

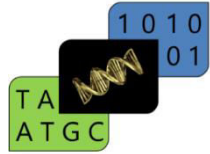
# Galaxy at Analome

## Outreach, Opportunity and Challenges

Galaxy Admins. Meetup

Oct. 15, 2015

Dr. David Kovalic



# Outline

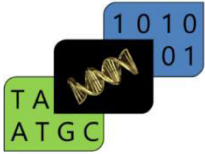
- Analome and Galaxy
  - Introduction to Analome
  - Galaxy's role at Analome
- Bioinformatics for the Social Good
  - Outreach & Opportunity
- Challenges and Conclusions



*Galaxy at Analome – Outreach, Opportunity and Challenges*

# ANALOME AND GALAXY





# Introduction to Analome Inc.

- **Small Company based in St. Louis, Missouri. USA**

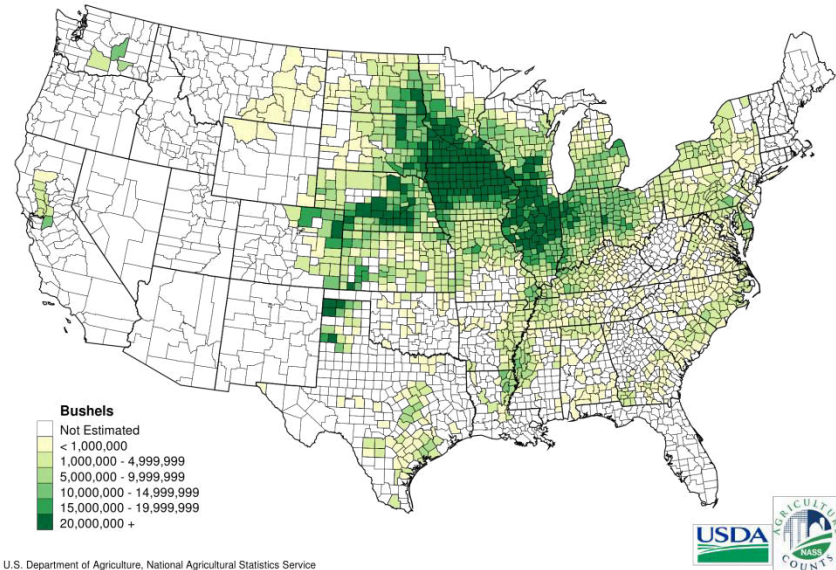


- **Provider of custom bioinformatic solutions to industrial partners**
  - **Our 20 years of experience helps our partners access the analytics which enable effective use of genomic data**
  - **Our expertise allows our partners to get their jobs done better faster and with less costs, allowing them to focus on their core technologies**

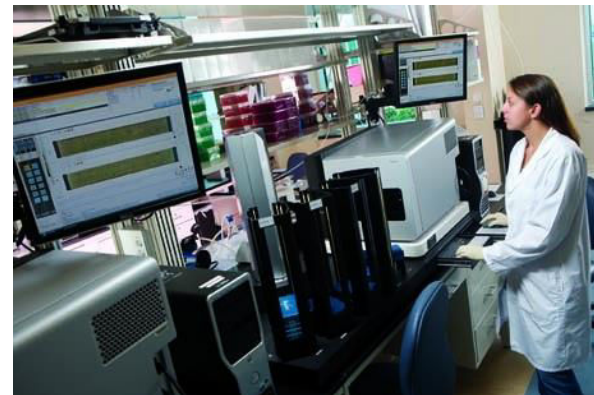
# Analome Inc. – Market Segments

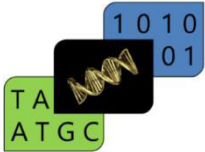
- **Typical clients**
  - Smaller Biotech
  - Ag. Focused

Corn for Grain 2010  
Production by County  
for Selected States



- **Secondary market**
  - Genomics Cores

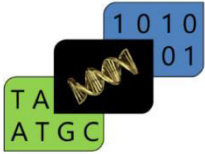




# Life Before Galaxy

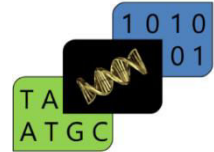
## ■ Story from the past

- A long time ago in a galaxy far, far away....
  - Every task done from scratch, at least the first time
  - Everything accomplished with cli and scripts
  - Best practices established, given enough time and efforts
  - Even very basic tasks needed a lot of skills and experience
- A very great deal of effort was expended just to accomplish data management and processing
  - The dark days ;)



