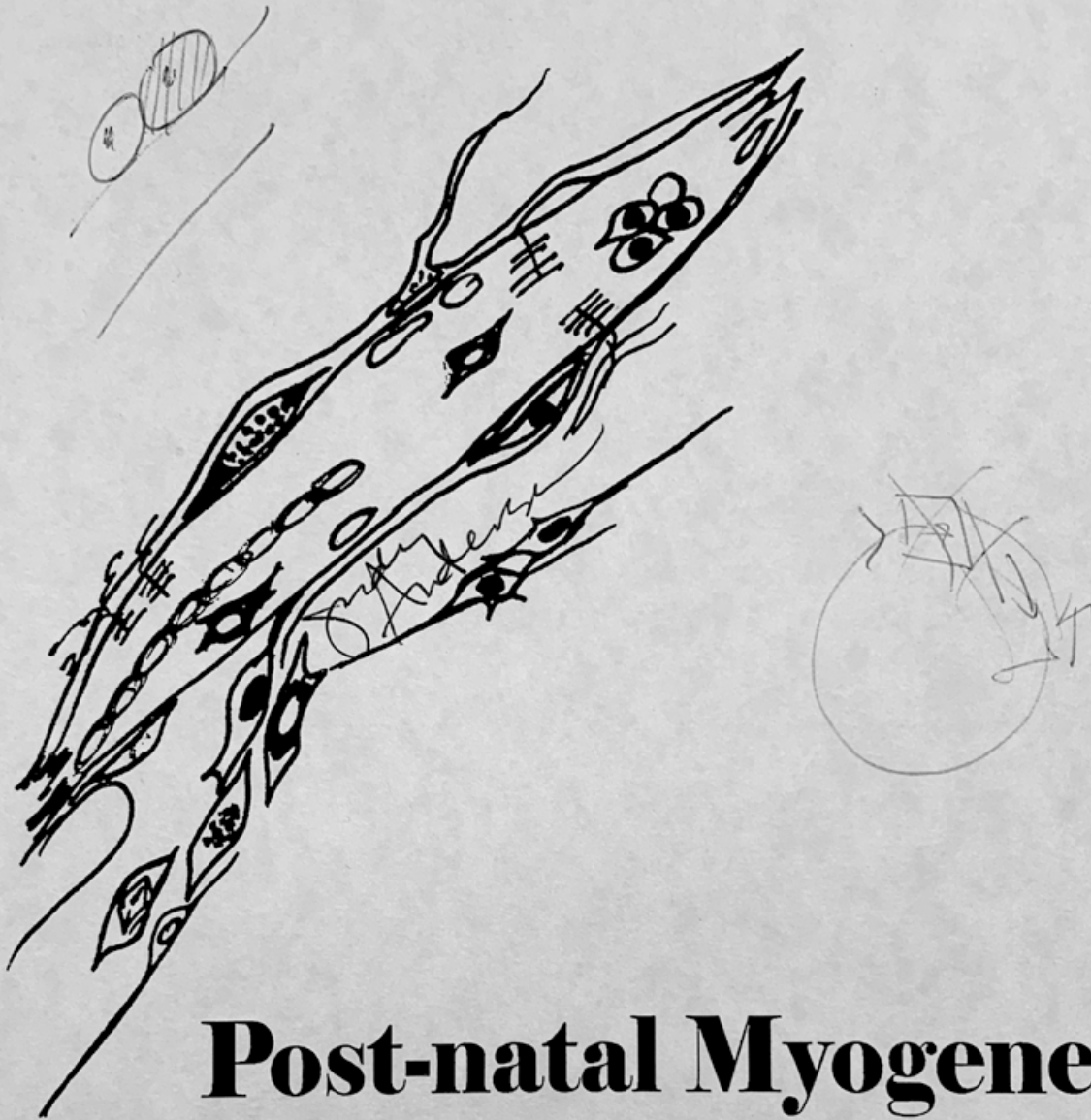


Cornelison



**Post-natal Myogenesis:
Satellite Cells
In Action!**

August 13-16, 1998
Swissotel, Boston

Ron Allie

Acknowledgements

This conference would not have been possible without the generous gifts from:

