



# MICHIGAN COMMUNITY COLLEGE BIOLOGISTS CONFERENCE

Hosted by  
Kalamazoo Valley Community College

OCTOBER 9-10 **2015**

Kalamazoo**VALLEY**<sup>TM</sup>  
community college



# KALAMAZOO VALLEY WELCOMES YOU!

I welcome you all to the Fall 2015 MCCB Conference on behalf of the conference committee, the Kalamazoo Valley Community College Board of Trustees, and our College President Dr. Marilyn Schlack.

The committee is excited about the presentations and our keynote speaker, Sam Rhine. We offer these sessions in line with the charge for MCCB to promote interest in and the teaching of biology.

Please enjoy our speakers, our campus, one another, and our city while you are here.

Sincerely,

Darrell Davies, chair

## **MCCB** COMMITTEE MEMBERS

Darrell Davies, chair  
Cynthia Schauer  
Verne Mills  
Gordon Bielby  
Jack Bley

# AGENDA

FRIDAY, OCT 9

6 p.m.

**The Park Club**  
219 W. South Street  
Kalamazoo, MI 49007  
**Dean McCurdy & Craig Jbara**

SATURDAY, OCT 10

8 a.m.

**KVCC Texas Township Campus**  
6767 West O Ave.  
Kalamazoo, MI 49009  
**Full course breakfast in the cafeteria/Announcements**

9-9:45 a.m.

**Robert Batsell**  
Room 1320

10-10:45 a.m.

**Dale Cooper**  
Room 1330

11-11:45 a.m.

**Tim Periard**  
Room 1320

12:30-1:30 p.m.

**Lunch Keynote Speaker, Sam Rhine**  
Room 4380

2-2:45 p.m.

**David Wooten**  
Room 1330

3-3:45 p.m.

**Richard West**  
Room 1320

4 p.m.

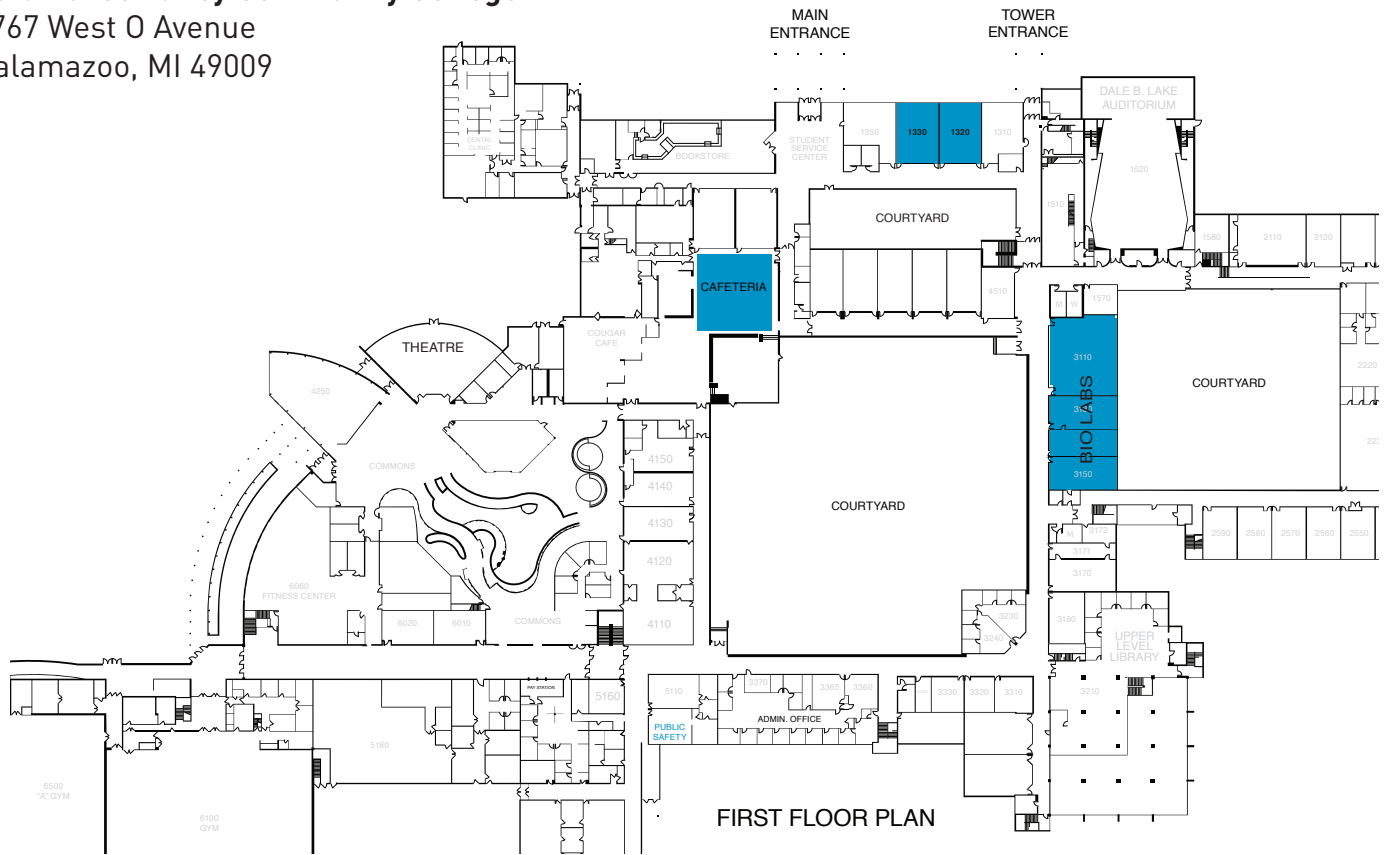
**Tours of West Labs (off campus)**  
WMU Technology Campus  
West Labs Scientific LLC  
A.D.I. Instruments  
Product Demo (EKG)

