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Why are you a biologist?: Role of societies (Tri-Beta) in professional development

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Why are you a biologist?

Role of Societies (Tri-Beta) in Professional Development

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Nova Southeastern University

NSU's first set of officers for the Rho Rho Chapter of Tri-Beta March, 2003

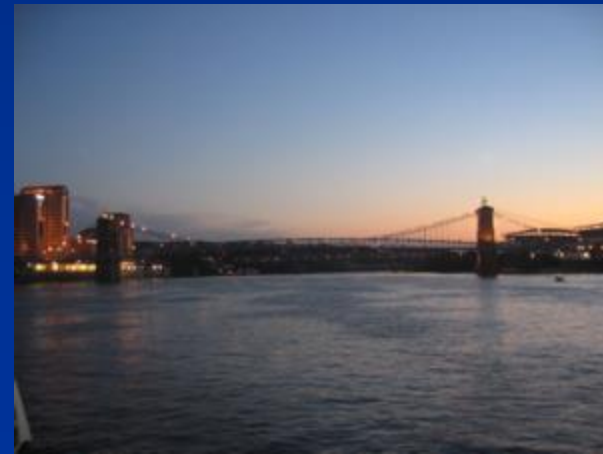


The National Tri-Beta Website : www.tribeta.org

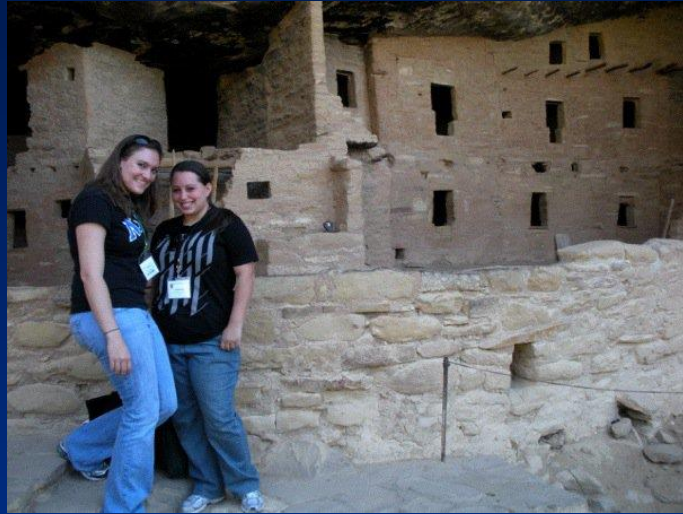
We attended the National Conference in May 2006 (Melbourne, FL)



We attended the National Conference in May 2008 (Cincinnati, OH)



We attended the National Conference in May 2010 (Durango, CO)



Using genealogical records and genetic
markers of the Y-chromosome,
X-chromosome, and mitochondrial DNA
to create a personal family history
narrative

Lauren Douma
Dr. Joshua Loomis, advisor
Dr. Emily Schmitt, advisor
Nova Southeastern University
Farquhar College of Arts and Sciences
April 9, 2010

The effect of thimerosal-containing and
thimerosal-free pediatric flu vaccine on gene
expression in *Saccharomyces cerevisiae*

Christie Rubio
Nova Southeastern University
Farquhar College of Arts and Sciences
May 2010



