New Jersey Department of Health
Public Health and Environmental Laboratories

Tour of PHEL, March 9, 2016
Rutgers, Graduate School of Biomedical Sciences
PhD Candidates

AGENDA

9:30 -10:00 Arrival and sign in

10:00 – 10:15 Welcome Asst. Commissioner, Christopher Rinn
PHEL Director, Onesia Bishop, PhD

10:15 – 10:30 Laboratory Operations Director, PHEL Policy, Planning and
Regulatory Compliance, Martha Smith

10:30-11:00 Grant Funding
Leadership/Management Scott Shone, PhD, Newborn Screening
Professional Networking Nelson Delgado, PhD, Molecular Detection

11:00-11:30 LUNCH

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:30-12:15 Environmental Chemical Laboratory Services</td>
<td>Newborn Screening</td>
</tr>
<tr>
<td>12:15-1:00 Microbiology/Molecular Services</td>
<td>Environmental Chemical Laboratory Services</td>
</tr>
<tr>
<td>1:00-1:45 Newborn Screening</td>
<td>Microbiology/Molecular Services</td>
</tr>
</tbody>
</table>

1:45-2:00 Reconvene/Q&A

Nelson.Delgado@doh.nj.gov Susan.Mikorski@doh.nj.gov (Laboratory Outreach)
Tina.Fan@doh.nj.gov Onesia.Bishop@doh.nj.gov
Scott.Shone@doh.nj.gov Martha.Smith@doh.nj.gov
Life after the Ph.D.

Nelson.Delgado@doh.nj.gov
AMERICAN BOARD OF MEDICAL MICROBIOLOGY (ABMM)

The American Board of Medical Microbiology certifies the expertise of doctoral-level microbiologists seeking to direct medical and public health microbiology laboratories. ABMM certification is recognized by federal and state governmental agencies as a significant component toward meeting licensure requirements to direct laboratories engaged in the microbiological diagnosis of human disease. It is recognized under the Clinical Laboratory Improvement Amendments of 1988 final rule and in all 12 states that require licensure: California, Florida, Georgia, Hawaii, Louisiana, Montana, Nevada, New York, North Dakota, Rhode Island, Tennessee, and West Virginia.

2016 Newly Certified Diplomates
The ABMM certified 27 new Diplomates on August 3, 2015.

ABMM Exam Information
Information about eligibility, exam content, pass rate, practice questions, and test administration. The application deadline for the June exam is April 1.

ABMM Diplomates Directory
Search for fellow Diplomates and update your contact information.

Recertification
The ABMM requires its Diplomates to recertify by continuing education once every three years. The deadline is January 31.
NATIONAL REGISTRY OF CERTIFIED MICROBIOLOGISTS (NRCM)

The National Registry of Certified Microbiologists certifies professional microbiologists at the baccalaureate, master’s, and doctoral levels in biological safety; food safety and quality; and pharmaceutical and medical device. The American College of Microbiology and the American Society for Clinical Pathology (ASCP) jointly develop and administer certification exams in clinical microbiology at the bench and supervisory levels. For more information, visit http://www.ascp.org/boc.

NRCM certification provides:

- A tangible credential
- Validation of your expertise
- Credibility
- Third-party support to your resume
- Verification of personal accomplishment

2015 Newly Certified Registrants
The NRCM certified 48 new Registrants on June 26, 2015.

NRCM Exam Information
Information about eligibility, exam content, pass rate, practice questions, and test administration. The application deadline for the April exam is February 1.

More about the NRCM
Why Certify with the NRCM?
Article from NHUM’s The Loop, Fall 2012 issue
Why I Sought NRCM Certification
Certify Your Worth
Insert this slide into your presentations to spread word about the value of certification!
Certification by the NRCM Is an Asset to Your Career
FoodSafety Magazine, eDigest, September 24, 2013
Certification Helps Biocompatibility Labs Provide Service, Value and Productivity
Quality Control: Certified NRCM Workforce
AMERICAN BOARD OF MEDICAL LABORATORY IMMUNOLOGY (ABMLI)

The American Board of Medical Laboratory Immunology certifies the expertise of doctoral-level immunologists seeking to direct laboratories engaged in the practice of medical laboratory immunology. ABMLI certification is recognized by federal and state governmental agencies as a significant component toward meeting licensure requirements for direct laboratories engaged in the microbiological diagnosis of human disease. It is recognized under the Clinical Laboratory Improvement Amendments of 1988 final rule and in 11 states that require licensure: Florida, Georgia, Hawaii, Louisiana, Montana, Nevada, New York, North Dakota, Rhode Island, Tennessee, and West Virginia.

