

THE ANALYZER

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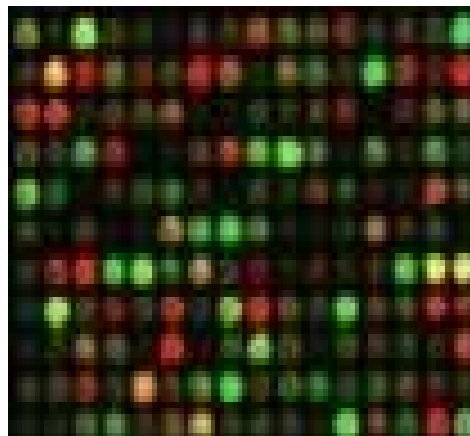
Fall Seminar Highlights

Martha Smith, MPA, MT(ASCP)

Microarray technology, what is it and why do we care about it? Robert J. Donnelly, Ph.D. and Helen Fernandes, Ph.D., both from UMDNJ, were able to answer these questions at the ASCLS-NJ's Annual Fall Seminar on October 20. There were 25 participants at UMDNJ's Scotch Plains Campus, ranging from current clinical laboratory students to experienced technologists.

While this tool for analyzing gene expression is currently limited in commercial applications for clinical laboratory use, it's an exciting and complex technology whose usefulness may not be that many years in the future. Dr. Donnelly spent his time explaining the technology behind an array and letting us in on the jargon, such as oligonucleotide (short fragment of a single strand DNA) arrays vs. cDNA (complimentary DNA) arrays, exons, introns, promoters, cluster analysis and pathway analysis, and the SNP's or snips or single nucleotide polymorphisms. The array itself may be a glass microscope slide, a silicon chip, or a nylon membrane. Sequences from thousands of different genes are attached to supports in an orderly or fixed way so that each support (spot or location) can be identified. One spot may be a gene

sequence GGAAATTCC and another GGAATTTCC, etc. Each spot can base pair with the cDNA from the sample being tested and with fluorescent tags a large number of genes can be surveyed quickly. Dr. Donnelly presented this complex and complicated material in an interesting and understandable format. One of the most fascinating statements that he



made was that humans' and chimpanzees' DNA is 99% identical and that any two humans share 99.9% identity in their DNA sequence.

Dr. Fernandes spoke about the FDA approved array for detection of the CYP2D6 and CYP2C19 genes that are responsible for encoding the enzymes of the cytochrome P450 complex. These genes are important in drug metabolism. "The multiple variations in the genes can result in poor, intermediate,

extensive ("normal"), or ultra-rapid metabolism of CYP2D6-dependent drugs from a variety of classes, including anti-depressants, anti-psychotics, anti-arrhythmics, beta-blockers, pain medications, anti-emetics, and some anti-cancer drugs". Some patients may metabolize these drugs abnormally fast, abnormally slow, or even not at all. Wouldn't it be good clinical information to know that this patient expresses this gene in a way that the normal dose of the anti-psychotic would be toxic or that this person with cancer will probably respond very well to a particular chemotherapeutic drug? There are arrays out there used by some of the larger reference laboratories for determining drug resistance in TB and HIV, for helping with the diagnosis of infectious diseases and Cystic Fibrosis. There are many on-going research projects for expression profiles for breast and prostate cancers as well as looking for groups of expressions associated with other disease states. Dr. Fernandes spent some time speaking about SNPs, especially about coding SNPs which change amino acid sequences and could possibly affect whether a gene is up regulated or down regulated.

Continued on page 3

PRESIDENTS MESSAGE:

Deborah Josko

Hello and Happy Holidays! It is hard to believe we are coming to the close of another year! The leadership at ASCLS-NJ has several events planned for the upcoming year. First, our spring seminar will be on the beautiful Jersey Shore in Long Branch, NJ at the Ocean Place Resort and Spa on April 4, 2006. We will be offering "CE by the Sea". Our scientific assembly chairs are working diligently to offer you continuing education with quality speakers on the latest topics in all disciplines of the clinical laboratory. This year we will also be offering a session on management and POCT. Secondly, we have established a licensure task force to investigate licensure in the state of New Jersey. This task force is made up of several dedicated individuals who are in the process of developing a strategic plan to pursue this endeavor. As many of you know, it is not easy to obtain state licensure. This task force however, is working closely with representatives from other states who were successful in obtaining state licensure. Anyone interested in becoming involved and who would like serve on this task force please feel free to contact us. We are always looking for new members with new ideas.