The future “Dr. Schmitt”
age 2.5

My undergrad Tri-beta days



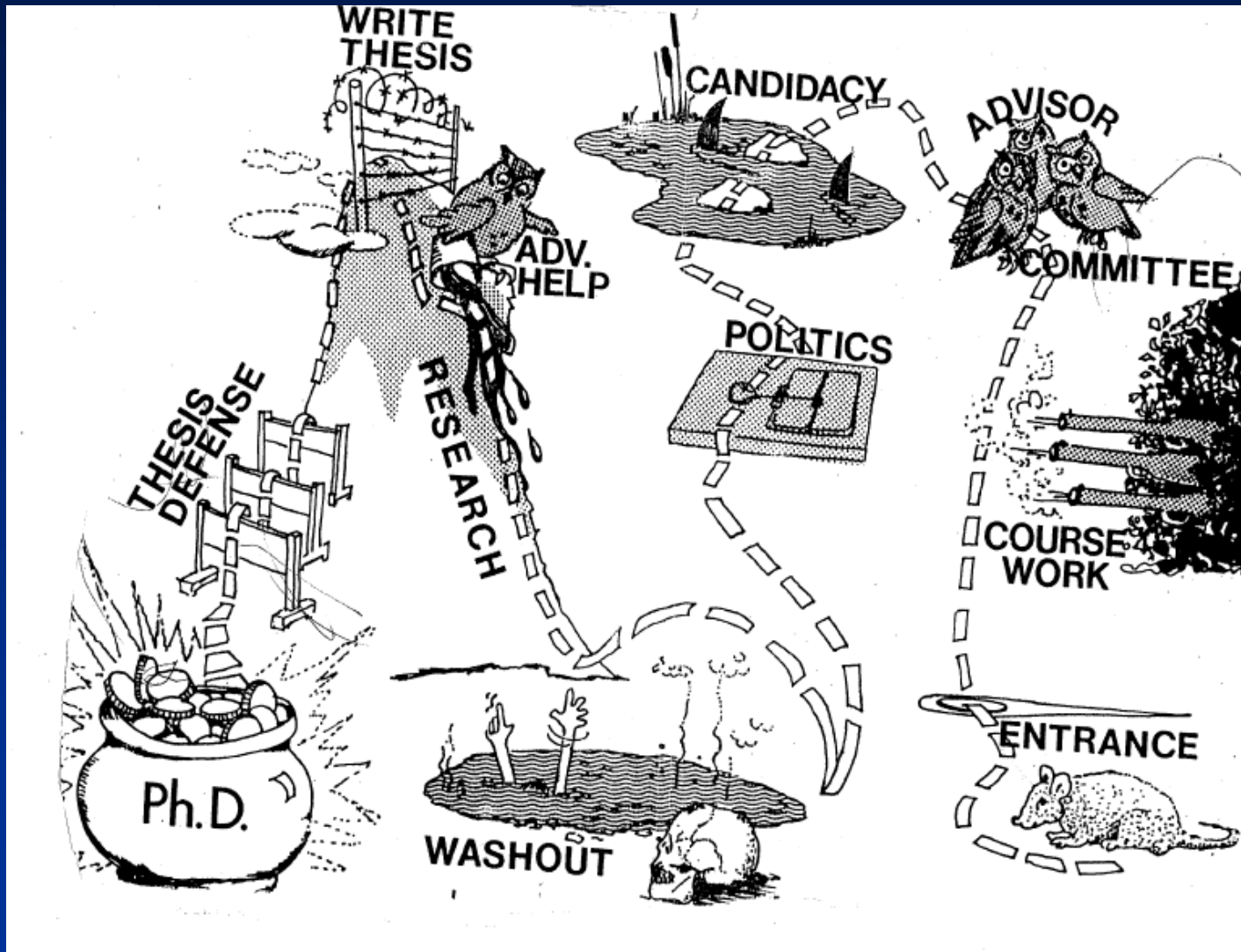
Above image:

1992 (left) and 1993 (right)
Tri-Beta officers Upsilon Eta
Chapter at the Induction
ceremony

Right image: The 1993
Tri-Beta offices at a chapter
meeting



A cartoon from the tribeta address in 1992 when I was inducted



The “multi-step process” of higher education

I want to study this!



And this...



