Industry and Education: Meeting Each Other’s Needs

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Dr. and Mrs. Slee
Dr. Slee’s early days

- Dr. Slee worked for Dr. George Miller Sternberg (considered the first bacteriologist)

- Sternberg was appointed the Surgeon General of the US Army (1893) and he sent Dr. Slee to the Pasteur Institute in France to investigate Glycerinated Smallpox Vaccine

- Sternberg was very impressed with Slee’s report of the vaccine and he encouraged Slee to establish a private laboratory to manufacture the vaccine
Dr. Slee’s early days

- Around the same time, Slee contracted Cholera and came to the Poconos to recuperate.

- He stayed at the Swiftwater Inn and established a private practice there.

- Slee married Ella Maginnis (innkeeper’s daughter).
Dr. Slee’s early days

- Ella inherited 4.3 acres across the street from the Swiftwater Inn and Slee constructed their home and the first laboratory building on the property in 1897.

- He named the facility, “The Pocono Laboratories”.

- He received state board of health certification that year and began producing Glycerinated Smallpox Vaccine. He called the product Vaccine Virus.
Smallpox
Then...
Now...
History of Ownership

- 1897 – Pocono Laboratories
- 1911 – Slee Laboratories
- 1930 – National Drug Company
- 1956 – Vick Chemical Company
- 1960 – Richardson-Merrell Inc
- 1970 – Merrell-National Laboratories
- 1978 – Connaught Laboratories
- 1989 – Pasteur Merieux – Connaught
- 1999 – Aventis Pasteur Inc
- 2004 – Sanofi Pasteur Inc
Products in the early 20\textsuperscript{th} century

- Tetanus Antitoxin
- Veterinary Tetanus Toxoid
- Diphtheria Antitoxin
- Antimeningitis Serum
- Antistreptococcus Serum
- Normal Serum
- Vaccine Serum
- Anticanine Distemper Vaccine
- Antityphoid Vaccine
Products Manufactured Today

- Influenza Virus Vaccine
- Meninogococcal Vaccine
- Yellow Fever Vaccine
Influenza manufacturing

- 1970 – 25,000 eggs/day
  approximately 5 million doses per year
- 1971 – 50,000 eggs/day
- 1972 – 75,000 eggs/day
- 1978 – 125,000 eggs/day
- 2008 – 300,000 eggs/day
- 2009 – 900,000 eggs/day
  more than 100 million doses per year
Employees

- 1897 – 2 employees
- 1932 – 30 employees
- 1977 – 150
- 1978 – 110
- Today – 2400 permanent employees
  400 temporary employees
  300 contractors
Contributions to World Healthcare

- Eradication of Smallpox
  - The last naturally occurring cases of smallpox *(Variola major)* was diagnosed in 1975, *(Variola minor)* was diagnosed on 26 October 1977
  - Greatly reduced the incidence of Diphtheria, Tetanus and Pertussis (Whooping Cough)
- Capable of manufacturing >100 million doses of Influenza Vaccine annually
- Commitment to eradicate polio within this decade
Sanofi Pasteur Vision

A world in which no one suffers or dies from a vaccine preventable disease
Footnote to History

- When Richard Slee was 4-5 years old, his infant brother died of **Meningitis**
- William Fisher’s father died from **Yellow Fever**

Vaccines to protect against these two diseases are manufactured by the Swiftwater Laboratories today
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Need for Skilled Employees

- Rapid recruitment
- Use of temporary agencies to fill gaps
- Expedited training programs
- Need to simulate high-tech jobs outside of the actual work environment
- Require a location where we can show employees the consequences of doing something wrong
Drawbacks to using Temps

- When you rely on temp agencies, you don’t always get the best candidates.
- When you expend money to train temporary employees, you tend to hire them when permanent positions become available.
- Results: you don’t always place the best candidates in your full-time permanent positions.
Partnered with NCC

- Intention was to develop a program that would augment our cleanroom training program
  - Send employees to NCC for additional cleanroom training
  - Seek new candidates from recent graduates
- Simulate cleanroom activities in a non-licensed facility
- Able to show employees the consequence of inappropriate actions without compromising our cleanrooms
What can we do for each other?

- Encourage community colleges to ask local businesses what they need
- Establish a point of contact between the college and area businesses
- Let them know what you already have available and ask their needs for the future
- Establish programs to educate the employees they already have making them more valuable for future assignments
What can we do for each other?

- Bring your programs to the employers
- Tailor specific programs to meet the needs of the businesses in your coverage area
- Offer classes at the business location to encourage participation
- Defer tuition payment until course is completed, if there is a company reimbursement policy
- Tailor course materials to the business need
What can we do for each other?

- Encourage local businesses to help fund or underwrite new course development
- Offer to train a number of employees free of charge in exchange for a funding commitment
- Develop pre-screening programs for potential applicants to assist in the hiring process
  - Help businesses develop “realistic job preview” videos
  - Establish pre-screening interviews
What can we do for each other?

- Look for ways that companies in your area can share temporary employees (certificate programs)
- Train employees for multiple functions so they are marketable to multiple employers
- Example: Internet distribution companies typically need seasonal employees from October to December to handle additional holiday orders. Resort industries typically need seasonal employees during the summer months.
What can we do for each other?

- Build a quality culture into your course offerings
  - If it’s worth doing, it’s worth doing right
  - Right First Time
  - Zero Defects
- Build a Safety culture into your courses
- Get students to start thinking of cost containment / cost reduction as a way of life
What can we do for each other?

- Find out which software applications local businesses are using
- Develop training programs for software applications
- Provide a basic understanding of MRP – Material Resource Planning
- Provide a basic understanding of Project Planning
Conclusion

- Be proactive: reach out to your local businesses
- Determine their needs
- Encourage them to seek you out as a solution to their problems
- Make sure they know who to call – Give them a name and face
Questions?

Thank You