

ANALOME
Analytics for the Omics Revolution

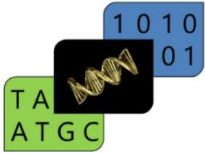
Galaxy at Analome

Outreach, Opportunity and Challenges

Galaxy Admins. Meetup

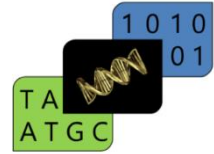
Oct. 15, 2015

Dr. David Kovalic



Outline

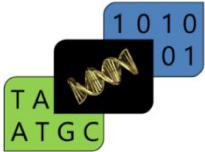
- Analome and Galaxy
 - Introduction to Analome
 - Galaxy's role at Analome
- Bioinformatics for the Social Good
 - Outreach & Opportunity
- Challenges and Conclusions



Galaxy at Analome – Outreach, Opportunity and Challenges

ANALOME AND GALAXY





Introduction to Analome Inc.

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

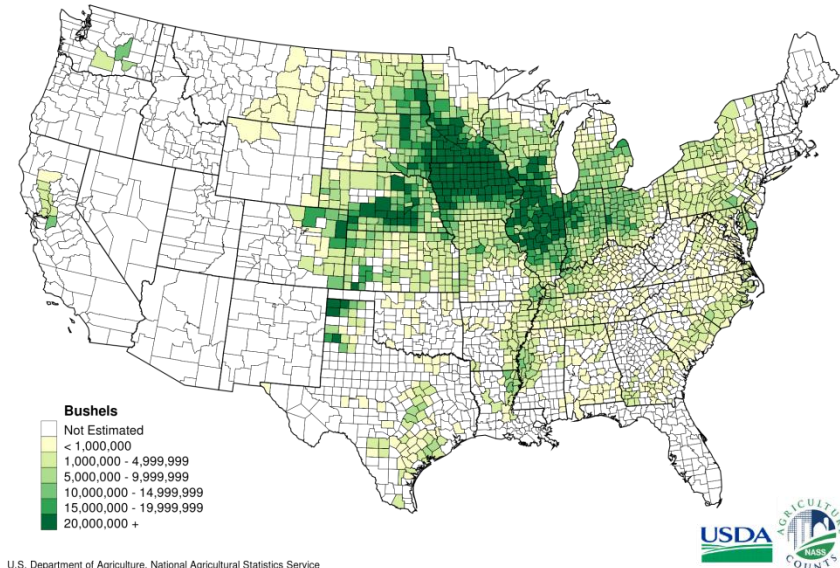


- **Provider of custom bioinformatic solutions to industrial partners**
 - **Our 20 years of experience helps our partners access the analytics which enable effective use of genomic data**
 - **Our expertise allows our partners to get their jobs done better faster and with less costs, allowing them to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

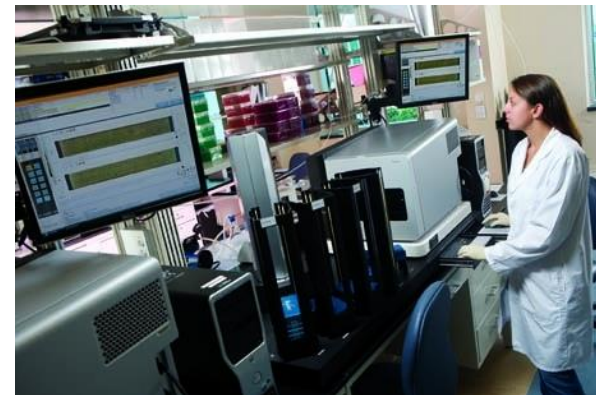
Analome Inc. – Market Segments

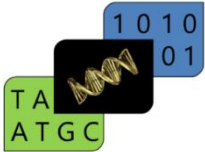
- **Typical clients**
 - **Smaller Biotech**
 - **Ag. Focused**

Corn for Grain 2010
Production by County
for Selected States



- **Secondary market**
 - **Genomics Cores**

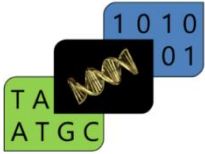




Life Before Galaxy

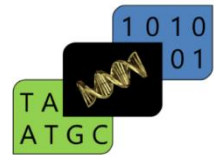
■ Story from the past

- 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

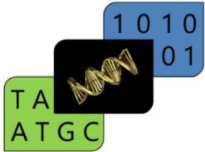
- At Analome Galaxy has found another home and we like it for numerous reasons.
 - Enables collaboration
 - Inside Analome and with partners
 - Full suite of tools and extensible
 - Cloudable OTB (CloudMan)
 - Support for rapid development and method review
 - Built-in SOP generation
 - Enables workforce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

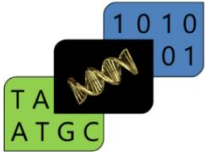


Galaxy at Analome – Outreach, Opportunity and Challenges

BIOINFORMATICS FOR THE SOCIAL GOOD

St. Louis, Ferguson August 2014





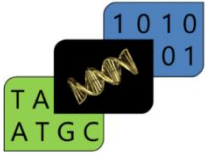
Social Issues

■ 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

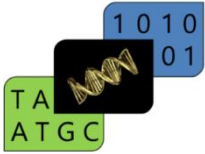
■ My personal take:

- 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?



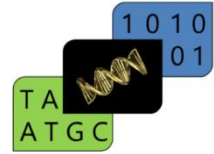
Can Bioinformatics Help?

- **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

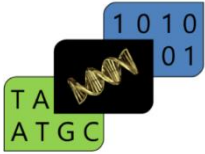
- **Analome Outreach Program**
 1. **Educational Outreach – Share the field of Bioinformatics**
 - Universities
 - Community collages
 - High schools, middle schools and elementary schools
 - Local government workforce partners
 2. **Build a business with opportunities**
 - The Analome staffing model 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

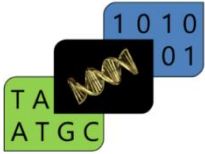
■ Galaxy rocks, but...

– Documentation

- Great documentation is very useful especially to the new

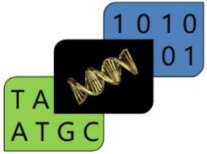
– CloudMan

- 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!**

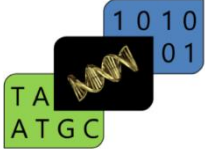


An Unsolicited Advertisement



Hosted by Indiana University

GALAXY
Community
Conference
June 28–29, 2016



See you at GCC 2016!

