



Younger Chemists Committee  
of St. Louis ACS

# Chemistry Career Night



COVIDIEN



Washington University in St. Louis





# Dr. Keith Stine

Chairman - ACS St. Louis



# Younger Chemists Committee (YCC) of STL-ACS



Arindam Roy, Chair-YCC-STL

# St Louis Local Section YCC

- Co Chair: Dr. Kenya Powell
- Secretary: Mr. Philip Cheney
- Events Co-ord: Mr. Francisco Franco



Treasurer: Dr. Dan Mans

Chair: Dr. Arindam Roy

# YCC: Membership and Mission



- 35 Years and Younger
- Address any issues faced by early career chemists!



- Happy hour
- We plan to do a seminar given by a chemist on a scientific topic
- We meet once a month



# Younger Chemists Committee

- [www.acs.org/ycc](http://www.acs.org/ycc)
- Local Section under the new website:  
[www.stlacs.org](http://www.stlacs.org)



# Just A Thought

- Think about **one issue**
- Send me an E-Mail: [royarind@yahoo.com](mailto:royarind@yahoo.com)
- Do come to our meetings  
(Wash U or Covidien)
- Be a part of the TEAM **YCC**



# Acknowledgement

- Dr. Keith Stine: Chair, St Louis ACS
- Officers of YCC and Ms. Dayna Turner
- Volunteers: Dr. Eric Burton, Dr. Archana Parameswar
- Our Speakers:
  - Dr. Lucinda Buhse
  - Dr. Lloyd Hill
  - Mr. Keith Hampton
  - Dr. Rajesh Devraj
  - Dr. Ryan McCulla
- Dr. Ed Hiss/WashU
- Sponsors





# Thank You

[royarind@yahoo.com](mailto:royarind@yahoo.com)





# Dr. Lucinda Buhse

Director, FDA – St.Louis





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# Lucinda (Cindy) Buhse, Ph.D.

Director, Division of Pharmaceutical Analysis  
Center for Drug Evaluation and Research (CDER)  
Food and Drug Administration (FDA)

Chemistry Career Night  
Washington University  
September 17, 2008

# Education



- B.A. Chemistry, Grinnell College, Iowa
  - Undergraduate Research under Professor Luther E. Erickson

Research Title: “Kinetics and Mechanisms of Isomerization of Amino Acid-DMSO Chloride Complexes of Platinum (II).”

- Ph.D. Physical Chemistry, University of California, Berkeley
  - Graduate Research under Professors John H. Clark and George C. Pimentel.
  - Thesis Title: “Picosecond Dynamics of Solvation: Time-Resolved Fluorescence of 4-Aminophthalimide in Solution.”





# Industrial Career

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**ROHM|HAAS** 

(7 years)

- **Senior Scientist for Plastics Research**
  - Developed new Plexiglas formulations
  - Ran quality control for a high temperature plastic pilot plant
- **Process Chemist for Multi business Manufacturing Facility**
  - Improved processes for several products
- **Process Chemist for Agricultural Business**
  - Developed conditions for scale up of pesticide

\*\* Management experience with technicians, chemists and engineers\*\*



# Industrial Career (cont.)

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Sigma



Aldrich

(7 years)

- **Validation Engineer for Diagnostics Division**
  - Introduction to FDA, cGMPs
- **Batch Chemist Supervisor for Diagnostics Division**
- **Production Manager for Diagnostics Division**
- **Validation Manager in Engineering Department**
- **Analytical Services Manager in Fine Chemicals Division**

