

# Spartan Engineer Grad News

## Lab Spotlight: BEACON

### The Bio/computational Evolution in Action CONsortium



The mission of the BEACON Center is to conduct research on fundamental evolutionary dynamics in both natural and artificial systems, educate a generation of multi-disciplinary scientists in these methods, and improve public understanding of evolution at all levels.

BEACON, which is short for the "Bio/computational Evolution in Action CONsortium," will unite biologists who study natural evolutionary processes with computer scientists and engineers who are working together to solve real-world problems.

MSU announced in February that they

were awarded a \$25 million grant from the National Science Foundation to establish the center. BEACON has assembled a multi-disciplinary team at MSU and partnering universities including the University of Texas at Austin, the University of Washington, North Carolina A&T State University, and the University of Idaho.

Erik Goodman, professor of electrical and computer engineering, will serve as director of BEACON. The center will involve more than 30 faculty researchers in MSU's College of Engineering, College of Natural Science, College of Agriculture and Natural Resources, and Lyman Briggs College.

BEACON will focus on evolution as an ongoing process, using real organisms in laboratories and at field sites, and using "digital organisms" undergoing real evolution on computers.

"BEACON is multidisciplinary to its core," said Goodman. "In addition to making discoveries in basic science and applications, it will prepare a new generation of researchers with the kind of insight that comes from first-hand experimentation with evolution in the lab and in the computer."

The center will include a strong cross-disciplinary training program to directly educate its graduate, post-doctoral, and faculty researchers on concepts in evolutionary biology and computation, and teach them how to communicate across fields.

For more information visit:  
<http://www.beacon.msu.edu/index.html>



## Grad Spotlight

**Azizah Muhammad**  
Masters - Mechanical Engineering

### Where are you from?

I am originally from Detroit, Michigan.

### What college did you attend for your undergraduate degree?

I had the pleasure of attending Tennessee State University in Nashville, Tennessee.

### Tell us about your grad school experience?

My grad school experience has been great at MSU. It is certainly advantageous to study at a university with many renowned faculty members who are all willing to help you get where they are. I feel like I've learned a lot and look forward to continuing here for my PhD.

### What lab are you in?

I work in the Controls Research Laboratory in the Department of Mechanical Engineering. My adviser is Jongeun Choi.

### What are you researching?

I am currently working on developing algorithms that model the behavior of sea lamprey.

### What else have you done at MSU?

I've worked on the control of wireless body area networks. This research resulted in a paper that appeared in the proceedings of the First International Conference on Networks & Communications (NetCoM). I've also worked on the in vitro analysis of the spine.

### What do you do in your free time?

I love to read different types of books, play the guitar, and spend time with my family and friends.

### Do you have a favorite quote to keep you motivated?

"Work spares us from three evils: boredom, vice, and need." -Voltaire

Grad News is produced by EGR graduate students and staff. Your help is welcome.

# Get Healthy and Fit this Summer

## Healthy Eating Tips

- Have a fruit or vegetable snack each day
- Eat a variety of whole-grain products daily.
- Drink little or no sugar-sweetened sodas, fruit punches, or sports drinks.
- Limit foods high in saturated fat, trans fat, and cholesterol.
- Drink plenty of water

*Get Healthy Campaign: Eat Your Fruits and Veggies*  
[www.bphc.org/programs/cib/chronicdisease/healthgethealthy/fruitsandveggies/Pages/Home.aspx](http://www.bphc.org/programs/cib/chronicdisease/healthgethealthy/fruitsandveggies/Pages/Home.aspx)

## Fun & Easy Exercises

- You can take the stairs instead of the elevator, park further away and walk a couple of blocks to work or class, or even just take a few minutes to walk around the building.
- Try activities that get your heart rate up, such as a 15-minute bike ride or a dip in the pool.
- Put on a music CD and dance for about 20-30 minutes; this is a great cardiovascular workout.

<http://ezinearticles.com/?Easy-Exercises-You-Can-Do-At-Home&id=813581>

<http://ezinearticles.com/?Fun-Exercises-You-Can-Do-at-Home&id=1440685>

## Quick & Healthy Recipe

### 15-Minute Salmon with Tomato Salsa

Ingredients: 1-1/2 lbs salmon filet cut into 4 pieces, skin and bones removed  
 1 TBS lemon juice; salt and pepper to taste

Salsa - 1 large ripe tomato, seeds and excess pulp removed, small diced pieces, about 1/4 in.; 3 TBS finely minced onion; 3 med cloves garlic, pressed; 1-2 TBS minced jalapeno pepper (or to taste); 1 TBS minced fresh ginger ; 1/4 cup chopped fresh cilantro; 2 TBS lemon juice; 1 TBS extra virgin olive oil; salt and black pepper to taste.

For preparation directions see:  
<http://www.whfoods.com/genpage.php?tname=recipe&dbid=138>

## Fun Vacation Spots in Michigan for a Quick Summer Getaway

### ■ Tulip Time Festival

Holland, MI  
 May 2-9, 2009  
<http://www.tuliptime.com>

### ■ Mackinac Island Lilac Festival

Mackinac Island, MI  
 June 5-14, 2009  
<http://www.mackinacislandfestival.org>

### ■ Boyne Resort

600 Highland Dr.  
 Harbor Springs, MI  
<http://www.boyne.com>  
 (golfing & swimming)

### ■ Boat Night

Port Huron to Mackinac Sailboat Race  
 Pre-Race Festivities  
 Port Huron, MI  
 July 24, 2009  
<http://www.porthuron.org/eventscaleder.aspx>  
<http://www.porthuron.org/EventsCalendar.aspx>

## Enjoy Some Fun in the Sun at a Beach in Michigan

### ■ Silver Beach

At Silver Beach you can find a variety of beach and riverfront activities ranging from swimming and beach volleyball to sunset strolls.

**Location:** St. Joseph, MI  
<http://www.berriencounty.org/parks>

### ■ Petoskey Beach

Whether you want to go to look for Petoskey stones, take a stroll, make sand castles, or just take a stroll, the Petoskey area is a great destination.

**Location:** Petoskey, MI  
<http://boynecountry.com/beaches--34/>

### ■ Muskegon County

Muskegon County has several beautiful beaches and many events planned for the summer.

**Location:** Muskegon, MI  
[http://www.visitmuskegon.org/beaches\\_parks.htm](http://www.visitmuskegon.org/beaches_parks.htm)

**For more information visit:** [www.michigan.org](http://www.michigan.org)