SUMMARY

OF THE

SIXTEENTH ANNUAL CONFERENCE ON SHOCK

JUNE 13 - 16, 1993

SANTA FE, NEW MEXICO
SHOCK SOCIETY

SHOCK SOCIETY OFFICE  •  (706) 722-7511  •  FAX (706) 721-3048
Sherwood M. Reichard  •  1021 15th Street, BioTech Park, Suite 9  •  Augusta, Georgia 30901

July 10, 1994

Dr. Jeannine Majde
Scientific Officer Code: 114SB
Office of Naval Research
800 North Quincy Street
Arlington, Virginia  22217-5000

RE: Grant N00014-93-1-0951

Dear Jeannine:

On behalf of the Scientific Program Committee, Officers and Council of the Society, I want to thank the Office of Naval Research for the support of Symposia and Awards at the Sixteenth Annual Conference on Shock, June 13-16, Santa Fe, New Mexico and the Combined Meeting of the Eighth International Lymphokine Workshop and the Fourth International Workshop on Cytokines, October 17-21, 1993, Osaka, Japan.

These meetings were very successful and attended by many scientists and physicians throughout the world. We are grateful for the support of the Department of the Navy which helped make this meeting possible.

I am enclosing a copy of "Circulatory Shock" which contains the program (pages 1-4) and abstracts (pages 5-111) for the Shock Conference. A Summary of the Conference by James Cook, Program Chair, is also enclosed. The meeting in Japan is summarized by Scott Durum.

I look forward to a continued association of the Society with the Office of Naval Research.

Sincerely,

Sherwood M. Reichard
Executive Director
SYMPOSIUM GRANT

GRANTEES:
MEDICAL COLLEGE OF GEORGIA
RETICULOENDOTHELIAL SOCIETY
RESEARCH INSTITUTE
1120 15TH STREET
AUGUSTA, GA 30912

APPROPRIATION: AA 1731319 .WIAE
Object Class: 000
Unit Ident Code: RA444
Suballotment: 0
Auth. Acct. No: 068342
Transaction Type: 2B
Prop. Acct. Act.: 000000
Cost Code: 041080000200
Amount: $10,000.00
FRC: 4414
R&T Project Code: 4414303---01, Dated: 07 APR 1993

TOTAL GRANT AMOUNT: $10,000.00.

AUTHORITY: 10 USC 2358 as amended, and 31 USC 6304.

GRANT PURPOSE: The Purpose of this Grant is to provide partial funding to support Symposia and Awards at the Sixteenth Annual Conference of Shock and the combined meeting of the Eighth International Lymphokine Workshop, and the Fourth International Workshop on Cytokines.

The conduct of the workshop, the personnel and effort and the use of funds for direct and indirect expenses shall generally be as set forth in the Grantee's proposal entitled "Symposia and Awards at the Sixteenth Annual Conference of Shock and the combined meeting of the Eighth International Lymphokine Workshop, and the Fourth International Workshop on Cytokines. which proposal is incorporated herein by reference. The Grantee agrees to obtain concurrence of the Grantor for any desired deviation from the proposal.

PERIOD: The Grant is for the period 01 JUN 1993 through 31 MAY 1994.
The Shock Society Program Chair Dr. Cook with support of his program committee of Drs. Bob Bond, Frank Cerra, Mitch Fink, John Flynn, and Mohammed Sayeed reviewed and placed a record breaking total of 240 abstracts for the final program. The number of national and international participants and the scientific quality of the abstracts are further indications that the Shock Society is flourishing. The committee selected 32 abstracts for presentation in four mini-symposia which cover topics, i.e. “Adhesion Molecules”, “Mediators”, “Endotoxin/Sepsis”, and “Hemorrhage/Ischemia-Reperfusion”. Four Shock Society members have served as Chairs for the respective sessions: Gerald Till, Reuven Rabinovici, Richard Raymond and Bob Bond.