Pfizer
Procter and Gamble
Elanco, Animal Health

The organizing committee would also like to acknowledge the grant support to the meeting that was provided by:

NRI Competitive Grants Program-USDA
National Institute of Arthritis and Musculoskeletal and Skin Disease

Organizing Committee:

Co-chairs:

Ron Allen, University of Arizona, USA
Judy Anderson, University of Manitoba, Canada

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Steering Committee:

Zipora Yablonka-Reuveni, University of Washington, USA
Orna Halevy, Hebrew University, Israel
Miranda Grounds, University of Western Australia
Gillian Butler-Browne, CHU Pitié-Salpêtrière, France
Steven Hauschka, University of Washington, USA
Anna Starzinski-Powitz, University of Frankfurt, Germany

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A short survey is included in this booklet, for feedback to the organizing committee. Please take the time to complete the survey before departure on Sunday.

FRIDAY MORNING

Breakfast:

Lobby Lounge

7:00am-8:15am

Session 1: Origins and Lineages

8:30am-12:00 noon

- (20min) Frank Stockdale
Developmental cellular origins of satellite cells
- (20 min) Giulio Cossu
Skeletal myogenic progenitors from dorsal aorta and embryonic vessels
- (12min) Jeff Miller
Bcl-2, apoptosis regulators and skeletal muscle stem cells
- (12min) Sree Devi Menon
Characterization of a novel mutation that disrupts muscle cell fusion in *Drosophila melanogaster*
- (12min) David Yaffe
The huge DMD gene: structure, evolution, expression and function of products
- (12min) Joanne Cousins
Clonality in muscle regeneration
- (12min) Andrey Irintchev
Ectopic skeletal muscle derived from myoblasts implanted under the skin
- (12min) Dawn Cornelison
Gene expression in wild-type and mutant satellite cells

LUNCHEON:-- deli buffet

Lobby Lounge

12:00 noon - 1:00pm

FRIDAY AFTERNOON

Session 2: Cellular Regulation

1:30-5:30pm

- (20min) Ron Allen
Satellite cell activation and the role of hepatocyte growth factor/scatter factor
- (20min) Anna Starzinski-Powitz
Multiple functions for M-cadherin during differentiation of skeletal muscle or different sites of the same muscle?
- (20 min) Steve Hauschka
Modeling satellite cell proliferative behavior with permanent myoblast cell lines
- (12min) Gilles Carnac
The muscle regulatory factors MyoD and Myf-5 undergo distinct cell cycle-specific expression in muscle cells
- (12min) Marie Csete
Hypoxia accelerates satellite cell activation in murine primary muscle fiber cultures
- (12min) Brad Olwin
Growth factor signaling circuitry in skeletal muscle satellite cells
- (12min) Charlotte Peterson
The transcription factor PEA3 regulates myoblast function
- (12min) Enriqu  Brandan
Proteoglycans: modulators of terminal skeletal muscle differentiation
- (12min) Eric Blough
The CCAC box and MEF2 sites within the myosin light chain 2 slow promoter cooperate in regulating slow nerve-specific transcription in skeletal muscle.
- (12min) Vincent Mouly
Human satellite cells in health and disease: telomere length and replicative capacity

dinner-- on your own!

5:30pm-8:00pm

FRIDAY EVENING

***Session 3: Normal Growth* 8:00-10:00pm**

- (20min) Orna Halevy
The inhibitory role of hepatocyte growth factor in satellite cell differentiation
- (20min) Doug McFarland
The role of satellite cells in normal muscle growth
- (12min) Sophie Chargé
MyoD and hypertrophy of fast fibers in mice expressing ski
- (12min) Dan Garry
Growth inhibition of myogenic stem cells in mice lacking MNF

SATURDAY MORNING

Breakfast:

Lobby Lounge

7:00am-8:15am

Session 4: Regeneration

8:30am-12:00 noon

- (20 min) Miranda Grounds
Factors controlling skeletal muscle regeneration
- (20 min) Gillian Butler-Browne
Two distinct pathways of satellite cell activation in regenerating mouse skeletal muscle
- (12min) Edna Hardeman
Changes in the proportion of transcriptionally active loci in myofibers during development and regeneration
- (12min) John McDermott
MEF2 activity in regenerating skeletal muscle
- (12min) Francis Bacou
Properties of satellite cells from control, transformed or regenerating rabbit fast- and slow muscles
- (12min) Beth Barton-Davis
Transient functional improvement of mdx muscle by AAV delivery of IGF-I
- (12min) Deepa Thaloor
Effect of local hepatocyte growth factor administration on satellite cells in regenerating skeletal muscle
- (12min) Grace Pavlath
Stimulation of muscle regeneration after trauma by systemic drug treatment
- (12min) Chie Soeta
Expression of c-ski gene in rat skeletal muscle during regeneration

Luncheon -deli buffet
Lobby Lounge

12:00noon-1:00pm

SATURDAY AFTERNOON

Session 5: Exercise, Aging and Adaptation

1:30--5:30pm

- (20 min) Bruce Carlson
Satellite cells in muscle atrophy and aging
- (20 min) Lee Sweeney
Viral-mediated expression of IGF-I blocks the aging related loss of skeletal muscle function
- (20 min) Zipora Yablonka-Reuveni
Fibroblast growth factors promote activation of skeletal muscle satellite cells in young and old rats: analysis of the FGF receptors involved in satellite cell activation
- (12min) Lars-Eric Thornell
Modulation of myonuclei and satellite cells in human skeletal muscle: effect of strength training and anabolic steroids
- (12min) Esther Dupont-Versteegden
Analysis of the function and fate of satellite cells in spinal cord transected and exercised rats
- (12min) Marta Fiorotto
Skeletal muscle growth in transgenic mice with muscle-specific overexpression of IGF-I
- (12min) Soledad Calvo
Regulation of troponin I genes by electrical activity and during muscle regeneration
- (12min) Keith Barr
Autocrine activation of p70^{S6K} is associated with increased protein synthesis following a mechanical stimulus

dinner -- on your own!

5:30pm-8:00pm

SATURDAY EVENING

Session 6: Disease and Therapies A

8:30-10:30pm

- (20 min) Judy Anderson
Tracing satellite cell functions in deflazacort-treated regenerating muscles
- (20 min) Terry Partridge
Use of natural and un-natural lineage markers to study satellite cell behaviour during muscle regeneration in vivo
- (12min) Emanuela Gussoni
Analysis of muscle satellite cells for myoblast transfer therapy studies
- (12min) Darren Williams
The bestowal of leukocyte adhesive properties to myoblasts
-- a possible approach for systemic delivery

SUNDAY MORNING

**Continental Breakfast:
Lobby Lounge**

7:00am-8:15am

Session 7: Disease and Therapies B

8:30-10:30am

- (20 min) Jeff Chamberlain
Adenoviral vectors for gene delivery to muscle
- (12min) Anton Wernig
Functional and cellular effects of myoblast implantation
- (12min) Johnny Huard
Development of approaches to improve the cell survival in myoblast-mediated gene therapy to skeletal muscle
- (12min) Louise Hall-Martin
Use of isolated single muscle fibres as a source of donor muscle precursor cells for myoblast transfer therapy
- (15min) Feedback and Closing**

**POSTNATAL MYOGENESIS:
SATELLITE CELLS IN ACTION!
AUGUST 13-16/98
BOSTON, MA**

*the 1st conference dedicated to
the activity and regulation of
skeletal muscle satellite cells
in growth
in disease
in regeneration
in exercise
in aging
in meat production*

Complexities of satellite cell regulation will be integrated from various perspectives by bringing together scientists from medicine, agriculture, exercise sciences and developmental biology, and methods from molecular biology to the whole organism studies. This stimulating atmosphere will generate exciting discussion & new ideas.

Participate by submitting a title for a short presentation that falls into a topic area below. Informal sessions will be organized from the titles submitted by June 1/98. Abstracts will be collected for active discussion and exchange of ideas.