\*\* Management experience with Ph.D.'s, supervisors\*\*

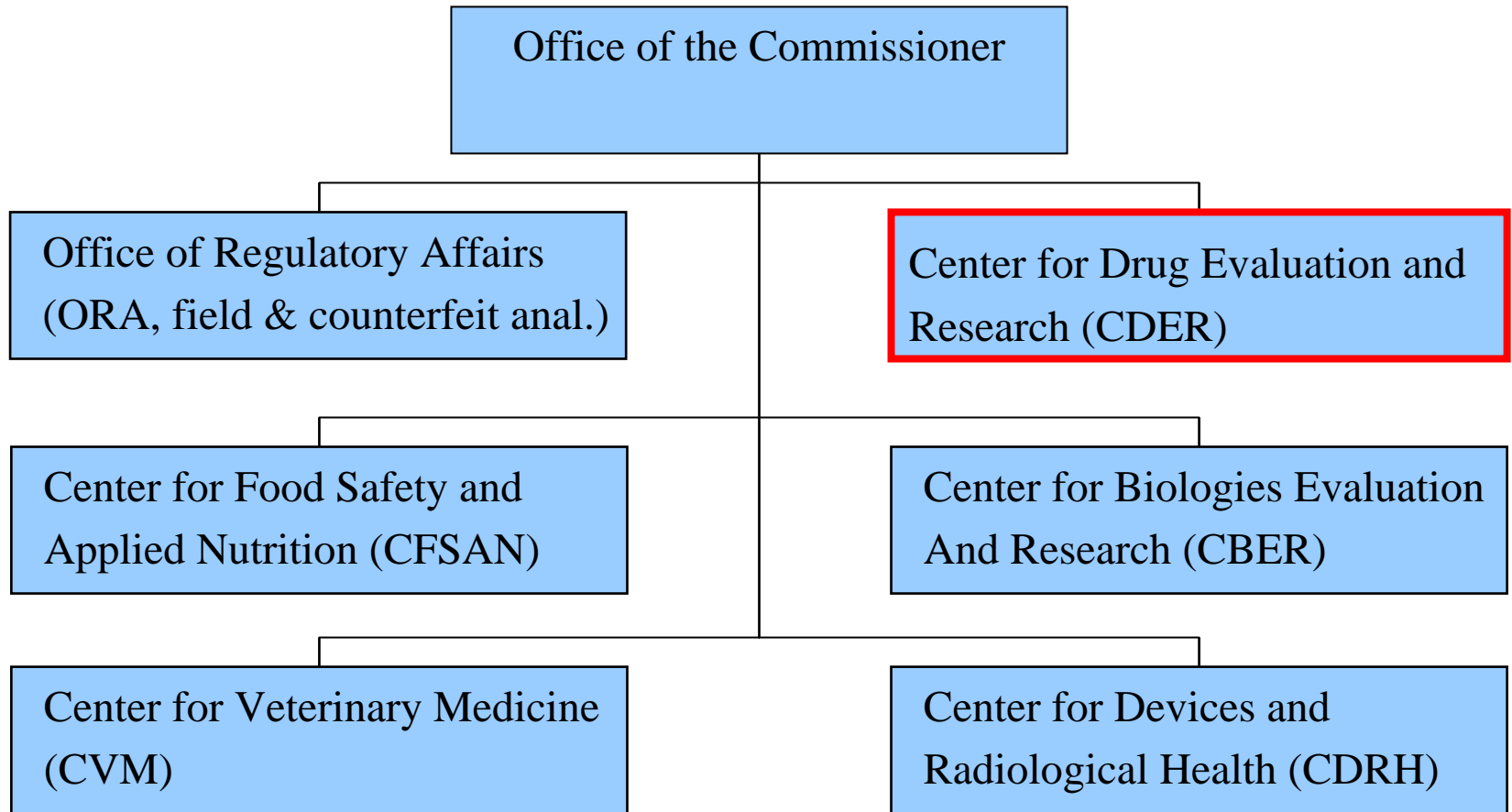
# Government Career 7 years with FDA



- Deputy Director, Division of Pharmaceutical Analysis
- Director, Division of Pharmaceutical Analysis
- Acting Director, Office of Testing and Research

# FDA

(under Department of Health and Human Services)

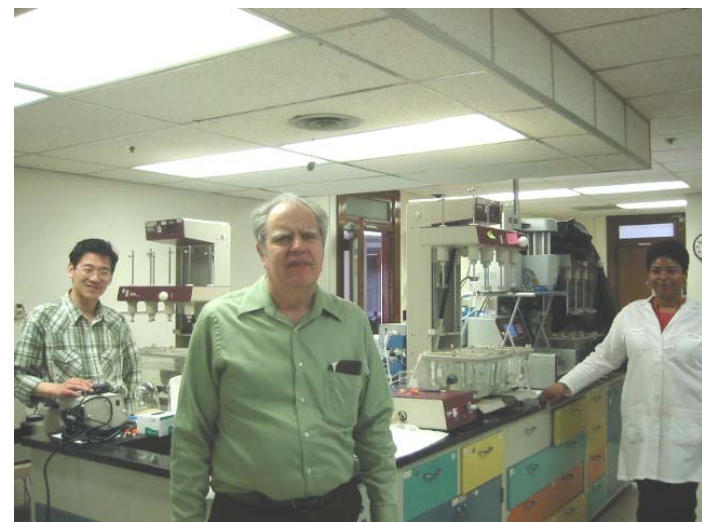






# Mission of Division of Pharmaceutical Analysis

- Ensure, through biological, chemical, and/or physical assessments, the safety and efficacy of human drugs used in the United States;
- Provide a strong scientific and analytical base to support complex FDA investigations and enforcement actions concerning the quality and authenticity of human drugs;
- Provide leadership to advance and disseminate the application of new technologies and methods, in order to assess the quality and authenticity of human drugs.