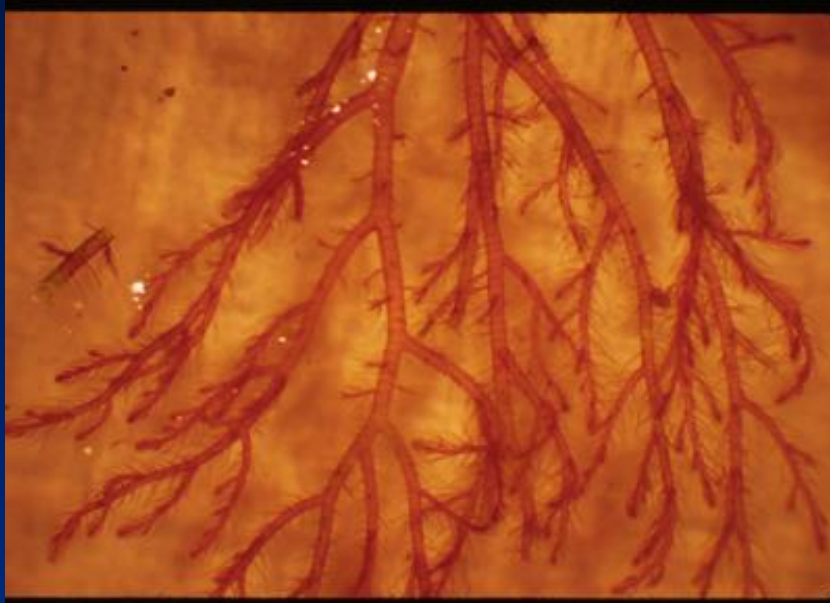
While doing this...



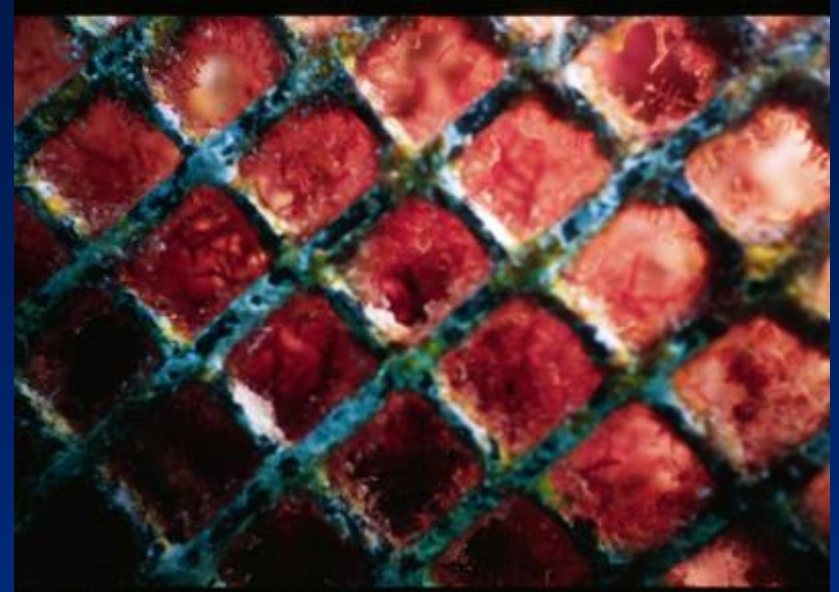
In these kinds of
habitats...



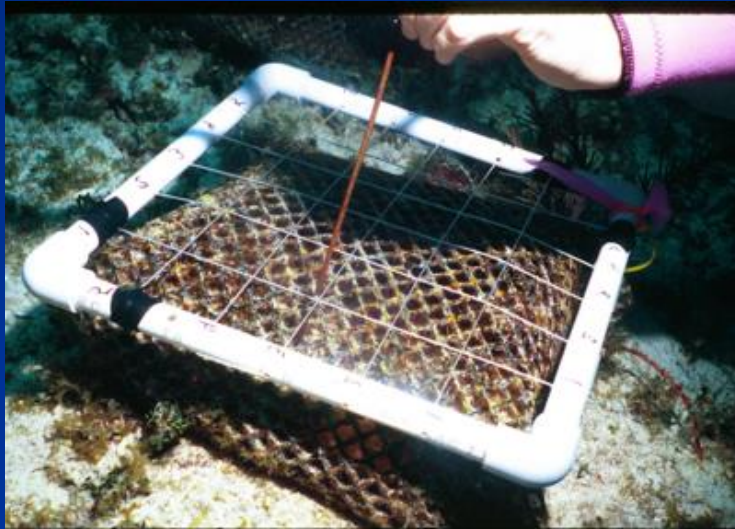
a) Close up of *Sprydia filamentosa*



b) Red algae growing in a cage



b) Point sampling of benthos in cages



c) *Dasycladus vermicularis* growing in a cage



Now,
I am more likely to be doing this....