This exciting first conference on satellite cells will fill a void in the menu of meetings currently available to muscle biologists, pathologists, agriculture/veterinary researchers and kinesiologists. It will also provide an environment for interaction with other researchers specifically interested in postnatal muscle growth, adaptation, regeneration and disease.

Conference announcement:

Dr. Judy Anderson janders@ms.umanitoba.ca

**REGISTRATION: \$200, payable to - The University of Arizona Foundation
Satellite Cell Conference, Department of Nutritional Sciences
Shantz Bldg. #38, University of Arizona
Tucson, Arizona 85721 fax: 520-621-1396**

**LOCATION: Swissotel Boston 1-800-621-9200 or 1-617-451-2600
Fax: 1-617-451-0054 (\$183/night + tax, Single/Double)**

TENTATIVE SCHEDULE AND TOPICS

**OPENING DINNER & ALEXANDER MAURO LECTURE
RICHARD BISCHOFF**

ORIGINS & LINEAGES OF SATELLITE CELLS:

Guilio Cossu:

Myogenic determination and satellite cell origin in mouse embryogenesis

Frank Stockdale:

Developmental cellular origins of satellite cells

CELLULAR REGULATION OF SATELLITE CELLS:

Ron Allen:

Satellite cell activation and the role of HGF/SF

Zipora Yablonka-Reuveni:

FGF promotes recruitment of satellite cells in young and old animals

Anna Starzinski-Powitz

M-cadherin and associated proteins in skeletal muscle in vitro and in vivo

SATELLITE CELLS IN REGENERATING MUSCLE:

Miranda Grounds:

Factors controlling the efficiency of skeletal muscle regeneration in vivo

SATELLITE CELLS IN MUSCLE DISEASE AND THERAPIES:

Steve Hauschka:

Modeling satellite cell proliferation with permanent myoblasts cell lines

Jeff Chamberlain:

Adenoviral vectors for gene delivery to muscle

Terry Partridge:

Natural and un-natural lineage markers of satellite cells in regeneration

Judy Anderson:

Tracing satellite cell functions in deflazacort-treated regenerating muscles

SATELLITE CELLS IN NORMAL GROWTH & ADAPTATION:

Edward Schultz

Satellite cell proliferative compartments and DNA units in muscle growth

Douglas McFarland:

The role of satellite cells in normal muscle growth

Orna Halevy:

The inhibitory role of HGF in satellite cell differentiation

SATELLITE CELLS IN EXERCISE & AGING:

Lee Sweeney:

Gene transfer to achieve satellite cell activation and muscle hypertrophy

Bruce Carlson:

Satellite cells in muscle atrophy and aging

POSTNATAL MYOGENESIS: SATELLITE CELLS IN ACTION!
AUGUST 13 - 16, 1998, BOSTON, MA

SECOND ANNOUNCEMENT

We are pleased to say that planning for the first conference dedicated to the activity and regulation of skeletal muscle satellite cells is gaining momentum. Satellite cells function in a complex environment that changes during postnatal development and with various physiological demands. Consequently, the influences of growth factors, extracellular matrix, muscle activity, vascular supply, innervation and the interaction with a variety of cells that infiltrate damaged muscle are among the inputs that impinge on satellite cells. The significance of satellite cell function to key aspects of muscle repair, aging, exercise, disease and meat-animal growth has been appreciated by investigators in these areas, and important insights into the biology of satellite cells have come from all of these sectors. Therefore, this satellite cell conference will examine the complexities of satellite cell regulation from various perspectives by bringing together scientists from medicine, agriculture, exercise sciences and developmental biology. A variety of methodological approaches will be presented, from the molecular to the whole organism level. Such integration of approaches and perspectives should provide a stimulating atmosphere that will generate exciting discussions and new ideas.

Invited speakers will present their insights into the main topics, which will set the stage for subsequent brief presentations from other participants. Participants are invited to submit a title for a short presentation (less than 15 minutes) that will fall within the scope of topic areas presented below. From the list of submitted titles, members of the committee will organize sessions. Prior to the meeting, abstracts must be submitted on disk so that they can be provided to all registrants. The conference will be informal, in order to facilitate active discussion and the exchange of ideas.