# Thank You

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FDA.gov  
USAJOBS.gov



# Dr. Lloyd Hill

Director, Covidien Mallinckrodt Pharmaceuticals



# YCC

Thanks for the invitation  
from

Dr. Arindam Roy



# BIO

## ◆ UMSL A.B.

- great mentoring from faculty

## ◆ ISU Ph.D.

- Outstanding learning / growth
- "A Place to Grow"

## ◆ Career Stops

- STL Police Department Lab

- ◆ CSI -- not for me

- Roche Carolina

- ◆ Great facility – bad cultural fit

# BIO

## ✦ MALLINCKRODT / COVIDIEN

- Left in 1997; returned in 2000 to present
- Developed expertise in opium alkaloids, isolation, purification, synthetic conversions to other drug substances and their end use
- Experience in lab, management, plant operations and quality control

# SUCCESS DRIVERS

## ◆ Resume vs. Behaviors

### – Resume

◆ Education

◆ Publications

◆ Experience

◆ Projects

### – Behaviors

◆ Hiring / Promotions

– “The Selection Solution”



# SUCCESS DRIVERS

## ✦ Career Path Selection Scientist vs. Other

- Block outside influence
- Self Discovery

✦ "The Lemming Conspiracy"





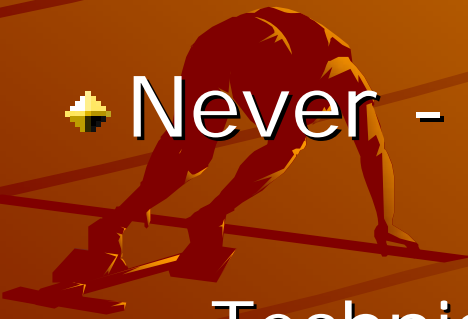
# SUCCESS DRIVERS

◆ Fourth Grade Teacher vs. Real World

– Copy from your neighbor?

◆ Never - Ever Stop Learning

– Technical and non-technical



# CONTACT INFORMATION

◆ Lloyd Hill, Director Project Management, Covidien

◆ [Lloyd.hill@covidien.com](mailto:Lloyd.hill@covidien.com)

◆ 314-654-1375





**Dr. Rajesh Devraj**

**Sr. Director, Pfizer Global R&D**





# Dr. Ryan McCulla

Assistant Professor, Saint Louis University



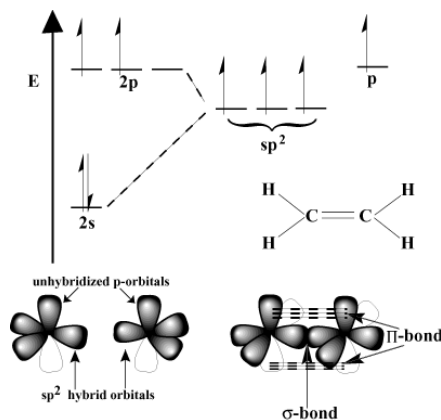


# Career Path

- Job Shadow - Industrial Paper Chemist



- College (Biology)
  - General Chemistry (BA Biology & Chemistry)
  - Organic Chemistry (BS Chemistry)

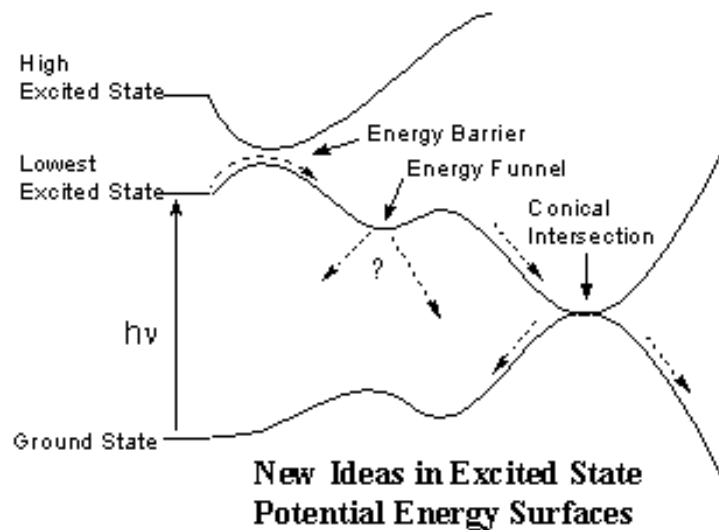


# Career Path

- Undergraduate Research



- Graduate School



– Preparing Future Faculty

# Career Path

- Postdoctoral Research
  - Develop skills
  - Improve CV
  
- Saint Louis University
  - Applied to ~70 Positions.