Working with students to understand
Griffiths' transformation experiments

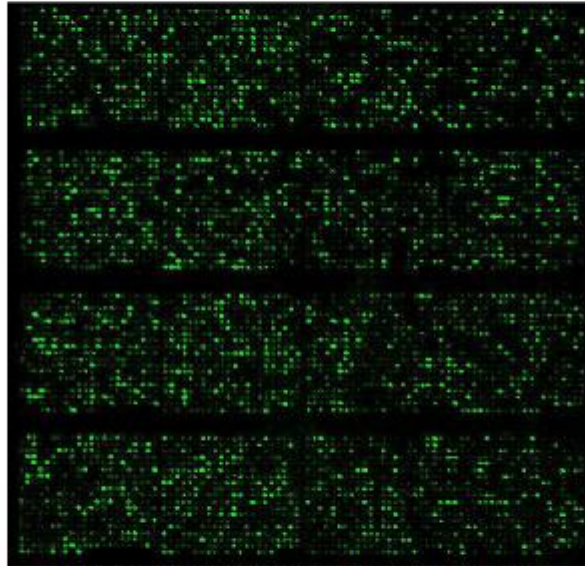
Or this...



Biology I lab students holding tubes of spinach juice watching the cells photosynthesize

Or this... (mentoring honors research)

The effect of thimerosal-containing and thimerosal-free pediatric flu vaccine on gene expression in *Saccharomyces cerevisiae*



Microarray created by Christie Rubio

Christie Rubio
Nova Southeastern University
Farquhar College of Arts and Sciences
April 2011

Or this...(mentoring independent study projects)



truvia



The Effects of Sugar Substitutes on
Gene Expression in *Saccharomyces
cerevisiae*

Hannah Bromberg

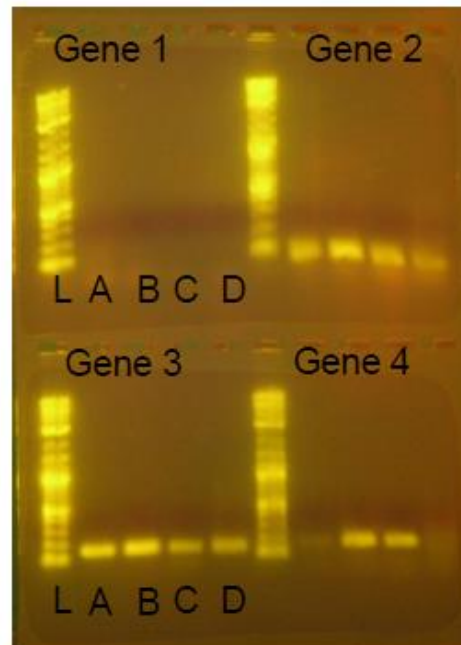
Faculty Advisor: Dr. Emily Schmitt

April 8, 2011

Making sense out of data like this...

