

# Cell and Molecular Biology News

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Colorado  
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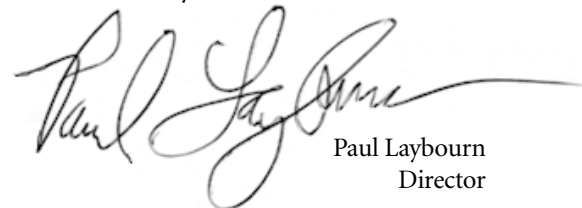
## From the Director

The objective of founding the Cell and Molecular Biology Program was to foster interactions among faculty from multiple colleges and departments across campus with common research and teaching interests. The only other interdisciplinary degree-granting program at Colorado State University like CMB is the Graduate Degree Program in Ecology (GDPE). Thus, CMB plays a central, leading role in promoting interactions between researchers and recruiting high quality graduate students in the molecular biosciences. The number of faculty members has grown to 79 in eight focus areas (cancer biology, infectious diseases, metabolism, neurosciences, plant biology, gene expression, reproductive biology, and structural biology) from five of the eight colleges at CSU. The number of graduate students in the program stands at 57. This year's incoming class includes six students supported by GTAs and free to



rotate through all CMB faculty laboratories. Our most effective recruiting tools are the CMB website, the quality of the CMB faculty, and our location on the Front Range of Colorado. An important development in recent years has been the concentration in Cancer Biology, which has funds for recruiting and supporting additional PhD and DVM/PhD students. A major event and an important component in our graduate student recruitment is the annual Graduate Student Research Symposium held at the end of February. This past year the Symposium was co-sponsored with the Molecular, Cellular and Integrative Neurosciences Graduate Program, the Department of Biochemistry and Molecular Biology, and the Department of Microbiology, Immunology and Pathology. Nearly 40 potential graduate students from across the U.S. attended this event. In addition, poster awards were bestowed to six graduate students and one post-doctoral researcher.

A major item of concern identified in the 2001 five year program review that remains unresolved is the administrative oversight of the CMB Program. The heart of the problem is the lack of a defined template within the Faculty Manual (University Code). Happily, our current Provost convened a task force that has made significant progress in development of a template. This past year a long-standing goal was attained with the funding of six GTAs. In the past few months, a group of CMB faculty has formed to develop proposals for NIH T-32 and GAANN training grants. In this issue of the *Cell and Molecular Biology News* we will bring you up to date on the program's membership, leadership, graduate students, and activities. Be on the lookout for a special edition of the newsletter describing the history of the CMB Program at Colorado State University.



Paul Laybourn  
Director

### Current Cell and Molecular Biology Committee Members

#### Steering Committee

Norm Curthoys  
Paul Laybourn (Chair)  
Howard Liber  
Stu Tobet  
Carol Wilusz

#### Academic

Susan Bailey  
Marinus Pilon  
Erica Suchman  
Stu Tobet (Chair)

#### Research

Jennifer DeLuca  
Scott Earley  
Matt Hickey  
Carol Wilusz (Chair)

#### Admissions

Norm Curthoys (Chair)  
Dawn Duval  
Deborah Garrity  
Ron Tjalkens

#### Seminar

Lorinda Anderson  
Chaoping Chen  
Howard Liber (Chair)  
George Seidel

# Newest CMB Faculty Members

(since the beginning of fall 2008)

**Adam Chicco**, Assistant Professor (Health and Exercise Science); How changes in cardiac fatty acid metabolism and mitochondrial dysfunction contribute to the development and/or progression of heart disease, and how dietary and pharmaceutical interventions may modulate these processes.

**Karyn Hamilton**, Assistant Professor (Health and Exercise Science); Mechanism(s) of exercise- and estrogen-induced protection of the heart and vascular endothelium against hypoxia-reoxygenation injury.

**Matt Hickey**, Professor (Health and Exercise Science); The role of changes in dietary fat type on insulin sensitivity, signaling events in human skeletal muscle, ethnic differences in risk for the metabolic syndrome.

**Shane Kanatous**, Assistant Professor (Biology); Oxygen metabolism in skeletal and cardiac muscle adaptations to extreme environmental conditions such as hypoxia.

**Jac Nickoloff**, Department Head and Professor (Environmental and Radiological Health Sciences); Cellular processes that maintain eukaryotic genome stability, including homologous recombination, non-homologous end-joining and other DNA repair processes.

**Sandra Quackenbush**, Associate Professor, Associate Department Head (Microbiology, Immunology and Pathology); Viral pathogenesis, particularly viral-induced oncogenesis.



Chicco



Hamilton



Hickey



Kanatous



Nickoloff



Quackenbush



Ray



Ryan



Tsunoda



Vigh



Volckens

**Andy Ray**, Associate Professor (Environmental and Radiological Health Sciences); How the SV40 virus causes cancer traits in normal human cells.

