

Are We Clear?

**We Need To Be Clear!**





# You Can't Handle The Truth!!!!

- According to Jack –
  - Tom can't handle the truth
  - Tom doesn't want to know the truth
  - Tom doesn't not what to know what happens **on the front lines**
  - Tom says he **does** want to know the truth

# Are We Clear?

- What Are Our Goals?
  - Professionally?
  - As Regulators?
  - As Chemists?
- What Do We Want To Accomplish?
  - Professionally?
  - As Regulators?
  - As Chemists?
- We Can Handle The Truth
- In Fact We Need To Handle The Truth!

# How Do We Get The Truth?

- What Is The truth?
  - The Right/Best Answer Possible?
- Forum is A Way to Move Toward Determining It
  - Working Together We Have
    - Experience
    - Knowledge
    - Equipment
    - Desire To Get The Right Answer
- Who Else Is Going To Do It?
- Who Is Working On These Problems?
- We Are The Stakeholders!

# Truth

The remark attributed to Disraeli would often apply with justice and force: "There are three kinds of lies: lies, damn lies, and statistics".

–Mark Twain

Truth - A statement or idea that is true or accepted as true

A Chemists Definition of Truth? –

**The Right Answer –**

**What is Right?**

**How Close DO We Need To Be?**



# Dangers Of Not Seeking The Truth

- Let's don't settle for anything less than the best we can do
- It is easy to settle for something less than the truth because –
  - It is Cheaper
  - It is Quicker
  - It is Accepted as OK
- Are we settling?
  - IA's have gotten bigger
  - They may still not be large enough based on current data
- What are the implications of **Settling**?

# Implications of Settling

- Bad precedent
- Very difficult and often very expensive to stop settling
- Management expectations always seem to push for –
  - Cheaper
  - Faster
  - “Better” (meaning cheaper and faster)
- Everyone just assumes the lab reports the truth!
- The truth sometimes gets lost in –
  - Finances
  - Personnel issues
  - Getting done

# What Can We Do To Avoid Settling For Something Less Than The Truth?

- Establish the risk of settling
- Risks include -
  - Misleading your customers
  - Consumers getting something less that they expect
  - Legal?
  - Expose any false sense of security that exists
- Use the data to make our points
- What is an acceptable variation from the Truth?
- Different for everyone

Just FYI

I don't have the answer!

You have to decide!

# Discussion

- Help is available
  - Magruder
  - NIST
  - Experts here
  - Vendors
- Don't give up!

- Commercial “the Settlers”
  - [https://www.youtube.com/watch?v=aiy\\_b-giiCE](https://www.youtube.com/watch?v=aiy_b-giiCE)
  - Do labs feel like the wife when seeking funding?

- **Are we clear - YouTube**

- <https://www.youtube.com/watch?v=KmKOVdAGtzM>

# The Process To Achieve Our Goals

- Work To Develop Attainable Goals?
  - Workout Format
- Come Together As Chemists
  - Regardless Of Affiliation
- Brainstorm
  - Nothing Is Out Of Bounds
- Identify & Solve Problems
- We Are All Busy
  - Work After The Forum Is Over
  - Follow Up - Go The Extra Mile



# Identify & Solve Problems

- Accuracy – You Can't Compromise
- Bias – You Can't Compromise
- Efficiency – A Good Place To Start
- Utilize New/Better Equipment
- Better Chemistry –
  - New Quicker Extractions
  - Don't Just Run The Method!
- Better Sampling & Prep –
  - More Representative
  - More Confidence In Data

# Follow Up & Record Our Work

- Use Workout Templates
- Leaders Remind Team Members
- Use The Media
  - Conference calls
  - Webinars
- Be Willing To Publish
  - And Let Manuscripts Be Peer Reviewed
- Be Willing To Share

# Follow Up & Record Our Work

- Are We Happy With Where We Are?
- Do You Have Confidence In Your Data?
- Do You Have Too Much Confidence?
- Check Samples & Reference Materials
- Set Performance Goals Within Your Lab
- Don't Just Create Numbers
- Create Confidence

Questions?

# The Rest Of The Story

<https://www.youtube.com/watch?v=9FnO3igOkOk>

## We Need To Be Crystal Clear