At the end of July 2006, there will be vacancies on the board as terms are expiring. As always, I stress the need for you to make the effort and become involved in your professional organization. In this issue of the Analyzer, we are putting out a call for nominations. Please consider running for the board. You will be working with a dedicated group of professional individuals who will mentor you and guide you as you take on the role of a board member. I assure you, you will thoroughly enjoy working with them. I personally have enjoyed the networking and contacts I have made not only at the local, but region and national levels as well. If you are hesitant on becoming a board member, I invite you to attend one of our board meetings. The meeting schedule can be found on the ASCLS-NJ website at www.ascls-nj.org. If you know of anyone who is not a member, please encourage them to join and reap the benefits ASCLS has to offer their membership. Being a part of this team is a truly rewarding experience.

I wish all of you and your families a very Happy Holiday and a Happy, Healthy and Prosperous New Year! I look forward to seeing new faces at the January 18, 2006 board meeting!

ATTN: Laboratory Professionals:

Are you ready to explore a new career opportunity?
 Are you seeking skilled and quality oriented employees?
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MARK YOUR CALENDAR!

Spring Seminar & Expo House of Delegates Meeting

“CE by the Sea”

Date: Tuesday, April 4, 2006
Location: Ocean Place Resort & Spa
 Long Branch, NJ
Time: 9:00 AM—3:30 PM

Join us at the Jersey Shore for a day full of

- Educational session
- Industry exhibits
- Employment exchange
- Networking with colleagues

It's that time once again...no, not only for holiday cheer but for saving the date for our 2006 Spring Seminar! That's right, this year's Spring Seminar will be held on April 4th starting at 8 AM at the Ocean Place Resort & Spa, Long Branch, New Jersey. This seminar guarantees to stimulate your mind with a vast array of topics and speakers. All ASCLS-NJ members will be offered an early bird special price...membership has its privileges! So remember, mark your calendars and see you on April 4th for the 2006 ASCLS-NJ Spring Seminar!



Fall Seminar Cont'd

Using microarrays for 50,000 – 100,000 genes can provide information about linkages that are seen in disease states versus those seen in normal states. Dr. Fernandes was asked about the skills a technologist needs for performing these assays and responded that attention to detail, good eye-hand coordination, computer

knowledge, and understanding of molecular pathology techniques & theory are needed in a good tech.

A very interesting specialty from a technologic standpoint, perhaps a discussion on the ethics of all kinds of genetic testing should be the topic for another meeting.



Outstanding Clinical Laboratorian of the Year

This award recognizes professional excellence and dedication of a Clinical Laboratory Scientist or Clinical Laboratory Technician.

To be eligible for this award one must:

- a. Have been an active member of the American Society for Clinical Laboratory Science and the New Jersey Society for Clinical Laboratory Science in good standing for three years.
- b. Have a bachelor's or associate's degree from an accredited college or university.
- c. Have contributed to the profession of clinical laboratory science in an outstanding manner.
- d. Be an active participant in community and professional affairs.

Nomination Procedure:

- a. A CLS or CLT maybe nominated by any professional peer who is an active member of ASCLS/NJSCLS
- b. Provide the following information:
 1. Name and address of nominee
 2. Name and address of employer
 3. Brief discussion of the accomplishments and attributes for which the nominee should be recognized.

Outstanding Student of the Year

This award was established in recognition of student clinical laboratory scientists and technicians who have demonstrated an outstanding dedication to profession and to encourage them to participate in the activities of the society.

To be eligible for this award one must:

- a. Be a student member of ASCLS/NJSCLS and enrolled in a NAACLS accredited academic program for the Clinical Laboratory Scientist/Medical Technologist or Clinical Laboratory Technician/Medical Technician.
- b. Be nominated by a Program Director or faculty member who is an active member of ASCLS/NJSCLS.