UPDATE: The ABMLI will phase out offering its certification exam; the last exam will be offered in August 2017. The ABMLI will continue to serve its Diplomates through recertification, maintaining an active roll of Diplomates and verification of certification status. The Centers for Medicare and Medicaid Services has confirmed that they will continue to recognize ABMLI certification as a personnel requirement for high-complexity laboratory directors even though the exam will no longer be offered. Learn more about the phase out. Updated June 15, 2015.

2015 Newly Certified Diplomates
The ABMLI certified six new Diplomates on October 5, 2015.

ABMLI Exam Information
Information about eligibility, exam content, pass rate, practice questions, and test administration. The application deadline for the August exam is June 1.

ABMLI Diplomates Directory
Search for fellow Diplomates and update your contact information.

More about the ABMLI
Why I Sought ABMLI Certification
Certify Your Worth
Insert this slide into your presentations to spread word about the value of certification!
Hardy Diagnostics ASMM/ABMLI Professional Recognition Award

Other Sites of Interest
Medical Laboratory Immunology Mentors
Clinical Microbiology Portal
Abbott Award in Clinical and Diagnostic Immunology
American College of Microbiology Committee on Postgraduate Educational Programs (OPEP)
AMERICAN BOARD OF MEDICAL LABORATORY IMMUNOLOGY (ABMLI)

The American Board of Medical Laboratory Immunology certifies the expertise of doctoral-level immunologists seeking to direct laboratories engaged in the practice of medical laboratory immunology. ABMLI certification is recognized by federal and state governmental agencies as a significant component toward meeting licensure requirements to direct laboratories engaged in the microbiological diagnosis of human disease. It is recognized under the Clinical Laboratory Improvement Amendments of 1988 final rule and in 11 states that require licensure: Florida, Georgia, Hawaii, Louisiana, Montana, Nevada, New York, North Dakota, Rhode Island, Tennessee, and West Virginia.

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American Board of Bioanalysis (ABB)

The American Board of Bioanalysis (ABB) evaluates, through the certification process, individuals who wish to enter, continue or advance in the clinical laboratory profession. ABB identifies, on a non-discriminatory basis, individuals who meet ABB’s requirements for clinical laboratory directors, consultants, and supervisors. ABB certification is based on an individual’s education, experience, and knowledge of the laboratory field in which certification is granted.

ATTENTION VETERANS:
The American Board of Bioanalysis (ABB) examination fees for High-Complexity Clinical Laboratory Director (HCILD), Technical Supervisor (TS), Public Health Laboratory Director (PHLD), Embryology Laboratory Director (ELD), Bioanalytical Laboratory Director (BOLD), and General Supervisor (GS) are approved for reimbursement under the G.I. Bill. For more information, visit www.benefits.va.gov/gibill/licensing.certification.asp.

Click to Apply for ABB Certification
Click to Renew your ABB Certification

Embryologists: Be Certified By a Recognized Board

The American Board of Bioanalysis (ABB) is the only certifying board recognized by CLIA that also certifies individuals in embryology. ABB was one of only four certifying boards for laboratory directors recognized in the original CLIA regulations (CLIA ’87).

ABB is also the only certifying board recognized by state licensing boards that certify individuals in embryology. ABB certification is also recognized by ASRM and two major accrediting agencies: the College of American Pathologists (CAP) and The Joint Commission.
Certification Standards for High-complexity Clinical Laboratory Director (HCLD)

To be eligible for certification as a High-complexity Clinical Laboratory Director (HCLD), an applicant must:

1. Meet the qualifications as a laboratory director of a laboratory performing high complexity testing under the CLIA '88 regulations, Subpart M, Section 493.1443.

OR

2. Hold an earned doctoral degree* from an accredited institution (see rule 11 under General Regulations) with a chemical, physical, biological, or clinical laboratory science as the major subject and have successfully completed 32 semester hours (minimum) in chemistry or the biological sciences acceptable to the Board.

In addition, applicants for HCLD certification must:

1. Have a minimum of four (4) years** of clinical laboratory training or experience within the ten (10) years immediately prior to the application date on human specimens, or both, including at least two (2) years of experience within the ten (10) years immediately prior to the application date directing or supervising high complexity testing in a clinical setting.