Gene Specific PCR → Gel Electrophoresis

L = Ladder
A = Sugar
B = Splenda
C = Equal
D = Truvia



With these organisms

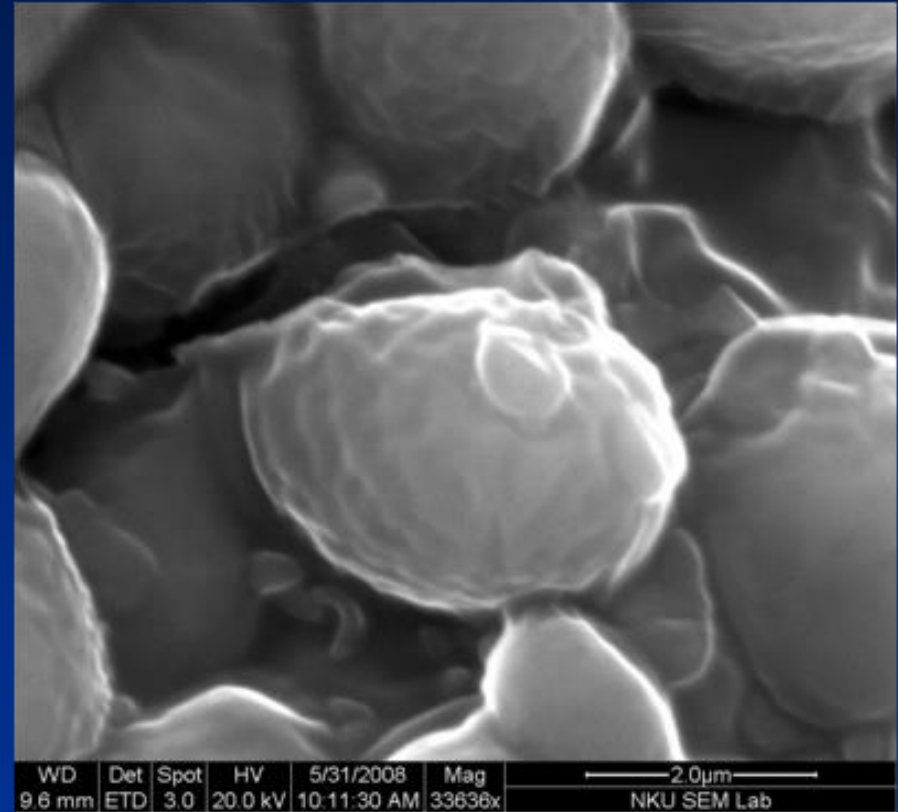
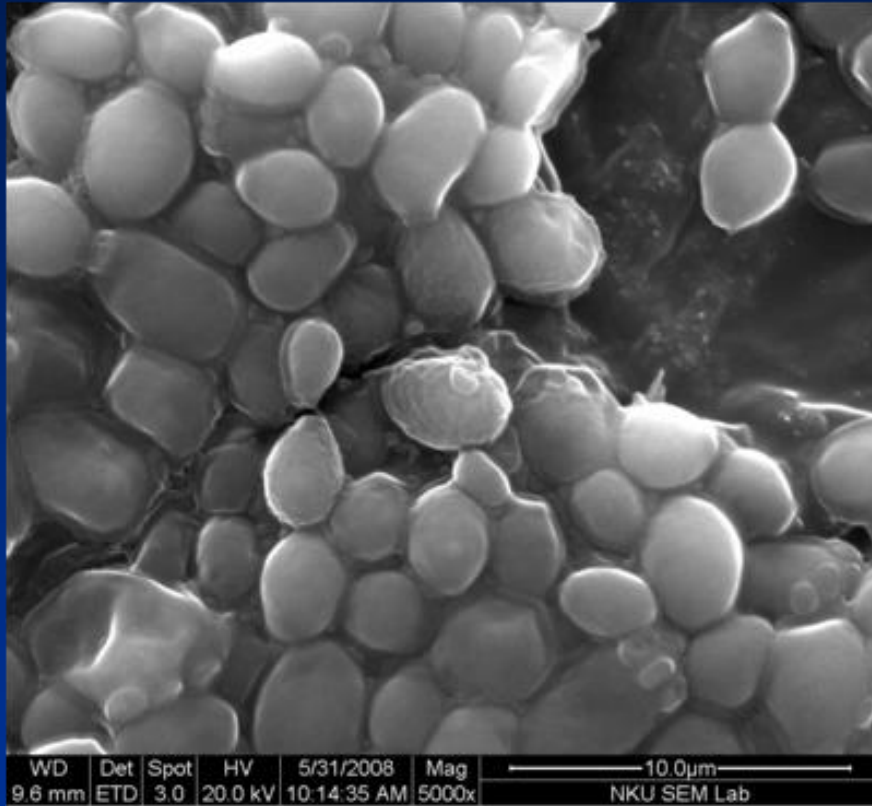
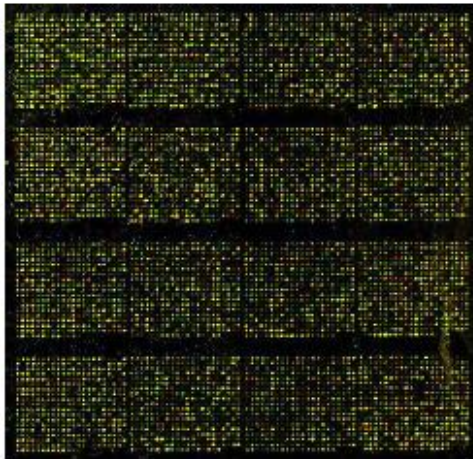


