

## CURRICULUM VITAE

Name: Minako Sugiyama Vickery  
Job title: Instructor, UAB  
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Personal Data: Nationality - Japan (US Permanent Resident since 2004)

Education: Bachelor of Science, Toyama University, Japan.  
“Development of the starfish, *Astropecten polyacanthus* and its phylogenetic significance.” 20pp+8plts. Advisor: Dr. Mieko Komatsu  
  
Master of Science, Toyama University, Japan.  
“Development and identification of the starfish *Astropecten* sp. in Ohtsuchi Bay.” 45pp+16plts. Advisor: Dr. Mieko Komatsu  
  
Doctor of Philosophy, University of Alabama at Birmingham. “Comparative studies of regeneration and cloning in the planktotrophic larvae of echinoderms.” Advisor: Dr. James B. McClintock

Employment: Teaching Assistant, Toyama University.  
  
Graduate Research/Teaching Assistant, Department of Biology, The University of Alabama at Birmingham.  
  
Instructional Laboratory Coordinator for BY102L Introductory Biology (for Non-Biology Major students), BY116L Human Physiology (students in pre-nursing and health-related fields), and BY309L Mammalian Physiology (for Biology Major students, current BY409), Department of Biology, The University of Alabama at Birmingham.  
  
Post-doctoral Fellow, Dauphin Island Sea Lab.  
  
Instructional Laboratory Coordinator for BY271L Biology of Microorganisms (for Biology Major students), Department of Biology, The University of Alabama at Birmingham.

Instructor, Department of Biology, The University of Alabama at Birmingham.

Teaching Experience:

Toyama University, Department of Biology

Physiology Laboratory, TA  
Taught High School Biology in Japan for 2 weeks as part of my teacher certification training.

University of Alabama at Birmingham, Department of Biology

Lecture: Biology of Microorganisms BY271 Lecture for majors (approximately 50+/- students, includes graduate students)  
Introduction to Microbiology BY261 Lectures for -pre-nursing (100+ students per semester)  
Genetics BY210 (200+ students)  
Guest lecturer for Advanced Invertebrate Zoology

Laboratory: Introductory Biology III BY105L (current BY124L)  
Introductory Biology I BY103L (current BY123L)  
Contemporary Biology BY102L  
Extended Topics in Contemporary Biology BY112 (developed entire curriculum, no longer offered)  
Mammalian Physiology BY309L (current 409L, upgraded lab instrument with UAB education foundation learning resources grant, lab manual published)  
Human Physiology BY116L (lab manual published)  
Biology of Microorganisms BY271 Laboratory for majors  
Topics in Contemporary Biology Lab BY102-QL ONLINE (approximately 200 students per semester)

Research Interests: *Regeneration and cloning in echinoderm larvae.* Investigation of regenerative capacity in echinoderm larvae and application of a sea star larval model system to the study of deuterostome regeneration genetics. Studies of factors regulating cloning in sea star planktotrophic larvae *in vitro*, and the impact of cloning and regeneration on population dynamics in the natural environment. Research was featured in The Birmingham Business News, The Birmingham News and many UAB publications.

*Asteroid phylogeny.* Comparative analysis of internal and external morphologies of asteroid tube feet and the application of tube-foot morphology as a classification characteristic in sea star phylogeny. Research progress led to an invitation as a guest speaker at an

Asteroid Phylogeny Symposium at the Society of Integrative and Comparative Biology annual meeting.

- Techniques:
- Scanning Electron Microscopy (SEM) (includes maintenance)
  - Basic Transmission Electron Microscope (TEM) operation
  - Basic Confocal Microscope operation
  - Histology, production of microscope slides in paraffin and resin (includes glass knives production for TEM)
  - Larval culture of various marine invertebrate larvae
  - Marine phytoplankton culture for aquaculture
  - Photography – traditional black/white film development and enlargement, slide production, and image analysis/manipulation.
  - Microbiological media preparation including sterilization process
  - Microbiological techniques
  - Basic molecular recombinant DNA techniques – include DNA/RNA purification, cloning, PCR, DNA sequencing gel and hybridization
  - Software: Mac or PC Microsoft Office, Corel WordPerfect Suite 8, Adobe Photoshop, Microsoft PictureIt, DNASTar, BioPac, numerous others
  - Basic biostatistics using EXCEL, SYSTAT, MINITAB
  - Writing and editing grant proposals/scientific papers
  - MilliQ water system maintenance and repair
- Awards and Honors:
- Nominated for International Student/Scholar Awards, UAB.
  - Invited Symposium Speaker at Annual SICB meeting.
  - Recipient of Graduate Dean's Award, UAB.
  - Invited review article author, *Microscopy Research and Technique*.
  - Nominee for the Samuel Barker Award for Excellence in Graduate Studies, UAB.
  - Department of Biology, Altruism Award recipient
- Licenses:
- Certified Licensed Teacher in Science (Middle School in Japan)
  - Certified Licensed Teacher in Biology (High School in Japan)