   For the specialty of Hematology, experience must include 60 personally performed, completed assisted reproductive procedures in humans.

   AND

   For the specialty of Embryology, experience must include 60 personally performed, completed assisted reproductive procedures in humans.

2. Pass an ABB examination in General Knowledge and in at least one (1) of the following clinical laboratory disciplines or specialties: Anatomical Pathology, Chemistry (including urinalysis, endocrinology and toxicology), Diagnostic Immunology, Embryology; Hematology (including flow cytometry); Microbiology (includes bacteriology, parasitology, virology, and mycology); Molecular Diagnostics, or Public Health Microbiology.
Certification Standards for Public Health Laboratory Director (PHLD)

To be eligible for certification as Public Health Laboratory Director (PHLD), an applicant must:

1. Meet the qualifications as a laboratory director of a laboratory performing high complexity testing under the CLIA ’88 regulations, Subpart M, Section 493.1443.

OR

2. Hold an earned doctoral degree* from an accredited institution (see rule 11 under General Regulations) with a chemical, physical, biological, or clinical laboratory science as the major subject and have successfully completed 32 semester hours (minimum) in chemistry or the biological sciences acceptable to the Board.

In addition, applicants for PHLD certification must:

1. Have a minimum of four (4) years** of clinical laboratory training or experience (within the ten [10] years immediately prior to the application date) or human testing or testing on non-human material for diagnosis and/or identification of diseases/pathogens related to human or human disease/pathogen outbreaks, or both, including at least two (2) years of experience within the ten (10) years immediately prior to the application date directing or supervising high complexity testing in a clinical setting. Of the four (4) years of clinical laboratory experience, at least one (1) year of experience must be in a Public Health Microbiology Laboratory or a Clinical Microbiology Laboratory doing testing on human or non-human material for diagnosis of diseases/pathogens.

AND

2. Pass an ABB examination in General Knowledge and in Public Health Microbiology.

*Individuals with an M.D. or D.O. degree, or the equivalent, must also be licensed to practice medicine in at least one (1) state in the U.S.

**Effective January 1, 2012, ABB will accept up to two (2) years of alternative experience to meet this requirement (see General Regulations, rule 18).
Certification Boards for Laboratory Directors of High Complexity Testing

The qualification for a laboratory director of high complexity testing at 42 CFR 493.1443(b)(3)(i) is that the laboratory director must hold an earned doctoral degree in a chemical, physical, biological or clinical laboratory science from an accredited institution and be certified and continue to be certified by a board approved by HHS. The current approved boards are the following:

1. ABB – American Board of Bioanalysis
2. ABB public health microbiology certification
3. ABCC – American Board of Clinical Chemistry
4. ABFT – American Board of Forensic Toxicology (limited to individuals with a doctoral degree)*
5. ABHI – American Board of Histocompatibility and Immunogenetics
6. ABMG – American Board of Medical Genetics and Genomics (formerly known as American Board of Medical Genetics (ABMG))
7. ABMLI – American Board of Medical Laboratory Immunology
8. ABMM – American Board of Medical Microbiology
9. NRCC – National Registry of Certified Chemists (limited to individuals with a doctoral degree) *

* These boards certify non-doctoral individuals also.

Page last Modified: 02/18/2015 9:54 AM
Help with File Formats and Plug-ins
ABSA International (ABSA) was founded in 1964 to promote biosafety as a scientific discipline and serve the growing needs of biosafety professionals throughout the world. The Association’s goals are to provide a professional association that represents the interests and needs of practitioners of biological safety, and to provide a forum for the continued and timely exchange of biosafety information.

On this official website of ABSA International, you can find information about the ABSA Annual Conference, ABSA Review Course, Principles and Practices of Biosafety Course and other educational offerings. There is also extensive information about ABSA’s two credentials, the Certified Biological Safety Professional (CBSP) credential, and the Registered Biosafety Professional (RBP) credential. The site also contains important biosafety publications such as the Anthology of Biosafety series and Applied Biosafety: Journal of ABSA International. If you are interested in becoming an ABSA member, please see ABSA’s membership information and membership application. There is also other important biosafety information on this site including: the Risk Group database, Biosafety Links, Biosafety Listserv, White Papers, Job Opportunities, and more. Please e-mail info@absa.org if you have any questions or would like additional information.

Have Credentials? (CBSP, RBP)
Why Be Certified?