**Elizabeth Ryan**, Assistant Professor (Clinical Science); Cancer preventive properties of food. She is using the canine cancer model to investigate clinically relevant drug-herb interactions.

**Susan Tsunoda**, Associate Professor (Biomedical Sciences); Signal transduction, protein targetin, phototransduction, and K<sup>+</sup> channel regulation.

**Jozsef Vigh**, Assistant Professor (Biomedical Sciences); Visual signal processing in the retina.

**John Volckens**, Assistant Professor (Environmental and Radiological Health Sciences); Understanding the generation, fate, and transport of semivolatile organic compounds in rural, urban, and industrial environments, and assessing human exposures to and adverse health effects of air pollution.

## CMB Student Association Update

### 2008-2009 Officers

President - Jerome Lee  
Vice President - Erica Chao  
Secretary - Tobi Krause  
Treasurer - Scott Walmsley

### 2009-2010 Officers

President - Jerome Lee  
Vice President - Scott Hafeman  
Secretary - Jingyi Nie  
Treasurer - Dezaray Varland

### Activities

Throughout the year, CMBSA holds socials, meetings, and seminars. Recently, we have planned trips to a corn maze, evenings at a local bar/restaurant with free appetizers, and brought in career speakers from leading biotech industry companies. We also set up a table during finals week for free coffee and hot cocoa as a perk for the students and faculty. Finally, we are an integral part of recruiting new graduate students by hosting dinners and participating in snowshoeing during the recruitment weekend.



First-year CMB graduate  
Fall 2009 student class

## New Graduate Students

### Fall 2008

Name	Degree	Advisor
Shawna Campbell	Ph.D.	Elizabeth Ryan
Kathy Cosenza	Ph.D.	Don Mykles
Contessa Majors	M.S.	Karyn Hamilton
Ashley Neff	Ph.D.	Carol Wilusz
Jingyi Nie	Ph.D.	Jac Nickoloff
Chelsea Roan	M.S.	Deborah Roess
Jenette Shoeneman	M.S.	Doug Thamm
Al Trujillo	Ph.D.	Debbie Crans
Hiroto Yoshikawa	Ph.D.	Sue LaRue

### Spring 2009

Nadia Ashwish	Ph.D.	Deborah Roess
Zobaida Ben Musa	Ph.D.	Nicole Ehrhart
Abdunaser Eadaim	M.S.	Susan Bailey
Hoda Shnaishah	M.S.	Deborah Roess

### Fall 2009

Jennifer Arab	Ph.D.
Shawna Comer	Ph.D.
Laura Epple	Ph.D.
John Fitts	Ph.D.
Scott Fulbright	Ph.D.
Chuck Halsey	Ph.D.
Donasian Ochola	Ph.D.
Samantha Roth	Ph.D.
Jordan Steel	Ph.D.
Eric Tauchman	Ph.D.

## CMB Graduates

### Summer 2009

Stephen Keysar	Ph.D.	Michael Fox
Rebekah Klingler	Ph.D.	F. Andrew Ray

### Spring 2009

Casey Boczon	M.S.	Paul Kugrens
Lisa Chamberlain	Ph.D.	David Grainger
Eric Lee	M.S.	Mercedes Gonzalez-Juarrero

Julie Moreno	Ph.D.	Ron Tjalkens
Jun Zhou	M.S.	Deborah Roess

### Fall 2008

Kristin Askin	Ph.D.	Robert Ullrich
Amy Boczon	M.S.	Rajinder Ranu
Corey Broeckling	Ph.D.	Jorge Vivanco
Ron Carsten	Ph.D.	Robert Ullrich
Jennifer Chiniquy	M.S.	Jon Carlson
Tracy Nichols	Ph.D.	Mark Zabel
Sung-Bong Shin	Ph.D.	Anireddy Reddy
Abby Williams	Ph.D.	Robert Ullrich

### Summer 2008

Kevin Flynn	Ph.D.	James Bamburg
Kristy McClellan	Ph.D.	Stuart Tobet
Camilla Kristensen	M.S.	Mike Tamkun

### Spring 2008

Amanda Ashley	Ph.D.	William Hanneman
James Bogenberger	Ph.D.	Paul Laybourn
Kitty Brown	M.S.	Karolin Luger
Jennifer Devitt	Ph.D.	Sue LaRue
R. Tanner Hagelstrom	Ph.D.	Robert Ullrich
Susan Hudachek	Ph.D.	William Dernell
Scott McCorvey	M.S.	Steven Dow
Tiffany Weir	Ph.D.	Jorge Vivanco
Guanxiong Xiao	Ph.D.	Michael Weil

# Seminar Series Speakers

## Fall 2008

Dr. Robert Margolis, Sidney Kimmel Cancer Center Host: Jake DeLuca  
 Dr. Susan Jean Marriott, Baylor College of Medicine Host: Jenny Nyborg  
 Dr. Alissa Weaver, Vanderbilt University Medical Center Host: Jim Bamburg  
 Dr. Michael Marletta, University of California, Berkeley Host: Frontiers in Biomedical Sciences  
 Dr. Ken Reardon, Chemical Engineering, CSU