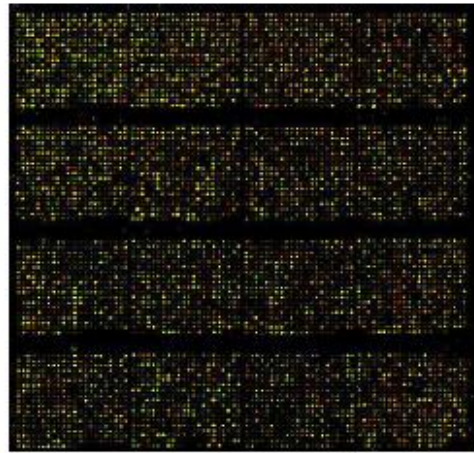
Image credits: Christie Rubio at 2008 Tri-Beta National Biennial Convention

Trying to understand pictures like these...

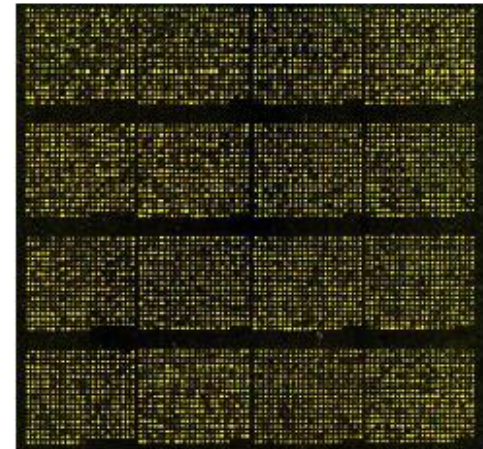
Results Summary of Microarrays Prepared



TCV vs Control



TFV vs Control

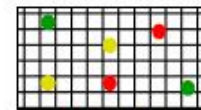
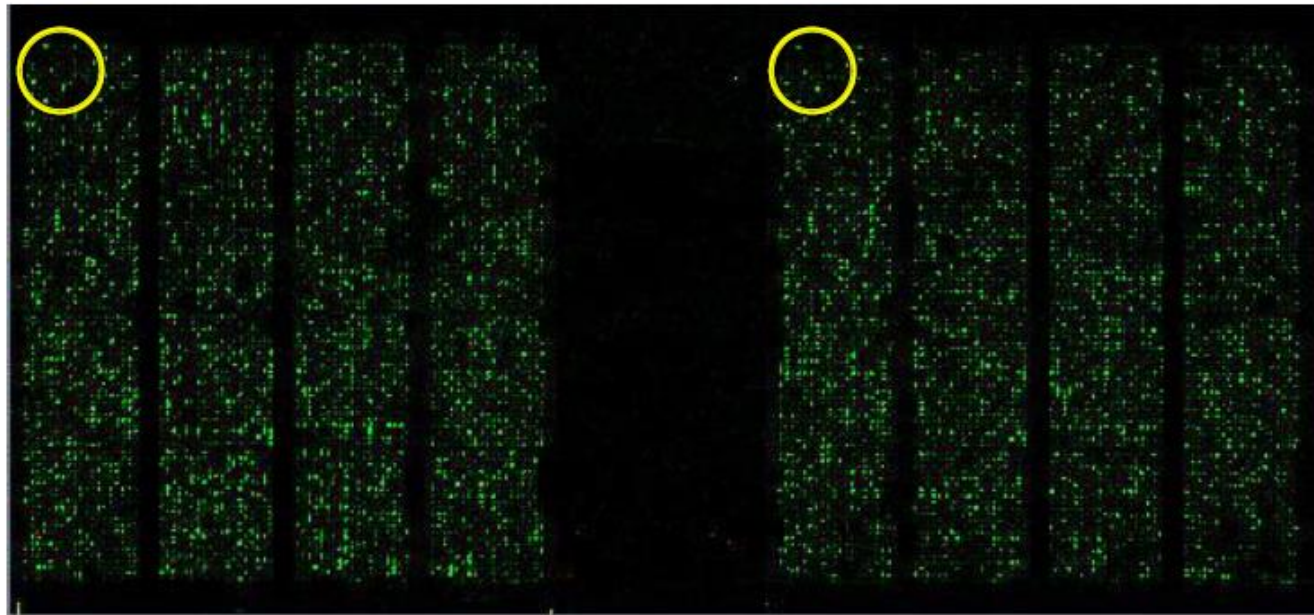