For years, the practitioners of biosafety have come from many different disciplines. Usually, it was determined that there was a need for someone to oversee the institution's biohazard operations. It was a position torn out of necessity and was usually given over to either a senior research scientist with some background in microbiology or to the “Safety Guy” with no background in biological work. The field of biosafety has become defined and refined over the years. Research has become very complicated with DNA work and highly infectious organisms, the threat of bioterrorism and emerging diseases. Many institutions now require that individuals overseeing biohazard and DNA work be competent, educated, and have proper experience.

Certified Biological Safety Professional (CBSP)

A CBSP must meet specific educational and experience requirements and pass a written exam, developed by AIBS and administered by the National Registry of Certified Microbiologists (NRCPM through the American Society for Microbiology (ASM)). Application requirements for the exam include transcripts, references, and work history. Certification is valuable for professional development. Recipients are internationally recognized as having sufficient knowledge and experience to qualify as a Specialist Microbiologist in Biological Safety in Microbiology (NRCPM SM-NRCPM). Passing the NRCPM exam allows the successful candidate to apply to AIBS for CBSP status.

Registered Biosafety Professional (RBP)

A RBP is an individual with documented university education in specialized training in relevant biological safety disciplines and found to be eligible for registration by the AIBS Registration Evaluation Board. Eligibility requirements include a minimum of 5 years of practical experience in biosafety, or a combination of education and directly related work experience. Applicants must document examples of work related knowledge, skills, and abilities in the field of biosafety. The RBP understands sufficient cell biology, pathogenic microbiology, molecular genetics, and concepts of infectious transmission to enable them to apply safeguards to work with biohazardous materials.

RBP Criteria for Registration

Education:
- Bachelor's degree in biology-related field (may substitute 90 months of directly related biosafety experience for 3-4 years of college)

Experience:
- Five (5) years biosafety experience managing a comprehensive biosafety program
- A Bachelor’s degree in microbiology counts for 3 years towards 5 years requirement.
- Ph.D. in relevant field (biotechnology, microbiology, Molecular Biology) counts for 2 years towards 5 years requirement
- Cannot combine degrees to account for more than 3 years towards experience

Application Process:
- Submit original transcripts
- Submit a minimum of 2 references
- Submit AIBS RBP application

Review Process:
- AIBS Office receives applications and reviews for completeness
- Application packet reviewed by RBP Board 8 members
- Review Board evaluates candidate application and votes (requires 4 yes votes for approval)
- Chair prepares approval/rejection letter and sends to AIBS office
- AIBS Office prepares an AIBS letter for signatures and you, and sends out certificate for approval to Chair for signature
- Chair makes copies for records and mail from AIBS Office letters and certifies for successful candidate

Note: RBP requires Recertification. RBP is an AIBS designation.
Fellowships
Public Health Training Fellowships

We are looking for motivated students, graduates, and health professionals for a variety of exciting public health training programs.

Student Internships and Fellowships
- High school students
- College students
- Graduate students
- Medical students
- Veterinary students

Post-doctoral Research Fellowships
- Scientists
- Researchers
- Laboratorians
- Public health professionals

Career Training Fellowships
- Graduates with bachelor's, master's, or doctoral degree
- Medical or health professionals
- Public health professionals

CDC Training Resources
- CDC Learning Connection
- Minority Health Workforce Internship Opportunities
- Training and Continuing Education Online
- CDC TRAIN
Public Health Training Fellowships

Career Training Fellowships

Do you have a college degree?

Interested in a career in public health?

We have a variety of career training fellowships for persons who have, or will soon have, a college or other graduate or health professional degree. These programs can help jump-start your public health career.

Still in school? Check out our student internships and fellowships.