# Pros to this path

- Graduate School = Fun
  - If you like the work.
- Faculty Position
  - Independence
  - Working with Students
  - Flexibility (sort of)

# Cons to this path

- Graduate School
  - Time
- Faculty Position
  - Reliance on Government.
  - Salary (sort of)

# Insights

- Competitive Positions - Start Early
- When to get out
  - Early College
  - Graduation
  - 1st semester graduate school
  - M.S.
  - Ph.D. - become a lawyer.



# Keith Hampton

Sr. Recruiter, Lab Support



People First.



# CAREER MANAGEMENT STRATEGIES

## PLANNING FOR SUCCESS

# ▶ On Assignment Lab Support

- Scientific Recruitment
- Parent Company – On Assignment Inc.
- Branches throughout Northern America, UK & Belgium and The Netherlands

# ▶ The role of a Recruiter

- To Advise Technical Managers & Personnel
- To recruit & interview prospective candidates
- To offer career management/outplacement advice
- To get skilled scientists a job!



# ▶ Elements of Career Management

- Personal Evaluation
- Your Interests and Experiences
- Resume Writing Skills
- Interview Technique
- Creative Job Hunting





# ▶ Personal Evaluation

- Are you a patient / impatient person?
- Are you an easy or difficult person to work with?
- Communication skills
  - Do you jump in before you have heard everything?
  - Do you ask for clarification?
  - Do others understand your ideas / instructions?
- How do you manage any differences in opinion?
- What is important to you?



*On Assignment*<sup>®</sup>

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# ▶ Your Interests & Experiences

- Abilities – are you organized, able to teach, to listen, etc?
- General interests/experiences
  - What have you enjoyed?
  - What are you good at?
  - What would you like to learn more about?
- Spare time – interests and hobbies
- Previous work experience
  - Technical Skills
  - Transferable Skills



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# ▶ Your Resume

- What is the purpose of a Resume?
  - To represent you and your skills as it applies to a particular position
- Good Resume => Interview
- Good Interview => Job
- Bad Resume => No Interview (& no job!)



# ▶ The Resume: Your 10 second commercial!

- Appropriate cover letter
- Layout – clear, concise, error free, 1-2 pages
- Gain interest – most important details first
- Outline technical skills, (project, placement etc)
- Is it relevant to the position you're applying for?



# ▶ Interview Technique

- Preparation is essential
- What type of interview – technical, psychological or informal chat?
- Personal appearance
- Attitude (body language)
- Firm handshake
- Show you are interested – prepare thoughtful and intelligent questions
- **NOTE: Evaluation starts at Reception**



## ► Creative Job Hunting: 80% of Vacancies are Never Advertised!

- Professional Associations
- Advertisements
  - Scientific Journals
  - Newspapers (local and national)
  - Internet
- Networking (professional meetings, friends)
- Specialist Recruitment Agencies
- Job Centers
- Speculative Letters



# ▶ What Employers Look Out For

- Clear communication skills
  - Verbal: team environment
  - Written: GLP/GMP report writing
- Enthusiasm & Interest
- Commercial awareness
- Adaptability
- IT Skills
- Relevant experience



# ▶ Typical Industries

- Pharmaceutical Sciences
- Biotechnology
- Functional Genomics, Cell-Based Therapy and Large Scale Protein Production, Medical Devices
- Food, Beverage and Brewing
- Contract Research Organizations
- Customised Analytical and Production Services





# ▶ Opportunities in These Industries

- Quality Control
- Quality Assurance
- Research & Development
- Formulation
- Process Design and Scale up
- Analytical & Method Development
- Technical Support



# ▶ Examples

- QC: analysis of food, cosmetics etc to meet industrial standards
- Investigative analysis: ELISA analysis for meat specialization, DNA screening
- Pharmacokinetics: testing effects of drugs on cells & whole body
- R&D: gene-based therapy



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## ► ...and if you don't want a lab job?

- Technical sales and marketing
- Regulatory Affairs
- Quality Assurance
- Human Resources, Recruitment
- Teaching
- Patenting



# ▶ Planning for the Future

- Continue to plan your career path
- Re-evaluate yourself annually
  - What are your long-term / personal goals?
  - Are you moving in the right direction?
  - Are you still learning new skills? What new skills would you like to develop?
  - Are still enjoying this job? If not, why not?
  - Can you progress in this role?
  - What is the boss's view of your future in the company?
- Be proactive – is it time to move on?



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# ▶ An Overview

- Know Yourself
- Market yourself effectively
  - Finding the vacancy
  - Resume
  - Interview
- Regularly re-focus on long term career goals
- Think big!





*Any Questions?*



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