# Why Galaxy Rocks

- At Analome Galaxy has found another home and we like it for numerous reasons.
  - Enables collaboration
    - Inside Analome and with partners
  - Full suite of tools and extensible
  - Cloudable OTB (CloudMan)
  - Support for rapid development and method review
  - Built-in SOP generation
  - Enables workforce development
- Use the force (Galaxy) and life is better than in the dark days!

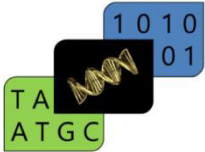


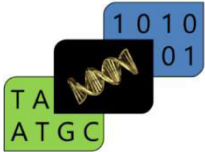
*Galaxy at Analome – Outreach, Opportunity and Challenges*

# BIOINFORMATICS FOR THE SOCIAL GOOD



# St. Louis, Ferguson August 2014





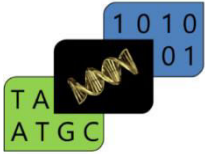
# Social Issues

## ■ Local Perspective:

- Ferguson is majorly black in populace, their local police force is majorly white
- Personal communications with the residents of the African American areas of St. Louis reinforce that the perception is their policing is unjust. This is a long term view.
- US DOJ report calls out discriminatory policing for profit
- Michael Brown's death brought the existing issues to a head

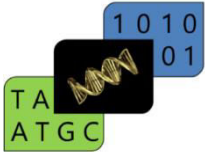
## ■ My personal take:

- Michael Brown was shot by police as the ultimate result of stealing cigars from a store
- How did we get here?
- What part does previous opportunity play?
- How can education create economic empowerment?
- What can Analome do?



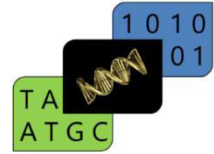
# Can Bioinformatics Help?

- **Why Galaxy Rocks – Revisited**
  - Enables workforce development
- **How can Education create Economic Empowerment?**
  - Get our kids from where they are to a good job ASAP
- **What can Analome do?**
  - Educational Outreach
  - We can't fix the world, but we think we can help make it better



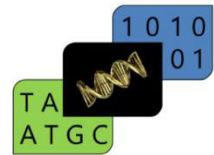
# Analome Outreach Program

- **Analome Outreach Program**
  1. **Educational Outreach – Share the field of Bioinformatics**
    - Universities
    - Community colleges
    - High schools, middle schools and elementary schools
    - Local government workforce partners
  2. **Build a business with opportunities**
    - The Analome staffing model that has a component of bioinformatics as a trade
  3. **Support the young**
    - Presentations to city science/tech schools
    - Internships and Apprenticeships
- **It is early days but we have started**
  - **Have helped placed our first intern in a good job**
- **Bioinformatics for the social good will happen one small step at a time**



*Galaxy at Analome – Outreach, Opportunity and Challenges*

# CHALLENGES AND CONCLUSIONS



# Challenges

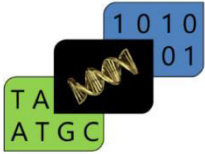
## ■ Galaxy rocks, but...

### – Documentation

- Great documentation is very useful especially to the new

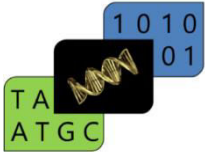
### – CloudMan

- Implementation of security and access features
- Easy access to all Galaxy setup options



# Summary

- **Analome offers custom bioinformatic solutions to industrial partners**
- **Developing a innovative staffing model and workforce development program**
- **Active in educational outreach activities**
- **Serious about providing opportunities for the young**
- **We love Galaxy!**



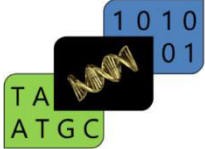
# An Unsolicited Advertisement



Hosted by Indiana University

**GALAXY**  
Community  
Conference  
June 28–29, 2016





# See you at GCC 2016!

