AMERICAN SOCIETY
FOR GRAVITATIONAL AND
SPACE BIOLOGY

SIXTH ANNUAL MEETING

November 2-5, 1990

Galt House Hotel
Louisville, Kentucky

PROGRAM

FRIDAY, NOVEMBER 2, 1990

TIME

1:00 - 5:00 pm REGISTRATION, GALT HOUSE HOTEL
6:00 - 9:00 pm RECEPTION, FOUNTAIN ROOM, GALT HOUSE HOTEL
9:00 pm GOVERNING BOARD MEETING

SATURDAY, NOVEMBER 3, 1990

7:00 - 8:30 am REGISTRATION

8:30 am ASGSB PRESIDENT'S WELCOME, X.J. Musacchia

SYMPOSIUM: CALCIUM IN PLANTS

8:45 - 10:15 am Chair: Carl Leopold

8:45 am “CALCIUM AS A SECOND MESSENGER.” Randy Wayne,
Cornell University, Ithaca, NY
9:15  THE ROLE OF Ca²⁺ IN THE REGULATION OF PEROXIDASE ACTIVITIES AND GROWTH IN CORN COELOPTILES. R.D. Slocum and H.F. Nichols. [A-1]


10:00 PURIFICATION, BIOCHEMICAL CHARACTERIZATION AND LOCALIZATION OF AN ANNEXIN-LIKE PROTEIN FROM PEAS. G. Clark, M. Dauwalder, and S.J. Roux. [A-4]

10:15 am  BREAK

WORKSHOP: IMMUNE RESPONSES AFTER SPACEFLIGHT AND MODELLING

10:45 am to 12:15 pm  Co-Chairs: Gerald Sonnenfeld and Gerald Taylor

10:45  INTRODUCTION: Gerald Sonnenfeld, University of Louisville, Louisville, KY

10:50  “INFLIGHT DELAYED HYPERSENSITIVITY RESPONSES.” Gerald Taylor, University of Louisville, Louisville, KY

11:05  “CELLULAR IMMUNITY AND DIHYDROXYVITAMIN D IN SUSPENSION MODELLING AND SPACEFLIGHT.” Wallace Berry, University of Louisville, Louisville, KY

11:20  “SPACEFLIGHT-INDUCED MODIFICATIONS OF T-LYMPHOCYTE AND MONOCYTE ACTIVITY.” Laurence Schaffar, Faculty of Medicine, INSERM, Nice, France

11:35  “MICROGRAVITY AND INFLAMMATORY CELLS.” Stephen Chapes, Kansas State University, Manhattan, KS

11:50  DISCUSSION

12:15 pm  LUNCH

1:30 - 2:00 pm  OPEN TIME TO VIEW POSTERS
CONCURRENT POSTER SESSIONS

2:00 to 5:00 pm

NOTE: Presenters are to be next to their posters during their assigned times

POSTER SESSION C: ANIMALS: GROWTH, DEVELOPMENT, & GENETICS

GROUP 1: 2:00 - 3:00

ABSTRACT #

[C-1] MICROGRAVITY EFFECTS ON PRE-ADULT BRINE SHRIMP. L. DeBell, J. Rosowski, L. Stodieck, B. Spooner, and J. Guikema.


GROUP 2: 3:00 - 4:00


[C-4] EFFECTS OF MICROGRAVITY ON MAMMALIAN DEVELOPMENT AND DIFFERENTIATION. D.J. Wolgemuth, C.M. Gruppi, and G.S. Grills.


SESSION D: BONE/MUSCLE PHYSIOLOGY

GROUP 1: 2:00 - 3:00

PROGRAM 1990 ANNUAL MEETING

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<td>DEFECTIVE SECRETION OF MUCILAGE IS THE CELLULAR BASIS FOR AGRAVITROPISM IN PRIMARY ROOTS OF ZEA MAYS CV. AGEOTROPIC. R. Moore and I. Miller.</td>
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4:00 pm DISCUSSION OF POSTERS
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Robert Slocum, SESSIONS F,G DISCUSSION LEADER

7:00 - 9:00 pm OPEN TIME TO VIEW POSTERS

To be arranged RESEARCH ASSOCIATES MEETING

To be arranged ASGSB COMMITTEE MEETINGS
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<td>RECEPTOR AND POST-RECEPTOR STIMULATION OF cAMP PRODUCTION IN UNWEIGHTED AND DENERVATED SOLEUS. C.R. Kirby and M.E. Tischler. [H-3]</td>
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<td>EFFECT OF HINDLIMB SUSPENSION ON RAT BLOOD FLOW DISTRIBUTION. K.S. McDonald, M.D. Delp, and R.H. Fitts. [H-6]</td>
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<td>MAMMALIAN CARTILAGE DIFFERENTIATION AND HYPERTROPHY IN ORGAN CULTURE. B.J. Klement and B.S. Spooner. [H-8]</td>
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SESSION I: PLANTS/BIOTECHNOLOGY

8:30 to 11:30 am Chair: Lew Feldman

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8:40                  CHARACTERISTICS OF FLUID MIXING IN MICROGRAVITY OF AN AUTOMA-
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9:00 pm               GOVERNING BOARD MEETING
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8:30 to 10:30 am  Co-Chairs: Dorothy Spangenberg and Timothy Mulkey

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CONCURRENT POSTER SESSIONS

1:00 to 4:00 pm

NOTE: Presenters are to be next to their posters during their assigned times

SESSION K: ANIMALS: GRAVITY SENSING

Group 1: 1:00 - 2:00

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C.E.B.A.S.-AQUARACK SCIENTIFIC FRAME PROGRAM: IMMUNO-
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(Presenter: E. Stretzke).

C.E.B.A.S.-AQUARACK SCIENTIFIC FRAME PROGRAM: GONADOTROPIN
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SESSION M: ANIMALS: VESTIBULAR/NEUROPHYSIOLOGY

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IN WAKING SQUIRREL MONKEYS BY PULSED VERTICAL LINEAR DISPLACE-
MENT. C.R. Wilpizeski, G. Li, and L.D. Lowry.
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Group 2: 2:00 - 3:00  


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Group 1: 1:00 - 2:00  


[N-3] DEVELOPMENT OF DIFFERENTIAL SENSITIVITY TO AUXIN IN GRAVI-STIMULATED STEMS. F.B. Salisbury and L.S. Gillespie.  


[N-13] TIME-LAPSE ANALYSIS OF GRAVITROPISM IN CERATODON PROTONEMA. J.C. Young and F.D. Sack.  

ABSTRACT #


[N-19] SEVERELY REDUCED GRAVITROPISM IN HYPOCOTYLs OF A STARCH-DEFICIENT NICOTIANA MUTANT. J.Z. Kiss and F.D. Sack.


[N-23] KINETIC ANALYSIS OF ISOPEROXIDASE EXPRESSION IN GRAVISTIMULATED CORN COLEOPTILE. H.F. Nichols and R.D. Slocum.


Group 2: 2:00 - 3:00


[N-8] REGULATION OF SPRINGBACK IN CORN ROOTS BY PHYTOCHROME. M.Q. Kelly and A.C. Leopold.


PROGRAM 1990 ANNUAL MEETING

ABSTRACT #


SESSION O: OTHER TOPICS

Group 1: 1:00 - 2:00


Group 2: 2:00 - 3:00


3:00 pm DISCUSSION OF POSTERS
William Ganong, SESSIONS K,L,M DISCUSSION LEADER
Lew Feldman, SESSION N DISCUSSION LEADER