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Abstract

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Grant Number: 2R44HL055082-02A1

Project Title: TOOLS & TECHNIQUES TO MEASURE FLOW & PRESSURE IN MICE

PI Information: Name	Email	Title
DROST, CORNELIS J.	cor.drost@transonic.com	

Abstract: DESCRIPTION (Adapted from applicant's abstract): In this Phase II STTR application Dr. Drost proposes to develop several miniaturized devices and techniques to measure blood flow and pressure in the mouse. These include: 1) miniaturizing the standard Transonic flow probes for use on vessels from 0.25 - 1.0 mm diameter; 2) development of ultrasound velocity indicator dilution methods for sensing cardiac output; 3) development apparatus and methods to measure organ blood flow and cardiac output from a single probe; 4) development of techniques and aids for surgery, sensor implantation, and chronic monitoring; 5) development of pressure sensor measurement protocols for vessels smaller than 1 mm; and 6) developing and publishing surgical methods and techniques for use in small animals. During Phase I they produced a workbook, showed some blood flow signals from the aortas of chronically instrumented mice, showed velocity dilution curves from rats, and showed pulsatile pressure signals from the carotid artery of a sheep. PROPOSED COMMERCIAL APPLICATION: NOT AVAILABLE

Public Health Relevance:

This Public Health Relevance is not available.

Thesaurus Terms:

biomedical equipment development, blood flow measurement, blood pressure, laboratory mouse, miniature biomedical equipment, technology /technique development
cardiac output, ultrasound blood flow measurement

Institution: TRANSONIC SYSTEMS, INC.
34 DUTCH MILL RD
ITHACA, NY 14850

Fiscal Year: 1999

Department:

Project Start: 01-SEP-1995

Project End: 28-FEB-2001

ICD: NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

IRG: ZRG7