TCV vs TFV
(and dye-swap)

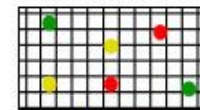
Special thanks to Dr. Marcus Jones of JCVI for hybridization and scanning

And this...

Structure of a Microarray Slide



Metagrid 1

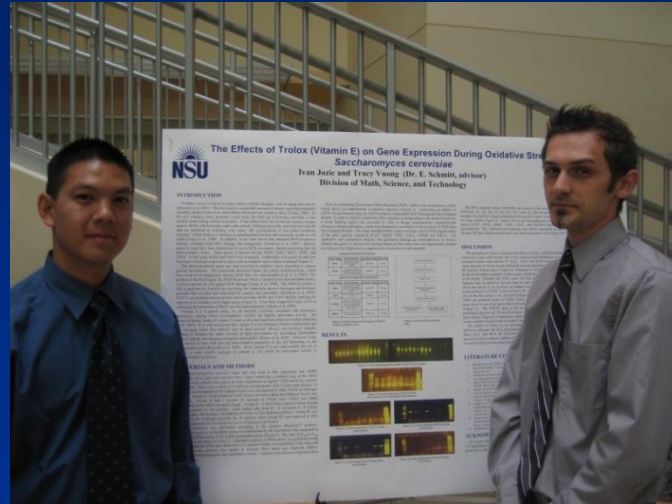


Metagrid 2

And doing projects such as this...



Genetics and Genealogy Honors Course and Studies



Helping students
find the joy in
doing research

We are involved in community service activities such as “Science Alive” where we bring fun science activities to the families (>400 people) at Welleby Elementary School



Science Alive Team January 2010

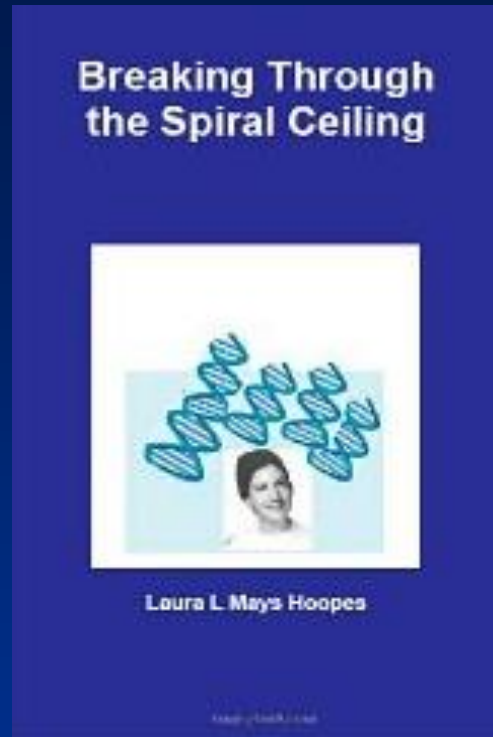
“Science Alive” March 2011





Read Something Inspirational

The only memoir in print about a married American woman biologist with children; emphasizes a career-family balance.



By: Laura Mays Hoopes, Ph.D.
Pomona College, CA

Memoir on becoming a DNA scientist while also being a teacher and having a family life