Topics

- Computer science and information systems
- Epidemiology
- Evaluation
- General public health
- Global public health
- Health economics and quantitative policy analysis
- Laboratory research
- Laboratory science and management
- Management and leadership
- Preventive medicine
- Public health management
- Public health or preventive medicine
<table>
<thead>
<tr>
<th>Your Interest</th>
<th>Your Background</th>
<th>Our Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer science and information systems</td>
<td>Master’s degree</td>
<td><strong>Public Health Informatics Fellowship Program</strong> 2-year training program in the application of computer science, information science, and technology related to public health</td>
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<tr>
<td></td>
<td>Doctoral degree</td>
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<tr>
<td>Epidemiology</td>
<td>Physician</td>
<td><strong>Epidemic Intelligence Service (EIS)</strong> 2-year program of training and service in applied epidemiology</td>
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<td></td>
<td>Veterinarian</td>
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<tr>
<td></td>
<td>Doctoral degree</td>
<td>CDC/CSTE Applied Epidemiology Fellowship 2-year applied epidemiology training program at a state or local health agency</td>
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<td></td>
<td>Health professional</td>
<td></td>
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<tr>
<td></td>
<td>Master’s degree</td>
<td>Evaluation Fellowship Program 1-to-2 year fellowship in applied public health evaluation design, implementation, and analysis</td>
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<tr>
<td></td>
<td>Doctoral degree</td>
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</tr>
<tr>
<td>General public health</td>
<td>Master’s degree (MPH, MHS)</td>
<td><strong>ASPPH/CDC Public Health Fellowship Program</strong> 1-to-2 year fellowship exploring various aspects of public health for graduates from an ASPPH-member school</td>
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<tr>
<td></td>
<td>Doctoral degree</td>
<td></td>
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<tr>
<td>Global public health</td>
<td>Master’s degree (MPH, MHS)</td>
<td><strong>ASPPH/CDC Allan Rosenfield Global Health Fellowship Program</strong> 1-to-2 year fellowship in global health training for graduates from an ASPPH-member school</td>
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<tr>
<td></td>
<td>Doctoral degree</td>
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</tr>
<tr>
<td>Health economics and quantitative policy analysis</td>
<td>Doctoral degree</td>
<td><strong>CDC Steven M. Teutsch Prevention Effectiveness Fellowship</strong> 2-year training program in quantitative methods, policy analysis, and assessment of the effectiveness of prevention strategies</td>
</tr>
<tr>
<td>Laboratory research</td>
<td>Bachelor’s degree</td>
<td><strong>Emerging Infectious Diseases Advanced Laboratory Training Fellowship</strong> 1-year program that trains scientists for careers in public health laboratories and supports public health initiatives related to infectious disease research</td>
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<tr>
<td></td>
<td>Master’s degree</td>
<td></td>
</tr>
<tr>
<td>Laboratory science and management</td>
<td>Doctoral degree in a public health laboratory related discipline</td>
<td><strong>Laboratory Leadership Service (LLS)</strong> 2-year program of training and service in applied public health laboratory science</td>
</tr>
<tr>
<td>Management and leadership</td>
<td>Master’s degree</td>
<td><strong>Presidential Management Fellows (PMF)/CDC</strong> 2-year career training program in public health leadership and management for recent college graduates: apply while still in graduate school</td>
</tr>
<tr>
<td></td>
<td>Doctoral degree</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master’s degree</td>
<td><strong>Public Health Prevention Service (PHPS)</strong> 3-year program of training and service in public health program management for people with a master’s degree in public health or related field</td>
</tr>
<tr>
<td>Preventive medicine</td>
<td>Physician</td>
<td><strong>Preventive Medicine Residency and Fellowship (PMR/F)</strong> 2-year residency and 1-year fellowship training program in preventive medicine and public health practice with emphasis in leadership, management, policy analysis, program development, implementation, and evaluation</td>
</tr>
<tr>
<td></td>
<td>Dentist</td>
<td></td>
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<tr>
<td></td>
<td>Veterinarian</td>
<td></td>
</tr>
<tr>
<td>Preventive medicine</td>
<td>Health professional</td>
<td></td>
</tr>
<tr>
<td>Public health management</td>
<td>Bachelor’s degree</td>
<td><strong>Public Health Associate Program</strong> 2-year fellowship for those interested in frontline public health practice</td>
</tr>
<tr>
<td>Public health or preventive medicine</td>
<td>Master’s degree (MPH, MHS)</td>
<td>(APTR/CDC Preventive Medicine and Public Health Fellowship Program) Follows will gain leadership experience in public health practice and policy, access to state-of-the-art technology and national databases, and will train with leading experts in the field of preventive medicine and public health</td>
</tr>
<tr>
<td></td>
<td>Doctoral degree</td>
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</table>
APHL Responds to Zika Virus
Eleven public health labs are now testing for Zika. Discover Zika resources on guidance, prevention and news. Learn More »

GLOBAL HEALTH
Access Global Health Resources

News & Resources

AVAILABLE 24/7 | PRE-RECORDED WEBINAR
HOT TOPIC: Zika Virus: Overview & Guidance for Clinical Laboratories
Michael Loefelholz, PhD, Director, Clinical Microbiology Lab, UTMB | Your $60 site fee includes unlimited access and CEUs for everyone at each registered site until October 1, 2016. Learn what every lab needs to know now.