In addition, 194 abstracts were scheduled as poster presentations in three sessions: “Hemorrhage/Ischemia-Reperfusion”, “Mediators”, and “Endotoxin/Sepsis”. Four outstanding finalist for the Young Investigator Award were selected and presented in a stimulating award session.

This year for the first time, a workshop “Basic Molecular Biology Concepts and Techniques” was scheduled on Sunday. The workshop was conducted by two excellent molecular biologists, Brett Giroir and Jim Norris. Renowned speakers were selected for three symposia dealing with the “Role of Nitric Oxide in Sepsis and Tissue Injury”, “Molecular Mechanisms in Shock”, and “New Insights into Cytokine Interactions” (below).
SYMPOSIUM I - BIOLOGICAL ROLES OF NITRIC OXIDE IN SEPSIS AND TISSUE INJURY
Moderators: H. Richard Adams, D.V.M., Ph.D. and James R. Parratt, Ph.D., M.D.

Introductory Comments

1. Nitric Oxide: An Endogenous Immunomodulator and Microbicidal Factor
   John B. Hibbs, Jr., M.D.
   Department of Medicine
   University of Utah
   Salt Lake City, Utah

2. Exogenous Nitric Oxide: Therapeutic Implication in Acute Respiratory Disease
   Jesse D. Roberts, Jr., M.D.
   Department of Anesthesiology
   Boston Mass General Hospital
   Boston, Massachusetts

3. Involvement of Endothelium-Derived Nitric Oxide in Ischemia-Reperfusion Injury
   Allan M. Lefer, Ph.D.
   Chairman, Department of Physiology
   Jefferson Medical College
   Philadelphia, Pennsylvania

4. Modulatory roles of Nitric Oxide in Vascular Responses During Sepsis and Endotoxemia
   James R. Parratt, Ph.D., M.D.
   Department of Physiology and Pharmacology
   Cardiovascular Research
   University of Strathclyde Royal College
   Glasgow, Scotland

5. Therapeutic Use of Nitric Oxide Synthetase Inhibitors in Shock: Indicated or Contraindicated
   H. Richard Adams, D.V.M., Ph.D.
   Chairman, Department of Veterinary Biomedical Sciences
   University of Missouri
   Columbia, Missouri
SYMPOSIUM II - MOLECULAR MECHANISMS IN SHOCK
Moderator: James P. Filkins, Ph.D. and Timothy G. Buckman, Ph.D.

1. Bacterial Endotoxin: Cellular Recognition Mechanisms
   John C. Mathison, Ph.D.
   Department of Immunology
   The Scripps Research Institute
   La Jolla, California

2. Cellular Signal Transduction Events to Endotoxin; Role of G Proteins
   James A. Cook, Ph.D.
   Department of Physiology
   Medical University of South Carolina
   Charleston, South Carolina

3. Cellular Signal Transduction Mechanisms in Regulation of Phospholipase A₂
   Edward A. Dennis, Ph.D.
   Department of Chemistry
   University of California at San Diego
   La Jolla, California

4. Transcriptional/Translational Control of Tumor Necrosis Factor by Endotoxin
   Brett P. Girolami, M.D.
   Howard Hughes Medical Institute
   Research Laboratories
   Dallas, Texas

5. Potential for Gene Therapy in Sepsis
   Kenneth L. Brigham, M.D.
   Director, Division of Pulmonary Medicine and Pulmonary Circulation Center
   Vanderbilt University
   Nashville, Tennessee
SYMPOSIUM III - NEW INSIGHTS INTO MEDIATOR INTERACTIONS IN SEPSIS AND ARDS
Presiding, Ronald V. Maier, M.D.
and J. Raymond Fletcher, M.D., Ph.D.