This exciting first conference on satellite cells will fill a void in the menu of meetings currently available to muscle biologists, pathologists, agriculture/veterinary researchers and kinesiologists. It will also provide an environment for interaction with other researchers specifically interested in postnatal muscle growth, adaptation, regeneration and disease.

ORGANIZING COMMITTEE

Co-chairs	Judy Anderson	Ron Allen	Stephen Hauschka
Committee	Miranda Grounds	Orna Halevy	Gillian Butler-Brown
	Anna Starzinski-Powitz	Zipora Yablonka-Reuveni	

**POSTNATAL MYOGENESIS: SATELLITE CELLS IN ACTION –
TENTATIVE SCHEDULE AND TOPICS**

Thursday Evening - Dinner and Alexander Mauro Lecture - Richard Bischoff
Friday Morning: Origins and Lineages of Satellite Cells
Friday Afternoon: Cellular Regulation of Satellite Cells
Friday Evening: Role of Satellite Cells in Normal Muscle Growth
Saturday Morning: Satellite Cells in Regenerating Muscle
Saturday Afternoon: Activity of Satellite Cells in Muscle Adaptation, Exercise and Aging
Saturday Evening: Satellite Cells in Muscle Disease and Therapies
Sunday Morning: Satellite Cells in Muscle Disease and Therapies (continued)

ORIGINS & LINEAGES:

Guilio Cossu:

“Myogenic determination and the origin of satellite cells in mouse embryogenesis”

Frank Stockdale:

“Developmental cellular origins of satellite cells”

CELLULAR REGULATION:

Ron Allen:

“Satellite cell activation and the role of hepatocyte growth factor/scatter factor”

Zipora Reuveni:

“FGF promotes recruitment of satellite cells in young and old animals”

Anna Starzinski-Powitz

“M-cadherin and associated proteins in skeletal muscle in vitro and in vivo”

REGENERATION:

Miranda Grounds:

“Factors controlling the efficiency of skeletal muscle regeneration in vivo”

DISEASE AND THERAPIES:

Steve Hauschka:

“Modeling satellite cell proliferative behavior with permanent myoblasts cell lines”

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Ed Schultz

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Douglas McFarland:

“The role of satellite cells in normal muscle growth”

Orna Halevy:

“The inhibitory role of HGF in satellite cell differentiation”

EXERCISE & AGING

Lee Sweeney:

“Gene transfer to achieve satellite cell activation and skeletal muscle hypertrophy”

Bruce Carlson:

“Satellite cells in muscle atrophy and aging”

LODGING:

Swissotel Boston \$183 per night (plus tax), Single/Double Room
One Avenue de Lafayette
Boston, Massachusetts 02111

For reservations call 1-800-621-9200 and indicate that you are attending the Satellite Cell Conference coordinated by University of Arizona. If you are calling from outside the U.S.A., phone the Swissotel at 1-617-451-2600 or fax 1-617-451-0054.

REGISTRATION: \$200 - Payable by check, MasterCard or VISA.
Registration includes a copy of abstracts, dinner Thursday evening, breakfasts and lunches Friday, Saturday and Sunday, and refreshment breaks.

Name: _____ Graduate Student _____ Postdoc
Affiliation:
Address:

Telephone:
Fax:
E-mail:

Mail registration form and check or credit card information to:
Satellite Cell Conference
Department of Nutritional Sciences
Shantz Bldg. #38
University of Arizona
Tucson, Arizona 85721

Make checks payable to - The University of Arizona Foundation
Credit card registration may be faxed to (520) 621-1396
(Note: fees are not tax deductible donations)

Master Card _____ VISA _____
----- Expiration date: ___/___/___

Signature

REMEMBER: SUBMIT TITLE & REGISTRATION AND BOOK YOUR HOTEL ROOM!

1. Send titles to: Dr. Judy Anderson, janders@ms.umanitoba.ca (or fax: 204-789-3920) by June 1/98.
2. Abstracts should be emailed to the same address by July 1, 1998.
3. Send in registration to University of Arizona & book your lodging now; registration will be limited, and the schedule and space are filling steadily