Dr. Ramesh Akkina, Microbiology, Immunology, and Pathology, CSU  
 Dr. Paul Bohjanen, University of Minnesota Host: Carol Wilusz  
 Dr. Mark Zabel, Microbiology, Immunology, and Pathology, CSU  
 Dr. Quinton Winger, Biomedical Sciences, CSU  
 Dr. Scott Earley, Biomedical Sciences, CSU

## Spring 2009

Dr. Kelvin Lee, University of Delaware Host: Ken Reardon  
 Dr. Lorrie Anderson, Biology, CSU  
 Dr. Gerald Feuer, SUNY Upstate Medical University Host: Erica Suchman  
 Dr. Sandra Quackenbush, Microbiology, Immunology, and Pathology, CSU  
 Dr. Vadim Gladyshev, University of Nebraska Host: Marinus Pilon  
 Dr. Shoukhrat Mitalopov, Oregon National Primate Research Center Host: Frontiers in Biomedical Sciences  
 Dr. Ralf-Rainer Mendel, University of Technology, Braunschweig, Germany Host: Marinus Pilon  
 Dr. Tim McKinsey, Gilead Colorado, Inc. Host: Matt Stratton

## Fall 2009

Dr. Ted Able, University of Pennsylvania, Host: Greg Florant  
 Dr. Bert Semler, University of California, Host: Erica Suchman  
 Dr. Dave Kovar, University of Chicago, Host: Jim Bamburg  
 Dr. Amit Mitra, University of Nebraska, Lincoln, Host: Rajinder Ranu  
 Dr. Michael Shogren-Knaak, Iowa State University, Host: Jeff Hansen  
 Dr. Paul J. Anderson, Harvard Medical School Host: Frontiers in Biomedical Sciences  
 Dr. Chris Allen, University of New Mexico School of Medicine Host: Jac Nickoloff  
 Dr. Eric Sontheimer, Northwestern University, Host: Jeff Wilusz  
 Dr. Marin Bisailon, University of Montreal Host: Brian Geiss  
 Dr. Jozsef Vigh, Department of Biomedical Sciences, CSU  
 Dr. Joaquin Maximilliano Espinosa, CU Boulder Host: Sarah Lee  
 Dr. George Seidel, Department of Biomedical Sciences, CSU

# 2009 Annual Research Symposium

The annual Cell and Molecular Biology Poster Symposium was held on Friday, February 27, 2009 in the North Ballroom of the Lory Student Center. The event was co-sponsored by the Molecular, Cellular and Integrative Neurosciences Program (MCIN), the Department of Biochemistry and Molecular Biology and the Department of Microbiology, Immunology and Pathology. Approximately 40 applicants to the CMB, MCIN, Biochemistry and Microbiology graduate programs attended the symposium.

Sixty-one posters were presented. Of those posters 59 were judged. Three judges reviewed each poster. Three awards were presented for the highest honor and three awards were presented with high honors. One post-doctoral award was given.

The judges were Drs. Ken Allen, Susan Bailey, Jerry Bouma, Jon Carlson, Chaoping Chen, Norm Curthoys, Sheena D'Arcy, Jennifer DeLuca, Alexa Dickson, Steven Dow, Dawn Duval, Greg Florant, Brian Foy, Deborah Garrity, Chris Gentile, Mercedes Gonzalez-Juarrero, Amanda Guth, Ryan Hansen, Shing Ho, Young-mi Kim, Matt Kipper, Paul Laybourn, Anne Lenaerts, Jim Miller, Uma Muthurajan, Don Mykles, Sai Palusa, Olve Peersen, Luciana Pereyra, James Perry, Rajinder Ranu, Andy Ray, Mary Robinson, Deborah Roess, Eric Ross, Joel Rovnak, Barbara Sanborn, Alan Schenkel, Neelam Sharma, John Spencer, Laurie Stargell, Mike Tamkun, Ron Tjalkens, Stu Tobet, Mark van der Woerd, Mike Weil, O'Neil Wiggan, Carol Wilusz, Jeff Wilusz and Mark Zabel.

## Poster Competition Winners

### Graduate Student Awards Recipients:

#### Highest Honors

Kevin Sokoloski, Microbiology, Immunology and Pathology  
Huangui Qiao, Biology  
Chenghua Yang, Biochemistry and Molecular Biology

#### High Honors

Keeley Sudhoff, Biochemistry and Molecular Biology  
Scott Walmsley, Cell and Molecular Biology  
Scott Hafeman, Cell and Molecular Biology

#### Post-Doctoral Award Recipient:

Wayne Lilyestrom, Biochemistry and Molecular Biology

The Research Committee members Drs. DeLuca, Dow, Wilusz and Zabel wish to thank all of the participating departments, the judges, and those who visited the CMB Student Poster Competition for contributing to its success.

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Lori Williams