1. Role of Complement in ARDS and Sepsis: Studies with Soluble Human Recombinant Complement Receptor Type I
   Giora Z. Feuerstein, M.D.
   Director, Cardiovascular Pharmacology
   SmithKline & Beecham
   King of Prussia, Pennsylvania

2. Cytokine Interactions in Sepsis: Interleukin-6 and Monocyte Chemoattractant Proteins-1
   Robert M. Strieter, M.D.
   Division of Pulmonary Medicine
   Department of Internal Medicine
   University of Michigan,
   Ann Arbor, Michigan

3. LTB₄ - A Potent Pro-Inflammatory Mediator, Interaction with other Mediators
   Mitchell P. Fink, M.D.
   Director, Surgical ICU's
   Department of Surgery
   University of Massachusetts Medical Center
   Boston, Massachusetts

4. The Association Between Prostaglandins and Cytokines in Sepsis
   Irshad K. Chaudry, Ph.D.
   Professor and Associate Chairman and Director of Research
   Departments of Surgery and Physiology
   Michigan State University
   East Lansing, Michigan

5. Interactions of Eicosanoids and Cytokines in Regulation of IL-6
   Bryan L. Spangelo, Ph.D.
   Department of Physiology
   Medical University of South Carolina
   Charleston, South Carolina

Workshop: Basic Molecular Biology Concepts and Techniques
(Sunday)
Instructors: James S. Norris, Ph.D., Professor of Rheumatology/Immunology, Medical University of South Carolina and Brett P. Giroir, M.D., Howard Hughes Medical Institute Research Laboratories, Dallas, Texas
Mini Symposia (I - IV)
The mini-symposia and poster session will be organized from abstracts submitted to the membership. Specific areas for encouragement of submission that I believe would be good are:

1. Endotoxin binding proteins
2. Anti-adhesion antibodies
3. Neonatal sepsis
4. Autocrine/paracrine signals in shock
5. Therapeutic approaches (prevention/treatment)
6. Nutrition and Inflammation
7. Gut translocation

In continuation of the highly successful controversies in shock research workshop, Don Fry and Greg Bagby hosted another timely and lively debate concerning "Controversies in Shock Research".

Controversies in Shock Research Workshop
Presiding, Don Fry, M.D. and Craig Bagby

1. Cost/Benefit Issues in Critical Care Medicine
   a. Cost/benefits should not be an issue in critical care
      Mark C. Rogers, M.D.
      Professor and Chairman
      Department of Anesthesiology and Critical Care Medicine
      Johns Hopkins Hospital
      Blalock 1415, 600 N. Wolfe Street
      Baltimore, Maryland 21205
   b. Cost/benefits should be an issue in critical care
      Charles L. Rice, M.D.
      Chairman, Division of General Surgery
      Hudson-Fenn Professor of Surgery
      University of Texas Southwestern Medical School
      5323 Harry Hines Blvd.
      Dallas, Texas 75235-9031

2. Role of Tumor Necrosis Factor in the Pathogenesis Sepsis
   a. TNF is a pathogenic mediator in sepsis
      Thomas E. Emerson, Jr., Ph.D.
      Research Fellow
      Department of Experimental Therapeutics
      Miles Pharmaceutical Division Products
      Fourth and Parker Streets
      Berkeley, California 94710
b. TNF is a beneficial cytokine in sepsis
Edward F. Smith, III, Ph.D.
Assistant Director
Department of Pharmacology
SmithKline Beecham Pharmaceuticals
PO Box 1539, L510
King of Prussia, Pennsylvania 19406-0939

3. Role of Neutrophils in the Pathogenesis of Sepsis
   a. Recruitment of neutrophils is beneficial in sepsis
      Steve Nelson, M.D.
      Associate Professor of Medicine and Physiology
      Department of Pulmonary and Critical Care
      Department of Medicine
      LSU
      New Orleans, LA
   b. Neutrophils Mediate Host Tissue Destruction in Sepsis
      Harvey J. Sugerman, M.D.
      Department of Surgery
      Medical College of Virginia
      Richmond, Virginia

This informative scientific exchange on the newest topics of interest to both clinical and basic scientists made the Santa Fe Meeting a most memorable event.

Sincerely,

James A. Cook, Ph.D.
1993 Program Chairman
Secretary, Shock Society