCH GRANT APPLICATION				
Initial Budget Period	Second Year of Support	Third Year of Support	Fourth Year of Support	Fifth Year of Support
\$ 99,876	\$	\$	\$	\$
Total Direct Costs Requested for Entire Project Period			\$ 99,876	

Personnel**ABC (Small Business Concern Personnel):**

Alan Jones, Ph.D., Co-investigator, (25% effort) will be responsible for the feasibility determinations, design of the hardware and development of the instrumentation.

Jonathan Goodlatch, BSEE, (19% effort) will serve as a Project Engineer. Mr. Goodlatch will implement the algorithm design and implementation.

To be Appointed Technician, (25% effort) is responsible for the repair and maintenance of the equipment and will run a variety of system tests.

Research Institution Personnel:

Sandy L. Smith, Ph.D., Principal Investigator, (25% effort) is Chief of the Stress Unit at Boston Hospital and Professor at Boston University. She will supervise and coordinate all aspects of this project. She will specifically be involved in optic system design, modeling and simulation of sensor performance and data analysis. Having expertise in biomedical instrumentation and electromagnetics/optics makes her ideally suited to head this project.

Jonah Kostenbater, M.S. (10% effort) is an experienced statistician. He will be responsible for the statistical evaluation of the stress recordings from the treadmill.

Roger Davis, M.D., (10% effort) is Professor of Physical Therapy at Nouveau Aging Center. He will evaluate testing of arch stress in a clinical environment using equipment at the VCF.

Consortium

Contractual Costs. Approximately **\$54,000** Total Costs for Entire Period.

Marshall University (MU) Domestic Foreign

Marshall University, Iowa is the Research Institution partner on this STTR. MU will be subcontracted to test and evaluate the arch stress sensor array necessary for clinical studies. See the attached Research Institution Certification Page.

Consultant Costs

ABC Company. George Poole, Ph.D., (5% effort) will serve as a paid clinical consultant. Dr. Poole will aid ABC Company in ensuring that the XYZ system specifications are consistent with the needs of the clinical community. He will also be involved in evaluating the results of the Phase I studies. Dr. Poole will be available for three days at \$300/day (**\$900 total**).

Margaret Trimble, Ph.D., (10% effort) will serve as a paid consultant. She will specifically advise us in tissue preparation and data analysis. She will be available for 10 days at \$200/day (**\$2000 total**).

Fee (SBIR/STTR Only)

A fee of 4% of total costs (direct and indirect) is requested. This fee contributes to the growth of the ABC Company by allowing expansion of resources and personnel development. The fee is consistent with a normal profit margin provided for research and development work.

Certification of Research Institution for Small Business Technology Transfer Grants

Through the signature below of the duly authorized representative of the research institution on this "Certification of Research Institution" page, and by way of the signature of the official signing for applicant organization (small business concern) on the Face Page of the application, the small business concern and the research institution certify *jointly* that:

- (1) the proposed STTR project will be conducted jointly by the small business concern and the research institution in which not less than 40 percent of the work will be performed by the small business concern and not less than 30 percent of the work will be performed by the research institution ("cooperative research and development");
- (2) the proposed STTR project is a cooperative research or research and development effort to be conducted jointly by the small business concern and the research institution in which not less than 40 percent of the work will be performed by the small business concern and not less than 30 percent of the work will be performed by the research institution ("performance of research and analytical work"); and
- (3) regardless of the proportion of the proposed project to be performed by each party, the small business concern will be the primary party that will exercise management direction and control of the performance of the project.

If the research institution is a contractor-operated federally funded research and development center, the duly authorized representative of the contractor-operated federally funded research and development center certifies, *additionally*, that it:

- (4) is free from organizational conflicts of interests relative to the STTR program
- (5) did not use privileged information gained through work performed for an STTR agency or private access to STTR agency personnel in the development of this STTR grant application; and
- (6) used outside peer review, as appropriate, to evaluate the proposed project and its performance therein.

Signature of Duly Authorized Representative _____ Date of Signature _____

William Tell Vice Chancellor for Research Marshall University, Iowa
Printed Name and Title of Duly Authorized Representative

Research Institution Total Costs = \$54,000
(Direct costs + F&A Costs)