Connect with Us

CORPORATE OPPORTUNITIES
Visibility. Insight. Information. Increase your visibility to laboratories in public health. Learn More »
Fellowships

Through its fellowship and traineeship programs, APHL prepares students for careers in public health laboratories and supports specialized training for practicing scientists.

APHL/CDC Laboratory Fellowship
The Emerging Infectious Diseases (EID) Laboratory Fellowship Program is currently on hiatus due to budget cuts. APHL plans to launch a revised public health laboratory fellowship program in 2016. Please check our website for updates in the fall of 2016.

Environmental Health Traineeships and Fellowships
The Environmental Health Fellowship and Traineeship Programs offer short term (2-6 weeks) specialized training in environmental health to public health laboratory scientists for traineeships and...
Leadership & Management: Human Resources and Fiscal

Scott M. Shone, Ph.D.
NBS Laboratory Program Manager

Rutgers Graduate School of Biomedical Science Visit
3/9/16
Management

There is nothing so useless as doing efficiently that which should not be done at all.
- Peter F. Drucker

Leadership

Change does not necessarily assure progress, but progress implacably requires change
- Henry Commager
MANAGER VS LEADER - BY WHATEDSAID

AVOIDS CONFLICT
MAINTAINS
REACTIVE
BEING RIGHT
MONEY
ACCEPTS
DICTATES

CONTROLS
MAKES RULES
BLAMES
INSTRUCTS
AVOIDS RISKS
DELEGATES
ENFORCES
RESULTS
PLANS
ASKS WHEN?
ORGANIZES

SHAPES CULTURE
BREAKS RULES
EXCITES
PROACTIVE
PASSIONATE
VISION
INNOVATES

DEVELOPS
ASKS WHY?
CHANGES
USES CONFLICT
EMPOWERS
CHALLENGES

Motivates
Influences
Inspires
Facilitates
Disrupts
THE BEATINGS WILL CONTINUE UNTIL MORALE IMPROVES!
# Budgeting

## Personel Costs

<table>
<thead>
<tr>
<th>Categories</th>
<th>BUDGET '14</th>
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<tbody>
<tr>
<td>Salaries</td>
<td>$2,115,000</td>
</tr>
<tr>
<td>Fringe Benefits (50.75%)</td>
<td>$1,073,363</td>
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<tr>
<td>Indirect Cost (15.1%)</td>
<td>$319,365</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$3,133,312</strong></td>
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## Operating Costs

<table>
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<tr>
<th>Categories</th>
<th>BUDGET '14</th>
</tr>
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<tbody>
<tr>
<td>Telephone</td>
<td>$52,200</td>
</tr>
<tr>
<td>Computer Access</td>
<td>$140,000</td>
</tr>
<tr>
<td>Office Supplies</td>
<td>$17,500</td>
</tr>
<tr>
<td>Printing</td>
<td>$78,000</td>
</tr>
<tr>
<td>Reagents</td>
<td>$2,200,000</td>
</tr>
<tr>
<td>Maintenance of Computer Equipment</td>
<td>$180,500</td>
</tr>
<tr>
<td>Messenger Services</td>
<td>$160,000</td>
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<tr>
<td>Maintenance of Equipment</td>
<td>$160,000</td>
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<tr>
<td>Equipment</td>
<td>$20,000</td>
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<tr>
<td>Postage</td>
<td>$20,000</td>
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<tr>
<td>Subscriptions</td>
<td>$2,100</td>
</tr>
<tr>
<td>Reference Books</td>
<td>$1,500</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$2,856,719</strong></td>
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<tr>
<td><strong>Grand Total</strong></td>
<td><strong>$5,990,031</strong></td>
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## BUDGET '19 with SCID + 7 LSDs + ALD

<table>
<thead>
<tr>
<th>Categories</th>
<th>BUDGET '19</th>
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<tbody>
<tr>
<td>Salaries</td>
<td>$2,810,228</td>
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<tr>
<td>Fringe Benefits (50.75%)</td>
<td>$1,426,191</td>
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<tr>
<td>Indirect Cost (15.1%)</td>
<td>$424,344</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$4,660,763</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$4,955,314</strong></td>
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<tr>
<td><strong>Grand Total</strong></td>
<td><strong>$9,616,077</strong></td>
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Budgeting