Nomination Procedure: Provide the following information:

- a. Name and address of the student
- b. Name and address of the Program
- c. Name of the Program Director or faculty member submitting the nomination
- d. Expected date of graduation
- e. Anticipated dates of NCA/ASCP certification exams
- f. Resume of the student professional experience, academic achievement, awards, skills, research work, professional service, and other achievements.

Outstanding Clinical Laboratory Manager or Supervisor of the Year

This award has been established to recognize individuals in Laboratory management or supervisor who exhibit the dedication and professionation needed to oversee the operation of the clinical laboratory.

To be eligible for this award one must:

- a. Have been a member of ASCLS/NJSCLS in good standing for four years.
- b. Have been an active lab manager or supervisor for four years.
- c. Have demonstrated outstanding managerial or supervisory abilities in the clinical laboratory
- d. Be an active participant in community and professional affairs.

Nomination Procedure: See the procedure for Outstanding Clinical Laboratorian

Outstanding Educator of the Year

This award has been established to honor an outstanding educator.

To be eligible for this award one must:

- a. Have been a member of ASCLS/NJSCLS for one year
- b. Have been active in the field of clinical laboratory science education for at least two years.
- c. Demonstrate outstanding achievement in the profession

Nomination Procedure: See procedure for Outstanding Clinical Laboratorian

All nominations should be submitted by March 9, 2006 to:

**Rob Culver, MT(ASCP)SBB
413 Monroe Street
Hoboken, NJ 07030**

Questions? Call (201) 792-2940 or (908) 218-8167

ASCLS-NJ BOARD OF DIRECTORS

CALL FOR NOMINATIONS

Nominations are now being solicited for the 2006 Board of Directors for the NJSCLS. Two directors are to be elected for a three (3) year term by the active and emeritus members of the Society. Any Society member can submit a nomination. The by-laws of NJSCLS state:

“A professional or emeritus member of this Society shall be eligible to hold elective office, provided the member has actively served this Society or another constituent Society. “

NOMINATION FORM

Please submit separate forms for each individual you wish to nominate. Photocopies of this form are acceptable. **The nomination deadline is February 1, 2006.**

I wish to nominate _____ as a candidate for the NJSCLS Board of Directors.

Nominee’s Home Address:

Telephone: () _____

Offices or committee positions held with the NJSCLS or another constituent society:

Nominated by: _____

Please return nomination form by **February 1, 2006** to:

**Elaine M. Keohane, Ph.D. CLS(NCA), CLP(H)
126 Woodmont Drive
Randolph, NJ 07869**

Questions? Call 973-972-1254 or 973-972-5510





ASCLS-NJ

American Society for Clinical Laboratory Science

An Affiliate of the American Society for Clinical Laboratory Science

PMD #259
14 Easton Avenue
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We are on the WEB!
www.ascls-nj.org

Announcements

Calendar of Events

INFO NEEDED

The SCLS program at Jersey Shore University Medical Center will be celebrating its 60th anniversary in 2007 !! In order to inform all our graduates of the planned activities for this milestone, it is necessary to obtain updated info .

Please send me the following info:

Name (as student)

Marriage Name (if applicable)

Year of Graduation

Address

Phone Number

Email address

Please pass this request on to any of our graduates you know !!

Thanks for you help !!

Mary Jane Weg
JSUMC - Tower 3. Laboratory, SCLS
1945 Corlies Avenue
Neptune, NJ 07753
732-776-4603

Event: Board Meeting
Place: NY Blood Center/NJ Blood Services, New Brunswick
Date: 01/18/2006

Event: Board Meeting
Place: UMDNJ-Scotch Plains
Date: 02/15/2006

Event: Board Meeting
Place: NY Blood Center/NJ Blood Services, New Brunswick
Date: 03/15/2006

Event: Spring Seminar
Place: Ocean Place Resort & Spa
Long Branch, NJ
Date: April 4, 2006

Event: Board Meeting
Place: UMDNJ-Scotch Plains
Date: 05/17/2006