# MAPS

## TEXAS TOWNSHIP CAMPUS

### Kalamazoo Valley Community College

6767 West O Avenue  
Kalamazoo, MI 49009



## TEXAS TOWNSHIP CAMPUS ► WMU TECHNOLOGY CAMPUS

### WMU Technology Campus

4717 Campus Drive  
Suite 2000  
Kalamazoo, MI 49008



KALAMAZOO VALLEY  
COMMUNITY COLLEGE  
O Ave.

# MCCB PRESENTERS

## ROBERT BATSELL, Ph.D.

**Title:** "Flavor Aversions and their Clinical Relevance"

**Abstract:** Flavor-aversion learning is a unique form of Pavlovian Conditioning that occurs when an organism associates food or liquid with illness, and subsequently, will later avoid consuming that edible. Although flavor-aversion learning is highly adaptive for most organisms on the planet because it helps them avoid overconsumption of toxic substances, this learning mechanism is problematic for chemotherapy patients. My own work with animal subjects explores these taste-aversion learning mechanisms and the means to disrupt them in order to develop better interventions for patients with cancer.

**Biography:** Robert was born in the southern-most part of Texas (Brownsville) where he was born to a family with a rich tradition of hunting and fishing. These boyhood trips fueled his interest in animal behavior. As an undergraduate, he went to Southern Methodist University in Dallas, where he was a biology-psychology double-major. His graduate work was completed in Experimental Psychology at Texas Christian University (TCU) in 1989. He returned as a faculty member at SMU until 1999 when he was hired to come to Kalamazoo College as the department chair. Currently, he is a Professor and Chair of the Kalamazoo College Psychology Department.

## DALE COOPER, DVM

MPI Research, Mattawan, MI

## KIM HOEVENAAR, DVM

MPI Research, Mattawan, MI

**Title:** "Pre-Clinical Drug Development, Careers, and Animal Use"

**Abstract:** The development of drugs and other new medical treatments is a multi-step process that spans more than 10 years and can cost \$1 billion. For every drug and treatment that is approved for use in humans, up to 10,000 candidate treatments are tested. This presentation gives an overview of this process and highlights the many disciplines that are involved, including chemistry biological sciences, biomedical engineering, veterinary and human medicine, allied health professions, bioinformatics and other information technologies, manufacturing, and quality management, to give a perspective on career options for students. It also discusses the ethical review of animals used as part of the development and testing process, discusses alternatives to animal use, and methods for minimizing the impact of research on animals and provision of veterinary care to ensure that animals are used humanely.

**Biography:** Dale Cooper, a Diplomate of the American College of Laboratory Animal Medicine, brings a broad scope of veterinary clinical medical experience to MPI Research. Most recently, he was the Director of Laboratory Animal Medicine, Quality, and Technical Services for North America for Harlan Laboratories, Inc. Prior to that, he was a Principal Research Scientist with Eli Lilly. Dale also has experience in consulting and community veterinary medicine as well as academia. He received his DVM from the University of Wisconsin, Madison and is widely published in the animal husbandry literature.

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# MCCB PRESENTERS

## **TIM PERIARD, M.S.**

Lansing Community College

**Title:** "Diversity of Gender and Sexuality in the Animal Kingdom"

**Abstract:** As biologists, many of us are constantly amazed at the diversity in our natural world. Even though most people think of gender being a human quality, some biologists have described other animals as having genders too. We will focus on diversity of these various genders while also examining the diversity in sexuality in some members of the animal kingdom.

**Biography:** Schooled in zoology at Oklahoma State University specializing in reptilian and amphibian population assessment, Tim then went on to teach at Wharton County Junior College in Texas. Tim accepted a faculty position at Lansing Community College in 2010 where he has taught organismal biology, environmental science, introductory biology and anatomy and physiology. Tim is a past president of MCCB.

## **SAM RHINE, M.A.**

**Title:** "HGP Applications . . . the Genetics of Human Common Conditions"

**Abstract:** With the completion of the Human Genome Project, the inheritance of human "Common Conditions" is coming to light . . . the genetic basis of height, weight, blood pressure, blood glucose level, IQ, autism, and hundreds of others. GWAS (GenomeWide Association Studies) are leading to the discovery of the polygenes that control the most human common conditions and bringing their Multifactorial Inheritance patterns to the forefront of human genetic research. Speculation is: in less than 10 years, we will all have total genome evaluations to search for our own personal predispositions to the most common medical conditions . . . at a cost of less than \$100!

**Biography:** Sam Rhine has crossed our country and several other continents in his 30+ years of speaking engagements. He has dedicated himself to genetics education. For the past several years, he has concentrated on presenting his popular Genetics Update Conferences designed to teach the latest in genetic advances, hot research areas, and career opportunities in the field of genetics. Same has received many accolades and awards for his talents as a science educator from such organizations as NABT & NSTA. His tireless efforts were summed up by one expert in human genetics education, describing him as "One of the most effective human genetic educators in America today." His educational background involved work at Indiana University and Harvard University.

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# MCCB PRESENTERS

## DAVID WOOTEN, M.S.

Professor Washtenaw Community College, Ann Arbor

**Title:** "Darwin: Books, Beetles, & Blasphemy"

**Abstract:** An historic overview of perhaps the greatest biologist of all time. Often misunderstood, but his bottom line is simple and straight forward. "It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change."

**Biography:** David is a professor in the biology department at Washtenaw Community College in Ann Arbor, MI. He teaches general biology, zoology, evolution and ecology, biological field study, and human anatomy and physiology. David is also a member of the scientific advisory board for the Great Lakes Zoological Society. He has researched and/or published studies on venomous snakes, turtles, reptilian ecology, and animal behavior. He was an interpretive guide at the Chippewa Nature Center, Midland, MI where he taught environmental education programs to school groups and adults. He received his BS and MS from Central Michigan University in biology/chemistry, and attended the University of Florida for his doctoral work in Zoology. During his doctoral work, Wooten found his niche in teaching and withdrew from the research program to return to Michigan and pursue college teaching. His pedagogy incorporates the teaching and application of current research findings, evolution, behavioral ecology, and the conservation of biodiversity into a critical-thinking college classroom.

## RICHARD WEST, M.S.

President, West Labs Scientific LLC, Kalamazoo

**Title:** "Mesenchymal Stem Cells: Opening the Doors to New Therapies from Bench Top to Bedside"

**Abstract:** Over the past 20 years stem cells have become a hot topic both in medicine and in research. In order to better understand the clinical and research implications of this fascinating (and at times highly controversial) subset of cells, a quick retrace of the path to present helps more clearly define the current and future role these cells play. Mesenchymal stem cells have many common features, but they can be induced to become a wide array of body tissues including cartilage, bone, tendon and muscle (cardiac and skeletal). They have the ability to ameliorate graft versus host disease after bone marrow transplant and have been recently shown to stabilize and mitigate the harmful effects of radiation exposure. We will explore these cells in the light of translational medicine, from the science bench top to bedside inside the clinic.

**Biography:** Richard is a true Michigianian original out of Traverse City: born, raised, educated and working in our state. After graduating from Central Michigan University, Richard entered the field of medical research at Spectrum Health in Grand Rapids in their clinical flow cytometry lab where he worked for many years. He then moved to DeVos Children's Hospital where he built their Stem Cell Engineering lab as well as one at the Van Andel Research Institute. In 2010 Richard founded West Labs Scientific LLC in Kalamazoo. He currently serves as an adjunct faculty member of the science departments at Kalamazoo Valley Community College and Ferris State University.

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**MCCB** WOULD LIKE TO  
THANK THE FOLLOWING  
VENDORS FOR THEIR  
SUPPORT OF OUR  
FALL 2015 CONFERENCE:

**Brittany Kingsley**, Pearson Publishing Company

**Mandy Fyola**, eScience Labs

**Kait Mikes**, A.D.I. Instruments

**David Newstead**, A.D.I. Instruments

**Nick Young**, McGraw Hill Publishing Company

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[www.kvcc.edu](http://www.kvcc.edu)



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PO Box 4070  
Kalamazoo, MI 49003-4070  
269.488.4400

Arcadia Commons Campus  
202 North Rose Street  
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Kalamazoo, MI 49003-4070  
269.373.7800

The Groves Campus  
7107 Elm Valley Drive  
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